

Email - December 6 2016 - CATT, HOOP, & OPSEU Documents.pdf

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**Subject:** CATT, HOOP, & OPSEU Documents  
**Date:** December-06-16 8:49:00 AM  
**Attachments:** [CAATPP plan text changes feb 2015 final.pdf](#)  
[HOOPP Plan Text.pdf](#)  
[2015 CAATPP Annual Report.pdf](#)  
[2015 HOOPP Annual Report.pdf](#)  
[2016 CAATPP Funding Valuation.pdf](#)  
[IPSAS-39-Employee-Benefits.pdf](#)  
[ias19-3.pdf](#)  
[OPSEU Chartv2.pdf](#)

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Patricia, Paul, Uros, Murray, Lucy

As promised, attached are the documents relating to HOOP and CATT.

Also included is IAS19 and IPSAS 39 and OPSEU chart (password protected).

Thanks

Nelson  
416-212-0514

CAATPP plan\_text\_changes\_feb\_2015\_final.stub.pdf

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HOOPP Plan\_Text.pdf



# **Healthcare of Ontario Pension Plan**

## **Plan Text**

Amended and restated effective January 1, 2010  
With subsequent amendments approved up to and including April 1, 2016

**Registration Number 346007**

**OFFICE CONSOLIDATION**

**HEALTHCARE OF ONTARIO PENSION PLAN  
PLAN TEXT  
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## **SECTION 1 INTRODUCTION**

The Healthcare of Ontario Pension Plan was established January 1, 1960 to meet the retirement needs of the health care community. The plan is a multi-employer pension plan with over 300 participating employers.

The primary purpose of the plan is to provide monthly payments to members for their lifetime after retirement. The plan also provides other benefits payable to eligible members and their beneficiaries in accordance with its terms.

The plan, as amended or restated from time to time, is subject to continued registration under the Income Tax Act (Canada) and the Pension Benefits Act, R.S.O. 1990, both as amended or replaced from time to time, and may be subject to other legislation, as applicable.

The plan was amended and restated effective November 22, 1993 to reflect the change in administrator from the Ontario Hospital Association to the Board of Trustees of the Hospitals of Ontario Pension Plan. The plan was subsequently amended a number of times.

The plan is amended and restated effective January 1, 2010 to reflect the change in the administrator's name from the Hospitals of Ontario Pension Plan to the Healthcare of Ontario Pension Plan.

## SECTION 2 DEFINITIONS

In this Plan, the following words and phrases shall have the following meanings, unless a different meaning is specifically required by the context:

- 2.1     **“actuary”** means the person or firm appointed as such, from time to time, by the administrator and who is, or one of whose employees is, a Fellow of the Canadian Institute of Actuaries.
- 2.2     **“administrator”** means the Board of Trustees of the Healthcare of Ontario Pension Plan, as established by the Agreement and Declaration of Trust.
- 2.3     **“Agreement and Declaration of Trust”** or **“Trust Agreement”** means the agreement made as of November 22, 1993, and amended from time to time, between the Ontario Hospital Association, the Ontario Nurses’ Association, the Canadian Union of Public Employees, the Service Employees’ International Union and the Ontario Public Service Employees’ Union.
- 2.4     **“annualized earnings”** means a member’s pensionable earnings in a calendar year, determined on a 52-week, full-time basis.
- 2.5     **“average annualized earnings”** means the average of a member’s annualized earnings during any consecutive periods totalling five years of eligibility service yielding the highest average.  
  
If a member has less than five years of eligibility service her average annualized earnings shall be based on the average of her actual annualized earnings over the full period of contributory service.
- 2.6     **“average YMPE”** means the average of the YMPE in the three years immediately preceding the date a member ceases to be an employee.
- 2.7     **“beneficiary”** means a person, persons or entity designated by a member in accordance with section 8.1.
- 2.8     **“commuted value”** means the value of a member’s pension benefit, calculated in the manner prescribed under the Pension Benefit Act (Ontario).
- 2.9     **“continuous service”** means the period of an employee’s employment.
- 2.10    **“contributory service”** means service as described in subsection 5.1(1).
- 2.11    **“eligibility service”** means service as described in subsection 5.1(2), and it is used to determine benefits under section 6.3.



- 2.12 “employee”** means a person who is employed by an employer. Despite the foregoing, a member who is subject to subsection 9.3(3) is considered to be an employee. Members who elect to receive a benefit under subsection 19.2(2) will be deemed to have terminated their employment for plan administration purposes forfeiting all rights and obligations of plan membership upon payment of their benefit under this provision.

As a result of the Income Tax Act (Canada), any person who is remunerated under contract for special services, on a fee-for-service basis or other special arrangement shall not be considered an employee unless otherwise determined by the administrator.

- 2.13 “employer”** means an employer who is a member of the Ontario Hospital Association and who is required to make contributions to the trust fund in accordance with the terms of a participation agreement or such other written agreement, arrangement or practice which sets out the terms of an employer’s participation in the plan. This definition shall include the Board of Trustees, any corporation controlled by the Board of Trustees and, in addition, any of the Settlers or any corporation controlled by any one of the Settlers, provided any of these entities elects to become an employer.

- 2.14 “interest”** means interest determined by the administrator in accordance with the Pension Benefits Act and the Income Tax Act.

- 2.15 “leave”** means an absence as described under sections 5, 9 and 12.

- 2.16 “member”** means a person who is:

- (1) an employee who is accruing contributory service or who is on a leave; or
- (2) entitled to a current or future benefits under the Plan.

Members who elect to receive a benefit under subsection 19.2(2) will be deemed to have terminated their employment for plan administration purposes forfeiting all rights and obligations of plan membership upon payment of their benefit under this provision.

- 2.17 “participation date”** means the date an employer joins the plan.

- 2.18 “pensionable earnings”** means wages, salary and other amounts paid in relation to hours, weeks, or other specific periods of time for which a member is employed, and that form a regular and integral part of the member’s remuneration.

Pensionable earnings do not include overtime pay, shift premiums or any payment determined by the administrator and in accordance with the Income Tax Act, not to be part of the member’s pensionable earnings.

- 2.19 “plan”** means the Healthcare of Ontario Pension Plan, as amended or restated from time to time.

**2.20** “**plan year**” means a calendar year.

**2.21** “**qualifying spouse**” means a person to whom a member is:

- (1) married but is not separated from; or
- (2) not married, but living together within a conjugal relationship
  - (i) continuously for a period of not less than one year, or
  - (ii) in a relationship of some permanence, if they are the natural or adoptive parents of a child, both as defined in the Family Law Act.

**2.22** “**retire**” means to cease employment, and apply for a monthly pension. “**Retired**” and “**retirement**” have corresponding meanings.

**2.23** “**RPP account**” means the portion of the trust fund into which members and employers contribute, subject to the limits set out in section 4, and from which benefits are paid, subject to the limits set out in section 13.1.

**2.24** “**trust fund**” means the fund established pursuant to the Agreement and Declaration of Trust.

**2.25** “**vested**” means that upon ceasing to be an employee a member is entitled to a deferred pension. This applies to all members of the Plan on or after July 1, 2012. For members who cease to be an employee prior to July 1, 2012 this means they have been a member of the plan for two years, or have two years of combined membership and eligibility service as set out in subsection 5.1(2).

**2.26** “**YMPE**” means, in respect of any plan year, the Year’s Maximum Pensionable Earnings as defined under the Canada Pension Plan.

In the plan text, unless the context requires otherwise, words in the singular shall be construed as including words in the plural, words in the plural shall be construed as including words in the singular, and words importing the feminine sex shall be construed as including the masculine sex.

The captions, headings and table of contents of this plan are inserted for convenience only and are not to be construed as part of the plan.

## **SECTION 3 ENROLMENT**

### **3.1 Enrolment**

#### **(1) Full-Time Employees**

Any full-time employee hired by an employer on or after the employer's participation date is required to join the plan on the date of hire, and to complete an enrolment form as prescribed by the administrator.

Despite the above, any full-time employee hired by an employer before the employer's participation date may join the plan on the participation date or on any subsequent date.

#### **(2) Part-Time Employees**

Any part-time employee or employee not classified as full-time hired by an employer on or after the employer's participation date may join the plan on the date of hire or on any subsequent date, provided that she completes an enrolment form as prescribed by the administrator.

Any part-time employee or employee not classified as full-time hired by an employer before the employer's participation date may join the plan on the participation date or on any subsequent date.

On joining the plan, such part-time employee or employee not classified as full-time must then contribute at each of her employer(s).

### **3.2 Conditions of Membership**

Once an employee joins the plan, she shall remain a member as long as she remains employed by an employer. Despite this, if she has reached the limits of a leave under subsection 5.2(3) or section 9.3, she will cease to be an employee for the purposes of HOOPP unless she returns to work and starts making required contributions immediately.

### **3.3 Re-employment**

#### **(1) New Enrolment**

An individual who ceased to be employed by all her employers, and who is subsequently hired by an employer shall be treated as a new employee for the purposes of enrolling in the plan.

**(2) Retired Member**

A member who is receiving a pension, other than a disability pension as provided in section 9, and who is hired by an employer, may elect:

- (a) not to enrol, and continue to receive her pension; or
- (b) to suspend her pension and re-enrol in the plan.

If the member elects to suspend her pension and re-enrol in the plan, then she shall start contributing to the plan in accordance with section 4.1 on the first day of the next month following her last pension payment. She shall not be eligible to apply for disability benefits as set out in section 9, and will not be eligible to purchase past service, as set out in section 12. Her benefits shall be subject to the conditions set out in section 6.7.

**(3) Member Entitled to Deferred Pension**

A member entitled to a deferred pension in accordance with sections 7.1 and 7.2 who has not received a refund of contributions pursuant to section 7.4 who is subsequently employed by an employer and who re-enrols in the plan on or after December 3, 2010 shall have her deferred benefit reinstated and the two periods shall be treated as continuous.

A member entitled to a deferred pension in accordance with section 7.2 who is subsequently employed by an employer and who re-enrols in the plan may elect to return to the plan any refundable contributions which she received pursuant to section 7.4, with interest calculated from the first of the month following the date when she received such payment to the date she re-enrols in the plan.

If such funds are returned to the plan within six months of the member's re-enrolment date her deferred pension shall be reinstated and the two periods shall be treated as continuous. Any refundable contributions, with interest, returned to the Plan pursuant to this subsection 3.3(3) shall be included as required contributions of the member. If such funds are not returned to the plan within six months of the member's re-enrolment date her deferred pension shall not be reinstated and the two periods shall be treated separately.

The provisions of this subsection 3.3(3) shall not operate to grant a member contributory service, eligibility service, or to deem annualized earnings for a period when she was not employed by an employer and shall be subject to any terms and conditions as prescribed by the administrator in relation to any re-enrolments on or after March 31, 2005 and prior to the effective date of this provision, and any requirements of the Income Tax Act.

## **SECTION 4 REQUIRED CONTRIBUTIONS**

### **4.1 Required Contributions by Members**

#### **(1) Contribution Rates**

Each member shall contribute to the plan on all pensionable earnings by payroll deduction until she ceases to be an employee. Contributions shall be made on the following basis:

- (a) For plan years 1994 through 1998:
  - (i) 1.3% of her annualized earnings up to the YMPE, multiplied by the contribution benefit ratio for the year, (as determined in section 14.3), plus
  - (ii) 2% of her annualized earnings in excess of the YMPE, multiplied by the contribution benefit ratio for the year.
- (b) For plan years 1999 and after:
  - (i) 1.5% of her annualized earnings up to the YMPE, multiplied by the contribution benefit ratio for the year (as determined in section 14.3), plus
  - (ii) 2% of her annualized earnings in excess of the YMPE, multiplied by the contribution benefit ratio for the year.

The contributions shall be prorated in the ratio of the member's pensionable earnings for each calendar year to the member's annualized earnings for such calendar year, and such ratio shall not exceed one.

#### **(2) Contribution Maximums**

The amount of a member's contributions to the RPP account for any calendar year shall not exceed such limit as set by the administrator on the advice of the actuary and, unless a higher limit is expressly approved under the Income Tax Act, the lesser of:

- (a) 9% of the member's remuneration for that calendar year; and
- (b) \$1,000 plus 70% of the pension credit of the member for the plan in respect of that calendar year.

For the purposes of this subsection, “pension credit” shall have the meaning given to that term under the Income Tax Act.

**(3) No Contributions**

Despite subsection (1), a member shall not make required contributions in the following circumstances:

- (a) if she qualifies for a waiver of contributions, as provided in section 9.3; or
- (b) if she changes her employment status and elects to stop contributing, as provided in section 4.5.

**4.2 Contributions with no Earnings**

Subject to legislation and employer consent where applicable, a member may make contributions pursuant to section 4.1 and be credited with contributory service for periods of service as described in subsections 5.2(1), (2) and (3) and section 5.5. Such contributions shall be made subject to all of the following conditions:

- (1) the contributions must be made during the period to which the contributions apply, or within six months after the period ends;
- (2) the contributions must be based on the rate of pensionable earnings the member would have received but for the leave, strike or lockout or eligible period of reduced pay;
- (3) the periods during which a member may make the contributions are limited to a maximum full-time equivalent of five years, plus up to three twelve-month absences for a period of parenting when an individual gives birth to or adopts a child; and
- (4) the contributions must be made in accordance with the Income Tax Act.

**4.3 Required Contributions by Employers**

- (1) For plan years prior to 1994, each employer shall make contributions to the plan on a basis prescribed by the administrator on the advice of the actuary and in accordance with the Pension Benefits Act and the Income Tax Act.
- (2) During 1994 and each plan year thereafter, each employer shall make contributions to the plan at the employer contribution rate, determined in accordance with section 14.3, multiplied by the contributions made by members in accordance with sections 4.1 and 4.2. Such contributions shall be in accordance with the Pension Benefits Act.

- (3) Employer contributions to the RPP account shall not exceed such limit as set by the administrator on the advice of the actuary and shall be limited to those which are permissible under the Income Tax Act as employer contributions to a registered pension plan.

#### **4.4 Overpayments**

Subject to any requirements of the Income Tax Act and the Pension Benefits Act, any payments made by an employer in a plan year in excess of the amount required under section 4.3 will be returned to the employer out of the trust fund.

Subject to any requirements of the Income Tax Act and the Pension Benefits Act, any contributions made by a member in a plan year in excess of the amount required to be contributed under section 4.1, or the amount permitted under the Income Tax Act, will be returned to the member out of the trust fund.

#### **4.5 Full-Time to Part-Time Employment**

A member who changes her employment status from full-time to part-time prior to January 1, 2014 may elect to cease making required contributions on such date. If the member is employed by more than one employer on a part-time basis, she must cease making required contributions in respect of all such employers. Despite subsection 5.1(2), such member will continue to accrue eligibility service.

A member who changes her employment status from full-time to part-time on or after January 1, 2014 may elect to cease making required contributions on such date. If the member is employed by more than one employer on a part-time basis, she must cease making required contributions in respect of all such employers. Such member will not accrue eligibility service in accordance with subsection 5.1(2).

A part-time member who, in accordance with this section, elected to cease making contributions may elect to resume making required contributions. However, such a member may not again elect to cease making required contributions.

## **SECTION 5 SERVICE**

### **5.1 Service**

#### **(1) Contributory Service**

Contributory service consists of the periods of employment during which a member makes contributions to the plan. Contributory service for a year in which a member makes contributions shall be prorated in the ratio of the member's earnings to the member's annualized earnings for such calendar year, and such ratio shall not exceed one.

Contributory service includes periods of employment for which benefits are transferred into the plan in accordance with section 11, periods of eligible service purchased by a member in accordance with section 12, and service accrued during a period a member qualifies for a waiver of contributions in accordance with section 9.3.

#### **(2) Eligibility Service**

Eligibility service is related to contributory service and is based on the frequency with which a member is normally expected to work. If a member does not contribute during a period she was expected to work, then she will not be entitled to eligibility service for that period, unless she is subject to section 4.5.

### **5.2 Leaves**

#### **(1) Statutory Leaves**

A member may elect to take a statutory leave in accordance with the Employment Standards Act, and shall make required contributions in accordance with section 4.2, unless she waives the requirement in writing.

#### **(2) Employer-Approved Leaves**

A member may, subject to the employer's consent, take a leave, for a period determined by the employer. Such member may, subject to the employer's consent, make contributions for the leave, for which she shall be credited with contributory service.

Despite the above, a member shall make required contributions for any employer-approved leave that is less than 31 days in duration.



### **(3) Health Leaves**

A member may, subject to the employer's consent, take a leave for health reasons. Such a leave shall not exceed a period of four years, and shall end if the member ceases to be an employee.

A member on a health leave shall make required contributions during the first fifteen weeks of the health leave, which is the qualifying period, and may make contributions in accordance with section 4.2 and subsection 5.5(2) during the qualifying period.

If a member interrupts her leave during the qualifying period for any one period not exceeding three weeks, and after any such period resumes the leave for the same cause or a cause related to the initial disability, the health leave shall be considered to have been continuous.

The member may apply in the form and manner prescribed by the administrator for a waiver of contributions in accordance with section 9, to start no earlier than the end of the qualifying period. If the member does not qualify for a waiver of contributions, she may, subject to the consent of her employer, make contributions in accordance with section 4.2 for all or part of the health leave.

## **5.3 Transfer and purchase of past service**

A member's contributory service shall also include:

- (1) eligible service that is transferred from a former employer in accordance with section 11; and
- (2) eligible past service purchased in accordance with section 12.

## **5.4 Waiver of Contributions**

If a member qualifies for a waiver of contributions in accordance with section 9.3, the member may continue to accrue contributory service in accordance with the maximums set out in that section.

## **5.5 Other Eligible Service**

### **(1) Strike or Lockout**

Subject to section 4.2, a member who is absent from active employment with an employer due to a strike or lockout may elect to make contributions to the plan in respect of the strike or lockout, in accordance with the Income Tax Act. A member electing to make such contributions must do so based on the rate of earnings the member would have received but for the strike or lockout, and must make the contributions within six months after the strike or lockout ends.

### **(2) Periods of Reduced Service**

Subject to section 4.2, a member who has been employed by her employer for a minimum of 36 months may, subject to the employer's consent, elect to make contributions for a temporary period of reduced service and pensionable earnings that qualifies as an "eligible period of reduced pay" under the Income Tax Act. The member may make contributions, as if her service were not reduced, either during the period or within six months after the period ends.

## **SECTION 6 RETIREMENT**

### **6.1 Retirement**

A member who wishes to retire must apply in the form and manner prescribed by the administrator through her current employer or, if she is not employed, directly to the administrator.

A member's retirement date is the date she ceases to be an employee, unless she is not employed, in which case her retirement date is the end of the month before the month in which her pension starts.

A pension will start on the first day of the next month following the member's retirement date, and shall be payable in equal monthly instalments.

#### **(1) Normal Retirement Date**

A member's normal retirement date occurs in the month in which she attains age 65.

#### **(2) Early Retirement Date**

A vested member may elect to retire between age 55 and her normal retirement date. This shall be her early retirement date.

#### **(3) Postponed Retirement Date**

A member may elect to retire after the month in which she attains age 65. This shall be her postponed retirement date.

Despite the above, a member electing to retire after the month in which she attains age 65 must do so by November 30 of the year in which she attains age 71, or such later date as permitted by the Income Tax Act.

### **6.2 Lifetime Benefits**

A member who retires from the plan pursuant to sections 6.1 and 9.6 shall receive an annual lifetime pension, payable in equal monthly instalments, based on the contributory service she accrued in the plan. Subject to sections 6.3 and 6.4, the annual pension shall be equal to:

- (1) [1.5% of that portion of the member's average annualized earnings which does not exceed the average YMPE  
*plus*

2% of that portion of the member's average annualized earnings which exceeds the average YMPE]  
*multiplied by*  
her contributory service from January 1, 1966, that is integrated with Canada Pension Plan contributions;

**plus**

- (2) 2% of the member's average annualized earnings  
*multiplied by*  
her contributory service since January 1, 1960 that is not integrated with Canada Pension Plan contributions.

### **6.3 Early Retirement Benefits**

#### **(1) Lifetime Pension Adjustment**

A member retiring pursuant to subsection 6.1(2) shall receive an annual lifetime pension for contributory service accrued to her early retirement date.

**reduced to**

the percentage indicated in the following early retirement table, according to the member's "eligibility service (completed years)" and the member's "attained age (in years)" determined as of her early retirement date:

### Early Retirement Table

| Eligibility service (completed years) | Attained age (in years) |       |       |       |       |        |
|---------------------------------------|-------------------------|-------|-------|-------|-------|--------|
|                                       | 55                      | 56    | 57    | 58    | 59    | 60+    |
| 14 or less                            | 70.0%                   | 76.0% | 82.0% | 88.0% | 94.0% | 100.0% |
| 15                                    | 77.5                    | 82.0  | 86.5  | 91.0  | 95.5  | 100.0  |
| 16                                    | 79.0                    | 83.2  | 87.4  | 91.6  | 95.8  | 100.0  |
| 17                                    | 80.5                    | 84.4  | 88.3  | 92.2  | 96.1  | 100.0  |
| 18                                    | 82.0                    | 85.6  | 89.2  | 92.8  | 96.4  | 100.0  |
| 19                                    | 83.5                    | 86.8  | 90.1  | 93.4  | 96.7  | 100.0  |
| 20                                    | 85.0                    | 88.0  | 91.0  | 94.0  | 97.0  | 100.0  |
| 21                                    | 86.5                    | 89.2  | 91.9  | 94.6  | 97.3  | 100.0  |
| 22                                    | 88.0                    | 90.4  | 92.8  | 95.2  | 97.6  | 100.0  |
| 23                                    | 89.5                    | 91.6  | 93.7  | 95.8  | 97.9  | 100.0  |
| 24                                    | 91.0                    | 92.8  | 94.6  | 96.4  | 98.2  | 100.0  |
| 25                                    | 92.5                    | 94.0  | 95.5  | 97.0  | 98.5  | 100.0  |
| 26                                    | 94.0                    | 95.2  | 96.4  | 97.6  | 98.8  | 100.0  |
| 27                                    | 95.5                    | 96.4  | 97.3  | 98.2  | 99.1  | 100.0  |
| 28                                    | 97.0                    | 97.6  | 98.2  | 98.8  | 99.4  | 100.0  |
| 29                                    | 98.5                    | 98.8  | 99.1  | 99.4  | 99.7  | 100.0  |
| 30+                                   | 100.0                   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0  |

Despite the above, the actuarial present value of the annual pension payable under this section 6.3 must at least equal the actuarial present value of the pension that would be payable to the member, based on her contributory service at her early retirement date, if she deferred starting that pension to her normal retirement date. If it does not, the applicable Income Tax Act limits will prevail.

#### (2) **Bridge Benefit**

A member entitled to a pension under subsection 6.1(2) shall also be entitled to receive an annual bridge benefit in an amount equal to:

- (a) 0.5% of the member's average annualized earnings which does not exceed the average YMPE, multiplied by her contributory service credited on or after January 1, 1966

**multiplied by**

- (b) the ratio of the member's contributory service to ten years, and such ratio shall not exceed one

**reduced to**

- (c) the percentage indicated in the early retirement table under subsection 6.3(1), according to the member's "eligibility service (completed years)" and the member's "attained age (in years)" determined as of her early retirement date. Such reduction shall be, at a minimum, three per cent per year the member's age is less than 60.

The bridge benefit shall be payable from the first day of the next month following the member's early retirement date, up to and including the earlier of the first day of the month in which the member attains age 65 or dies.

**(3) Transition Benefit**

A member who as of December 31, 2005 had: attained 55 years of age; and had five or more years of membership or eligibility service or a combination of membership and eligibility service is entitled to receive a monthly transition benefit, provided she ceases to be employed and immediately retires pursuant to subsection 6.1(2).

The amount of the transition benefit payable to such member is equal to:

- (a) the maximum monthly amount of the retirement pension provided under the Old Age Security Act as of the date of early retirement

**multiplied by**

- (b) the ratio of the member's contributory service to ten years, and such ratio shall not exceed one

**reduced to**

- (c) the percentage indicated in the early retirement table under subsection 6.3(1), according to the member's "eligibility service (completed years)" and "attained age (in years)" determined as of her early retirement date. Such reduction shall be, at a minimum, three per cent per year the member's age is less than 60.

The transition benefit shall be payable from the first day of the next month following the member's early retirement date, up to and including the earlier of the first day of the month in which the member attains age 65 or dies.

In accordance with the requirements of the Income Tax Act, the transition benefit shall be included with the bridge benefit for purposes of the benefit limits under subsections 13.1(2) and (3). A member ceasing to be an employee under sections 7 or 8.2 shall not be eligible to receive the transition benefit.

#### **6.4 Postponed Retirement Adjustment**

A member retiring pursuant to subsection 6.1(3) shall receive an annual lifetime pension for contributory service accrued to her postponed retirement date as set out in section 6.2.

The portion of the pension accrued up to the month in which the member attained age 65 and based on her average annualized earnings and average YMPE at that time shall be adjusted upwards by 0.5% for each month after the month in which the member attained age 65 up to and including the month of her postponed retirement date. However, the increased amount shall not exceed the actuarial equivalent of the value of the accrued pension that would have been payable commencing on the member's normal retirement date and ending on her postponed retirement date.

The portion of a pension accrued after the month in which a member attains age 65 shall not be adjusted upwards.

#### **6.5 Forms of Pension Benefit**

##### **(1) Member with no Qualifying Spouse**

The normal form of lifetime pension for a member without a qualifying spouse who retires under section 6.1 or section 9.6 is payable in equal monthly instalments for the lifetime of the member. If the member dies before receiving 180 payments, her beneficiary shall receive the balance of the 180 monthly payments, in accordance with section 8.2.

##### **(2) Member with a Qualifying Spouse**

- (a)** In the absence of a spousal waiver signed and delivered to the administrator in accordance with the Pension Benefits Act, the normal form of lifetime pension for a member with a qualifying spouse who retires under section 6.1 or 9.8 is payable in equal monthly instalments for the lifetime of the member. If the member dies and is survived by a qualifying spouse, the qualifying spouse shall, starting the first of the next month following the death of the member, receive a pension equal to 60 per cent of the lifetime pension the member was receiving immediately prior to her death.

- (b) In lieu of the normal form of pension benefit, a member with a qualifying spouse who retires under section 6.1 may elect an optional form of pension at any time within the 12 months immediately preceding the date her pension starts, as follows:
  - (i) a lifetime pension actuarially reduced to provide 80 per cent of the amount the member was receiving immediately prior to her death to the surviving qualifying spouse, if any; or
  - (ii) a lifetime pension actuarially reduced to provide 100 per cent of the amount the member was receiving immediately prior to her death to the surviving qualifying spouse, if any.

Clauses (i) and (ii) do not apply to a member who retires under section 9.8.

- (c) The member may elect the form of pension set out in subsection (1) if the member and her qualifying spouse sign a spousal waiver and deliver it to the administrator in accordance with the Pension Benefits Act.

## **6.6 New Spouse after Retirement**

- (1) Upon acquiring a spouse who would not be entitled to a survivor pension under subsection 6.5(2), a member receiving a retirement pension may in writing direct the administrator to pay to the spouse, if he survives the death of the member, a survivor pension for life, calculated as a percentage of the pension received by the member immediately before her death.
- (2) The member must deliver the direction to the administrator within one year after the date on which the member acquired the spouse to whom the survivor pension is directed to be paid.
- (3) The administrator may accept a direction after one year if the administrator is satisfied that the member is in good health.
- (4) The pension payable to a member who has given a valid direction in accordance with this section shall be actuarially reduced by the administrator to reflect the survivor pension directed to be paid and the survivor pension shall be paid in the percentage specified in the direction to the spouse if he survives the death of the member (and shall not exceed 100% of the pension paid to the member).

## **6.7 Restarting a Pension (After Suspending it)**

- (1) A member who suspended her pension in accordance with subsection 3.3(2) may subsequently elect, in the manner prescribed by the administrator, to cease



contributions and start the payment of both her original pension and her new pension benefits. The member's pension payments will resume the first of the next month following the month in which she ceases making contributions.

The benefits of a member making such an election shall be subject to the following rules:

- (a) during the period of suspension of the original pension, the original pension may have been subject to inflation increases in accordance with section 10.1;
  - (b) if the original pension was adjusted under section 6.3, the pension shall be recalculated to reflect any additional eligibility service resulting from the new period of contributory service;
  - (c) the amount of the new pension shall be determined pursuant to section 6.2, and, where applicable, sections 6.3 and 6.4 shall be based on the average annualized earnings and average YMPE for the new period of contributory service, and shall include the total of the eligibility service resulting from the old and the new periods of contributory service.
- (2) A member who suspends her pension shall also be subject to the following conditions:
- (a) the limits in section 13.1 apply to the aggregate of the original benefits and the additional benefits;
  - (b) the death of the member shall be deemed to be a death after retirement and subject to the provisions of section 8.2;
  - (c) the new pension accrued by the member will be payable in the form elected by the member under section 6.5 at her original retirement date;
  - (d) if the suspension starts on or after January 1, 2006, the member will not be eligible to accrue benefits under subsection 6.3(3).

## **6.8 Additional Voluntary Contributions**

A member who retires under this section 6 shall elect to either:

- (1) receive a lump sum refund of her additional voluntary contributions with interest; or
- (2) transfer the lump sum refund of her additional voluntary contributions with interest to her registered retirement savings plan, subject to the requirements of the Income Tax Act.

## **SECTION 7 TERMINATION**

### **7.1 Termination**

A member who ceases to be an employee shall be entitled to termination options.

#### **(1) Benefits on Non-Vested Termination**

On non-vested termination, a member shall be entitled to receive a lump sum refund of her required contributions plus interest.

#### **(2) Benefits on Vested Termination**

On vested termination, a member shall be entitled to receive a deferred pension starting on the first day of the next month following her 65<sup>th</sup> birthday, calculated in accordance with section 6.2. Such member may elect instead one of the options set out in this section 7.

### **7.2 Deferred Pension**

Despite section 7.1, a member who is entitled to receive a deferred pension may elect to start receiving the deferred pension as follows:

- (1) on the first day of any month following her attainment of age 55. The annual lifetime pension and bridge benefit where applicable will be calculated in accordance with section 6, and in accordance with the plan provisions in effect on the date she ceased to be an employee; or
- (2) on the first day of any month following the month in which she became entitled to the payment of a deferred pension, in accordance with section 6, but no later than November 30 of the year in which she attains age 71 or such later date as permitted by the Income Tax Act.

### **7.3 Transfer of Value of Deferred Pension**

#### **(1) Member Under Age 55**

A member who has ceased to be an employee before attaining age 55 may elect to transfer the commuted value of her deferred pension, calculated in accordance with subsections 6.3(1) and (2) plus interest:

- (a) to another registered pension plan, provided that the administrator of the pension plan agrees to accept the transfer; or

- (b) to a retirement savings arrangement as prescribed by the Pension Benefits Act; or
- (c) to an insurance company licensed to transact business in Canada to be applied to purchase a deferred life annuity, provided that the payment of the annuity will not start until the individual has attained at least age 55.

**(2) Member Eligible for Early Retirement**

A member aged 55 to 64 years, but who has not yet attained age 65, and who ceases to be an employee may elect to transfer the commuted value of her deferred pension, calculated in accordance with subsections 6.3(1) and (2) plus interest, to another registered defined benefit pension plan, provided that the administrator of the pension plan agrees to accept the transfer.

**(3) Statutory Requirements**

The administrator shall not permit a transfer or purchase under subsections (1) and (2) unless the administrator is satisfied that:

- (a) the transfer of funds is in accordance with the Pension Benefits Act and the Income Tax Act; and
- (b) any restrictions in the Pension Benefits Act with regard to the solvency of the plan have been met.

**(4) Prescribed Maximum Transfer Amount**

That part of the commuted value with interest that does not exceed the maximum transfer amount prescribed under the Income Tax Act may be transferred from the plan to one of the options offered under this section, as applicable. Any excess amount shall be paid to the member as a lump sum cash amount, in accordance with the provisions of the Income Tax Act.

## **7.4 Refundable Contributions**

Upon ceasing to be an employee, a vested member shall be entitled to receive a lump sum payment equal to the amount, if any, by which her required contributions to the plan, plus interest, exceed one-half of the commuted value of her deferred pension calculated in accordance with section 7.2, excluding any benefit attributable to past service purchases and her additional voluntary contributions.

The refundable contributions together with interest may be:

- (1) paid in a lump sum cash amount to the member; or

- (2) transferred to the member's registered retirement savings plan, as permitted under the terms of the Income Tax Act.

## **7.5 Additional Voluntary Contributions**

Upon ceasing to be an employee, a member shall elect to either:

- (1) receive a lump sum refund of her additional voluntary contributions with interest;  
or
- (2) transfer the lump sum refund of her additional voluntary contributions with interest to her registered retirement savings plan, as permitted under the terms of the Income Tax Act.

## **SECTION 8 DEATH**

### **8.1 Beneficiaries**

A member's qualifying spouse will automatically receive death benefits on the death of the member, unless the member and qualifying spouse, as applicable, have signed a waiver in accordance with the Pension Benefits Act.

A member may, by written notice filed with the administrator during her lifetime, designate a person, persons or entity to receive the benefits payable under the plan upon her death, in the absence of a qualifying spouse.

The member may also, by written notice filed with the administrator during her lifetime, alter or revoke any such designation, subject to the provisions of any applicable law.

### **8.2 Post-Retirement Death**

#### **(1) Survivor Benefits**

##### **(a) Member with no Qualifying Spouse**

If a member who at retirement did not have a qualifying spouse dies before receiving 180 payments, pursuant to subsection 6.5(1) or paragraph 6.5(2)(c), her beneficiary shall receive the balance of the 180 monthly payments. If the beneficiary dies before receiving the guaranteed number of payments, then the present value of the remainder of the guaranteed payments will be paid in a lump sum to the estate of the beneficiary.

If there is no surviving beneficiary, or the member named her estate as her beneficiary, the present value of the remainder of the guaranteed payments will be paid in a lump sum to the estate of the member.

##### **(b) Member with a Qualifying Spouse**

When a member dies, her surviving qualifying spouse or beneficiary, as applicable, shall receive death benefits in accordance with the member's election at retirement under section 6.5.

#### **(2) Residual Death Benefit**

If the aggregate amount of lifetime pension, bridge benefit and transition benefit payments made to or in respect of a member is less than the sum of all contributions made by the member to the date of retirement, plus interest, the member's beneficiary, or if there is none, the member's estate, shall receive a lump sum amount equal to the residual amount.

When the surviving qualifying spouse dies, any remaining benefit pursuant to this section shall be paid to the member's beneficiary or, if there is no beneficiary, to the estate of the member or, at the discretion of the administrator, to the estate of the qualifying spouse.

If, on the death of a member there is no surviving qualifying spouse or beneficiary, or if the person designated as the member's beneficiary is dead, cannot be located or refuses payment, any lump sum death benefits that may be payable shall be payable to the member's estate.

### **8.3 Pre-Retirement Death**

#### **(1) Non-Vested Member**

If a non-vested member dies, a lump sum payment of the member's contributions with interest is payable to the member's qualifying spouse or, where there is no qualifying spouse, to the member's beneficiary.

#### **(2) Vested Member**

- (a)** If a vested member dies before her pension payments start, a death benefit is payable as follows:
  - (i)** an amount equal to the commuted value of her deferred pension benefit at her date of death, calculated in accordance with section 7.2.; or
  - (ii)** if greater, in respect of a member who made required contributions before January 1, 1988, and who is survived by a qualifying spouse, the actuarial present value of a lifetime pension payable to the qualifying spouse equal to 60% of the member's pension accrued to her date of death, less refundable contributions determined pursuant to section 7.4.
- (b)** If a vested member ceased to be an employee on or after January 1, 1988, and dies before her pension payments start, her death benefit is equal to the commuted value of her deferred pension accrued to her date of death, calculated in accordance with section 7.2, together with any increase granted under section 10.1 to her date of death.
- (c)** The pre-retirement death benefit will be payable to a qualifying spouse unless the qualifying spouse completes and files a waiver in the form and manner prescribed under the Pension Benefits Act.

The qualifying spouse may elect to receive the pre-retirement death benefit in one of the following forms, subject to the requirements of the Income Tax Act:

- (i) a lump sum payment directly to the qualifying spouse; or
- (ii) a transfer of the lump sum to the qualifying spouse's registered retirement savings plan; or
- (iii) an annuity starting on the first day of any month prior to the end of the calendar year in which the qualifying spouse attains age 71 or, if later, within one year of the member's death, payable for the qualifying spouse's lifetime, as may be provided by the lump sum payment in paragraph 8.3(2)(a), on a basis determined by the administrator on the advice of the actuary.

If the aggregate amount of payment made to the qualifying spouse under this paragraph (c) is less than the sum of all contributions made by the member to the date of death, plus interest, the qualifying spouse's estate shall receive a lump sum equal to the residual amount.

- (d) If the vested member does not have a qualifying spouse at her date of death, the pre-retirement death benefit is payable in a lump sum to the member's beneficiary or, if there is none, or if the beneficiary cannot be located or refuses payment, the lump sum shall be payable to the member's estate.
- (e) A vested member's qualifying spouse or, where there is no qualifying spouse, the member's beneficiary, shall be entitled to a lump sum payment equal to the amount, if any, by which the member's required contributions to the plan, plus interest, exceed one-half of the commuted value of the member's benefit, calculated in accordance with section 7.4, excluding any benefit attributable to past service purchases and additional voluntary contributions.

The qualifying spouse may elect:

- (i) to receive a lump sum cash amount; or
- (ii) to transfer the lump sum to his registered retirement savings plan in accordance with the Income Tax Act.

If the member did not have a qualifying spouse, her beneficiary is entitled only to a lump sum cash amount.

- (f) A vested member's qualifying spouse or, where there is no qualifying spouse, the member's beneficiary, shall be entitled to a lump sum payment of any additional voluntary contributions.

The qualifying spouse may elect:

- (i) to receive a lump sum cash amount; or
- (ii) to transfer the lump sum to his registered retirement savings plan in accordance with the Income Tax Act.

If the member did not have a qualifying spouse, her beneficiary is entitled only to a lump sum cash amount.



**SECTION 9**  
**DISABILITY BENEFITS:**  
**WAIVER OF CONTRIBUTIONS AND DISABILITY RETIREMENT**

**9.1 Definitions**

Terms used in this section are defined as follows:

- (1) **“partial disability”** means a medical condition causing physical or mental impairment which prevents a member from performing the duties of employment in which she was engaged prior to the impairment. This condition is determined by a physician appointed by the administrator, based on the advice of a legally qualified medical doctor licensed in Canada or in the jurisdiction where the member resides. **“Partially disabled”** has a corresponding meaning.
- (2) **“total disability”** means a condition causing physical or mental impairment which prevents a member from engaging in any employment for which the member is reasonably suited by virtue of the member’s education, training or experience. This condition is determined by a physician appointed by the administrator, based on the advice of a legally qualified medical doctor licensed in Canada or in the jurisdiction where the member resides. **“Totally disabled”** has a corresponding meaning.
- (3) **“total and permanent disability”** means a condition causing physical or mental impairment which prevents a member from engaging in any employment for which the member is reasonably suited by virtue of the member’s education, training or experience and that can reasonably be expected to continue for the remainder of the member’s lifetime. This condition is determined by a physician appointed by the administrator, based on the advice of a legally qualified medical doctor licensed in Canada or in the jurisdiction where the member resides. **“Totally and permanently disabled”** has a corresponding meaning.

**9.2 Application for Disability Benefits**

**(1) Application Process**

A member may apply for disability benefits as set out in sections 9.3 and 9.6 in the form and manner prescribed by the administrator. Such application must be approved by the administrator for the member to qualify for disability benefits.

A member receiving disability benefits as set out in sections 9.3 and 9.6 who wishes to continue to receive disability benefits must apply in the form and manner prescribed by the administrator. Such application must be approved by the administrator for the member to continue to qualify for disability benefits.

**(2) Medical Evidence**

- (a) For the purpose of enabling the administrator to arrive at a decision under subsection (1) the member shall provide to the administrator all such information relating to their health as the administrator may reasonably request, and within the time limits established by the administrator.
- (b) If the time limits established by the administrator expire prior to the receipt of the requested information, the administrator may deny or discontinue the disability benefits, as applicable.
- (c) If the information requested under paragraph (a) arrives after the deadline established by the administrator, and if the member is still on a health leave in accordance with subsection 5.2(3) and satisfies or continues to satisfy the applicable definition of disability, the disability benefit shall continue after the date on which the requested information was assessed.
- (d) If the information requested under paragraph (a) arrives after the deadline established by the administrator, and the member is subject to subsection 9.3(3), the member's eligibility for disability benefits shall end effective the date of the deadline.

**9.3 Waiver of Contributions**

**(1) Eligibility**

A member who has made required contributions before commencing a health leave, and who is determined by the administrator to be partially disabled, totally disabled or totally and permanently disabled, as the case may be, and who is determined by the administrator to meet the eligibility requirements shall qualify for a waiver of contributions, subject to the limitations set out in this section.

**(2) Waiver Maximums**

The duration of a waiver of contributions is limited to the earliest of:

- (a) the date the member ceases to be disabled;
- (b) the date the member ceases to be an employee;
- (c) if the member is partially disabled, the date which is four years after she started her health leave;
- (d) the date the member attains age 65; and
- (e) the date the member accrues 35 years of contributory service.

**(3) Termination of Employment**

If a member's employment is terminated during a period when she has been granted a waiver of contributions, she may, on continuing to satisfy the administrator that she is, at a minimum, partially disabled, continue to qualify as an employee in accordance with section 2.12 and continue to receive contributory service to the earliest of:

- (a) the date the member ceases to be disabled;
- (b) the date the member becomes entitled to termination or retirement options;
- (c) if the member is partially disabled, the date which is four years after she started her health leave;
- (d) the date the member attains age 65; and
- (e) the date the member accrues 35 years of contributory service.

**(4) Rate of Accrual**

A member who has been granted a waiver of contributions shall accrue contributory service at the average rate that she accrued contributory service over the four-year period prior to the date her health leave under subsection 5.2(3) started. If the member belonged to the plan for less than four years prior to the start of her health leave, contributory service shall be credited at the average rate of accrual for that period.

**(5) Limitation**

A partially disabled member whose waiver of contributions has continued to the end of her health leave, as defined in paragraph 9.3(2)(c), shall cease to be an employee, unless she returns to work and starts to make required contributions immediately after the expiry of the four years.

**9.4 Break in Leave**

If a member who has been granted a waiver of contributions interrupts her leave for any one period not exceeding three weeks, and after any such period resumes the leave for the same cause or a cause related to the initial disability, the period of disability shall be considered to have been continuous.

## **9.5 Rehabilitation and Modified Work**

A member who has been granted a waiver of contributions may continue to receive her waiver of contributions if she is placed on a rehabilitation program or a modified work program by her employer in preparation for a full return to work up until her next medical review date. Thereafter, her continued entitlement to a waiver of contributions will be determined in accordance with section 9.3 and the results of such medical review.

A member placed on a permanent accommodation shall not be eligible to continue on a waiver of contributions and she shall start to make required contributions.

## **9.6 Disability Pension**

A member who:

- (1) is on a health leave in accordance with section 5.2(3) or is in receipt of a waiver of contributions in accordance with section 9.3;
- (2) has made required contributions during a period of employment when she was not on a health leave under subsection 5.2(3);
- (3) is less than 65 years of age; and
- (4) has accrued less than 35 years of contributory service,

may apply for a disability pension.

If such member is determined by a physician appointed by the administrator to be totally and permanently disabled, the member shall qualify for a disability pension, subject to the limitations set out within section 9.7.

## **9.7 Disability Retirement Date**

A member who qualifies for a disability pension under section 9.6 and elects to receive such a lifetime pension benefit must make such election no later than the date the member has accrued 35 years of contributory service or attained age 65, and must terminate her employment with each employer before she will be eligible to receive disability pension benefits. The disability pension shall start on the first day of the next month following the latest of:

- (1) the date of the member's termination;
- (2) the date HOOPP is notified of the member's termination; or
- (3) the date that HOOPP determines that the member qualifies for a disability pension.

## **9.8 Disability Pension Benefit**

A member who elects to receive a disability pension shall receive an annual lifetime pension calculated in accordance with section 6.2, which shall be payable in equal monthly instalments.

A member who elects to receive a disability pension shall be subject to section 6.8.

## **9.9 Forms of Pension and Death Benefits**

A member who elects to receive a disability pension shall be subject to sections 6.5 and 8.2.

## **9.10 Recovery While Receiving a Disability Pension**

If a member recovers from total and permanent disability prior to attaining age 65, the disability pension such member was receiving shall cease immediately. If the member resumes employment with an employer immediately, she shall start to make required contributions. Otherwise she shall be entitled to any options available to her, as applicable.

## **9.11 Medical Appeals Process**

If a member's application for a waiver of contributions under subsection 9.3(3), or a member's application for payment of a disability pension under section 9.6, is denied after the medical evidence provided by the member has been reviewed by the administrator, granting of applicable disability benefits shall end. The member may appeal the administrator's decision to an independent medical referee within the time and in the manner prescribed by the administrator. The independent medical referee's decision shall be final. If the independent medical referee's decision is in favour of the member, disability benefits shall be reinstated retroactively to the date of the application where applicable.

If the member does not appeal the administrator's decision within the time and manner prescribed by the administrator, she shall be entitled to any options available to her.

Despite the foregoing, a member who is denied a waiver of contributions on the basis that she is not partially disabled may make a new application for a waiver of contributions, but is not eligible to appeal the administrator's decision unless she is subject to subsection 9.3.(3).

## **SECTION 10 ADJUSTMENTS**

### **10.1 Pension Benefit Increases**

#### **(1) Pre-January 1, 2006 Benefits**

- (a) All pension benefits accrued for contributory service prior to January 1, 2006 are subject to an annual inflation protection increase commencing on the first of the next month following the date the member ceases to be an employee in accordance with section 6 or section 7.2, or when a member makes an election in accordance with paragraph 3.3(2)(b). This increase is calculated at the rate of 75% of the preceding year's rate of increase in the Consumer Price Index (Canada), up to a maximum Consumer Price Index increase of 10%.
- (b) The administrator may, in its sole discretion, based on the advice of the actuary, improve these pension benefits beyond the annual inflation protection increase. However, the aggregate of such increases shall not exceed 100% of the preceding years' rates of increase in the Consumer Price Index (Canada), up to a maximum Consumer Price Index increase of 10% per year.

Granting an increase in any year does not mean that such an increase will be granted in any subsequent year.

#### **(2) Post-December 31, 2005 Benefits**

The administrator may, in its sole discretion, based on the advice of the actuary, improve pension benefits accrued for contributory service after December 31, 2005. However, the aggregate of such increases shall not exceed 100% of the preceding years' rates of increase in the Consumer Price Index (Canada), up to a maximum Consumer Price Index increase of 10% per year.

Granting an increase in any year does not mean that such an increase will be granted in any subsequent year.

### **10.2 Earnings Adjustments**

#### **(1) Earnings Growth While Required Contributions Waived**

A member who qualifies for a waiver of contributions pursuant to section 9 shall have her annualized earnings, established in the last year she makes contributions before being granted the waiver of contributions, increased each subsequent calendar year at the lesser of the percentage increase of the Consumers' Price Index and the percentage increase of the Average Industrial Wage for the preceding year, as determined by the administrator.

(2) **Group Transfers to Another Plan**

When, in accordance with the Pension Benefits Act, a member ceases to be an employee as a result of:

- (a) a sale, assignment or other disposition of all or part of an employer's business, or
- (b) an employer terminating its participation in the plan and establishing another pension plan to be a successor to the plan, and the member becomes a member of the new pension plan,

the member's annualized earnings shall be increased each subsequent year at the lesser of the percentage increase of the Consumers' Price Index and the percentage increase of the Average Industrial Wage for the proceeding year, as determined by the administrator.

## **SECTION 11 BENEFIT TRANSFERS**

### **11.1 Asset Transfer Agreements**

The administrator may, in its sole discretion, enter into an agreement with any organization or pension plan, to permit the receipt of funds in respect of a group of pension plan members that transfer into the plan from such pension plan or organization.

Likewise, the administrator may, in its sole discretion, enter into an agreement with any organization or pension plan, to permit the transfer out of funds in respect of a group of pension plan members that transfer out of the plan to such pension plan or organization.

Any such agreements shall be filed with the applicable regulatory authorities.

Such agreements shall set out the relevant details with respect to time limits, the amount to be transferred and the determination of benefits.

### **11.2 Individual Member or Reciprocal Transfer Agreements**

The administrator may, in its sole discretion, enter into a transfer agreement with any pension plan or organization to permit the payment or receipt of funds for any qualifying member.

Any such agreements shall be filed with the applicable regulatory authorities as applicable.

Such agreements shall set out the relevant details with regard to time limits, the amounts to be transferred and the determination of benefits. Any transfer agreement may be amended from time to time with the approval of the administrator.

### **11.3 Commuted Value Transfers**

A member may elect to transfer into the plan the benefit amount to which she is entitled by reason of service in a former registered pension plan, provided the former plan allows the transfer, and provided the transfer meets the requirements of the Pension Benefits Act.

This benefit amount will be administered by the plan in accordance with the Pension Benefits Act and the Income Tax Act, as applicable. The member shall be credited with contributory service under the plan that represents this benefit amount but which cannot exceed the member's pensionable service recognized under the prior registered pension plan.

If the benefit amount transferred is less than the actuarial present value of the increase in the member's benefits under the plan, the period of contributory service actually acquired shall be the portion of the total period that is exactly purchased by the amount transferred, unless there is a payment made to the trust fund, of all or part of the difference between the actuarial present value and the transferred amount, to establish all or part of the contributory service shortfall.



## **SECTION 12**

### **PAST SERVICE PURCHASE**

#### **12.1 Eligible Periods of Past Service**

A member may elect to purchase eligible periods of past service as defined under the Income Tax Act, unless that member is subject to sections 3.3, 6 or 7. Such periods will be credited to such member as additional contributory service. The following periods of past service are eligible for purchase:

**(1) Prior Service**

- (a) Any eligible period of employment with an employer.
- (b) Any eligible period of employment with a predecessor employer of an employer, as defined in the Income Tax Act.

A member cannot purchase a period of employment that was subject to section 4.5.

**(2) Former Contributory Service in the Plan**

The period of contributory service representing a previous entitlement under the plan to a termination benefit provided the member transferred her benefit in accordance with paragraph 7.3(1)(b), is hired by an employer, and enrolls in the plan.

**(3) Absences**

- (a) The period during which a member was on a leave in accordance with subsections 5.2(1), (2) and (3) for which the member made no contributions; or
- (b) a strike or a lockout as defined in the Income Tax Act.

**(4) Service with Another Registered Pension Plan**

Eligible service with a prior registered pension plan. Any funds used to purchase a period of contributory service earned prior to January 1, 1992 must be transferred into the plan directly from the prior registered pension plan.

#### **12.2 Purchase Price**

The purchase price of an eligible period of past service, as described in section 12.1 above shall be determined by the administrator, on the advice of the actuary.

Upon receipt of information in respect of the cost of eligible past service, a member who elects to purchase the past service shall make payment in the form and manner prescribed by the administrator.

### **12.3 Crediting of Past Service**

Contributory service granted in respect of part-time employment under this section shall be credited to the member in direct proportion to the portion of the year worked by the member during the period being purchased.

### **12.4 Limitations and Maximums**

- (1) No person shall acquire more than one period of contributory service in respect of the same period of time in the plan.
- (2) If purchased on or after January 1, 1990, the maximum annual lifetime pension benefit payable to a member from the RPP account for eligible periods of past service, for years before 1990 that were never periods of pensionable service for such member may not exceed the amount prescribed under the Income Tax Act.

## **SECTION 13**

### **INCOME TAX ACT MAXIMUMS**

#### **13.1 Maximum Pension**

For the purposes of this section, “pensionable service” means pensionable service as defined under the Income Tax Act and it shall be limited to a maximum of 35 years in respect of the period prior to January 1, 1992.

For the purposes of this section, “early retirement eligibility service” means continuous service plus other periods that qualify as early retirement eligibility service under the Income Tax Act.

##### **(1) Maximum Lifetime Pension**

The annual lifetime pension payable to a member from the RPP account, including a pension payable to a member’s qualifying spouse, as determined at the time the pension starts, shall not exceed the years of the member’s pensionable service multiplied by the lesser of:

- (a) \$2,111.11 or such greater amount permitted under the Income Tax Act; and
- (b) 2% of the member’s highest average indexed compensation (as defined under the Income Tax Act) in any three non-overlapping periods of 12 consecutive months;

and, if the pension start date precedes the earlier of the day on which:

- (c) the member attains age 60 or would have attained age 60 if the member had remained in employment;
- (d) the member’s age plus early retirement eligibility service is equal to 80 or would have equalled 80 if the member had remained in employment;
- (e) the member completes 30 years of early retirement eligibility service or would have completed 30 years of early retirement eligibility service if the member had remained in employment; and
- (f) the member becomes totally and permanently disabled,

the pension benefit shall be reduced by  $\frac{1}{4}$  of 1% for each month by which the pension start date precedes that day, and increased on an actuarially equivalent basis if the pension start date is after the member attains age 65.

**(2) Maximum Bridge Benefits**

The total annual bridge benefits payable to a member from the RPP account shall not exceed the maximum limit prescribed under the Income Tax Act.

**(3) Post-1991 Service Combined Bridge and Pension Benefit Maximum**

The sum of the lifetime and bridge benefits calculated in accordance with section 6 payable to a member from the RPP account, and based on pensionable service accrued after 1991, shall not exceed:

- (a) \$2,111.11 or such greater amount as may be permitted under the Income Tax Act, multiplied by the pensionable service of the member after 1991; plus
- (b)  $\frac{1}{35}$  of 25% of the average of the YMPE for the year of retirement and each of the two immediately preceding years, multiplied by the pensionable service accrued after 1991, to a maximum of 35 years.

**13.2 Pension Adjustment**

The benefit accrued to a member in a plan year and payable from the RPP account shall not result in a pension adjustment (as defined under the Income Tax Act) which exceeds the limits as prescribed by the Income Tax Act.

## SECTION 14 FUNDING

### 14.1 Definitions

Terms used in this section are defined as follows:

- (1) **“current service cost”** means the actuarial present value of benefits earned under the provisions of the plan with respect to a plan year, determined in accordance with the actuarial methods and assumptions used in the valuation on an ongoing basis adopted by the administrator, on the advice of the actuary, and applying to the plan year.
- (2) **“experience deficiency”** means the change in the actuarial present value on an ongoing basis of benefits accrued under the provisions of the plan as a result of actual experience in a period deviating from the experience expected by the actuarial assumptions for the period to the extent that the unfunded liability of the plan is increased.
- (3) **“past service cost”** means the actuarial present value of a benefit improvement provided with respect to benefits earned before the date of the improvement, determined in accordance with the actuarial methods and assumptions used in the valuation on an ongoing basis, adopted by the administrator on the advice of the actuary, and applying to the plan year.
- (4) **“solvency deficiency”** has the meaning as defined in the regulations to the Pension Benefits Act.
- (5) **“surplus”** at a valuation date means the excess, if any, of the actuarial value of assets over the present value of benefits earned under the provisions of the plan, determined in accordance with the actuarial methods and assumptions used in the valuation on an ongoing basis, adopted by the administrator on the advice of the actuary, for the valuation date.
- (6) **“triennial valuation date”** means December 31, 1993 and December 31 of every 3<sup>rd</sup> year thereafter, or such other December 31 as may be determined by the administrator.
- (7) **“unfunded liability”** at a valuation date means the excess, if any, of the present value of benefits earned under the provisions of the plan over the actuarial value of assets, determined in accordance with the actuarial methods and assumptions used in the valuation on an ongoing basis, adopted by the administrator, on the advice of the actuary, for the valuation date.

## **14.2 Total Annual Cost for a Plan Year**

Total annual cost for a plan year means:

- (1) the current service cost for the plan year, plus
- (2) amortization payments associated with past service costs due in the plan year, if any, plus
- (3) amortization payments associated with unfunded liabilities related to changes in actuarial methods or assumptions due in the plan year, if any, plus
- (4) amortization payments associated with experience deficiencies due in the plan year, if any, plus
- (5) amortization payments associated with solvency deficiencies due in the plan year, if any, plus
- (6) estimated expenses for the plan year as determined in the actuarial valuation on an on-going basis adopted by the administrator and applying to the plan year, less
- (7) surplus amortization amounts determined in accordance with section 14.5 if any.

The total annual cost shall be determined in accordance with the requirements of the Pension Benefits Act and shall be limited in accordance with the requirements of the Income Tax Act.

## **14.3 Contribution Benefit Ratio and Employer Contribution Rate**

- (1) For 1994, the contribution benefit ratio for purposes of subsection 4.1(1) and the employer contribution rate for purposes of subsection 4.3(2) shall be determined by the administrator in consultation with the actuary, however, in no event shall the employer contribution rate be less than 120% or greater than 150% of member required contributions.
- (2) The actuary shall recommend for triennial periods commencing January 1, 1995 and for each January 1 in the second year following a triennial valuation date, a contribution benefit ratio for the purpose of subsection 4.1(1) and an employer contribution rate for the purpose of subsection 4.3(2) to be applied each plan year in the triennial period.
- (3) In the event of a change to the benefits provided under the plan or a change in the schedule of payments under subsections 14.2(2), (3), (4), or (5), or scheduled amounts under subsection 14.2(7), the actuary shall re-determine the contribution benefit ratio and employer contribution rate to be applied for the balance of the triennial period in subsection 14.3(2).
- (4) Unless modified by subsection 14.3(5) the contribution benefit ratio for the purpose of subsection 4.1(1) and the employer contribution rate for the purpose of

section 4.3 for the plan year shall be determined under subsection 14.3(2) or 14.3(3), as applicable.

- (5) Any change to the contribution benefit ratio and employer contribution rate for a plan year subsequent to 1994 shall be determined as follows:

- (a) an employer contribution rate shall be determined according to the following formula;

(The total annual cost for the plan year determined under section 14.2 less the total estimated required member contributions for the plan year using the contribution benefit ratio for the prior plan year) divided by the total estimated required member contributions for the plan year using the contribution benefit ratio for the prior plan year.

- (b) if the employer contribution rate as determined in (a) is greater than the employer contribution corridor maximum, the contribution benefit ratio for the plan year shall be increased in successive steps of 0.15 and the employer contribution rate shall be redetermined in accordance with (a) substituting the revised contribution benefit ratio for that of the prior plan year until the employer contribution rate so determined first falls within the employer contribution corridor.

- (c) if the required employer contribution rate as determined in (a) is less than the employer contribution corridor minimum, the contribution benefit ratio for the plan year shall be decreased in successive steps of 0.15 and the employer contribution rate shall be redetermined in accordance with (a) substituting the revised contribution benefit ratio for the contribution benefit ratio for that of the prior plan year until the employer contribution rate so determined first falls within the employer contribution corridor.

- (6) The actuary shall review annually, and at such other times as requested by the administrator, the recommendation in subsections 14.3(2) and 14.3(3) as applicable.

If, as a result of the actuary's review, the administrator in consultation with the actuary shall deem it advisable to revise the contributions to the plan, the administrator shall require the actuary to modify the recommendation made under subsections 14.3(2) or 14.3(3) as applicable. The modified recommendation shall be effective as of the date determined by the administrator in consultation with the actuary and will apply for the remainder of the triennial period, unless revised in accordance with this subsection 14.3(6).

#### **14.4 Employer Contribution Corridor**

- (1) Subject to subsection 14.4(2), the employer contribution corridor shall have a minimum of 120% of member required contributions and a maximum of 150% of member required contributions.

- (2) If benefits under the plan are improved or reduced, or there is a change to the amortization payments associated with past service costs, the employer contribution corridor maximum shall be recalculated, in consultation with the actuary, as follows:
- (a) base cost shall equal the portion of the current service cost for the plan year which pertains to benefits defined under the provisions of the plan as at November 21, 1993 and which remain under the provisions of the plan;
  - (b) base amortization payments shall be amortization payments associated with past service costs which are related to any ad hoc increases in accordance with section 10.1 which take effect on or after January 1, 1994; subject to the provision that, for the purposes of determining such base amortization payments only, such ad hoc increases will not exceed, on a cumulative basis, 75% of the rate of increase in the Consumer Price Index (Canada) subsequent to 1992, excluding any such increase in the Consumer Price Index (Canada) which exceeds 10% in a plan year. The rate of increase in the Consumer Price Index (Canada) will be calculated in the same manner as for section 10.1.
  - (c) employer ratio shall equal  $(60\% \text{ of the base cost} + 50\% \text{ of the current service cost for the plan year in excess of the base cost} + 50\% \text{ of the amortization payments, excluding any base amortization payments, associated with past service costs for the plan year})$  divided by  $(\text{the current service cost for the plan year} + \text{the amortization payments, excluding any base amortization payments associated with the past service costs for the plan year})$ ; and
  - (d) employer contribution corridor maximum shall equal  $(\text{employer ratio times } 100\%) \text{ divided by } (1 \text{ minus employer ratio})$ .

#### **14.5 Surplus on an Ongoing Basis**

- (1) If the actuary determines on an on-going basis that there is a surplus in the trust fund at a triennial valuation date equal to or less than ten percent of actuarial liabilities, the administrator, in consultation with the actuary, shall determine the portion, if any, of the surplus to be used for the purpose of improving benefits or reducing the total annual cost.

If a portion of the surplus is to be used to reduce the total annual cost, the amount of surplus so allocated shall be amortized over a period of 10 years from the date of determination, or over such other period as the administrator shall decide in consultation with the actuary and subject to any requirements of the Pension Benefits Act and the Income Tax Act.

- (2) If the actuary determines on an ongoing basis that there is a surplus in the trust fund at a triennial valuation date in excess of ten percent of actuarial liabilities, the administrator shall firstly consider using such surplus for plan improvements. If such excess surplus is not used for plan improvements, the administrator may choose, in consultation with the actuary, to use all or a portion of the excess



surplus to reduce the total annual cost. The amount of surplus so allocated shall be amortized over a period of 10 years from the date of determination or over such other period as the administrator may decide in consultation with the actuary subject to any requirements of the Pension Benefits Act and the Income Tax Act.

#### **14.6 Amortization Payments**

Amortization payments associated with past service costs, unfunded liabilities related to changes in actuarial methods and assumptions, experience deficiencies and solvency deficiencies shall be determined using actuarial assumptions adopted by the administrator on the advice of the actuary and subject to the requirements of the Pension Benefits Act and the Income Tax Act, using amortization periods of 15 years, 15 years, five years and five years, respectively, or such other periods as may be permitted by the Pension Benefits Act.

An actuarial gain revealed in a triennial valuation shall be used to reduce or eliminate the scheduled amortization payments associated with past service costs, unfunded liabilities related to changes in actuarial methods and assumptions, experience deficiencies or solvency deficiencies, applied first to the amortization payments having the earliest maturity date, or such allocation determined by the administrator, in consultation with the actuary, subject to the Pension Benefits Act.

## **SECTION 15 EMPLOYER PROVISIONS**

### **15.1 Employer Participation**

#### **(1) Application to Participate**

An employer who is a member of the Ontario Hospital Association and who wishes to join the plan shall apply in the form and manner and on the terms prescribed by the administrator, and in accordance with terms approved by the administrator.

#### **(2) Employer Agreement**

Upon approval of an application, an employer shall enter into a participation agreement with the administrator, in the form and manner prescribed by the administrator, setting out the terms under which the employer shall participate in the plan.

#### **(3) Amending a Participation Agreement**

If, subsequently, an employer should wish to amend the terms of its participation agreement, the employer shall apply in the form and manner prescribed by the administrator.

If the administrator agrees to an amendment proposed by an employer, the employer shall enter into an amended participation agreement with the administrator setting out the revised terms under which the employer shall continue to participate in the plan. Until the amended participation agreement is entered into by the employer, the original participation agreement shall continue in effect.

### **15.2 Remittance of Contributions**

Employers shall forward all required contributions made by them and the members to the administrator by the 15<sup>th</sup> day of the month immediately following the month to which the contributions apply. The administrator shall hold the contributions in trust in the trust fund.

### **15.3 Late Remittance of Contributions**

#### **(1) Interest Charges**

Where an employer has failed to remit required contributions to the administrator in accordance with section 15.2, such employer shall be liable for interest at the rate set out below on those required contributions at the greater of the trust fund earnings rate for the period of delinquency, or the appropriate rate chargeable for pre-judgment interest under the Courts of Justice Act of Ontario or any successor legislation.

**(2) Costs of Recovery**

If an employer becomes delinquent in its required contributions and the administrator is required to take legal or such other action to recover the outstanding required contributions, the employer shall be liable for all reasonable fees of collection.

**15.4 Information**

**(1) Information to Employees**

An employer shall provide each employee with such information in writing with respect to the plan, including but not limited to her obligation or right to join the plan and the manner in which contributions will be deducted, and such other information as the administrator shall determine, in the form and within the time established by the administrator, and in accordance with the Pension Benefits Act and the Income Tax Act.

**(2) Information to Administrator**

Each employer shall provide to the administrator such information relating to members as may be required to calculate and pay benefits, within the time established by the administrator, and in accordance with the Pension Benefits Act and the Income Tax Act.

**15.5 Employer Records**

Wherever the records of the employer are used for the purposes of the plan, such records shall be conclusive of the facts with which they are concerned, unless and until they are proven to be in error.

**15.6 No Right in Employer Contributions**

Contributions made by an employer shall not constitute an enlargement of the amount of any benefit defined in the plan and shall not at any time create for any person any right, title or interest in the assets of the employer or the trust fund, except as specifically provided in the Pension Benefits Act.

## **SECTION 16 ADMINISTRATION**

### **16.1 Responsibility for Administration**

The administrator shall have the exclusive right to interpret the plan and to decide any and all matters arising from it. The administrator shall ensure that the plan and the trust fund are administered in accordance with the Pension Benefits Act, the Income Tax Act, the Agreement and Declaration of Trust, and with any documents filed with the regulatory authorities.

### **16.2 Costs of Administration**

All costs of administering the plan and the trust fund, including legal, actuarial and all other reasonable fees and expenses, shall be paid from the trust fund.

### **16.3 Disclosure to Members**

The administrator, through an employer or directly, shall provide each member with information concerning the plan and the member's benefits in accordance with the Pension Benefits Act.

### **16.4 Inspection of Documents**

The administrator, either through an employer or directly, shall disclose plan documents to members, qualifying spouses and beneficiaries, their authorized agents or a representative of a union that represents members of the plan in accordance with the Pension Benefits Act.

### **16.5 Information From Members and Beneficiaries**

Before starting payment of a pension, or receiving a pension benefit or other payment under the plan, an individual claiming entitlement shall provide the administrator with the information needed to calculate and pay the amount or amounts.

### **16.6 Notices and Elections**

Members or other persons may deliver notices and elections to the administrator, and the administrator may deliver communications to members or other persons in such form that the administrator considers acceptable.

## **SECTION 17 TRUST FUND**

### **17.1 Contributions**

Contributions of the members and employers made to the plan shall be paid into the trust fund and shall be administered in accordance with the Agreement and Declaration of Trust.

### **17.2 Benefits**

All benefits under the plan will normally be paid out of the trust fund. However, the administrator may, at any time, require the custodian to purchase out of the trust fund, from a life insurance company licensed to do business in Canada, benefits of equal amount and payable under the same conditions as the benefits to which a recipient is entitled under the plan, so long as such action will not result in the plan ceasing to be approved or registered under the Pension Benefits Act, the Income Tax Act, and any other applicable legislation.

“**Custodian**” means a trust company which is licensed to carry on business in Canada, as may be appointed by the administrator from time to time.

### **17.3 Investments**

Assets of the trust fund shall be invested in accordance with the provisions of the Pension Benefits Act and any other applicable legislation.

### **17.4 Borrowing**

The plan is prohibited from borrowing funds, except as permitted under the Agreement and Declaration of Trust, Pension Benefits Act and the Income Tax Act.

### **17.5 Trust Fund Assets**

Benefits under the plan shall be provided from the assets of the trust fund.

### **17.6 Fiscal Year**

The fiscal year of the trust fund is a calendar year.

## **SECTION 18 FUTURE OF THE PLAN**

### **18.1 Continuation of the Plan**

The administrator expects and intends to maintain this plan in force indefinitely but necessarily reserves the right to amend or terminate the plan, either in whole or in part, or change the funding method or media, subject always to the requirements of law, and the Agreement and Declaration of Trust.

### **18.2 Amendment to the Plan**

No amendment shall operate to reduce the benefits which have accrued to any member or to any individual then entitled to benefits under the plan to the date of such amendment based on earnings to the date of the amendment, unless such amendment is made pursuant to the Agreement and Declaration of Trust.

No amendments to the plan shall be effective unless made in accordance with the provisions contained in the Agreement and Declaration of Trust.

The administrator shall not have the power to make any amendment which would cause or permit any portion of the contributions made prior to that date to be diverted for purposes other than the exclusive benefit of the members, their respective estates, beneficiaries or qualifying spouses, in accordance with the provisions of the Pension Benefits Act.

### **18.3 Excess Assets on Termination or Discontinuance**

If, after provision for the satisfaction of all liabilities under the plan has been made, there should remain a surplus in the trust fund, such surplus shall be allocated in a manner prescribed by the administrator for the exclusive benefit of the members, subject to the provisions of the Pension Benefits Act, the Income Tax Act and the Agreement and Declaration of Trust.

## **SECTION 19**

### **GENERAL PROVISIONS**

#### **19.1 Non-Assignment of Benefits**

Except as permitted under the Pension Benefits Act and the Income Tax Act, no benefit, right or interest may be assigned, charged, anticipated, surrendered or given as security, and such benefits are exempt from execution, seizure or attachment.

#### **19.2 Commutation of Benefits**

##### **(1) Small Pensions**

- (a) A pension or deferred pension payable under the plan shall not be capable of surrender or commutation unless the annual pension payable at age 65 is not more than four percent of the YMPE or the commuted value of the benefit is less than twenty percent of the YMPE in the year the member ceased to be an employee. The administrator, in its discretion, may pay the member the commuted value of her pension or deferred pension in full discharge of all obligations to the member under the plan.
- (b) Upon the death of a member, a survivor benefit payable to a qualifying spouse or beneficiary in accordance with section 8.2 shall not be capable of surrender or commutation unless the annual pension payable is not more than four percent of the YMPE in the year the member dies. The administrator, in its discretion, may pay the surviving qualifying spouse or beneficiary the commuted value of the survivor benefit in full discharge of all obligations to the surviving qualifying spouse or beneficiary under the plan.

##### **(2) Shortened Life Expectancy**

A pension being paid or required to be paid under the plan may be commuted and paid in a lump sum at the discretion of the member and if the member:

- (a) establishes that she has an illness or physical disability that is likely to shorten her life expectancy to less than two years, as certified by a written statement from a qualified medical doctor licensed to practise in Canada;
- (b) applies to the administrator in the prescribed form and manner; and
- (c) satisfies any other conditions prescribed by applicable pension legislation.

Notwithstanding any other provisions or requirements under the plan, members who satisfy the conditions set out above and who elect to receive a commuted value will be deemed to have terminated employment for plan administration purposes forfeiting all rights and obligations of plan membership upon payment of their benefit under this provision.

### 19.3 Severability

If any provision of the plan is held to be invalid or unenforceable by a court of competent jurisdiction, its invalidity or unenforceability shall not affect any other provision of the plan, and the plan shall be construed and enforced as if such provision had not been included in the plan.

### 19.4 Construction

- (1) Any provision of the custodial agreement that is inconsistent with the terms of the plan shall, to the extent of the inconsistency, be of no force or effect.

**“Custodial agreement”** means any current or future agreements between the administrator and the custodian, as executed for the purposes of this plan and as amended from time to time.

- (2) The plan shall be governed and construed in accordance with the laws of the province of Ontario and the federal laws of Canada applicable therein.
- (3) Any provision of the plan that is inconsistent with the terms of the Agreement and Declaration of Trust shall, to the extent of the inconsistency, be of no force or effect.



## **SECTION 20**

### **FAMILY LAW MATTERS**

#### **20.1 Definitions**

Terms used in this section are defined as follows:

- (1) “**family law valuation date**” has the same meaning as defined in the Pension Benefits Act.
- (2) “**former spouse**” means a person who met the criteria under section 2.21 but is divorced or living separate and apart from the member and entitled to an interest in the member’s pension benefits in accordance with the terms of the Family Law Act and the Pension Benefits Act.
- (3) “**statement of imputed value**” has the same meaning as defined in the Pension Benefits Act.

#### **20.2 Administration**

Notwithstanding any other provisions or requirements under the plan, all family law valuations, calculations, divisions and transfers will be administered in accordance with the requirements and limitations of the Pension Benefits Act and the Income Tax Act.

Upon any family law division of a member’s pension or deferred pension under this section 20, the specified amount or portion paid to the member’s former spouse shall be deducted from the value of the member’s pension or deferred pension to determine the remaining entitlements payable to the member, their qualifying spouse, beneficiary or any other person under sections 6, 7, 8, 9, 10 or 11 of the plan.

After a division has occurred, the remaining benefit to which the member is entitled will continue to accrue under the plan but shall not be adjusted to replace, in whole or in part, the amount or portion paid to the former spouse that has been deducted in determining the member’s remaining entitlement.

Any family law valuation, calculation, division or transfer under this section 20, in relation to the specified amount or proportion of a member’s pension or deferred pension benefit that is payable to any former spouse, shall be administered on a proportionate basis in respect of the member’s total pension benefit payable under the plan.

#### **20.3 Transfer of Lump Sum**

A former spouse who is entitled to a lump sum payment upon a family law pension division may elect to transfer the amount to:

- a) another registered pension plan, provided that the administrator of the pension plan agrees to accept the transfer; or
- b) a retirement savings arrangement as prescribed by the Pension Benefits Act; or

c) another prescribed arrangement, as permitted by the Pension Benefits Act.

A former spouse must deliver all documentation prescribed by the Pension Benefits Act to the plan administrator before the lump sum entitlement is transferred in accordance with the options provided in this section 20.3.

#### **20.4 Pension Paid to Former Spouse Post-Retirement**

A former spouse who is entitled to receive a portion of a member's pension will receive it for the remainder of the member's lifetime. The portion of the member's pension payable to the former spouse shall be administered in accordance with the requirements and limitations of the Pension Benefits Act and the Income Tax Act.

If a member makes an election under section 3.3(2)(b) after a pension division has occurred, that section shall only apply to the member and her remaining benefit and shall not be applicable to a former spouse or his portion of the member's pension.

#### **20.5 Fees**

The plan administrator may impose a fee for providing a member and her former spouse with a statement of imputed value, as permitted under the terms of the Pension Benefits Act.

## **APPENDIX A**

### **RETIREMENT COMPENSATION ARRANGEMENT**

#### **A.1 Introduction**

This appendix sets out the provisions of the plan which govern the benefits which exceed the benefits which can be paid under the terms of a registered pension plan under the Income Tax Act.

All terms of the plan apply to the funding and payment of such excess benefits except as specifically modified in this appendix.

#### **A.2 Required Contributions**

##### **(1) Member Contributions**

To the extent that member required contributions under section 4 exceed the limits set out in subsection 4.1(2), such excess shall be paid into the RCA account.

##### **(2) Employer Contributions**

To the extent that employer required contributions under section 4 exceed the limits set out in section 4.3, such excess shall be paid into the RCA account.

#### **A.3 Retirement**

A member who retires in accordance with section 6 shall be entitled to receive a pension calculated in accordance with section 6, without reference to the limit contained in section 13.1. The amount of lifetime pension exceeding the limit contained in section 13.1 shall be paid from the RCA account.

#### **A.4 Termination**

##### **(1) Deferred Pension**

A vested member who ceases to be an employee in accordance with section 7 shall be entitled to receive a deferred pension calculated in accordance with the terms of section 7.2, without reference to the limits contained in section 13.1. The amount of the deferred pension exceeding the limit contained in section 13.1 shall be paid from the RCA account.

##### **(2) Transfer of Funds**

If a member elects a transfer of the commuted value of her deferred pension in the RPP account in accordance with section 7.3, she is also required to transfer the portion payable from the RCA account. Such transfers shall be subject to the rules and regulations of the Income Tax Act and the Pension Benefits Act.

**(3) Refundable Contributions**

If a member is entitled to receive refundable contributions in accordance with section 7.4, then those funds shall be paid to her as a lump sum in accordance with the Income Tax Act.

**A.5 Death Benefits**

**(1) Post-Retirement Death**

- (a) The residual death benefit determined under subsection 8.2(2) shall be calculated in respect of the total pension benefits payable under the plan without reference to the limits contained in section 13.1. The amount of any such residual death benefit exceeding the limit contained in section 13.1 shall be paid from the RCA account.
- (b) Despite the above, if a member started payment of her pension on or after January 1, 1988 but before December 31, 2001, the residual death benefit payable from the RCA account shall equal:
  - (i) the commuted value of the member's accrued pension benefit as determined at pension start date; less
  - (ii) the total of the pension payments paid from the RPP account and the RCA; and less
  - (iii) the residual amount paid from the RPP account pursuant to subsection 8.2(2).

The residual death benefit shall be paid as a lump sum.

**(4) Pre-Retirement Death**

A death benefit determined under subsection 8.3(2) shall be calculated in respect of the total pension benefits payable under the plan without reference to the limits contained in section 13.1. The amount of any such benefit exceeding the limit contained in section 13.1 shall be paid from the RCA account.

## **A.6 Disability Benefits**

### **(1) Pension Benefits**

A member who elects to receive a disability pension under section 9.6 shall receive a pension calculated in accordance with section 6.2, without reference to the limit contained in section 13.1. The amount of lifetime pension exceeding the limit contained in section 13.1 shall be paid from the RCA account.

### **(2) Death Benefits**

Any death benefit payable under section 9.9 shall be subject to sections 6.5 and 8.2.

## **A.7 Benefit Transfers**

### **(1) Transfers into the Plan**

A member may elect to transfer a registered pension plan entitlement into the plan, pursuant to section 11, and where the member is also entitled to RCA benefits, the RCA benefits may also be transferred, but without regard to the limits in section 13.1, provided the former plan allows the transfer and provided the member applies for such transfer, subject to the requirements of the Income Tax Act.

### **(2) Transfers out of the Plan**

If a member elects to transfer her accrued pension from the plan under a transfer agreement, she must transfer the whole benefit, including the portion payable from the registered pension plan account and the portion from the RCA account, if applicable. Such transfers shall be subject to the transfer agreement if applicable, the Income Tax Act and the Pension Benefits Act.

## **A.8 Purchase of Past Service**

A member who elects to purchase past service pursuant to section 12 may do so without reference to the limits contained in subsection 12.4(2). The portion of the purchase price in respect of these excess benefits shall be paid into the RCA account.

## **A.9 Trust Fund**

The administrator shall establish and maintain two accounts within the trust fund: the RPP account and the RCA account. The RPP account shall be administered and maintained as a registered pension plan under the Income Tax Act and the RCA account shall be administered and maintained as a retirement compensation arrangement under the Income Tax Act.

#### **A.10 Future of the Plan**

If the plan is terminated and wound up, and the actuary determines that the assets of the RCA account are insufficient to meet the accrued benefits which are payable from the RCA account, then an amount or amounts sufficient to satisfy such shortfall between the assets and liabilities of the RCA account shall be transferred from the RPP account to the RCA account, subject to the following conditions:

- (1) the amount or amounts so transferred shall be determined by the actuary, subject to the Pension Benefits Act and the Income Tax Act, and shall not exceed the amount required to satisfy the unfunded liabilities in the RCA account at the time of the wind up.
- (2) the amount or amounts so transferred shall be limited, if necessary, so that the assets which remain in the RPP account following the transfer shall not be less than the amount required to fully provide for all accrued benefits which are payable from the RPP account at the time of the wind up.

#### **A.11 Determination of the Commuted Value**

Any commuted value determined in respect of a portion of a member's benefit payable from the RCA account shall be determined as if the benefit was payable from the RPP account, using the same factors as are applied to determine the commuted value of the portion which is payable from the RPP account, and without making any adjustment for income tax which may be levied on the benefit.

#### **A.12 Family Law Matters**

A family law valuation, calculation, division or transfer under section 20 shall be administered in respect of a member's total pension benefits payable under the plan without reference to the limits contained in section 13.1.

Upon any division of a member's pension or deferred pension under section 20 which include entitlements under this Appendix A, the part of the specified amount or portion paid to the member's former spouse under this Appendix A shall be deducted from the value of the member's pension or deferred pension otherwise payable under this Appendix A to determine the remaining entitlements payable to the member, their qualifying spouse, beneficiary or any other person calculated under sections 6, 7, 8, 10, 11 of the plan, that represent benefits which exceed the limits contained in section 13.1.

After a division has occurred, the remaining benefits to which the member is entitled under this Appendix A will continue to accrue under the plan but shall not be adjusted to replace, in whole or in part, the portion of the benefits paid to the former spouse under this Appendix A that has been deducted in determining the member's remaining entitlement.

## APPENDIX B

### HEALTHCARE OF ONTARIO PENSION PLAN

#### HISTORY OF INDEXING / COLA

Granting an ad hoc increase in any year does not mean that such an increase will be granted in any subsequent year.

| Year | Ad hoc                  | Guaranteed                    | 25% ad hoc        | Total          | Notes                                                                                                                                                                                 | Pension Committee              |
|------|-------------------------|-------------------------------|-------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 1979 |                         |                               |                   | as much as 40% | eff. April 1, 1979 - 5% for each year pension in pay since age 62 and before Jan. 1, 1979 to a maximum of 30% plus additional 10% for all pensions that commenced before Jan. 1, 1974 | Feb. 15, 1979                  |
| 1982 |                         |                               |                   | As much as 18% | eff. April 1, 1982 - 0.5% for each month pension deferred or in pay prior to 1/1/82 to a maximum of 18%                                                                               | Feb. 3, 1982                   |
| 1983 | 5%                      |                               |                   | 5%             |                                                                                                                                                                                       | Jan. 10, 1983                  |
| 1984 | 5%                      |                               |                   | 5%             |                                                                                                                                                                                       | Feb. 23, 1984                  |
| 1985 | 2.5%                    |                               |                   | 2.5%           |                                                                                                                                                                                       | Feb. 12, 1985                  |
| 1986 | 2%                      |                               |                   | 2%             | Plus 0.5% per month for each month deferred or retired before Jan. 1, 1986 to a max of 12%                                                                                            | Feb. 27, 1986                  |
| 1987 | 2.5%                    |                               |                   | 2.5%           | Plus 0.5% for each year retired or deferred prior to Jan. 1, 1987 to maximum of 6%                                                                                                    | Feb. 17, 1987                  |
| 1988 | 2.64%                   |                               |                   | 2.64%          |                                                                                                                                                                                       | Oct. 28, 1987                  |
| 1989 | 3.1%                    |                               |                   | 3.1%           |                                                                                                                                                                                       | Feb. 21, 1989                  |
| 1990 | 3.75%                   |                               |                   | 3.75%          |                                                                                                                                                                                       | Oct. 19, 1989                  |
| 1991 | 3.6%                    |                               |                   | 3.6%           |                                                                                                                                                                                       | Aug. 22, 1990                  |
| 1992 | 4.2%                    |                               |                   | 4.2%           |                                                                                                                                                                                       | Oct. 17, 1991                  |
| 1993 | 1.13%                   |                               |                   | 1.13%          |                                                                                                                                                                                       | Oct. 14, 1992                  |
|      | <b>Ad hoc pre-1989</b>  | <b>Guaranteed post-1988</b>   | <b>25% Ad-Hoc</b> |                | <b>1993 – Change of Governance, Joint Board Formed</b>                                                                                                                                | <b>Board Resolution</b>        |
| 1994 | 1.35%                   | 1.35%                         | 0.45%             | 1.8%           | Total increase for pre-1989 service; guaranteed only for post-1988 service                                                                                                            | T-19931122-30                  |
| 1995 | 0.15%                   | 0.15%                         | 0.05%             | 0.2%           | Total increase for pre-1989 service; guaranteed only for post-1988 service                                                                                                            | T-19941214-08                  |
| 1996 | 1.56%                   | 1.58%                         | 0                 | 1.58%          | 75% of CPI for all service                                                                                                                                                            | T-19950920-08                  |
| 1997 | 1.2%                    | 1.2%                          | 0.4%              | 1.6%           | 100% of CPI for all service                                                                                                                                                           | T-19960925-08                  |
| 1998 | 1.215%                  | 1.215%                        | 0.405%            | 1.62%          | 100% of CPI for all service - plus all pensions increased to provide 75% of CPI for each year to Dec. 31, 1986                                                                        | T-19970923-12                  |
|      |                         | <b>Guaranteed all service</b> |                   |                |                                                                                                                                                                                       |                                |
| 1999 |                         | 1.015%                        | 1.005%            | 1.02%          | 100% of CPI for all service                                                                                                                                                           | T-19980623-06                  |
| 2000 |                         | 1.935%                        | 0.645%            | 2.58%          | 100% of CPI for all service                                                                                                                                                           | T-19991006-08                  |
| 2001 |                         | 2.4225%                       | 0.807%            | 3.23%          | 100% of CPI for all service                                                                                                                                                           | T-20000913-07                  |
| 2002 |                         | 0.525%                        | 0.175%            | 0.7%           | 100% of CPI for all service – plus all pensions increased to provide 100% of CPI for each year in pay                                                                                 | T-20010627-07                  |
| 2003 |                         | 2.9%                          | 0                 | 2.9%           | 75% of CPI for all service                                                                                                                                                            | T-20021008-05                  |
| 2004 |                         | 1.50%                         | 0                 | 1.50%          | 75% of CPI for all service                                                                                                                                                            | T-20031001-05                  |
| 2005 |                         | 1.59%                         | 0                 | 1.59%          | 75% of CPI for all service                                                                                                                                                            | T-20041006-06                  |
| 2006 |                         | 1.61%                         | 0                 | 1.61%          | 75% of CPI for all service                                                                                                                                                            | T-20051012-07                  |
|      | <b>Ad hoc post-2005</b> | <b>Guaranteed pre-2006</b>    |                   |                |                                                                                                                                                                                       |                                |
| 2007 | 1.23%                   | 1.23%                         | 0                 | 1.23%          | 75% of CPI for all service                                                                                                                                                            | T-20061011-08                  |
| 2008 | 1.79%                   | 1.79%                         | 0                 | 1.79%          | 75% of CPI for all service                                                                                                                                                            | T-20071011-03                  |
| 2009 | 0.87%                   | 0.87%                         | 0                 | 0.87%          | 75% of CPI for all service                                                                                                                                                            | T-20081008-05                  |
| 2010 | 0.99%                   | 0.99%                         | 0                 | 0.99%          | 75% of CPI for all service                                                                                                                                                            | T-20091126-12                  |
| 2011 | 1.76%                   | 1.76%                         | 0                 | 1.76%          | 75% of CPI for all service                                                                                                                                                            | T-20101203-17                  |
| 2012 | 1.73%                   | 1.73%                         | 0                 | 1.73%          | 75% of CPI for all service                                                                                                                                                            | T-20111201-12                  |
| 2013 | 0.62%                   | 0.62%                         | 0                 | 0.62%          | 75% of CPI for all service                                                                                                                                                            | T-20121128-15                  |
| 2014 | 0.93%                   | 0.93%                         | 0                 | 0.93%          | 75% of CPI for all service                                                                                                                                                            | T-20131121-09                  |
| 2015 | 1.47%                   | 1.10%                         | 0.37%             | 1.47%          | 100% of CPI for all service - plus all pensions increased to provide 100% of CPI for each year in pay                                                                                 | T-20141002-08<br>T-20141002-09 |
| 2016 | 1.61%                   | 1.21%                         | 0.40%             | 1.61%          | 100% of CPI for all service                                                                                                                                                           | T-20151110-03                  |

- increases effective April 1 of each year
- annual COLA calculated as the percentage increase of December over December CPI

## APPENDIX C PORTABILITY AGREEMENTS

### ***Reciprocal Agreements***

### ***Effective Date***

|                                                                                                         |                  |
|---------------------------------------------------------------------------------------------------------|------------------|
| Major Ontario Pension Plans.....                                                                        | January 1993     |
| Ontario Cancer Institute (OCI).....                                                                     | November 1, 1976 |
| Ontario Nurses Association (ONA).....                                                                   | January 1, 1995  |
| Hospital for Sick Children.....                                                                         | January 1, 2000  |
| Pension Plan for the Employees of the<br>Ontario Public Service Employees Union.....                    | October 1, 2009  |
| OPSEU Pension Plan (PCCC).....                                                                          | April 3, 2012    |
| Divestment Pension Transfer Agreement<br>(OMERS, OPTrust, OPB – Active Members).....                    | May 20, 2014     |
| Past Divestment Pension Transfer Agreement (VON Canada).....                                            | July 8, 2015     |
| Second Divestment Pension Transfer Agreement<br>(OMERS, OPTrust, OPB – Retired & Deferred Members)..... | November 2, 2015 |

### ***Integration Agreements Out***

### ***Date Transfer Approved***

|                                                      |                   |
|------------------------------------------------------|-------------------|
| Liberty Health.....                                  | December 31, 1998 |
| Canadian Institute of Health Information (CIHI)..... | February 10, 1999 |

### ***Integration Agreements In***

### ***Date of Agreement***

|                                                                  |                    |
|------------------------------------------------------------------|--------------------|
| Canadian Council on Health Facilities Accreditation (CCHFA)..... | June 21, 1995      |
| Sault Ste. Marie District Health Association                     |                    |
| CUPE Local 894 Employees' Pension Plan.....                      | September 18, 1990 |
| ONA Members Pension Plan.....                                    | July 26, 1990      |
| Pension Plan for Management Employees.....                       | July 30, 1990      |
| Ontario Cancer Institute.....                                    | January 1, 1999    |
| Ontario Nurses' Association Plan (Employees).....                | January 1, 2001    |
| Ontario Nurses' Association Plan (Executives).....               | January 1, 2001    |

### ***Effective Date of Transfer***

|                                      |                  |
|--------------------------------------|------------------|
| Perley Hospital                      |                  |
| Rideau Veterans Home.....            | October 13, 1994 |
| National Defense Medical Centre..... | May 26, 1999     |



2015 CAATPP Annual Report.pdf



A modern pension plan for  
our stakeholders, managed  
by innovative pension experts.

# STRONG

For the sixth straight year our funded position has improved. As of January 1, 2016, our funded ratio, the core measure of benefit security, has reached 110.4% – the strongest result in our 20-year history of being a jointly sponsored pension plan. Long-term projections show the Plan's financial health will remain strong for the future – your future.

We add value by removing the complexity of pensions and fulfilling our mission of delivering secure benefits, stable contributions, and equity among our member groups. Over the last year, the Plan's dedicated professionals and governors have demonstrated their prudence and broad expertise by further strengthening the Plan for the benefit of our members and employers. We are proud to share this report.

The ROM plan merger demonstrates how broader public sector plans can work together to secure benefits with lower risk. **Page 19.**

## FORESIGHT

Over the past five years, investment returns added \$550 million above the policy benchmark to the value of Plan assets.

**More investment highlights on pages 20-23.**

## GOVERNANCE

The CAAT Plan is a signatory to the United Nations-supported Principles for Responsible Investment Initiative.

**Read more about the Responsible Investing policy on pages 24-25.**



## EXPERTISE

The Plan's Funding Policy is designed to manage through periods of volatility to secure benefits over the long term at stable contribution rates.

**Details on pages 12-13.**

## PERFORMANCE

Representative joint governance works well at the CAAT Plan.

**Learn more on pages 26-28.**

## TRUST

# PERFORMANCE



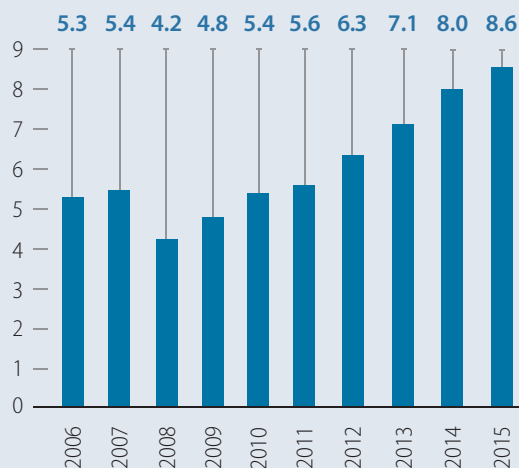
**\$8.6 BILLION**

net assets to  
secure pensions



**SERVICE STANDARDS MET  
29,000 TRANSACTIONS**

Compliance  
Quality service  
Efficiency



**GROWTH IN NET ASSETS**

(\$ billions, at end of each year)



**\$621 MILLION**

investment  
income



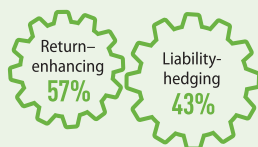
**8.1 %**

net investment  
return

# EXPERTISE

**98%**

Among member survey  
respondents who expressed  
an opinion, 98% agreed  
or strongly agreed the Plan  
has expertise to manage  
effectively and prudently



**WELL-DIVERSIFIED  
ASSET MIX**

is sophisticated,  
risk-appropriate

**\$1.2  
BILLION**

in reserves protect  
against market,  
interest rate, and  
demographic 'shocks'

**110.4%  
FUNDED**

on a going-  
concern basis



**PENSION KNOW-HOW**

Regulatory compliance,  
advocacy  
Transparent communication  
Member education  
Administrative efficiency

**20:1**

Among survey  
respondents who had  
an opinion, almost 95%  
said they believe the Plan  
is a sustainable model  
for delivering secure  
pension benefits over  
the long term.

# GOVERNANCE

**50/50 SHARING**

Joint governance by members  
and employers shares costs,  
risks, decisions

**FUNDING POLICY GUIDES  
LONG-TERM DECISIONS**

Balanced use of reserves, stability  
contributions, and conditional benefits  
secures lifetime pensions

## TRUST

91%

of active members surveyed rated the value of the pension benefit they will receive for their contributions as excellent, good, or reasonably good value.

41,900 MEMBERS



Active  
26,500



Retired  
14,000

1,400 deferred members have left their pension in the Plan after terminating employment to collect it at retirement age

## FORESIGHT

97%

probability of remaining fully funded in 20 years

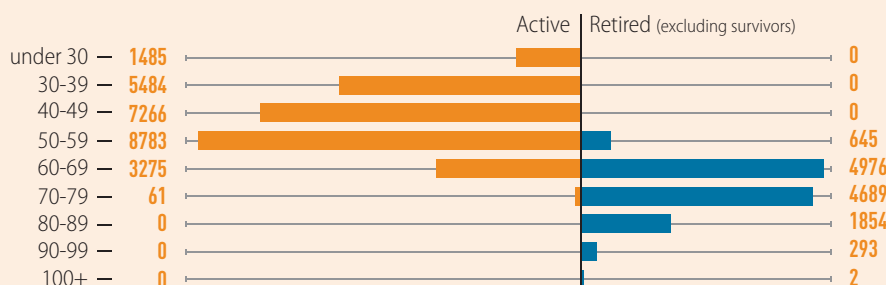
## ASSET-LIABILITY MODELLING

assesses long-term health of the Plan  
measures key financial and demographic risks

## REALISTIC FUNDING ASSUMPTIONS

essential to securing pensions  
89 years average lifespan  
5.70% expected long-term investment return (discount rate)

## DEMOGRAPHIC PROFILE Plan is growing with healthy mix of active and retired members



38  
EMPLOYERS

24 colleges  
14 other employers

## MEMBERS WORK IN A RANGE OF OCCUPATIONS

|                | Full-time  | Part-time  | Total       |
|----------------|------------|------------|-------------|
| Faculty        | 29%        | 21%        | 50%         |
| Support        | 31%        | 6%         | 37%         |
| Administration | 12%        | 1%         | 13%         |
| <b>Total</b>   | <b>72%</b> | <b>28%</b> | <b>100%</b> |

Enrolment is automatic for full-time employees. Part-time employees can choose to join anytime during their career. 362 members who work part-time contribute at more than one employer.

1,785

net increase  
in members  
in 2015

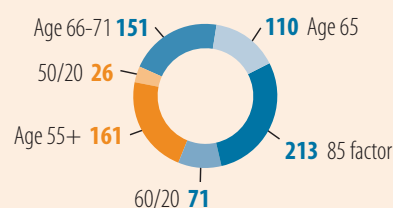
62.4

AVERAGE AGE  
at retirement  
in 2015

22.0

AVERAGE YEARS  
OF SERVICE  
at retirement  
in 2015

## FLEXIBLE RETIREMENT OPTIONS



## IN 2015, 732 MEMBERS RETIRED UNDER THE FOLLOWING OPTIONS.

**Age 65:** Normal retirement age for the Plan. (An additional 20 members aged 65 started their pensions from deferred status.)

**85 factor:** Age plus years of service equal at least 85

**60/20:** Age 60 or older with at least 20 years of service

**55+:** Age 55 or older, with reduced pension. (An additional 13 members in this age band started their pensions from deferred status.)

**50/20:** Age 50 or older with at least 20 years of service, with reduced pension

**Age 66-71:** Tax law requires pensions be started by the end of the year the member turns age 71

# A TRADITION OF BUILDING ON OUR STRENGTHS

**The CAAT Pension Plan's history is linked to that of Ontario's college system. Both began operating in the postsecondary sector at the same time and next year will salute 50 years of development and innovation in our respective fields of expertise.**

An historic point in the CAAT Pension Plan's development occurred more than 20 years ago when it became a jointly sponsored pension plan where costs, risks, and responsibilities are shared equally by members and employers. The joint sponsorship of the Plan continues to serve as a model of strong, effective governance.

This year marked another historic highpoint when the respected and famed Royal Ontario Museum (ROM) elected to merge its single employer pension plan with the CAAT Pension Plan. We're proud that the ROM and its plan members overwhelmingly chose to join the CAAT Plan, endorsing our focus on benefit security, stable contributions, and equity among members.

The merger is an example of how plans in the broader public sector can work together to create better solutions with lower risks and costs. The merger is notable for several other reasons:

**It received a strong endorsement.**

Of the active ROM pension plan members, 97% voted to join the CAAT Pension Plan while no retirees or deferred members voted against the merger. This strong endorsement came despite ROM plan members knowing that their contribution rates would need to increase.

**The merger was done in a short amount of time.**

The main elements of the process were completed within a relatively short six months and ROM employees began earning pension benefits in the CAAT Plan on January 1, 2016.







**We are proud of our Plan and the tradition of cooperation, mutual respect, and common purpose that is essential to its continued success.**

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**We're leading the way.** The first merger under Ontario's new regulations to allow single employer plans to merge with an existing multi-employer pension plan was hailed as an accomplishment by many in the pension sector. It demonstrates the pension expertise of CAAT Plan staff who thoughtfully guided a transparent process through discussions, information, and approvals. Led by Derek Dobson, Plan staff diligently worked with ROM plan members to ensure they were fully informed before making the decision to join the CAAT Plan.

Through this merger, the Board exercised its duty as a fiduciary and is helping to champion effective, sustainable pensions that benefit members, their families, and the communities in which they live.

The mission of the CAAT Pension Plan is to provide secure benefits at stable and appropriate contribution rates while balancing equity among generations and occupational groups of members. The Plan Equity Review Task Force conducted its work throughout 2015 and its recommendations were approved by the Board and Sponsors' Committee earlier this year. Joint task forces are one important way we regularly review aspects of the Plan to test for fairness. You can read more about the task force recommendations on page 14 of this report.

In 2015, we bid farewells to Stephen Campbell, Alex Ip, George Lowes, and Deb McCarthy. The service and dedication of these Trustees has helped to keep the CAAT Plan strong, secure, and fully funded.

Since our last annual report, we have welcomed Scott Blakey, Rasho Donchev, Bill Kuehnbaum, and Gretchen Van Riesen. We welcome the additional knowledge, perspective, and experience they bring.

The Board remains confident in its management team and committed to working with all our stakeholders for the unified purpose of keeping the Plan strong and viable for current and future beneficiaries.

**Beverley Townsend\***,  
Chair

**Darryl Bedford**,  
Vice-Chair

\*In keeping with the 18-month cycle for roles and responsibilities among the sponsors, as outlined in the Sponsorship and Trust Agreement, Donald Wright became Chair of the Board, and Beverley Townsend Vice-Chair, effective April 1, 2016.



# EXPERTISE

**Our team uses experience, expertise, and foresight to achieve the core goals of benefit security, contribution stability, and equity among members.**

The Plan is strong. We are focused on managing risks by being realistic about challenges and opportunities. Our dual focus on pensions and investments has contributed to the improvements in the Plan's funding health.

We are 110.4% funded on a going-concern basis with a funding reserve of \$1.2 billion. The Plan governors have prudently decided to continue building reserves to focus on the Plan's core goals of security, stability, and equity. With the larger funding reserve, the governors move the Plan closer to a reduction in contribution rates for members and employers.

Contribution rates are fixed at a level adequate to sustain the benefits of the Plan over the long term and, equally important, to build a funding reserve in accordance with the Funding Policy. The reserve is a buffer against unforeseen economic and demographic developments and a way of managing benefit security for the betterment of all stakeholders. Appropriate funding reserves, created by design, are in place to avoid contribution increases, keep the pension promise strong, and achieve our desire for equity among member groups. Funding reserves help to ensure promised benefits are paid and that member and employer contributions are stable and ultimately lower in the longer term. We believe our focus on reserves is core to achieving benefit security and the success of the Plan.

The Plan's investment team continues to demonstrate consistency in their ability to earn strong investment returns over time. This year's 8.1% rate return, net of investment management fees, moves the five-year average annual rate of return to 9.6%, well above the long-term target of 5.7% needed to sustain the Plan over time.

**Our focus is to secure benefits at appropriate and stable contribution rates that align with the needs of members and employers.**



The investment team invests responsibly, with an eye to environmental, social, and governance factors when making investments that members and employers count on to secure benefits and maintain stable and appropriate contribution rates. Along with other institutional investors who are focused on the long term, we are actively engaged with Canadian regulators and the management of publicly traded companies for better governance practices and greater disclosure on environmental, social, and governance risks.

Our members value their pensions. Through our regular annual opinion surveys, we have seen that those who understand their pension benefits value their pension more. As such, we work hard to make our people and our communications accessible, transparent, and focused on the needs of our members and employers. We aim to build more champions of the Plan by making effective use of each and every interaction with our stakeholders. We work hard to cut through the complexity of pensions to bring a better understanding of the value to each participant. One particularly effective way we are doing this is through meaningful member workplace presentations delivered by Plan staff. These engaging presentations are free to members and employers and the feedback from participants indicates high value from attending the session.

We continue to make significant improvements to the quality, timeliness, and efficiency of services to members and employers. Our employers' commitment to providing the Plan with timely and robust data has been a major contributor to our achievements in faster service.

This past year we began implementing a program of written attestation of compliance from employers supported by an enhanced ongoing education program. This is designed to reduce risk, improve clarity in roles, and identify training needs.

### LOOKING FORWARD

The Board of Trustees has approved the next three-year business strategy to continue to support benefit security, value, which includes contribution management, and trust, which includes equity. Of particular note for 2016, we will conduct a comprehensive review of the key drivers of our assets and liabilities, reflecting changes in the sector; assess the needs and adjust to trends in the member composition of the Plan; promote the efficiencies and value of modern defined benefit pension plans; continue to use our pension expertise to advocate with government on key policy issues; and continue to improve the value of the Plan for all stakeholders.

We continue to work diligently to earn and keep the trust of members and employers. Working together, we keep the CAAT Plan strong for the benefit of current and future beneficiaries.



Derek W. Dobson,  
CEO and Plan Manager

**We are proud to welcome the Royal Ontario Museum and pleased with how we managed the complexity of the merger process. We expect to complete the transfer of assets from the ROM plan this year, and we will continue to explore possibilities of mergers with interested single-employer pension plans in Ontario's broader public sector.**



# MANAGEMENT'S COMMENTARY

The following information provides analysis of the operations and financial position of the CAAT Pension Plan and should be read in conjunction with the financial statements and accompanying notes for the year ended December 31, 2015.

The CAAT Pension Plan provides secure defined benefit pensions to its 41,900 members who work at, or have retired from Ontario's 24 community colleges and 14 other employers in the province's postsecondary sector. These pensions are pre-funded by equal contributions from members and employers and, to a larger extent, by the investment returns earned over time by investing those contributions.

The Plan carries out its mandate by defining and administering lifetime pension benefits, setting contribution levels and investing the contributions to ensure the benefits are secure today and tomorrow. The Plan's central focus is delivering benefit security at stable and appropriate contribution rates while recognizing a desire for equity amongst all members groups and generations.

As a jointly sponsored pension plan, members and employers have equal say in Plan decisions through their representatives on the Plan's two governing bodies: the Board of Trustees and the Sponsors' Committee. The governors are appointed by the three Plan Sponsors: the College Employer Council on behalf of the college boards of governors, the Ontario College Administrative Staff Association (OCASA), and the Ontario Public Service Employees Union (OPSEU).

In 2015, the Plan further strengthened its financial position, finishing the year 110.4% funded on a going-concern basis, based on its actuarial valuation as at January 1, 2016, which has been filed with the pension regulators. Funding reserves were increased to \$1,179 million from \$773 million in the prior year, to be available as a buffer against future economic or demographic shocks. The market value of Plan assets, as of the end of 2015, was \$8.6 billion, up from \$8.0 billion at the close of 2014.

## STRATEGY AND PRIORITIES

The Plan sets strategic priorities to meet its mission to improve the financial security of members in retirement with appropriate and secure benefits supported by stable and affordable contribution rates.

2015 marked the final year of a three-year strategy to define and reinforce the value of the Plan for members and employers. The focus was on delivering value, managing risk, controlling long-term costs while preparing for growth, and providing timely education and service.

Looking forward, the Plan's strategic focus for 2016-18 centres on:

**Benefit security** – at stable contribution rates appropriate for the benefits earned and the strength of the benefit promise

**Value** – for contributions made by members and employers, including fairness across generations and different groups of contributors

**Trust** – through expertise in managing risk, and transparency.

Promotion of sustainable defined benefit pensions, education about the Plan's value, and support for growth continue as important initiatives supporting the strategy.

# BENEFITS AND ADMINISTRATION

The Plan's actuarial, pension policy, and administration experts see that benefits are properly administered in compliance with all pension-related regulations and that high-quality service is delivered efficiently. Through the delivery of education, tools, and services, the Plan also supports employers to properly carry out their role in pension administration.

## PLAN FUNDING

**The Plan measures its success against these criteria:**

- Protecting promised pensions with a prudent approach to building and managing reserves
- Maintaining stable contribution rates that are appropriate for the benefits earned
- Paying conditional indexing.

The Plan is 110.4% funded on a going-concern basis, based on its actuarial valuation as at January 1, 2016, which is improved from 107.2% in the prior valuation of January 1, 2015. The 2015 financial performance has enabled further strengthening of the funding reserve to \$1,179 million, from \$773 million in the previous filed valuation. The reserve is available as a cushion against unexpected interest rate or market declines, or larger-than-expected liability growth due to demographic shifts, making it an important instrument to keep benefits secure and contribution rates stable.

For valuation purposes, a smoothing calculation is used to spread the impact of investment gains and losses over a

five-year period. Asset smoothing is commonly performed in pension valuations and better aligns the valuation of assets with the Plan's long-term liabilities. It also reduces the effect of short-term market volatility on the funded status of the Plan. The smoothing adjustment as at January 1, 2016 creates a future valuation reserve cushion of \$559 million in addition to the funding reserve of \$1,179 million.

The strong funded position shown in this latest Plan valuation keeps benefits secure and contribution rates stable. Conditional inflation protection increases on service earned after 2007 remain in place through to at least January 1, 2019, and basic contribution rates, 8.2% up to and 11.8% above the YMPE<sup>1</sup>, plus the temporary 3% stability contributions can both remain stable until at least January 1, 2020.

**Peter J. Devlin**

*President,  
Fanshawe College*



**“The CAAT Pension Plan allows members to prepare for their retirement with confidence.”**

<sup>1</sup> Year's Maximum Pensionable Earnings, set annually by the federal government for purposes of the Canada Pension Plan. The 2016 YMPE is \$54,900.

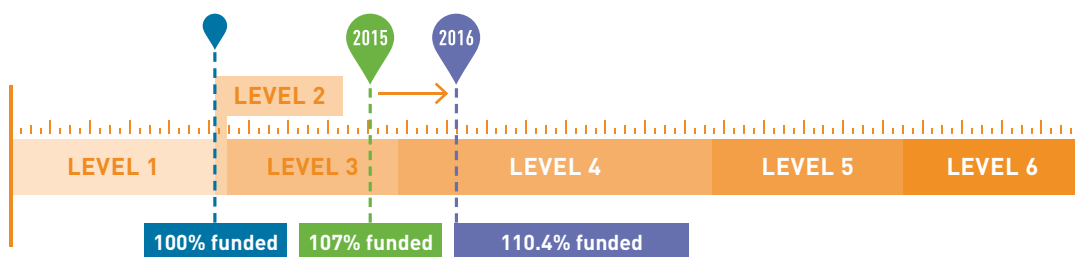
**The Plan secures benefits by:**

- Using prudent, realistic assumptions about longevity, long-term investment returns, interest rates, and inflation
- Setting basic contribution rates at levels appropriate for the benefits earned and setting stability contribution rates to meet the desired level of benefit security
- Investing in a diversified mix of asset classes that reflects the Plan's funded ratio as the key measure of success
- Maintaining a healthy funding reserve as a buffer against unforeseen economic and demographic shocks.

**VALUATION SUMMARY**

| Going-concern funding results<br>(modified aggregate basis)                | January 1, 2016<br>Filed valuation |
|----------------------------------------------------------------------------|------------------------------------|
| <b>ASSET VALUES:</b>                                                       | (\$ millions)                      |
| Market value of net assets                                                 | 8,592                              |
| Smoothing adjustment                                                       | (559)                              |
| Present value of future contributions                                      |                                    |
| Basic contributions                                                        | 3,264                              |
| Supplemental contributions                                                 | 1,229                              |
| <b>Total actuarial value of assets</b>                                     | <b>12,526</b>                      |
| Liabilities for accrued benefits                                           | 8,344                              |
| Present value of future benefits for active members                        | 2,978                              |
| Provision for indexation adjustments relating to post-2007 service to 2019 | 25                                 |
| <b>Total actuarial liabilities</b>                                         | <b>11,347</b>                      |
| Funding reserve                                                            | 1,179                              |

Amounts do not add due to rounding

**FUNDING POLICY  
DEFINES LEVELS  
OF PLAN FINANCIAL  
HEALTH**

The Funding Policy defines six levels of Plan financial health and prescribes the use of reserves, stability contributions, and conditional benefits at each level. Level 4 spans a broad band that allows Plan governors to determine how to best use reserves. The options available are any mix of: reducing stability contributions,

building additional reserves, and prefunding conditional inflation protection. With the Plan's funded status moving into Level 4 based on the January 1, 2016 valuation, the governors determined that building additional reserves was the most prudent option to further strengthen benefit security and contribution stability.

Details of the Funding Policy are available in the About Us section of the Plan's website.

**Realistic assumptions**

Each funding valuation includes a review of the economic and demographic assumptions used, to ensure they continue to be realistic and appropriate for the Plan's risk tolerance.

The discount rate represents an estimate of long-term future returns on the Plan's

investment portfolio. For the January 1, 2016 valuation the discount rate was lowered to 5.7% from 5.8%, to recognize that long-term investment returns are expected to decrease slightly.

The valuation continues to assume that members currently retiring will live to 89 years on average while collecting their

pensions, and anticipates further increases to life expectancy for future generations based on the Canadian Institute of Actuaries updated mortality tables. Key assumptions used in the valuation are listed in the financial statements on page 46.



### Forecasts tested through Asset-Liability modelling

Asset-Liability Modelling studies are conducted periodically to test the Plan's financial projections against a variety of diverse economic and demographic scenarios. This assessment allows for prudent planning and to evaluate emerging risks and opportunities as they arise. The last detailed study was conducted in 2014 and one will be carried out in 2016.

### Funding decisions are policy-driven

Since 2006, the Plan has had a Funding Policy designed to keep it healthy over the long term to protect promised benefits, while managing through periods of volatility. The policy prescribes the use of reserves, stability contributions, and conditional benefits at each of six levels of the Plan's financial health. The use of reserves and stability contributions supports the desire to treat each generation of members equitably. With each actuarial valuation filed with the regulator, the Plan's funding level is measured and the Plan governors determine if any adjustments to reserves, contributions, or conditional benefits are needed.

#### Guided by the Funding Policy, the Plan governors have:

- Managed a steady improvement in the funded position of the Plan since 2010
- Adopted realistic economic and demographic assumptions
- Announced the ability to keep contribution rates stable through to at least the end of 2020
- Announced that conditional inflation protection increases on service earned after 2007 will be granted to retired members through to at least January 1, 2019.

Based on its latest filed valuation at January 1, 2016, the funded status of the Plan entered into Level 4 of the Funding Policy from Level 3 where it stood with the previous valuation as at January 1, 2015. Level 4 spans a broad band of funding that allows Plan governors to determine how to best use reserves. The options available are any mix of: reducing stability contributions, building additional reserves, and prefunding conditional inflation protection. Consistent with the desire for benefit security and contribution stability, the Plan's governors decided to build additional reserves.

### CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS IN 2015

|                                               |     | (\$ millions) |
|-----------------------------------------------|-----|---------------|
| Net assets December 31, 2014                  |     | 7,965         |
| Investment income                             |     | 621           |
| Contributions received                        |     | 432           |
| Benefits paid                                 |     | (406)         |
| Pension administration expenses               |     | (14)          |
| Investment administration expenses            |     | (6)           |
| Net increase in assets available for benefits | 628 |               |
| <b>Net assets December 31, 2015</b>           |     | <b>8,592</b>  |

Amounts do not add due to rounding

### Lise Cloutier

*Board Chair, College Employer Council*

*Chair, Board of Governors, Collège La Cité*



"The strong performance of the CAAT Pension Plan demonstrates how well the joint governance model can work. Colleges share decisions and responsibility with members through our representatives who are Plan governors."

## PLAN CHANGES

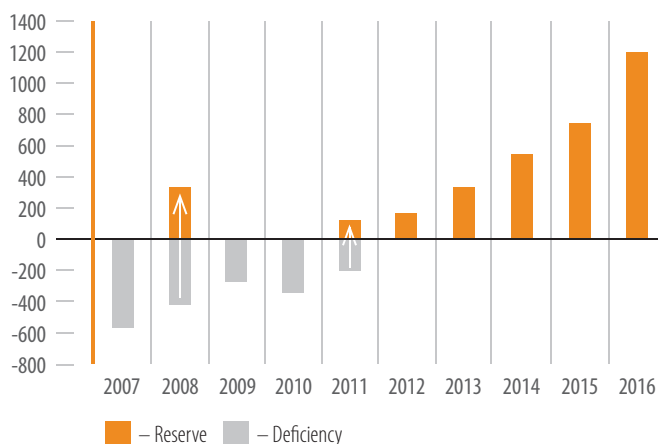
### Two changes to benefits take effect in 2016

There were no legislated or Plan-driven changes made to benefits in 2015. During the year, the Plan did carry out a review of several benefit provisions from the perspective of equity among generations and member groups. The Plan Equity Review Task Force (a joint committee of Plan governors with equal member and employer appointed representatives) recommended changes to two provisions that were unanimously approved by the Sponsors' Committee in early 2016. Both changes take effect July 1, 2016.

- Members who qualify for long-term disability after July 1, 2016 will accrue pension service at the same two-tiered benefit rates as active members, rather

## FUNDING VALUATIONS HISTORY (as at January 1st)

From 2007-2016 (\$ millions) on a going-concern basis



### Funding adjustments:

- Contribution rates increased by 1% in each of 2008, 2009, and 2010.
- Contribution rates increased by 0.8% in 2012 and 0.4% in each of 2013 and 2014 to help offset increased longevity costs.

than at the higher rate for full calendar year periods of time. These members will continue to have their contributions waived while accruing service. Members

who had qualified for long-term disability before July 1, 2016 will not be affected by this change.

- The commuted value payout option will only be available during the first six months following termination of membership, to members who are not retirement-eligible. Before this change there was no limit on terminated members exercising a commuted value payout, provided they were not retirement-eligible. After the six-month limit, terminating members continue to be entitled to a deferred pension and have the option of transferring their benefit to another registered pension plan at any time prior to their retirement date. The six-month limit on commuted value transfers exceeds the legislated minimum of 60 days from termination of membership.

## JP Hornick

*Chair, CAAT-A Divisional Executive, OPSEU*

*Professor, School of Labour, George Brown College*



"Our plan is amazingly well-managed and the oversight by our trustees and sponsors ensures all of our interests as members are protected, regardless of job classification. These talented people who bring a diverse set of real-world experiences have a common interest in building the strongest plan possible for all members."

### **ROM welcomed as new employer with first-of-kind plan merger**

In 2015, the Royal Ontario Museum (ROM) chose to merge its pension plan into the CAAT Pension Plan effective January 1, 2016. The merger is the first of its kind to use Ontario's regulations permitting the conversion and transfer of assets from a single-employer pension plan in the broader public sector to a jointly governed, multi-employer pension plan. Under the general conditions of the merger, the 640 active, retired, and deferred pension members from the ROM plan will receive a pension based on the ROM plan provisions for their service accrued to December 31, 2015, and a pension based on CAAT Plan provisions for service accrued after that date. Regulatory approval by the Financial Services Commission of Ontario is being sought during 2016.

### **SERVICE DELIVERY**

Significant strides were made in improving the quality, timeliness, and efficiency of services to members during 2015. These accomplishments were realized through increased automation available from the pension administration system and earlier delivery of data from employers.

### **Service standards met consistently**

Standards supporting high-quality service took formal effect in 2015 and were met throughout the year for all transaction types. In all, there were over 29,000 transactions during 2015, ranging from general inquiries and past service purchases to retirements and marriage breakdown valuations. Calls to the Plan from members rose to 10,000 from 7,000 in the prior year, primarily due to the expansion of the pension confirmation process to include all pensioners and survivors (see Risk Management page 17).

### **Krista Pearson**

*President, Board of Directors, OCASA*

*Registrar, Algonquin College*



**"The Plan has secured benefits despite the challenges faced by all pension plans. This speaks to the oversight of the governors and the expertise of the professional managers. The Plan's performance is reassuring."**

### **Annual statements delivered earlier**

In 2015, annual pension statements were mailed to nearly half of active members at least two months ahead of the June 30 deadline, and 83% of annual statements were mailed by May 31. This accomplishment was achieved through further automation of processes in the pension administration system, cleansing historical data, and rigorous project management. Employers contributed significantly by submitting annual member data on time or early.

### **Support for employer administrators**

The Plan relies on participating employers to carry out certain aspects of administration, including enrolling employees, remitting contributions, reporting data, and distributing publications. To assist employers and the Plan to reduce the risk of administrative errors, a compliance program was introduced in 2014. The program comprises ongoing education and an annual written attestation of compliance.

A key initiative in 2015 involved supporting employers in completing the first attestation of compliance in early 2016 in respect of administration work performed during the prior year. Support included an education guide, 21 training and information sessions, and providing tools and reference material.



**Annual pension statements were mailed to nearly half of active members at least two months ahead of the June 30 deadline, and 83% of annual statements were mailed by May 31.**

### Strengthening understanding and relationships

Throughout 2015, Plan representatives continued to meet with employer human resources teams to deepen their understanding of employer administrative challenges and gain insight into opportunities to help leverage the value of the Plan in recruiting and retaining employees.

### COMMUNICATION

The Plan's communications program is designed to cut through the complexity of pensions to bring understanding of what matters to members:

- demonstrating the Plan is well managed and their benefits are secure
- evidence of the value of their benefit for contributions made
- specific information they need about Plan features to make pension decisions at various life stages.

In 2015, the program was enhanced with these new offerings:

- A video series illustrating the relationship between contributions and investment returns in securing benefits
- A webpage and pamphlet targeted at new members
- A webinar and Q&A session about prospective mergers with university pension plans, now available as a video.

Members had the opportunity to learn about their pension benefits in 44 work-place presentations delivered by Plan staff. Written feedback from participants indicates they received high value from attending the sessions.

Service to francophone members was improved through simultaneous delivery of French and English communications. Website user sessions rose just over six percent in 2015 to more than 125,000. The most popular webpage is the Plan's 3-Step pension estimator, which was used more than 34,000 times.

Member-direct newsletter delivery gained traction as more employers signed up for the service. By year-end, more than 10,000 members were receiving the newsletter by email directly from the Plan, a doubling over the prior year. Others receive it as a pass-along link from their employers.

### Transparency builds trust

Members trust in the Plan's expertise to secure their pensions, deliver value for their contributions and, where appropriate, advocate for legislative change that's in their collective interest. That trust relies on transparent and timely communication.

Throughout the year, members and employers were apprised of the government decisions concerning the Ontario Retirement Pension Plan (ORPP) through email and website updates. Also available on the website are updates on the Plan's advocacy efforts and its submissions to federal and provincial governments on a range of pension issues.

### Survey findings reflect value of, trust in Plan

To help inform its strategic planning, the Plan gauges stakeholder views of the Plan through regular surveys. The 2015 surveys of members yielded online responses from more than 3,500 active and 350 retired members. Findings were consistent with prior surveys, showing that members value their pensions and trust the Plan to manage their pension benefits.

**91%** of active members and **97%** of retired members  
rate their pension as excellent, good, or reasonably good value for the contributions paid.

**Informed members value the Plan**

Members continue to rate the Plan's value highly: 91% of active members and 97% of retired members rate their pension as excellent, good, or reasonably good value for the contributions paid. Those who rated their knowledge of their pension benefits as good or excellent rated the Plan's value for contributions more highly, with 76% of these active members rating the value at the two highest rankings (good or excellent) compared to 47% of all respondents.

**Plan's reputation, expertise to secure benefits recognized**

Among respondents who expressed an opinion, 98% agreed or strongly agreed that the Plan has the expertise to manage effectively and prudently. When asked to rate the Plan's overall reputation, 78% of active member respondents and 93% of retired member respondents said it was either excellent or good.

**Advocacy supported**

Members were asked for their views about the emerging debate on the fairness and affordability of public sector pension plans. Of active members, 83% reported being very concerned or somewhat concerned. Among those who expressed an opinion, 95% said they expect the Plan to be active in the public pension debate.

**Employer views of the Plan improved**

Employer administrators are also surveyed about their views of the Plan. In 2015, 52 responses were received from employer contacts ranging from pension administrators to chief financial and chief human resources officers.

Twenty percent of respondents said their opinion of the Plan's reputation had improved in the past year. Confidence

in the Plan's expertise rose too, with 88% reporting they felt confident or very confident about it compared with 67% in the 2014 survey. Overall views of service delivery to members also improved.

Asked to score the value of the Plan compared to the cost to offer it, chief financial officers gave it 8.1 out of 10 on average.

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**Employer confidence in the Plan's expertise rose, with 88% reporting they felt confident or very confident about it compared with 67% the previous year.**

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**OPERATIONAL EFFICIENCY AND RISK MANAGEMENT****Pension administration system**

In 2015, further efficiencies from the pension administration system rolled out the prior year were realized. Earlier completion of active member annual statements was a notable example. Average transaction times were also shortened. Retirement option documents were issued within 15 days on average, compared with 23 days in 2014. Enrolment processing improved to 4.5 business days on average, from six days in 2014. Pension estimates and service purchase quotes were, on average, issued within six and 16 days respectively, both earlier than the target turnaround times.

The system also lowers risk through improved record keeping and increased automation and reporting, enabling staff to focus more on the human interaction aspect of service delivery.

**Risk management**

Enhancements to the member data collection tool, developed in consultation with employers, were well received and enabled timely and accurate data submissions. Operational risks were further reduced through improvements to management processes and internal audits of transaction processes. For the first time, the annual pension confirmation process was sent to all -- rather than a sample of -- pensioners and survivors to verify their address and payment information.

# PLAN'S PENSION EXPERTS ADVOCATE IN BEST INTERESTS OF MEMBERS AND EMPLOYERS

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**The CAAT Pension Plan monitors the development of pension-related legislation and makes submissions when it is appropriate to represent the collective interests of the Plan and its key stakeholders. During 2015, the Plan was active in several areas.**

## **Regulations for merging single employer and multi-employer pension plans**

Ontario regulations enacted in November 2015 allowing the conversion and transfer of assets from single-employer pension plans in the broader public sector to jointly governed, multi-employer pension plans reflected changes to the member approval process that the Plan had sought to ensure mergers could be achieved in an orderly and pragmatic way. The merger of the ROM pension with the CAAT Plan at year-end marked the first use of the new regulations.

## **Ontario Retirement Pension Plan**

Following its written response in early 2015 to the province's consultation paper on the design of the Ontario Retirement Pension Plan (ORPP), the Plan continued to make representations to the government concerning ORPP exemptions for CAAT Plan members and also part-time employees of the college system. The exemption for part-time college employees from mandatory participation was sought because these employees already have immediate access to the CAAT Plan, a comparable plan that offers a potentially higher income replacement rate. Requiring part-time college employees to choose between the CAAT Plan and the ORPP at hire would also create challenges for college administrators to provide adequate information to enable employees to evaluate both the benefits and contribution costs of the two plans. As well, offering two pension plans burdens employers with administrative complexity and related costs. If a full exemption would not be granted for part-time college employees, the Plan requested a delayed effective date to allow the Plan and administrators to prepare information to educate non-members about the differences between the CAAT Plan and the ORPP so they can make an informed choice between the two.

In August 2015 the government released the ORPP design details confirming that employees enrolled in comparable pension plans and their employers offering such plans will not be required to participate in the ORPP. CAAT Plan members will be exempt from participating. Part-time employees in the college system not enrolled in the CAAT Plan will be required to participate in the ORPP, but not until the final wave of implementation beginning in 2020.

The Plan continues to monitor and report on ORPP implementation developments and will support employers to be ready to explain the differences between the CAAT Plan and the ORPP to part-time employees.

The Plan's submissions to governments are available on the website.

## **Potential expansion of the Canada Pension Plan**

The federal government elected in the fall of 2015 committed to working with the provinces to determine how the Canada Pension Plan might be expanded to increase retirement savings for working Canadians. The Plan believes the need to improve retirement income security is a pressing public policy challenge and is therefore generally supportive of improvements to the CPP. As proposed CPP design specifics are explored, the Plan will analyze their impacts on each stakeholder and, if necessary, advocate for change.

## **Demonstrating the efficiency of defined benefit pension plans**

Members of the Plan's leadership team are called upon to speak at conferences and write articles explaining how defined benefit (DB) pension plans provide adequate retirement income efficiently and cost-effectively through a long-term sustainable and well-governed model.

The Plan continues to actively participate in professional associations, such as the Association of Canadian Pension

Management (ACPM) and the Canadian Public Pension Leadership Council (CPPLC) that was created to help inform discussions about public sector DB pension plans that often play out in the media without a full set of facts.

### **ROM plan merger first of its kind to use new regulations for broader public sector pension plans**

In 2015, the Royal Ontario Museum (ROM) chose to merge its pension plan into the CAAT Pension Plan effective January 1, 2016. The decision followed an information and voting process that saw 97% of active ROM pension plan members vote to join the CAAT Plan and no retirees or deferred members voting against the merger. The merger is the first of its kind to use Ontario's regulations permitting the conversion and transfer of assets from a single-employer pension plan in the broader public sector to a jointly governed, multi-employer pension plan. The regulations came into effect November 1, 2015. Regulatory approval of the merger by the Financial Services Commission of Ontario is being sought during 2016.

Under the general conditions of the merger, the 640 active, retired, and deferred pension members from the ROM plan will receive a pension based on the ROM plan provisions for their service accrued to December 31, 2015, and a pension based on CAAT Plan provisions for service accrued after that date.

The merger stands as an example of how pension plans in the broader public sector can work together to create more predictable costs and to secure benefits with lower risk. The merger allows the ROM to exit the pension-management business and focus on operating one of North America's largest and most popular museums.

### **Sector-wide plan for Ontario's postsecondary education sector**

The CAAT Pension Plan remains open to discussions with interested universities and their members about merging their pension plans with the CAAT Plan.

The similar demographic profiles of the CAAT Plan and university pension plan members make mergers a natural alignment that would deliver benefits for all through the formation of a sector-wide plan. The CAAT Plan would be further strengthened through mergers that would:

- Improve the probability of paying conditional inflation protection
- Improve the probability of remaining fully funded through a wide range of economic scenarios
- Improve contribution rate stability.

Members of the CAAT Plan and university pension plans would benefit from seamless portability of their pension benefits across the postsecondary sector.

As institutions, universities would benefit from merging their pension plans with the CAAT Plan by realizing a permanent exemption from solvency funding requirements and cost savings from not operating single-employer pension plans, including paying premiums to the Pension Benefit Guarantee Fund.

### **Any merger must be in the interest of the CAAT Plan and its members**

Throughout discussions with universities about potential mergers, the Plan continues to be guided by the principle that any merger must be in the best interest of the Plan and its members.

The Plan will not assume responsibility for a university pension shortfall. At least 50% of governance roles will be retained for colleges and their members, even if university members eventually outnumber college members and university assets grow to be larger than those from the college system.

### **Mark Engstrom**

*Deputy Director,  
Collections & Research, the ROM*



**"The merger means the ROM will be able to spend much less time and resources on pensions and more on what we do best, while continuing to offer our dedicated employees a valuable pension benefit."**

# INVESTMENT MANAGEMENT

Julie Cays,  
Chief Investment Officer

**The CAAT Pension Plan's investment program is designed to generate adequate long-term returns with a level of risk that is appropriate for the Plan and to meet its key measures of success: protecting members' pensions, paying conditional inflation protection, and maintaining stable contribution rates at levels that are suitable for the benefits earned.**

The Plan's team of professionals implements and oversees the investment strategy as set out by the Board of Trustees. The team recommends to the Board an asset mix based on Asset-Liability Modelling studies that test the future potential investment performance of various asset mixes and funded status outcomes under a range of economic and demographic scenarios.

The Investment Committee of the Board approves investment management firms, funds, and co-investments that meet the Plan's quality standards. It then monitors the risk exposures and performance against targets set out in the Plan's investment policies.

The result is a well-diversified portfolio with exposures to appropriate levels of investment risks.

## **DIVERSIFIED PORTFOLIO**

The investment portfolio falls into two broad categories:

**Liability-hedging investments** are used to hedge the inflation and interest rate risk of paying pensions over the long term. They include investments such as nominal and real-return bonds, infrastructure, commodities, and real estate. The Plan's investment policy sets the allocation for these investments at 43% of Plan assets.

**Return-enhancing investments** offer the potential for higher long-term returns than liability-hedging investments. Investments include public equities – Canadian, global developed, and emerging markets – and private equities. The policy allocation for these investments is 57% of the Plan's assets.

Within these categories, the investment team oversees the activities of over 50 investment and fund managers in a variety of public and private asset classes and with a balanced mix of investment approaches as well as a number of direct investments in private equity and infrastructure assets.





### ASSET MIX ADJUSTMENTS

The Plan's 2014 Asset-Liability Modelling study results demonstrated that further diversification within the liability-hedging and return-enhancing investment allocations would be appropriate for the Plan's long-term return expectations and tolerance for risk. Those adjustments to the asset mix were implemented during 2015. The allocation to Canadian equities was reduced by 5%, with a corresponding increase in Global developed equities. The allocation to nominal long-term bonds was reduced by 5% and those funds were used to initiate an allocation to Universe bonds. Also in 2015, within private markets the policy target of 5% invested in Private equity was met and the amount invested in Infrastructure increased to 7% from 5%.

### MARKET OVERVIEW

Commodity markets ended 2015 down almost 20%, as slowing growth in China continued to amplify concerns of global over-supply. The price of oil fell from US\$52 per barrel to US\$37 over the course of the year. The decline in commodity prices negatively affected the value of the Canadian dollar and the currency declined significantly compared with major world currencies during 2015. Similarly, the weakened environment for commodities hurt the Canadian equity market, which fell over the year.

Measured in Canadian dollar terms, global equity markets were strong in 2015. While conditions in China and impending higher interest rates in the U.S. proved to be headwinds, central bank actions in Europe and in Japan were catalysts for investors to buy non-Canadian equities that had seen declines early in 2015.

In Canadian dollar terms, emerging market equities delivered low positive returns over 2015, with significant discrepancies across regions. Countries in Asia significantly outperformed those in Latin America.

Bond market returns ended the year in low single digits, influenced by expectations that the Federal Reserve would begin to increase interest rates in the U.S. The Federal Reserve did raise rates for the first time since 2006, citing improving economic and employment data.

### PERFORMANCE

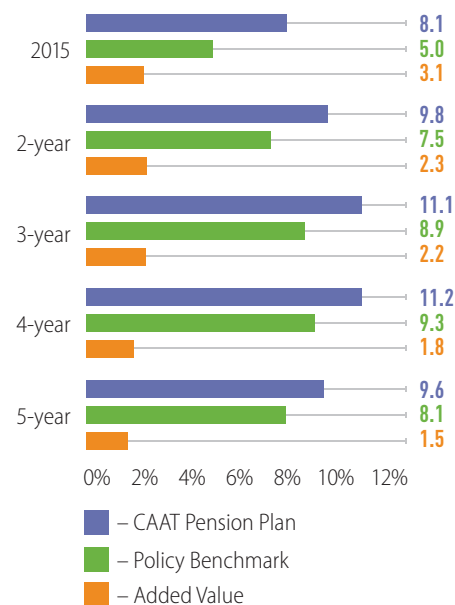
Plan assets totalled \$8.6 billion at December 31, 2015, compared with \$8.0 billion at the end of 2014. The Fund returned 8.1% net of investment management fees in 2015, outperforming its policy benchmark by 3.1%. Over the past five years, the Plan has earned an annualized rate of return of 9.6%, net of investment management fees, outperforming its policy benchmark by 1.5% per annum, exceeding its target of 0.70% over the benchmark per annum. This five-year performance added \$550 million of value to the Plan's assets compared to the policy benchmark.

Performance in each asset class is measured in comparison to a relevant benchmark return, as listed in the table on page 22.

#### *Canadian equity (7.8% of total investments)*

The Plan's Canadian equity portfolio totalled \$667 million at the end of 2015. The portfolio returned -7.7% in 2015, 0.6% above its benchmark.

### CAAT PENSION NET RETURN VS. POLICY BENCHMARK



**Over the past five years, the cumulative performance added \$550 million above the benchmark.**

## BENCHMARKS APPLICABLE TO ASSET CLASSES

| ASSET CLASS              | BENCHMARK                   |
|--------------------------|-----------------------------|
| <b>Liability-hedging</b> |                             |
| Nominal long bonds       | FTSE TMX Long Bond Index    |
| Nominal universe bonds   | FTSE TMX Universe Index     |
| Real-return bonds        | Actual RRB portfolio return |
| Infrastructure           | CPI + 5%                    |
| Real estate              | IPD Canadian Property       |
| Commodities              | S&P GSCI                    |
| <b>Return-enhancing</b>  |                             |
| Canadian equity          | S&P/TSX Composite Index     |
| Global developed equity  | MSCI World ex Canada Index  |
| Emerging markets equity  | MSCI Emerging Markets Index |
| Private equity           | MSCI ACWI + 3%              |

### Global developed equity (33.2% of total investments)

The Plan's Global developed equity portfolio totalled \$2.852 billion at the end of 2015. The portfolio returned 24.5% in 2015, outperforming its benchmark by 4.5%. The Global developed equity portfolio combines managers with mandates for U.S., international, and broad global investments.

### Emerging markets equity (10% of total investments)

The Plan's Emerging markets equity portfolio totalled \$852 million at the end of 2015. The portfolio returned 9.4% for the year, outperforming its benchmark by 7.4%.

### Private equity (5.5% of total investments)

The Plan's Private equity portfolio totalled \$471 million at the end of 2015. The portfolio returned 50.3% for the year, outperforming its public market benchmark by 30.2%.

### Nominal long bonds (15.7% of total investments)

The Plan's Nominal long bond portfolio totalled \$1.336 billion at the end of 2015. The portfolio returned 4.5% for the year, outperforming its benchmark by 0.7%.

### Nominal universe bonds (4.8% of total investments)

The Plan's Universe bonds portfolio was added in 2015 and totalled \$413 million at year-end. As the portfolio is passively invested, it is expected to track the benchmark over the long run and it did over the partial year that the portfolio was in place.

## NET INVESTMENT RETURN BY ASSET CLASS RELATIVE TO BENCHMARK

as at December 31, 2015 (net of expenses)

| ASSET CLASS              | CAAT PLAN INVESTMENTS<br>(\$ Millions) | 2015 RETURN | BENCHMARK | VALUE ADDED |
|--------------------------|----------------------------------------|-------------|-----------|-------------|
| <b>Liability-hedging</b> |                                        |             |           |             |
| Nominal long bonds       | \$1,336                                | 4.5%        | 3.8%      | 0.7%        |
| Nominal universe bonds   | \$413                                  | 0.9%        | 1.0%      | 0.0%        |
| Real-return bonds        | \$550                                  | 3.2%        | 3.2%      | 0.0%        |
| Infrastructure           | \$600                                  | 15.1%       | 6.4%      | 8.7%        |
| Real estate              | \$419                                  | 8.1%        | 7.8%      | 0.3%        |
| Commodities              | \$371                                  | (13.0%)     | (19.5%)   | 6.5%        |
| <b>Return-enhancing</b>  |                                        |             |           |             |
| Canadian equity          | \$667                                  | (7.7%)      | (8.3%)    | 0.6%        |
| Global developed equity* | \$2,852                                | 24.5%       | 20.0%     | 4.5%        |
| Emerging markets equity  | \$852                                  | 9.4%        | 2.0%      | 7.4%        |
| Private equity           | \$471                                  | 50.3%       | 20.1%     | 30.2%       |

\*Global developed equity includes U.S. equity, international equity, and global equity portfolios.

### Real-return bonds (6.4% of total investments)

The Plan's Real-return bond portfolio totalled \$550 million at the end of 2015. The portfolio returned 3.2% for the year.

### Infrastructure (7.0% of total investments)

The Plan's Infrastructure portfolio totalled \$600 million at the end of 2015. The portfolio returned 15.1% for the year on a currency hedged basis, outperforming its benchmark by 8.7%.

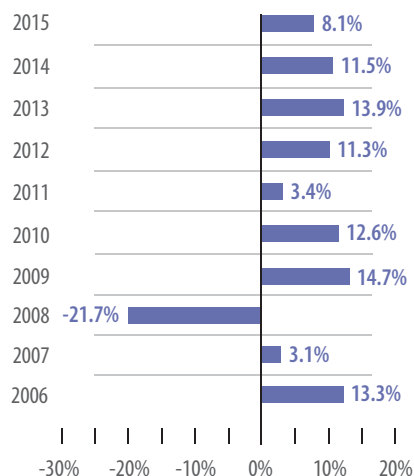
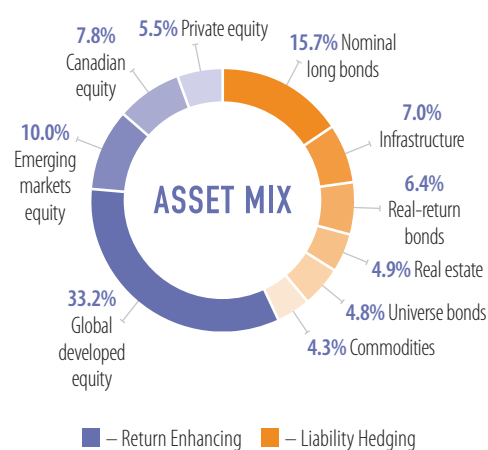
### Real estate (4.9% of total investments)

The Plan's Real estate portfolio totalled \$419 million at the end of 2015. The portfolio returned 8.1% for the year, outperforming its benchmark by 0.3%.

Amounts do not add due to rounding

**ANNUAL RATES OF RETURN**

(net of investment management fees)

**WELL-DIVERSIFIED \$8.6 BILLION IN INVESTMENTS**

Cash, cash equivalents, and other: 0.4%



The CAAT Plan is a co-investor in the Kingston Solar Project, the largest solar generation project in Canada and one of the largest in North America. Located in the City of Kingston and Loyalist Township in Ontario, the facility became operational in the fall of 2015.

**Commodities****(4.3% of total investments)**

The Plan's Commodities portfolio totalled \$371 million at the end of 2015. It returned -13.0% for the year, outperforming its benchmark by 6.5%. The portfolio consists of commodity futures contracts.

**Currency management**

The Plan employs a Currency hedging program to manage the risk inherent in foreign currency exposures. In 2015, the hedging program detracted 3.8% from total returns, partially offsetting gains from currency reflected in the above asset classes' returns. This was largely because the Canadian dollar fell against the Japanese Yen, U.S. Dollar, British Pound, and the Euro, currencies that the Plan hedges.

**The five-year annualized return of 9.6% exceeds the Plan's funding valuation discount rate of 5.7%.**

**Barbara Marshall***President, Georgian College Retirees Club**Retired Dean of Business, Georgian College*

**"When you're retired, you need a pension you can count on. I'm confident my CAAT Plan has the governance, resilience, investment strategy, and forward thinking that enables it to weather the adverse forces of economic shifts, changes in pension law, and anything else this evolving world might throw at it."**



# RESPONSIBLE INVESTING

**The principal investment goal of the CAAT Plan is to maximize long-term, risk-adjusted returns to secure pensions. The Plan believes that, over the long term, companies that have sound corporate governance structures and practices will outperform those that do not, and that managing the risk to long-term shareholder return includes awareness and management of the environmental and social impacts of a corporation's business activities.**

Inattention to these impacts can result in, among other things, reputational harm that in turn can lead to financial underperformance.

In carrying out investment activities, the Plan follows its Responsible Investing Policy that covers: 1) proxy voting, 2) corporate engagement, and 3) encouraging the integration of environmental, social, and governance (ESG) factors into investment processes.

## PRINCIPLES FOR RESPONSIBLE INVESTMENT INITIATIVE

The CAAT Plan is a signatory to the United Nations-supported Principles for Responsible Investment Initiative together with more than 1,300 institutional investors representing more than \$59 trillion in assets under management. The signatories to the Principles for Responsible Investment believe that:

"As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time). We also recognize that applying these Principles may better align investors with broader objectives of society."

## PROXY VOTING

The CAAT Plan's Responsible Investing Policy states that the Plan will vote the proxies attached to its shareholdings

thoughtfully and responsibly and that shareholder proposals dealing with ESG factors will be examined on a case-by-case basis, taking into account the effects of the proposals on shareholder value.

The Plan encourages corporations to improve disclosure on ESG factors and risks so that investors are better able to take such factors into account when looking at the risk and return prospects of investments in their portfolios.

Votes are generally cast in favour of proposals that corporations adopt policies that embrace the International Labour Organization's Conventions, the Ceres Principles on the Environment, and the OECD Guidelines for Multinational Enterprises.

## CORPORATE ENGAGEMENT

The CAAT Pension Plan joins with other institutional investors to encourage Canadian regulators and the management of Canadian public corporations to strive for better governance practices and more comprehensive disclosure of environmental, social, and governance risks.

## Canadian Coalition for Good Governance

The CAAT Plan has been a member of the Canadian Coalition for Good Governance (CCGG) since 2005. The CCGG was formed to represent the interests of institutional investors in promoting "good governance practices in Canadian public companies and the improvement of the regulatory environment to best align the interests

of boards and management with those of their shareholders." The members of the CCGG include a range of institutional investors, such as pension plans and mutual funds and other third-party money managers that manage approximately \$3 trillion in assets. Julie Cays, Chief Investment Officer at the CAAT Plan, is Vice Chair of the CCGG Board of Directors and as part of this role participates in engagement meetings with directors of Canadian public corporations.

In 2015, the CCGG developed a policy on proxy access and made several submissions to various governmental agencies, including to the Ontario Securities Commission (OSC) on the Proposed Framework for an OSC whistleblower program and to the Ontario Ministry of Government and Consumer Services encouraging amendments to the Ontario Business Corporations Act relating to best practices in corporate governance.

## Pension Investment Association of Canada

The CAAT Plan investment team members are active in the Pension Investment Association of Canada (PIAC) whose mission is "to promote sound investment practices and good governance for the benefit of pension plan sponsors and beneficiaries." PIAC sets out to develop, monitor, and promote sound standards of corporate governance in Canada.

Kevin Fahey, Director, Investments for the CAAT Plan, serves on the PIAC Board as Secretary-Treasurer and is a member of the Investor Stewardship Committee. Julie Cays is a past Chair of PIAC.



Kevin Rorwick,  
Chief Financial Officer

### **Institutional Limited Partners Association**

Institutional Limited Partners Association (ILPA) is a global industry association composed of limited partner investors in private equity funds. The CAAT Plan is an active member of ILPA and has endorsed the Private Equity Principles of the association. These principles promote the alignment of interest, good governance, and transparency that form the basis of effective relationships between limited and general partners. The principles urge general partners to disclose "extra-financial risks, including environmental, social and corporate governance risks, at fund and portfolio company levels" in their reporting to limited partners.

### **CDP**

CDP, formerly the Carbon Disclosure Project, has a number of initiatives that encourage companies globally to disclose information on greenhouse gas emissions, water usage, and their strategies for managing climate change and deforestation risks. These disclosures enable investors to evaluate the risks in their portfolios relating to these factors. The CAAT Plan is a signatory to the CDP and CDP Water Disclosure initiatives.

Annual information requests are sent by CDP to corporations across the globe (including over 220 in Canada). These requests were signed by more than 800 institutional investors in 2015, representing almost \$100 trillion in assets.

### **Extractive Industries Transparency Initiative**

The CAAT Plan is a signatory to the Investors' Statement on Transparency in the Extractives Sector in support of the Extractive Industries Transparency Initiative (EITI), which aims to improve transparency and accountability by corporations and governments around the world regarding taxes, expenditures, and revenues from oil, gas, and mining. Over 90 institutional investors that collectively manage over \$20 trillion have signed on to the initiative.

### **INCORPORATING ESG CONSIDERATIONS INTO THE INVESTMENT PROCESS**

As a long-term investor, the Plan encourages its investment managers to integrate the consideration of ESG factors into their processes. One of the ways this is done is through an annual questionnaire that is sent out to the investment managers and general partners asking a series of questions about how these factors are integrated into their investment processes. The responses to the ESG survey indicate that a growing number of the Plan's investment managers are considering the impact of ESG factors when making investment decisions.

### **Exercising proxy votes in 2015**

The Plan's proxy votes are cast in such a way as to encourage corporations to be environmentally and socially responsible, to adopt sound governance practices and to disclose information on ESG factors and risks. In 2015, the Plan voted on over 15,000 proxy issues of companies in the CAAT Plan portfolio.

Shareholder proposals are examined on a case-by-case basis taking into account the possible effects that any proposed actions would have on the long-term shareholder value of the corporation. There were 293 shareholder proposals raised and the Plan voted for 104 of these. Sixteen of the shareholder proposals related to health, the environment, and better disclosure of environmental risk factors, through reporting on policies and sustainability practices; the CAAT Plan voted in favour of 12. The Plan also voted in favour of proposals related to governance, including increased gender diversity on boards of directors and executive teams, and adding proxy access rights.

# STRENGTH THROUGH JOINT GOVERNANCE

Sharing of Plan risks and decisions by members and employers is achieved through the Plan's joint governance structure, which is bicameral, comprising a Sponsors' Committee and a Board of Trustees.

Members and employers have equal representation on both these decision-making bodies, through their governors who are appointed by the Plan sponsors: the College Employer Council on behalf of the college boards of governors, the Ontario College Administrative Staff Association (OCASA), and the Ontario Public Service Employees Union (OPSEU). This structure is recognized as a model for its success in shared decision-making.

**The Sponsors' Committee has eight members:** four representing the employees, three of whom are appointed by OPSEU and one by OCASA, and four representing the employers, who are appointed by the College Employer Council\* on behalf of the college boards of governors.

## Members of the Sponsors' Committee

Steve Hudson, Employer Committee Member; Patrick Kennedy, Employee Committee Member; Kim Macpherson, Employee Committee Member; Marilou Martin, Co-Chair, Employee Committee Member; Peggy McCallum, Employer Committee Member; Kelly Murray-Scott, Employee Committee Member, Brian Tamblyn, Employer Committee Member; Jeff Zabudsky, Co-Chair, Employer Committee Member.

Kelly Murray-Scott assumed her responsibilities on July 1, 2015 from Michael Gallagher who served on the Sponsors' Committee from 2013 to 2015 as an Employee Committee Member.



Left to right: Steve Hudson, Kim Macpherson, Marilou Martin, Patrick Kennedy, Kelly Murray-Scott, Brian Tamblyn, Peggy McCallum, Jeff Zabudsky.

\*The College Employer Council replaced Colleges Ontario as the employer sponsor effective November 1, 2015 by amendment to the Plan's Sponsorship and Trust Agreement.



# MEMBERS AND EMPLOYERS HAVE EQUAL SAY ON PLAN DECISIONS

As fiduciaries, Trustees are legally bound to act in the interests of all Plan members. The Board of Trustees sets the investment strategy and funding risk that are appropriate for the Plan's long-term obligations and establishes policies for administering benefits. Sponsors' Committee members primarily represent the interests of the groups that appoint them.

## The Board of Trustees has 12 members:

six representing the employees, four of whom are appointed by OPSEU, one by OCASA, and one on a rotating basis by the employee organizations; and six representing the employers, who are appointed by the College Employer Council on behalf of the college boards of governors.

## Members of the Board of Trustees

**Darryl Bedford**, Vice-Chair, Employee Trustee; **Scott Blakey**, Employer Trustee; **Rasho Donchev**, Employee Trustee; **Harry Gibbs**, Employer Trustee; **Bill Kuehnbaum**, Employee Trustee; **Alnasir Samji**, Employer Trustee; **Michael Seeger**, Employee Trustee; **Don Smith**, Employee Trustee; **Beverley Townsend**, Chair, Employer Trustee; **Gretchen Van Riesen**, Employer Trustee; **Donald Wright**, Employee Trustee.

There was one vacancy on the Board of Trustees at the start of 2016. **Gretchen Van Riesen** assumed her responsibilities on July 20, 2015. **Rasho Donchev** was appointed effective September 1, 2015. **Bill Kuehnbaum** was appointed effective January 1, 2016.

**Stephen Campbell** served as an Employer Trustee from 2013 to 2015 and as an OCASA representative on the Sponsors' Committee from 1995 to 2012. **Alec Ip** served as Employee Trustee from 2004 to 2015; **George Lowes** served as an Employee Trustee from 2014 to 2015. **Deb McCarthy** served as an Employer Trustee during 2015.



Alnasir Samji, Donald Wright, Michael Seeger, Don Smith, Beverley Townsend, Darryl Bedford, Gretchen Van Riesen, Scott Blakey, Harry Gibbs, Rasho Donchev.  
Not shown: Bill Kuehnbaum.

Equal representation and voting extends to these subcommittees of the Board of Trustees that make recommendations to the Board in particular areas of focus:

**Appeals Subcommittee** – hears member appeals of the interpretation of Plan rules.

**Audit Committee** – reviews the effectiveness of the organization in controlling and managing risk. It ensures the reliability of financial reporting and reviews the annual financial statements. It recommends the appointment of the external auditor and receives the auditor's report. The committee also maintains a protected disclosure policy for Plan staff and governors and has the authority to retain independent counsel to advise or assist in the conduct of an investigation.

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### Governing policies reviewed or amended in 2015

Board of Trustees Code of Conduct

Board of Trustees Education Policy

Budget Expense Policy

Guidelines for the Selection of Members of the Board of Trustees

Member Settlement Policy

Portfolio Implementation Policies and Procedures

Sponsors' Committee Education Policy

Sponsors' Committee Member Expense Policy Guidelines

Statement of Investment Policies and Procedures

Trustee Committee Member Expense Policy Guidelines

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### Finance and Administration

**Committee** – is concerned with Plan design, funding and administration, legislation, litigation, and the appointment and evaluation of actuarial and legal advisors. This committee also provides oversight of human resources and information systems and reviews the operations, project, and capital budgets for the Plan.

**Investment Committee** – develops and recommends the Statement of Investment Policies and Procedures and related policies such as those concerning rebalancing, responsible investing, and investments in derivatives. It reviews compliance with investment policies and the performance of the fund. It also recommends the appointment of the custodian.

### Plan Equity Review Task Force

As part of delivering value, the Plan considers fairness among generations and member groups when making decisions about contribution rates and benefits. A Plan Equity Review Task Force, established in late 2014, held meetings throughout 2015 and in early 2016 to examine a number of Plan provisions to determine if equity of certain provisions could be improved. The task force was a joint committee of representatives from the Board of Trustees and the Sponsors' Committee.

The task force recommended changes to two Plan provisions that are described on page 14.

### Sponsorship and Trust Agreement amendment

The Sponsorship and Trust Agreement was amended by the Plan sponsors effective November 1, 2015. This amendment saw the College Employer Council assume responsibility from Colleges Ontario for CAAT Plan governor appointments on behalf of college boards of governors.

### Good governance, grounded in policy and knowledge

#### Rigorous policies

In carrying out their responsibilities, Plan governors are guided by numerous policies. They conduct scheduled reviews of those policies to ensure they remain relevant and up-to-date with the environment in which the Plan operates. The policies reviewed or amended during 2015 are listed at left.

#### Education

New governors receive an orientation and materials for self-education and all governors receive education sessions during regular meetings and at an annual two-day retreat. During 2015 these sessions, delivered by senior staff and other industry experts, covered the role of trust, risk assessment, stakeholder expectations, trends in higher education and staffing, and the nature of retirement.

Members of the Investment Committee also took part in sessions about investment strategies and risk.

Plan governors also attend and report on pension industry conferences throughout the year.

# MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

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The financial statements of the Colleges of Applied Arts and Technology Pension Plan (the "Plan" or "CAAT Pension Plan") have been prepared by management, which is responsible for the integrity and fairness of the data presented. The accounting policies followed in the preparation of these financial statements are in accordance with Canadian accounting standards for pension plans. Many amounts are based on the best estimates and judgements of management with appropriate consideration as to materiality. The Board of Trustees retained Mercer (Canada) Limited as external actuaries to provide an actuarial valuation of the assets and the going concern liabilities of the Plan for inclusion in the financial statements. The financial statements have been approved by the Board of Trustees.

CAAT Pension Plan maintains books of account, systems of information, and systems of financial and management control, which provides reasonable assurance that accurate financial statement information is available, that assets are protected and that resources are managed efficiently. These systems include careful hiring and training of staff, a code of conduct, the establishment of an organizational structure that provides a well-defined division of responsibilities, and the communication of policies and guidelines through the organization.

The Board of Trustees is ultimately responsible for the financial statements of the CAAT Pension Plan. The Board of Trustees oversees financial reporting through its Audit Committee. The committee reviews matters related to accounting, auditing, internal control systems, the financial statements, and reports of the external auditors.

The Plan's external auditors, Deloitte LLP, are directly accountable to the Audit Committee and have full and unrestricted access to the committee. They discuss with the committee their audit and related findings as to the integrity of the Plan's financial reporting and adequacy of internal control systems in the context of their financial statement audit. Deloitte LLP have conducted an independent examination of the financial statements in accordance with Canadian generally accepted auditing standards, performing such tests and other procedures as they considered necessary to express their opinion.



**Derek W. Dobson,**  
*CEO and Plan Manager*



**Kevin Rorwick,**  
*Chief Financial Officer*

April 25, 2016

# INDEPENDENT AUDITOR'S REPORT

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To the Administrator of the Colleges of Applied Arts and Technology Pension Plan (the "Plan")

We have audited the accompanying financial statements of the Plan which comprise the statement of financial position as at December 31, 2015, and the statements of changes in net assets available for benefits, changes in pension obligations and changes in surplus for the year then ended, and a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Plan as at December 31, 2015, and the changes in its net assets available for benefits, changes in its pension obligations and changes in its surplus for the year then ended in accordance with Canadian accounting standards for pension plans.



Chartered Professional Accountants  
Licensed Public Accountants  
Toronto, Ontario

April 25, 2016

# CAAT PENSION PLAN

## ACTUARIES' OPINION

Mercer (Canada) Limited was retained by the Colleges of Applied Arts and Technology Pension Plan Board of Trustees (the "Board") to perform an actuarial valuation of the assets and the going concern liabilities of the Colleges of Applied Arts and Technology Pension Plan (the "Plan") as at December 31, 2015, for inclusion in the Plan's financial statements.

The valuation of the Plan's actuarial liabilities was based on:

- Plan provisions in effect as December 31, 2015;
- membership data provided by the Board as at December 31, 2014;
- methods prescribed by Section 4600 of the Chartered Professional Accountants of Canada Handbook for pension plan financial statements; and
- assumptions about future events (for example, returns on assets, inflation levels, future retirement rates) which have been communicated to us as the Board's best estimate of these events.

The objective of the financial statements is to fairly present the financial position of the Plan on December 31, 2015 as a going concern. This is different from the regulatory valuation (the actuarial valuation required by the Pension Benefits Act (Ontario)), which establishes a prudent level for future contributions.

While the actuarial assumptions used to estimate liabilities for the Plan's financial statements represent the Board's best estimate of future events based on market conditions at the end of 2015, and while in our opinion these assumptions are reasonable, the Plan's future experience will inevitably differ, perhaps significantly, from the actuarial assumptions. Any differences between the actuarial assumptions and future experience will emerge as gains or losses in future valuations, and will affect the financial position of the Plan, and the contributions required to fund it, at that time.

We have tested the data for reasonableness and consistency, and we believe it to be sufficient and reliable for the purposes of the valuation. We also believe that the methods employed in the valuation are appropriate for the purposes of the valuation, and that the assumptions used in the valuation are in accordance with accepted actuarial practice. Our opinions have been given, and our valuation has been performed, in accordance with accepted actuarial practice in Canada.



Manuel Monteiro, F.C.I.A.



Paul Christiani, F.C.I.A.

April 25, 2016

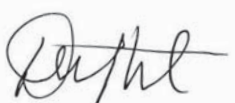


# STATEMENT OF FINANCIAL POSITION

|                                                                             | December 31         |                     |
|-----------------------------------------------------------------------------|---------------------|---------------------|
| (\$ thousands)                                                              | 2015                | 2014                |
| <b>ASSETS</b>                                                               |                     |                     |
| Investment assets                                                           |                     |                     |
| Investments (Note 3)                                                        | \$ 9,022,697        | \$ 8,143,337        |
| Accrued income                                                              | 20,851              | 15,304              |
| Unsettled trades receivable                                                 | 149,431             | 141,024             |
| Derivative-related receivables (Note 5)                                     | 10,361              | 26,324              |
| Employer contributions receivable (Note 11)                                 | 16,793              | 13,341              |
| Member contributions receivable (Note 11)                                   | 16,793              | 13,447              |
| Other assets (Note 7)                                                       | 5,872               | 6,384               |
|                                                                             | <b>9,242,798</b>    | <b>8,359,161</b>    |
| <b>LIABILITIES</b>                                                          |                     |                     |
| Investment liabilities                                                      |                     |                     |
| Unsettled trades payable                                                    | 445,737             | 312,235             |
| Derivative-related liabilities (Note 5)                                     | 190,998             | 68,492              |
| Accounts payable and accrued liabilities (Note 8)                           | 13,762              | 13,631              |
|                                                                             | <b>650,497</b>      | <b>394,358</b>      |
| <b>Net assets available for benefits</b>                                    | <b>\$ 8,592,301</b> | <b>\$ 7,964,803</b> |
| <b>Pension obligations (Note 9)</b>                                         | <b>8,368,251</b>    | <b>8,052,169</b>    |
| Regulatory surplus (Note 10)                                                | 1,179,072           | 773,004             |
| Measurement differences between regulatory and accounting deficit (Note 10) | (955,022)           | (860,370)           |
| <b>Surplus (deficit)</b>                                                    | <b>\$ 224,050</b>   | <b>\$ (87,366)</b>  |

The accompanying notes to the financial statements are an integral part of this financial statement.

Approved by the Board of Trustees, Colleges of Applied Arts and Technology Pension Plan



Donald Wright,  
Chair



Beverley Townsend,  
Vice-Chair

## STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

|                                                             | Year ended December 31 |                     |
|-------------------------------------------------------------|------------------------|---------------------|
| (\$ thousands)                                              | 2015                   | 2014                |
| <b>Increase in net assets available for benefits</b>        |                        |                     |
| Contributions (Note 11)                                     | \$ 432,071             | \$ 417,123          |
| Investment income (Note 12)                                 | 621,481                | 807,634             |
|                                                             | <b>1,053,552</b>       | <b>1,224,757</b>    |
| <b>Decrease in net assets available for benefits</b>        |                        |                     |
| Benefits (Note 13)                                          | 406,314                | 368,601             |
| Investment administration expenditures (Note 14)            | 5,992                  | 5,665               |
| Pension administration expenditures (Note 14)               | 13,748                 | 12,824              |
|                                                             | <b>426,054</b>         | <b>387,090</b>      |
| <b>Net increase in net assets available for benefits</b>    | <b>627,498</b>         | <b>837,667</b>      |
| <b>Net assets available for benefits, beginning of year</b> | <b>7,964,803</b>       | <b>7,127,136</b>    |
| <b>Net assets available for benefits, end of year</b>       | <b>\$ 8,592,301</b>    | <b>\$ 7,964,803</b> |

## STATEMENT OF CHANGES IN PENSION OBLIGATIONS

|                                                                   | Year ended December 31 |                     |
|-------------------------------------------------------------------|------------------------|---------------------|
| (\$ thousands)                                                    | 2015                   | 2014                |
| <b>Accrued pension obligations, beginning of year</b>             | <b>\$ 8,052,169</b>    | <b>\$ 7,669,567</b> |
| <b>Increase in accrued pension obligations (Notes 9 &amp; 10)</b> |                        |                     |
| Interest on accrued benefits                                      | 469,075                | 447,324             |
| Benefits accrued                                                  | 238,481                | 227,210             |
| Changes in actuarial assumptions                                  | (38,038)               | 37,663              |
| Experience losses                                                 | 52,878                 | 39,006              |
|                                                                   | <b>722,396</b>         | <b>751,203</b>      |
| <b>Decrease in accrued pension obligations</b>                    |                        |                     |
| Benefits paid (Note 13)                                           | 406,314                | 368,601             |
| <b>Net increase in accrued pension obligations</b>                | <b>316,082</b>         | <b>382,602</b>      |
| <b>Accrued pension obligations, end of year</b>                   | <b>\$ 8,368,251</b>    | <b>\$ 8,052,169</b> |

The accompanying notes to the financial statements are an integral part of this financial statement.

# STATEMENT OF CHANGES IN SURPLUS

|                                               | Year ended December 31 |                     |
|-----------------------------------------------|------------------------|---------------------|
| (\$ thousands)                                | 2015                   | 2014                |
| <b>Deficit, beginning of year</b>             | <b>\$ (87,366)</b>     | <b>\$ (542,431)</b> |
| Increase in net assets available for benefits | <b>627,498</b>         | 837,667             |
| Net increase in accrued pension obligations   | <b>(316,082)</b>       | (382,602)           |
| <b>Surplus (deficit), end of year</b>         | <b>\$ 224,050</b>      | <b>\$ (87,366)</b>  |

The accompanying notes to the financial statements are an integral part of these financial statements.

## NOTES TO FINANCIAL STATEMENTS

### NOTE 1: DESCRIPTION OF THE PLAN

The Colleges of Applied Arts and Technology Pension Plan (the "Plan" or "CAAT Pension Plan") is a multi-employer jointly sponsored pension plan covering employees of the twenty-four Colleges of Applied Arts and Technology in Ontario, and other related employers. The following description of the Plan is a summary only. A complete description of the Plan provision can be found in the Colleges of Applied Arts and Technology Pension Plan Text, the official Plan document.

#### General

The Plan is a contributory defined benefit pension plan with benefits being financed by equal contributions from participating employees and employers, and by investment earnings. The Plan has three sponsors: The College Employer Council (previously Colleges Ontario), acting on behalf of the Boards of Governors of the colleges, the Ontario College Administrative Staff Association ("OCASA") and the Ontario Public Service Employees Union ("OPSEU").

The Plan is registered under the Ontario Pension Benefits Act with the Financial Services Commission of Ontario ("FSCO") and the Canada Revenue Agency (Registration Number 0589895) as a registered pension plan not subject to income taxes.

A separate supplementary plan exists to provide benefits to the Plan's members (other than Board staff) who are impacted by benefit restrictions under the Income Tax Act (Canada). Because the supplementary plan is a separate trust, the net assets of the supplementary plan are not included in the financial statements of the Plan. The Plan has no liabilities with respect to insufficient funding (if any) of the supplementary plan.

#### Funding

Plan benefits are funded by contributions and investment earnings. The Plan's funding policy aims to secure the pension promise and achieve long-term stability in contribution rates for both employers and members. Actuarial funding valuations are

conducted to determine pension liabilities and the funded position of the Plan, based on contribution and benefit levels approved by the Sponsors' Committee.

#### Retirement Pensions

A retirement pension is available based on the number of years of credited service, the average of the best five consecutive annual salaries and the age of the member at retirement. A member is eligible for an unreduced pension at the earlier of i) age 65, ii) as soon as the sum of their age plus pensionable service totals at least 85, or iii) at age 60 with at least 20 years of pensionable service. Members may retire before this date with a reduced pension, subject to eligibility requirements.

#### Death Benefits

Upon the death of the member or pensioner, benefits may be payable to a surviving eligible spouse, eligible children, a designated beneficiary or the member's or pensioner's estate.

**Portability**

Members vest immediately upon joining the Plan and are entitled to a deferred pension if they terminate employment with their employer prior to retirement.

Members not eligible for an immediate pension may opt to transfer the commuted value of their benefit to another pension plan if that plan permits, or registered retirement vehicle after two years from the date of their last contribution, subject to locking-in provisions and certain age restrictions.

**Escalation of benefits**

Pension benefits in pay on the portion of a pension based on service after 1991 are

increased in January each year for inflation at 75% of the increase in the average Consumer Price Index as at September 30th of the prior year, subject to a maximum pension increase of 8% in any one year with any excess carried forward. Inflation adjustments on the portion of a pension based on service after 2007 is conditional on the Plan's funding position.

**Funding Policy**

The Plan's funding policy determines the use of any funding surplus as determined by the last filed actuarial valuation. In the event of a going concern funding surplus, the policy provides for the build-up of contingency reserves, and/or specified

decreases to contribution rates, and/or inflation adjustments for pre-1992 and post-2007 service pensions. In the event a funding deficit is determined, inflation protection on post-2007 service would not be paid, and a decrease in future benefit accruals and/or an increase in contribution rates is required. In accordance with an agreement with the Province of Ontario, the funding policy includes temporary measures in effect for valuations filed on or before December 30, 2017 for which in the event a funding deficit is determined, there would be no increases to contributions beyond current levels and that future benefit accruals would be reduced.

**NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES****Basis of Presentation**

These financial statements present the information of the Plan, as a separate financial reporting entity independent of the sponsors and Plan members, in Canadian dollars.

These financial statements have been prepared in accordance with Canadian accounting standards for pension plans (Section 4600 – Pension Plans of the Chartered Professional Accountants of Canada ("CPA Canada") Handbook - Accounting ("Section 4600")). As required under Section 4600, the Plan has valued and made certain disclosures on financial instruments in accordance with International Financial Reporting Standards (see below and Note 6). Accounting standards for private enterprises in Part II of the CPA Canada Handbook – Accounting are used for accounting policies that do not relate to the Plan's investment portfolio or pension obligations, to the extent that those standards do not conflict with the requirements of Section 4600.

**Investments**

Purchases and sales of investments are recorded as of the trade date and are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The fair value of investments is determined as follows:

- Short-term investments are valued at cost adjusted for foreign exchange, which in conjunction with accrued interest receivable, approximates fair value.
- Publicly traded equity securities are valued at the closing market price. Where a market price is not available, fair value is determined by reference to current market information.
- Fixed income securities are valued using an average of closing bids from market participants.

- Investments in underlying funds are valued using net asset values obtained from the managers of the fund, which are determined with reference to the fair value of the underlying investments of the fund.
- Infrastructure and private equity investments are held through ownership in limited partnership arrangements. Fair value is determined by the limited partnership's manager, using the most recent financial information obtained from underlying investments, and/or forecasts of future financial performance and then applying appropriate valuation techniques such as market and/or discounted cash flows. Underlying infrastructure investments are often valued using estimated future cash flows to the investor which are then discounted, reflecting an extended cash flow forecasting period and a higher predictability of cash flows.

- The fair value of real estate investments is determined by the external manager using the most recent financial information obtained from the individual property managers. Valuations are based primarily on the discounted cash flow and income capitalization methods.
- Derivative financial instruments are recorded at fair value using pricing models generally used by market participants. The fair value is provided by established pricing vendors and is determined using valuation models requiring the use of inputs and assumptions based on observable market data including volatility and other applicable rates or prices as well as the impact of counterparty credit risk where applicable. In limited circumstances, the fair value input/assumptions may not be supported by observable market data.

### Investment Income

Realized gains and losses on the sale of investments are determined using the average cost of securities sold. The change in the difference between fair value and the cost of investments at the beginning and end of each year is recorded as change in unrealized appreciation (depreciation) of investments. Interest, dividends, and distributions from pooled funds, are recorded on the accrual basis. Dividend income is accrued as of the ex-dividend date.

Transaction costs are incremental costs directly attributable to the purchase or sale of investments. Transaction costs incurred are expenses and are recorded separately as a deduction from Investment Income.

### Foreign Exchange

Transactions denominated in foreign currencies are translated into Canadian dollars at the rates of exchange in effect on the dates of the transactions. The market value of foreign currency denominated assets and liabilities is translated using the year-end rates of exchange. The resulting gains and losses from changes in these rates are recorded as part of the realized gain (loss) for investments sold and as part of the change in unrealized appreciation (depreciation) of investments held at year-end.

### Contributions

Contributions due to the Plan are recorded on an accrual basis.

### Benefits

Payments of pensions, refunds and transfers out of the Plan are recorded in the period in which they are paid. Any benefit payment accruals not made are reflected in pension obligations.

### Pension Obligations

The value of accrued pension benefits payable in the future to members and changes therein during the year are based on an actuarial valuation prepared by an independent firm of actuaries. The valuation is made as at the beginning of the year and then extrapolated to year end. It uses the projected benefit method pro-rated on service and best estimate assumptions, as at the valuation date, of various economic and non-economic future events.

### Use of Estimates

Preparation of the financial statements requires management to make estimates and assumptions based on the information available as at the date of the financial statements that affect the reported values of assets and liabilities, and related income and expenses. Such estimates and assumptions affect primarily the value of recorded pension obligations and the fair value of investments and investment related receivables and liabilities. Actual results could differ from those presented.

### Income Taxes

The Plan is exempt from Part 1 tax under paragraph 149(1)(o) of the Income Tax Act (Canada).

### Future Accounting Pronouncement – IFRS 9 Financial Instruments

IFRS 9 replaces IAS 39 Financial Instruments: Recognition and Measurement and shall be applied to annual periods after 1 January 2018. IFRS 9 establishes principles for the financial reporting of financial assets and financial liabilities that will present information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. The Plan is currently assessing the impact of IFRS 9, however the extent of the impact has not yet been determined.

**NOTE 3 – INVESTMENTS****3(a) – Summary of Investments**

| (\$ thousands)         | 2015                |                     | 2014                |                     |
|------------------------|---------------------|---------------------|---------------------|---------------------|
|                        | Fair Value          | Cost                | Fair Value          | Cost                |
| Short-term investments | \$ 807,462          | \$ 785,847          | \$ 714,044          | \$ 707,299          |
| Fixed income (Note 3b) | 2,459,032           | 2,328,363           | 2,259,079           | 2,054,674           |
| Equities (Note 3c)     | 4,267,139           | 3,564,111           | 4,051,945           | 3,414,282           |
| Infrastructure         | 599,613             | 428,198             | 399,853             | 324,471             |
| Real estate            | 418,634             | 261,311             | 407,172             | 257,769             |
| Private equity         | 470,817             | 286,997             | 311,244             | 222,402             |
|                        | <b>\$ 9,022,697</b> | <b>\$ 7,654,827</b> | <b>\$ 8,143,337</b> | <b>\$ 6,980,897</b> |

**3(b) – Fixed Income**

Investments in fixed income include the following issuers:

| (\$ thousands)         | 2015                |                     | 2014                |                     |
|------------------------|---------------------|---------------------|---------------------|---------------------|
|                        | Fair Value          | Cost                | Fair Value          | Cost                |
| Government of Canada   | \$ 931,820          | \$ 868,535          | \$ 823,277          | \$ 736,123          |
| Provincial Governments | 1,012,224           | 964,907             | 1,016,027           | 936,249             |
| Municipal Governments  | 14,079              | 14,368              | 15,135              | 13,758              |
| Corporate              | 404,037             | 401,536             | 315,188             | 287,278             |
| Foreign                | 96,872              | 79,017              | 89,452              | 81,266              |
| <b>Fixed Income</b>    | <b>\$ 2,459,032</b> | <b>\$ 2,328,363</b> | <b>\$ 2,259,079</b> | <b>\$ 2,054,674</b> |

Government bonds include those issued or guaranteed by the government.

The maturity of investments in fixed income as at December 31 is as follows:

|                           | 2015                | 2014                |
|---------------------------|---------------------|---------------------|
|                           | Fair Value          | Fair Value          |
| 1 – 5 years               | \$ 238,629          | \$ 34,558           |
| 6 – 10 years              | 382,116             | 207,649             |
| 11 – 20 years             | 660,395             | 704,967             |
| Greater than 20 years     | 1,177,892           | 1,311,905           |
| <b>Total Fixed Income</b> | <b>\$ 2,459,032</b> | <b>\$ 2,259,079</b> |

**3(c) – Equity Investments**

Canadian and non-Canadian equities include securities issued and traded in the following geographical regions:

|                                      | 2015                         |              | 2014                         |              |
|--------------------------------------|------------------------------|--------------|------------------------------|--------------|
|                                      | Fair Value<br>(\$ thousands) | %            | Fair Value<br>(\$ thousands) | %            |
| United States                        | \$ 1,466,246                 | 34.5         | \$ 1,201,789                 | 29.7         |
| Canada                               | 620,003                      | 14.5         | 1,040,931                    | 25.7         |
| Europe (excluding<br>United Kingdom) | 704,456                      | 16.5         | 537,287                      | 13.3         |
| United Kingdom                       | 184,741                      | 4.3          | 115,255                      | 2.8          |
| Japan                                | 425,440                      | 10.0         | 310,925                      | 7.7          |
| Other Asia / Pacific                 | 679,956                      | 15.9         | 656,004                      | 16.2         |
| Latin America                        | 82,438                       | 1.9          | 93,602                       | 2.3          |
| Other                                | 103,859                      | 2.4          | 96,152                       | 2.3          |
| <b>Total Equity</b>                  | <b>\$ 4,267,139</b>          | <b>100.0</b> | <b>\$ 4,051,945</b>          | <b>100.0</b> |

**3(d) – Summary of Significant Investments**

At December 31, 2015 the Plan held the following investments each having a fair value or cost exceeding 1% of the fair value or cost of total investments:

| (\$ thousands)                                       | Fair Value | Cost       |
|------------------------------------------------------|------------|------------|
| <b>Short-Term Investments</b>                        |            |            |
| United States Treasury Bills                         | \$ 355,156 | \$ 340,704 |
| <b>Fixed income</b>                                  |            |            |
| Canada Housing Trust No. 1                           | \$ 91,458  | \$ 91,570  |
| CIBC Pooled Long-Term Bond Index Fund                | 190,874    | 190,987    |
| Government of Canada Bonds                           | 785,779    | 722,993    |
| Province of Ontario Bonds                            | 407,977    | 391,982    |
| Province of Quebec Bonds                             | 283,611    | 261,063    |
| <b>Equities</b>                                      |            |            |
| Acadian Emerging Market Small-Cap Fund               | \$ 99,005  | \$ 102,012 |
| BlackRock Global Fixed Income Alpha Offshore Fund A1 | 291,442    | 211,739    |
| Bridgewater Pure Alpha Fund II                       | 218,442    | 128,437    |
| GMO Emerging Domestic Opportunities Fund IV          | 335,612    | 286,420    |
| SPDR S&P 500 ETF Trust                               | 96,608     | 73,941     |
| <b>Real estate</b>                                   |            |            |
| Greystone Real Estate Fund                           | \$ 356,011 | \$ 207,873 |

**3(e) – Securities Lending**

The Plan engages in securities lending to enhance portfolio returns. Credit risk associated with securities lending is mitigated by requiring the borrower to provide daily collateral in the form of cash and readily marketable investments of greater market value than the securities loaned. As at December 31, 2015, the Plan's investments included loaned securities with a fair value of \$1,310,705 thousand (2014 - \$1,549,784 thousand). The fair value of collateral received in respect of these loans was \$1,375,170 thousand (2014 - \$1,615,487 thousand). Net income earned from securities lending for the year was \$3,609 thousand (2014 - \$2,601 thousand) and is included in Other Income in Note 12.

**NOTE 4: CAPITAL AND INVESTMENT RISK MANAGEMENT**

The Plan defines its capital as the excess or deficiency of net assets available for benefits over pension obligations. Net assets available for benefits, consisting of investments and other assets, are managed to fund future pension obligations. The extent that net assets available for benefits are greater than or less than pension obligations is reflected respectively as surplus or deficit. The objective of managing the Plan's capital is to ensure that the Plan is fully funded on a going-concern basis to pay the Plan's benefits over the long term.

The primary risks associated with the measurement of pension obligations are changes in the key assumptions used. The

investment return assumption reflects estimated future investment returns and is sensitive to long-term interest rates. The salary escalation rate is subject to future wage settlements and inflation. Longevity and retirement assumptions are important as they impact the number of expected pension payments to members. The Board of Trustees monitors the reasonableness of such assumptions, and adjusts them as required.

The objective of investment risk management is to achieve a diversifying of risks and returns in a fashion that minimizes the likelihood of an overall reduction in total fund value and maximizes the opportunity for gains over the entire portfolio. This is

achieved through asset diversification to limit exposure to any single issuer or component in the capital markets.

Investment risk management relates to the understanding and active management of risks associated with invested assets. Investments are primarily exposed to currency, interest rate, market, credit and liquidity risk. The Plan first established a Statement of Investment Policies and Goals (now named Statement of Investment Policies and Procedures - the "Statement") in July 1996 which addresses the manner in which funds can be invested. The Statement requires diversification of investments within asset classes and sets limits on the exposure

to individual investments. Investments are selected and held in accordance with the criteria and limitations set forth within the Statement and in accordance with relevant legislation. The Board of Trustees approves the policies in the Statement and reviews them at least annually. The Statement was last reviewed on December

1, 2015 whereby, in addition to additional language around environmental, social and governance investing, the allocation

ranges for Infrastructure, Private Equity, and Real Estate as a percentage of total investments were changed as follows:

|                | Prior asset allocation range | Revised asset allocation range |
|----------------|------------------------------|--------------------------------|
| Infrastructure | Actual to 12%                | 5 to 15%                       |
| Real Estate    | 3 to 7%                      | 2 to 10%                       |
| Private Equity | Actual to 7%                 | 2 to 10%                       |

The Statement designates ten broad classes of assets (nine assets classes for 2014). A set of benchmarks has been identified to measure performance against each class' annual rate of investment return. The total investments annual rate of return is measured against a composite index made up of the weighted average of each class' benchmark return using the actual allocation of assets to weight the various classes. The Plan's relative annual rate of return expectation is to equal or exceed the composite index. Over a long-term period of at least ten years, the rate of return less inflation is expected to exceed 4.5%. The Plan's assets were allocated within the allowed allocation ranges as at December 31, 2015.

The asset allocation, including the effect of derivatives and associated benchmark index is as follows:

| Asset Class                       | Benchmark Index             | 2015                  |                   | 2014             |                   |
|-----------------------------------|-----------------------------|-----------------------|-------------------|------------------|-------------------|
|                                   |                             | Allocation Range      | Actual Allocation | Allocation Range | Actual Allocation |
| <b>Liability-hedging assets</b>   |                             | <b>38-48%</b>         | <b>43.1%</b>      | 38-48%           | 42.7%             |
| Nominal long bonds                | FTSE TMX Long Bond Index    | <b>10-30%</b>         | <b>15.7%</b>      | 10-30%           | 22.7%             |
| Nominal universe bonds            | FTSE TMX Universe Index     | <b>3-7%</b>           | <b>4.8%</b>       | Not applicable   | Not applicable    |
| Real-return bonds                 | Actual RRB portfolio return | <b>4-8%</b>           | <b>6.4%</b>       | 0-10%            | 5.7%              |
| Infrastructure                    | CPI + 5%                    | <b>5-15%</b>          | <b>7.0%</b>       | Actual - 12%     | 5.1%              |
| Real estate                       | IPD Canadian Property       | <b>2-10%</b>          | <b>4.9%</b>       | 3-7%             | 5.1%              |
| Commodities                       | S&P GSCI                    | <b>3-7%</b>           | <b>4.3%</b>       | 3-7%             | 4.1%              |
| <b>Return-enhancing assets</b>    |                             | <b>52-62%</b>         | <b>56.5%</b>      | 52-62%           | 56.9%             |
| Canadian equity                   | S&P/TSX Composite           | <b>6-10%</b>          | <b>7.8%</b>       | 11-15%           | 13.1%             |
| Global developed equity           | MSCI World ex Canada        | <b>30-40%</b>         | <b>33.2%</b>      | 25-35%           | 30.1%             |
| Emerging markets equity           | MSCI Emerging Markets       | <b>8-12%</b>          | <b>10.0%</b>      | 8-12%            | 9.8%              |
| Private equity                    | MSCI ACWI + 3%              | <b>2-10%</b>          | <b>5.5%</b>       | Actual - 7%      | 3.9%              |
| Cash, cash equivalents, and other | Not applicable              | <b>Not applicable</b> | <b>0.4%</b>       | Not applicable   | 0.4%              |
| <b>Total investments</b>          |                             |                       | <b>100.0%</b>     |                  | 100.0%            |



The annual rate of return for each asset class, gross of investment manager fees and net of transaction costs, as well as the annual rate of return of the associated benchmark, as at December 31 was as follows:

| Asset Class                      | 2015           |                  | 2014           |                  |
|----------------------------------|----------------|------------------|----------------|------------------|
|                                  | Rate of Return | Benchmark Return | Rate of Return | Benchmark Return |
| <b>Liability-hedging assets*</b> |                |                  |                |                  |
| Nominal long bonds               | 4.5%           | 3.8%             | 16.9%          | 17.5%            |
| Real-return bonds                | 3.2%           | 3.2%             | 11.8%          | 11.8%            |
| Infrastructure                   | 15.1%          | 6.4%             | 17.6%          | 7.0%             |
| Real estate                      | 8.1%           | 7.8%             | 6.2%           | 7.0%             |
| Commodities                      | (13.0%)        | (19.5%)          | (25.2%)        | (27.0%)          |
| <b>Return-enhancing assets</b>   |                |                  |                |                  |
| Canadian equity                  | (7.7%)         | (8.3%)           | 10.7%          | 10.6%            |
| Global developed equity          | 24.5%          | 20.0%            | 16.2%          | 14.5%            |
| Emerging markets equity          | 9.4%           | 2.0%             | 10.6%          | 6.6%             |
| Private equity                   | 50.3%          | 20.1%            | 32.7%          | 16.6%            |
| <b>Total investments</b>         | <b>9.0%</b>    | <b>5.0%</b>      | <b>12.3%</b>   | <b>10.1%</b>     |

\* Excludes nominal universe bonds as the allocation was in place for less than the full 2015 year. (There was no allocation to nominal universe bonds in 2014.)

### Currency Risk

Currency risk exposure arises from the Plan's holdings of foreign currency denominated investments where investment values fluctuate due to changes in foreign exchange rates. To manage this risk, the Plan has instituted currency hedging strategies as explained in Note 5. Currency exposures as at December 31 are as follows:

| (\$ thousands)         | 2015                |                     |                     | 2014                |
|------------------------|---------------------|---------------------|---------------------|---------------------|
|                        | Gross Exposure      | Hedged Amount       | Net Exposure        | Net Exposure        |
| United States Dollar   | \$ 3,480,464        | (\$ 1,593,316)      | \$ 1,887,148        | \$ 1,751,829        |
| Euro                   | 690,076             | (439,292)           | 250,784             | 148,635             |
| Japanese Yen           | 424,968             | (210,859)           | 214,109             | 137,156             |
| Hong Kong Dollar       | 152,527             | (25,809)            | 126,718             | 65,317              |
| Swiss Franc            | 58,924              | (28,031)            | 30,893              | 21,796              |
| British Pound Sterling | 195,139             | (111,750)           | 83,389              | 116,354             |
| Other currencies       | 377,765             | (88,681)            | 289,084             | 264,000             |
| <b>Total foreign</b>   | <b>5,379,863</b>    | <b>(2,497,738)</b>  | <b>2,882,125</b>    | <b>2,505,087</b>    |
| <b>Canadian Dollar</b> | <b>3,300,369</b>    | <b>2,384,111</b>    | <b>5,684,480</b>    | <b>5,440,175</b>    |
|                        | <b>\$ 8,680,232</b> | <b>(\$ 113,627)</b> | <b>\$ 8,566,605</b> | <b>\$ 7,945,262</b> |

The previous chart includes all investment assets and liabilities as shown on the Statement of Financial Position.

A 5% increase/decrease in exchange rate between the Canadian dollar and a foreign currency would result in a corresponding gain/loss of 5% of the net exposure to that currency. A 5% increase/decrease in exchange rate between the Canadian dollar and all foreign currencies as at December 31, 2015 would result in a gain/loss of \$144,106 thousand (2014 - \$125,254 thousand).

### Interest Rate Risk

Interest rate risk refers to the potential adverse effect on the fair value of the Plan's assets or liabilities due to fluctuations in interest rates. The values of the Plan's assets, liabilities and funded status are all affected by changes in both nominal and real interest rates.

Interest rate risk depends mainly on the timing and size of cash flows, and one measure of this risk is duration. Duration relates the impact of changing interest rates on assets and liabilities and is measured by calculating

the average timing of cash flows. More distant cash flows (longer duration) are more sensitive to changes in interest rates than cash flows in the shorter term.

As at December 31, 2015, the duration of the fixed income portfolio was 13.4 years (2014 - 13.9 years). If interest rates were to rise by 1%, the fair value of the fixed income portfolio would decline by approximately \$287 million (2014 - \$288 million). Conversely, if interest rates were to fall by 1%, the fair value of the fixed income portfolio would increase by approximately \$292 million (2014 - \$293 million).

See Note 10 for the impact of interest rate changes to the Plan's regulatory surplus.

### Equity Market Risk

Equity market risk is the risk that the value of a public equity asset class performs differently than its benchmark. A 10% change in the value of the benchmark would result in the following percentage change in the value of the public equity asset class as at December 31 based on the historical relationship of performance between the individual stocks in the portfolio and the benchmark:

| (\$ thousands)          | 2015     |             | 2014     |             |
|-------------------------|----------|-------------|----------|-------------|
|                         | % Change | Gain / Loss | % Change | Gain / Loss |
| Canadian equity         | 10.4%    | \$ 65,443   | 10.1%    | \$ 103,120  |
| Global developed equity | 10.0%    | \$ 307,058  | 10.0%    | \$ 249,065  |
| Emerging markets equity | 9.8%     | \$ 81,665   | 9.1%     | \$ 67,900   |

### Credit Risk

Credit risk refers to the risk of financial loss due to a counterparty failing to meet its contractual obligations. The Plan limits credit risk by investing in the debt of corporations that have a minimum credit rating of BBB or R-1 (short term) as determined by a recognized credit rating agency. Up to 5% of the market value of Fixed Income may be invested in high yield securities with a credit rating below BBB. The credit exposure to any single counterparty is limited to maximum amounts.

In addition, the Plan has credit risk associated with the positive fair values of derivative instruments, where the counterparty owes the Plan. The Plan manages this risk with its Policy on Investments in Derivative Instruments which limits investments in derivative investments to counterparties with a minimum credit rating of A from at least two recognized credit agencies. The Plan also indirectly guarantees the underlying reference obligations when writing credit derivatives. The maximum potential exposure is the notional amount of the written credit derivatives.

The following table presents the maximum exposure at December 31st to credit risk of balance sheet and off-balance sheet financial instruments, before taking account of any collateral held. The table includes financial assets subject to credit risk only; other financial assets, mainly equity securities, as well as non-financial assets are excluded.

| (\$ thousands)                       | 2015                | 2014         |
|--------------------------------------|---------------------|--------------|
| Short-term investments               | <b>\$ 807,462</b>   | \$ 714,044   |
| Fixed income                         | <b>2,459,032</b>    | 2,259,079    |
| Derivative-related receivables       | <b>10,361</b>       | 26,324       |
| Interest receivable                  | <b>12,090</b>       | 8,947        |
| Loaned securities                    | <b>1,310,705</b>    | 1,549,784    |
| Credit default derivatives – written | <b>2,790</b>        | 39,276       |
| <b>Total maximum exposure</b>        | <b>\$ 4,602,440</b> | \$ 4,597,454 |

The credit quality of the Plan's fixed income portfolio as at December 31st was as follows:

| (\$ thousands) | 2015                | 2014         |
|----------------|---------------------|--------------|
| AAA            | <b>\$ 1,057,374</b> | \$ 991,156   |
| AA             | <b>236,348</b>      | 507,936      |
| A              | <b>981,251</b>      | 603,537      |
| BBB or lower   | <b>184,059</b>      | 156,450      |
|                | <b>\$ 2,459,032</b> | \$ 2,259,079 |

### Liquidity Risk

Liquidity risk refers to the risk that the Plan does not have sufficient cash to meet its current liabilities, including benefit payments, and to acquire investments in a timely and cost-effective manner.

The Plan maintains a portfolio of highly marketable assets, specifically Canada and provincial government bonds that can be sold or funded on a secured basis as protection against any unforeseen interruption to cash flow. As at December 31, 2015, the fair value of such bonds held by the Plan was \$1,944,044 thousand (2014 - \$1,839,304 thousand). In addition, the Plan's portfolio of short-term investments of \$807,462 thousand (2014 - \$714,044 thousand) primarily represents cash or near cash assets that are available to meet payment obligations.

## NOTE 5: DERIVATIVE FINANCIAL INSTRUMENTS

A derivative financial instrument is a financial contract, the value of which is derived from changes in the value of underlying assets, indexes, interest rates or currency exchange rates. The use of derivatives as a substitute for direct market transactions entails risks similar to the actual purchase and sale of the security upon which the derivative is based. Derivative contracts are transacted either in the over-the-counter ("OTC") market or on regulated exchanges.

Notional amounts of derivative contracts represent the contractual amount to which a rate or price is applied in order to calculate the exchange of cash flows. It does not represent the potential gain, loss or net exposure associated with the market or credit risk of such transactions. Rather, it serves as the basis upon which the returns from, and the fair value of, the contracts are determined.

The Plan utilizes derivatives in the form of futures, foreign exchange forward contracts, swaps, options and credit derivatives as part of its investment strategy. The Plan uses derivatives to increase or decrease exposure to a market.

Derivative financial instruments are specifically used for:

- Reducing the cash exposure in the equity manager and operating accounts through the use of futures contracts. This is accomplished by converting cash exposure to capital markets exposure as per the Plan's long-term asset mix policy.
- Rebalancing of the actual asset class positions to the asset mix policy, within tolerance ranges, through the use of futures contracts and delayed settlement instruments. This strategy adjusts the weighting of asset classes using synthetic long and short positions.

- Foreign exchange forward contracts are used for short-term currency purchases or sales related to the execution of foreign currency denominated transactions. Foreign exchange forward contracts are also used for passive currency hedging (50% of non-Canadian equity holdings excluding emerging markets), for active currency strategies that increase or decrease the hedge ratio (within defined limits) in order to generate additional return, and for a 100% hedge on non-Canadian infrastructure and real estate investments.
- Derivative instruments such as interest rate swaps, credit default swaps, options and futures are used to gain exposure in markets where no physical securities are available or as risk neutral substitutes for physical securities. Options are utilized to gain exposure to the price volatility of an underlying security or index.

The chart below lists the types of derivative financial instruments employed by the Plan together with the corresponding notional and fair values.

| (\$ thousands)              | 2015                |                  |                     | 2014                |                  |                    |
|-----------------------------|---------------------|------------------|---------------------|---------------------|------------------|--------------------|
|                             | Notional Value      | Fair Value       |                     | Notional Value      | Fair Value       |                    |
|                             |                     | Positive         | Negative            |                     | Positive         | Negative           |
| <b>Equity</b>               |                     |                  |                     |                     |                  |                    |
| Futures                     | \$ 1,012,832        | \$ 2,022         | \$ (3,072)          | \$ 830,454          | \$ 21,587        | \$ (2,025)         |
| <b>Fixed Income</b>         |                     |                  |                     |                     |                  |                    |
| Futures                     | 863,994             | 1,592            | (403)               | 205,264             | 1,124            | (204)              |
| Swaps                       | 223,893             | 1,909            | (2,157)             | 236,598             | -                | (418)              |
| Options                     | -                   | -                | -                   | 70,778              | 1,174            | (1,346)            |
| <b>Currency</b>             |                     |                  |                     |                     |                  |                    |
| Forwards                    | 2,793,848           | -                | (113,632)           | 2,117,692           | -                | (11,520)           |
| Swaps                       | 1,130               | 647              | (673)               | -                   | -                | -                  |
| Options                     | -                   | -                | -                   | 8,043               | 1,028            | -                  |
| <b>Credit Default Swaps</b> |                     |                  |                     |                     |                  |                    |
| Purchased                   | 76,635              | 704              | (110)               | 29,302              | -                | (117)              |
| Written                     | 2,790               |                  | (386)               | 39,276              | 86               | (116)              |
| <b>Commodity</b>            |                     | -                |                     |                     |                  |                    |
| Futures                     | 370,933             | 3,188            | (70,545)            | 326,082             | 1,325            | (52,746)           |
| <b>Inflation</b>            |                     |                  |                     |                     |                  |                    |
| Swaps                       | 16,584              | 299              | (20)                | -                   | -                | -                  |
|                             | <b>\$ 5,362,639</b> | <b>\$ 10,361</b> | <b>\$ (190,998)</b> | <b>\$ 3,863,489</b> | <b>\$ 26,324</b> | <b>\$ (68,492)</b> |

The term to maturity based on notional value for the derivatives listed in the above table is as follows:

| (\$ thousands) | 2015                | 2014                |
|----------------|---------------------|---------------------|
| Under 1 year   | \$ 4,886,647        | \$ 3,609,372        |
| 1 to 5 years   | 382,313             | 183,259             |
| Over 5 years   | 93,679              | 70,858              |
|                | <b>\$ 5,362,639</b> | <b>\$ 3,863,490</b> |

**NOTE 6: INVESTMENT VALUATION**

International Financial Reporting Standards establish a three-tier hierarchy to classify the determination of fair value measurements for disclosure purposes. Inputs refer broadly to the data and assumptions that market participants would use in pricing the investment. Observable inputs are inputs that are based on market data from independent sources. Unobservable inputs are inputs that

reflect the Plan's own assumptions about the assumptions market participants would use in pricing an investment developed based on the best information available in the circumstances. The three-tier hierarchy of inputs is as follows:

**Level 1** – quoted prices in active markets for identical investments

**Level 2** – inputs other than quoted prices included in Level 1 that are observable for the investment, either directly (i.e. as prices) or indirectly (i.e. derived from prices)

**Level 3** – inputs for the investment that are not based on observable market data (unobservable inputs)

The following is a summary of the fair value classification levels for investment assets and derivative-related receivables and liabilities as at December 31:

| 2015                           |              |              |              |              |
|--------------------------------|--------------|--------------|--------------|--------------|
| (\$ thousands)                 | Level 1      | Level 2      | Level 3      | Total        |
| Short-term Investments         | \$ -         | \$ 807,462   | \$ -         | \$ 807,462   |
| Fixed Income                   | -            | 2,459,032    | -            | 2,459,032    |
| Equities                       | 3,255,641    | 1,011,498    | -            | 4,267,139    |
| Infrastructure                 | -            | -            | 599,613      | 599,613      |
| Real estate                    | -            | -            | 418,634      | 418,634      |
| Private equity                 | -            | -            | 470,817      | 470,817      |
| Derivative-related receivables | 6,802        | 3,559        | -            | 10,361       |
| Derivative-related liabilities | (74,020)     | (116,978)    | -            | (190,998)    |
|                                | \$ 3,188,423 | \$ 4,164,573 | \$ 1,489,064 | \$ 8,842,060 |

| 2014                           |              |              |              |              |
|--------------------------------|--------------|--------------|--------------|--------------|
| (\$ thousands)                 | Level 1      | Level 2      | Level 3      | Total        |
| Short-term Investments         | \$ -         | \$ 714,044   | \$ -         | \$ 714,044   |
| Fixed Income                   | -            | 2,259,079    | -            | 2,259,079    |
| Equities                       | 3,180,786    | 871,159      | -            | 4,051,945    |
| Infrastructure                 | -            | -            | 399,853      | 399,853      |
| Real estate                    | -            | -            | 407,172      | 407,172      |
| Private equity                 | -            | -            | 311,244      | 311,244      |
| Derivative-related receivables | 24,036       | 2,288        | -            | 26,324       |
| Derivative-related liabilities | (54,975)     | (13,517)     | -            | (68,492)     |
|                                | \$ 3,149,847 | \$ 3,833,053 | \$ 1,118,269 | \$ 8,101,169 |

There were no significant transfers of investments between Level 1 and Level 2 during 2015 or 2014.

Below is a reconciliation of investments in which significant unobservable inputs (Level 3) were used in determining fair value for the year ended December 31:

| 2015                   |                   |                   |                   |                     |
|------------------------|-------------------|-------------------|-------------------|---------------------|
| (\$ thousands)         | Infrastructure    | Real Estate       | Private Equity    | Total               |
| Opening Balance        | \$ 399,853        | \$ 407,172        | \$ 311,244        | \$ 1,118,269        |
| Acquisitions           | 124,712           | 54,476            | 124,554           | 303,742             |
| Dispositions           | (23,087)          | (75,436)          | (92,284)          | (190,807)           |
| Realized Gains         | 2,102             | 24,502            | 32,326            | 58,930              |
| Unrealized Gains       | 96,033            | 7,920             | 94,977            | 198,930             |
| <b>Closing Balance</b> | <b>\$ 599,613</b> | <b>\$ 418,634</b> | <b>\$ 470,817</b> | <b>\$ 1,489,064</b> |

| 2014                   |                   |                   |                   |                     |
|------------------------|-------------------|-------------------|-------------------|---------------------|
| (\$ thousands)         | Infrastructure    | Real Estate       | Private Equity    | Total               |
| Opening Balance        | \$ 296,532        | \$ 378,826        | \$ 183,217        | \$ 858,575          |
| Acquisitions           | 74,365            | 19,121            | 111,694           | 205,180             |
| Dispositions           | (26,877)          | (14,925)          | (48,810)          | (90,612)            |
| Realized Gains         | 9,581             | 3,574             | 16,546            | 29,701              |
| Unrealized Gains       | 46,252            | 20,576            | 48,597            | 115,425             |
| <b>Closing Balance</b> | <b>\$ 399,853</b> | <b>\$ 407,172</b> | <b>\$ 311,244</b> | <b>\$ 1,118,269</b> |

## NOTE 7: OTHER ASSETS

|                                 |                 | 2015                                    |                 | 2014            |
|---------------------------------|-----------------|-----------------------------------------|-----------------|-----------------|
| (\$ thousands)                  |                 | Accumulated Depreciation & Amortization | Net Book Value  | Net Book Value  |
| <b>Fixed Assets</b>             | <b>Cost</b>     |                                         |                 |                 |
| Systems software                | \$ 4,363        | \$ 1,015                                | \$ 3,348        | \$ 3,730        |
| Leasehold improvements          | 197             | 81                                      | 116             | 162             |
| Computer equipment              | 501             | 273                                     | 228             | 245             |
| Furniture, fixtures & equipment | 733             | 444                                     | 289             | 362             |
|                                 | <b>\$ 5,794</b> | <b>\$ 1,813</b>                         | <b>\$ 3,981</b> | <b>\$ 4,499</b> |

Other assets consist of fixed assets with a net book value of \$3,981 thousand (2014 - \$4,499 thousand), and miscellaneous receivables and prepaid expenses in the amount of \$1,891 thousand (2014 - \$1,885 thousand). Fixed assets are stated at cost and are depreciated or amortized on a straight-line basis over their useful lives.

## NOTE 8: ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Included in accounts payable and accrued liabilities is an accrual of \$6,302 thousand (2014 - \$6,106 thousand) for supplemental employment retirement benefits for Board staff based on pension entitlements which are in excess of registered pension plan maximums under the Income Tax Act (Canada).

**NOTE 9: PENSION OBLIGATIONS**

Pension obligations represent the value of accrued pension benefits payable in the future to members and are based on an actuarial valuation prepared by the Plan's Actuary. The valuation data used is as at the beginning of the year and then extrapolated to year end. It uses the projected benefit method pro-rated on service and management's best estimate of various economic and non-economic future events, as at the valuation date. Pension obligations include the value of inflation adjustments for post-2007 service to January 1, 2019 and exclude further increases thereafter. Pension obligations and the resulting surplus (deficit) for financial statement purposes are different than for regulatory purposes (refer to Note 10). Subsequent to year-end, a regulatory valuation was filed as at January 1, 2016. The next regulatory valuation is required to be filed no later than as at January 1, 2019.

Pension obligations as at December 31, 2015 were \$8,368,251 thousand (2014 – \$8,052,169 thousand).

**Actuarial Assumptions**

The actuarial assumptions used in determining the accounting value of pension obligations reflect management's best estimate of future economic events and non-economic assumptions. The non-economic assumptions include considerations such as mortality as

well as withdrawal and retirement rates.

The primary economic assumptions include the discount rate, salary escalation rate and inflation rate. The investment return is based on the long-term estimated net rate of return on investments, and reflects the Plan's asset mix and current market expectations. The inflation rate is the mid-point of the Bank of Canada's inflation target range of between 1% and 3%. The salary escalation rate incorporates the inflation rate assumptions and long-term expectation of growth in real wages. A summary of the primary economic assumptions, as at December 31, is as follows:

|                        | 2015  | 2014  |
|------------------------|-------|-------|
| Discount rate          | 5.70% | 5.80% |
| Salary escalation rate | 3.75% | 3.75% |
| Inflation rate         | 2.00% | 2.00% |
| Real discount rate     | 3.70% | 3.80% |

Changes in actuarial assumptions between 2014 and 2015 resulted in a decrease in the pension obligation of \$38,038 thousand to reflect updated demographic assumptions, offset in part by a 10 basis point decrease in the discount rate (between 2013 and 2014 – increase of \$37,663 thousand to reflect the inclusion of an assumption on the proportion of terminating members electing a lump sum payment).

**Experience Losses**

Experience losses represent the change in pension obligations due to the difference between actual economic and demographic experience and expected experience. During 2015, experience losses were \$52,878 thousand (2014 – losses of \$39,006 thousand). Experience losses in 2015 and 2014 stemmed from demographic experience losses offset in part by lower than assumed salary escalation and inflation.

**Plan Provisions**

Commencing on January 1, 2014, the contribution rate on contributory earnings (as defined by the Plan text) by both employers and employees is 11.2% up to the Year's Maximum Pensionable Earnings as determined by the federal government to determine Canada Pension Plan contributions ("YMPE") (\$53,600 in 2015 and \$52,500 in 2014) and 14.8% of contributory earnings in excess of the YMPE.

**NOTE 10 – SURPLUS (DEFICIT)**

The excess of net assets available for benefits against pension obligations results in the Plan being in a surplus of \$224,050 thousand as at December 31, 2015 (2014 – deficit of \$87,366 thousand). The surplus for financial statement purposes differs from the regulatory surplus.

The regulatory surplus, which is calculated in accordance with actuarial standards on a going-concern basis, is used to determine changes to contribution rates and/or benefits for future service in order to maintain the Plan in a regulatory surplus. The Plan is not required to fund solvency deficits. The regulatory surplus of the Plan as at December 31, 2015 which has been filed with FSCO subsequent to year end is \$1,179,072 thousand (2014 – surplus of \$773,004

thousand). A 25 basis point decrease in the discount rate assumption at December 31, 2015 would result in a decrease in the regulatory surplus of approximately \$385 million (2014 – \$410 million).

Measurement differences between the regulatory surplus and accounting surplus (deficit) in 2015 of \$955,022 thousand (2014 – \$860,370 thousand) are due to the difference in pension obligations between calculations based on the projected benefit method pro-rated on service valuation method used for financial statement purposes (where pension obligations are based on accrued service to the financial statement date), and the modified aggregate

valuation method used for regulatory purposes, where the present value of future contributions and future service benefits are also included. Because the present value of future contributions exceeds the present value of future service benefits, the regulatory surplus is increased. Also included in the difference in 2015 is a \$558,862 thousand deferred gain (2014 – \$578,958 thousand) actuarial asset value adjustment, whereby gains resulting from the difference between the actual and management's best estimate of the expected return of those investments over the long term are deferred and recognized over five years in determining the regulatory surplus.

**NOTE 11: CONTRIBUTIONS**

| (\$ thousands)                            | 2015              | 2014              |
|-------------------------------------------|-------------------|-------------------|
| <b>Members</b>                            |                   |                   |
| Current service                           | \$ 201,319        | \$ 195,223        |
| Past service                              | 5,895             | 6,923             |
| <b>Employers</b>                          |                   |                   |
| Current service                           | 201,319           | 195,223           |
| Past service                              | 3,577             | 3,815             |
| <b>Transfers from other pension plans</b> | 19,961            | 15,939            |
|                                           | <b>\$ 432,071</b> | <b>\$ 417,123</b> |

Employers are required to remit both the employer and member portion of contributions to the Plan within five business days of each month end and are charged interest on any contributions submitted late. Multi-employer pension plans such as the Plan are unable to determine if any contributions remain outstanding as they do not have regular access to underlying employee data. On an annual basis, the Plan reconciles service and earnings reported by employers to contributions received for each member, and adjustments are made for over or underpayments. As at December 31, 2015, \$16,793 thousand of employer contributions receivable and \$16,793 thousand of member contributions receivable (2014- \$13,341 thousand of employer contributions and \$13,447 thousand of member contributions) were collected in the following year.



**NOTE 12: INVESTMENT INCOME**

Investment income before the allocation of the net realized and unrealized gains on investments to investment classes, is as follows:

| (\$ thousands)                                   | 2015              | 2014       |
|--------------------------------------------------|-------------------|------------|
| Interest income                                  | <b>\$ 83,199</b>  | \$ 80,078  |
| Dividend income                                  | <b>112,480</b>    | 94,642     |
| Other income                                     | <b>4,324</b>      | 2,800      |
|                                                  | <b>200,003</b>    | 177,520    |
| Investment gains                                 |                   |            |
| Realized gain                                    | <b>404,233</b>    | 435,993    |
| Change in unrealized appreciation of investments | <b>93,001</b>     | 254,759    |
|                                                  | <b>497,234</b>    | 690,752    |
| Investment income prior to investment expenses   | <b>697,237</b>    | 868,272    |
| Investment management fees                       | <b>(70,233)</b>   | (54,858)   |
| Transaction costs                                | <b>(5,523)</b>    | (5,780)    |
|                                                  | <b>\$ 621,481</b> | \$ 807,634 |

Investment income (loss) by asset class after the allocation of derivative investments and prior to investment expenses is as follows:

| (\$ thousands)          | 2015                | 2014         |
|-------------------------|---------------------|--------------|
| Short-term investments* | <b>(\$ 331,314)</b> | (\$ 116,749) |
| Fixed income            | <b>107,025</b>      | 303,614      |
| Equities                | <b>632,323</b>      | 548,134      |
| Infrastructure          | <b>119,646</b>      | 46,759       |
| Real estate             | <b>32,782</b>       | 23,288       |
| Private equity          | <b>136,775</b>      | 63,226       |
|                         | <b>\$ 697,237</b>   | \$ 868,272   |

\* Includes losses on currency forwards and options and commodity futures of \$345,411 thousand (2014 - \$143,409 thousand)

**NOTE 13: BENEFITS**

| (\$ thousands)                        | 2015              | 2014       |
|---------------------------------------|-------------------|------------|
| Pensions                              | <b>\$ 372,351</b> | \$ 348,848 |
| Payments on termination of membership | <b>33,963</b>     | 19,753     |
|                                       | <b>\$ 406,314</b> | \$ 368,601 |

**NOTE 14: ADMINISTRATION EXPENDITURES**

## Investment Administration Expenditures

| (\$ thousands)                | 2015            | 2014     |
|-------------------------------|-----------------|----------|
| Salaries and benefits         | <b>\$ 2,925</b> | \$ 2,668 |
| Custodial fees                | <b>1,492</b>    | 1,286    |
| Other professional services   | <b>629</b>      | 770      |
| Premises and equipment        | <b>574</b>      | 576      |
| Communications and travel     | <b>207</b>      | 226      |
| Board and Sponsors' Committee | <b>72</b>       | 68       |
| Audit fees                    | <b>73</b>       | 71       |
| Actuarial fees                | <b>20</b>       | -        |
|                               | <b>\$ 5,992</b> | \$ 5,665 |

## Pension Administration Expenditures

| (\$ thousands)                | 2015             | 2014      |
|-------------------------------|------------------|-----------|
| Salaries and benefits         | <b>\$ 9,669</b>  | \$ 8,608  |
| Premises and equipment        | <b>2,690</b>     | 2,755     |
| Other professional services   | <b>256</b>       | 383       |
| Custodial fees                | <b>370</b>       | 344       |
| Communications and travel     | <b>401</b>       | 350       |
| Actuarial fees                | <b>217</b>       | 206       |
| Audit fees                    | <b>73</b>        | 110       |
| Board and Sponsors' Committee | <b>72</b>        | 68        |
|                               | <b>\$ 13,748</b> | \$ 12,824 |

**NOTE 15: COMMITMENTS**

The Plan has committed to invest in certain private equity, real estate and infrastructure funds, which may be funded in accordance with agreed upon conditions over the next several years. As at December 31, 2015, these commitments totalled \$824,200 thousand (2014 - \$550,082 thousand).

The Plan leases its office premises under an operating lease agreement that has an expiration date of November 29, 2017. Future lease payments over the remaining life of the leases total \$1,907 thousand, with the following amounts payable over the next two years: 2016 - \$1,040 thousand, and 2017 - \$867 thousand.

**NOTE 16: RELATED PARTY TRANSACTIONS**

Related parties to the Plan primarily include the Plan sponsors, each of the Colleges of Applied Arts and Technology in Ontario, and other related employers whose employees are participants in the Plan.

The Plan does not have any investments in any securities issued by related parties. The Plan, in the regular course of its business, reimburses colleges for the time and expenses their employees spend attending

Plan governance and related meetings as well as other services provided in the regular course of business. The total of such reimbursements to colleges in 2015 were \$54 thousand (2014 - \$49 thousand).

**NOTE 17: GUARANTEES AND INDEMNIFICATIONS**

The Plan provides indemnifications to its trustees, sponsor committee members and officers for various items including, but not limited to, all costs to settle suits or actions due to services provided by the Plan, subject to certain restrictions. The Plan maintains

Fiduciary and Directors & Officers insurance to mitigate the cost of any potential suits or actions. The contingent nature of the indemnification agreements prevents the Plan from making a reasonable estimate of the maximum potential payment that

the Plan could be required to make. To date, the Plan has not received any claims nor made any payments pursuant to such indemnifications.

**NOTE 18: SUBSEQUENT EVENT**

In late 2015 employees of The Royal Ontario Museum and The Royal Ontario Museum Foundation who are members of The Royal Ontario Museum Pension Plan ("ROM Pension Plan"), as well as retired members receiving a pension from the ROM Pension Plan voted to join the CAAT Pension Plan.

Effective January 1, 2016 all active members of the ROM Pension Plan became members of

the CAAT Pension Plan and started earning benefits and making contributions in accordance with CAAT Pension Plan provisions.

Subject to the approval of FSCO the investment assets and actuarial liabilities of the ROM Pension Plan will be transferred to and assumed by the CAAT Pension Plan. All retired members of the ROM Pension Plan would join the CAAT Pension Plan at the date

of transfer. As of December 31, 2015, the assets and going-concern actuarial liabilities of the ROM Pension Plan according to the Actuarial Cost Certificate prepared by the ROM Pension Plan's actuary were as follows:

Market value of assets: \$106,651 thousand

Going concern funding target liabilities: \$101,930 thousand.

# TEN-YEAR REVIEW (Unaudited)

|                                                        | 2015          | 2014          | 2013          | 2012          | 2011          | 2010          | 2009          | 2008           | 2007          | 2006          |
|--------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
| <b>FINANCIAL</b> (\$ in millions)                      |               |               |               |               |               |               |               |                |               |               |
| Short-term investments                                 | 808           | 714           | 709           | 562           | 288           | 501           | 249           | 174            | 161           | 192           |
| Fixed income                                           | 2,459         | 2,260         | 1,940         | 1,793         | 2,058         | 1,940         | 2,007         | 1,768          | 2,190         | 2,072         |
| Equities                                               | 4,267         | 4,052         | 3,838         | 3,290         | 2,750         | 2,635         | 2,309         | 2,214          | 3,101         | 3,177         |
| Infrastructure                                         | 600           | 400           | 297           | 237           | 217           | 162           | 146           | 130            | 84            | 34            |
| Real estate                                            | 419           | 407           | 379           | 339           | 301           | 241           | 138           | 39             | -             | -             |
| Private equity                                         | 471           | 311           | 183           | 119           | 47            | 29            | 13            | -              | -             | -             |
| Derivatives (net)                                      | (181)         | (42)          | 2             | -             | 20            | 19            | 22            | (18)           | 16            | (22)          |
| <b>Total investments</b>                               | <b>8,843</b>  | <b>8,102</b>  | <b>7,348</b>  | <b>6,340</b>  | <b>5,681</b>  | <b>5,527</b>  | <b>4,884</b>  | <b>4,307</b>   | <b>5,552</b>  | <b>5,453</b>  |
| Other assets (liabilities) (net)                       | (251)         | (137)         | (221)         | (80)          | (54)          | (75)          | (39)          | (74)           | (100)         | (101)         |
| <b>Net assets available for benefits</b>               | <b>8,592</b>  | <b>7,965</b>  | <b>7,127</b>  | <b>6,260</b>  | <b>5,627</b>  | <b>5,452</b>  | <b>4,845</b>  | <b>4,233</b>   | <b>5,452</b>  | <b>5,352</b>  |
| Contributions                                          | 432           | 417           | 368           | 355           | 312           | 296           | 262           | 227            | 186           | 167           |
| Investment income (loss)                               | 621           | 808           | 860           | 624           | 178           | 607           | 629           | (1,183)        | 159           | 628           |
| Benefit payments                                       | (406)         | (369)         | (344)         | (332)         | (302)         | (284)         | (267)         | (248)          | (237)         | (223)         |
| Administrative expenses                                | (20)          | (18)          | (18)          | (14)          | (13)          | (13)          | (12)          | (14)           | (8)           | (9)           |
| <b>Net change in net assets available for benefits</b> | <b>627</b>    | <b>838</b>    | <b>866</b>    | <b>633</b>    | <b>175</b>    | <b>606</b>    | <b>612</b>    | <b>(1,218)</b> | <b>100</b>    | <b>562</b>    |
| <b>RETURNS</b>                                         |               |               |               |               |               |               |               |                |               |               |
| Annual return, gross of fees                           | 9.0%          | 12.3%         | 14.5%         | 11.8%         | 4.1%          | 13.3%         | 15.2%         | (21.4)%        | 3.4%          | 13.6%         |
| Annual return, net of fees                             | 8.1%          | 11.5%         | 13.9%         | 11.3%         | 3.4%          | 12.6%         | 14.7%         | (21.7)%        | 3.1%          | 13.3%         |
| After inflation and fees                               | 6.8%          | 10.0%         | 12.6%         | 10.4%         | 1.1%          | 10.2%         | 13.4%         | (22.9)%        | 0.7%          | 11.6%         |
| <b>MEMBERSHIP</b>                                      |               |               |               |               |               |               |               |                |               |               |
| Active members                                         | 26,500        | 24,700        | 22,000        | 21,400        | 20,500        | 19,600        | 19,500        | 18,800         | 18,000        | 17,400        |
| Deferred members                                       | 1,400         | 1,800         | 1,700         | 1,300         | 1,100         | 1,100         | 1,100         | 1,100          | 1,100         | 1,000         |
| Retired members                                        | 14,000        | 13,500        | 13,100        | 12,600        | 12,100        | 11,700        | 11,200        | 10,800         | 10,400        | 10,000        |
| <b>Total members</b>                                   | <b>41,900</b> | <b>40,000</b> | <b>36,800</b> | <b>35,300</b> | <b>33,700</b> | <b>32,400</b> | <b>31,800</b> | <b>30,700</b>  | <b>29,500</b> | <b>28,400</b> |
| <b>GOING-CONCERN FUNDING STATUS</b> as at December 31  |               |               |               |               |               |               |               |                |               |               |
| Surplus (deficit) \$ millions                          | 1,179         | 773           | 525           | 347           | 154           | 88            | (358)         | (256)          | 320           | (585)         |
| Discount rate                                          | 5.70%         | 5.80%         | 5.80%         | 5.80%         | 5.90%         | 6.00%         | 5.85%         | 5.25%          | 5.74%         | 5.95%         |

Numbers are rounded

# LEADERSHIP TEAM



Left to right: Andrew Mathenge, Julie Cays, Kevin Fahey, Asif Haque, Derek Dobson, Kevin Rorwick, Evan Howard, Alan Elliott, Angela Goodchild.

## CORPORATE DIRECTORY

**Derek W. Dobson**  
*CEO and Plan Manager*

**Julie C. Cays**  
*Chief Investment Officer*

**Kevin Rorwick**  
*Chief Financial Officer*

**Alan Elliott**  
*Director, Project Management*

**Kevin Fahey**  
*Director, Investments*

**Angela Goodchild**  
*Vice President, Service Delivery*

**Asif Haque**  
*Director, Investments*

**Evan Howard**  
*Vice President, Pension Management*

**Andrew Mathenge**  
*Director, Information Technology*

For nearly 50 years, the Colleges of Applied Arts and Technology (CAAT) Pension Plan has been delivering secure pensions to employees of the Ontario college system. Established in 1967, the CAAT Plan assumed its current jointly sponsored governance structure in 1995. The Plan is a defined benefit pension plan with equal cost sharing. Decisions about benefits, contributions, and investment risk are also shared equally by members and employers through their representatives on the Plan's two governing bodies. The Plan is sponsored by the College Employer Council, on behalf of the college boards of governors, OCASA (Ontario College Administrative Staff Association), and by OPSEU (Ontario Public Service Employees Union).

The Plan is 110.4% funded on a going-concern basis. With \$8.6 billion in net assets available for benefits, 41,900 members and 38 employers, the CAAT Plan is the only multi-employer pension plan serving Ontario's postsecondary sector.

We welcome your comments and suggestions on this annual report.

Please contact: John Cappelletti, *Manager, Stakeholder Relations*, 416-673-9040, [contact@caatpension.on.ca](mailto:contact@caatpension.on.ca)



**CAAT Pension Plan**

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**HOOPP**

Healthcare of Ontario  
Pension Plan

# 2015 Annual Report

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# President & CEO's Message



At HOOPP, we have a very clear mission. We want to ensure that we can deliver the expected benefits to our members regardless of the economic backdrop and financial market conditions.

Looking back, 2015 proved to be a very challenging year characterized by slowing global growth, plunging commodity markets, and highly volatile and difficult equity and bond markets. Despite these conditions, we are pleased to report that HOOPP delivered a positive investment return and, most importantly, maintained our strong funded status.

The Plan's assets grew by \$3.1 billion to \$63.9 billion in 2015, representing an investment return of 5.12%.

Most importantly, however, our funded status remained strong, rising to 122%.

That means we have more than enough assets to meet our current and future pension obligations. In other words, for every \$1 we owe in pension benefits to retired and active members, now and in the future, the Fund has \$1.22 in assets on hand.

Ensuring that we are able to meet our current and future pension obligations is our true yardstick for success. We make all investments, manage Plan risk, and operate our entire organization with these obligations in mind.

That's why, rather than measuring our annual results against stock market benchmarks or those of peer plans, we remain focused on our ability to deliver on our pension promise, particularly in the kind of uncertain economic times that we experienced last year.

At HOOPP, we see ourselves not simply as an asset manager, but as a pension benefit delivery organization. This may sound like a subtle difference, but it is actually quite profound. Taking this perspective has led to a significant change in our approach to risk management and how we manage the Plan to ensure that we can meet our pension obligation to our HOOPP members and retirees.

Over the last 15 years, our approach to investing has evolved to more effectively mitigate the impact of key risks faced by all pension plans today. There are many risks that we have to consider in managing the Plan, but the dominant risks are equity market risk, a decline in long-term interest rates, and an unexpected rise in inflation. For example, we have restructured our portfolio to enable us to increase our holdings in long-term government bonds to protect us from declining interest rates.

This is one illustration of our holistic long-term approach which we describe as Liability Driven Investing (LDI). Our positive return for 2015 is a testament to its reliability. LDI has also been a driving factor behind our long-term track record of investment success: HOOPP's 10-year return is 9.32%.

Our strong financial position has made it possible to provide other important benefits. In 2015, our retired and deferred members received two significant cost of living adjustments (COLA). These members saw their monthly pensions increase, offsetting the impact of rising prices due to inflation.

As well, HOOPP has been able to keep contribution rates unchanged since 2004. This is a tangible and valuable benefit to HOOPP employers and members.

In addition to providing ongoing investment oversight, in 2015 our Board approved a Plan change that allows part-time and other non-full-time employees the opportunity to join HOOPP upon hiring. This change helps ensure that all healthcare workers at HOOPP employers will now be able to start contributing to a secure financial future.

## Serving our members, now and in the future

While our main focus is delivering on our pension promise, we are equally committed to providing exceptional service to those whom we serve every day.

We are pleased to report that our client satisfaction score, which has been increasing since we began measuring in 2008, rose to a new high in 2015.

Our organization is growing rapidly, and we recognize that our systems and technologies need to keep pace with that growth in order to ensure continued success in the future.

We made changes in 2015 to prepare for this future growth. For example, we upgraded our telephone system, helping to enhance our client experience. As well, we moved our data centre from our 1 Toronto Street location to a third-party provider. These significant projects were completed without any disruptions to the services that we provide to members and employers every day.

We are in the process of upgrading our pension administration system, an initiative that will help us better serve the needs of our members and their employers in the coming years by enhancing our ability to manage their requests, lowering our costs, and providing added flexibility to adapt to Plan changes.

In 2016, we will move to a new HOOPP-owned, energy efficient building with LEED platinum certification at 1 York Street, giving us space to grow through the coming decades.

Thank you to the HOOPP team for your contributions to so many successful

projects. Your everyday dedication and commitment makes a difference in the lives of all of our members.

Lastly, we are proud to say that in 2015 we hit a new milestone; we now have over 300,000 active, retired, and deferred members. We wholeheartedly welcome our new members to HOOPP.

To all our members, we remain steadfast in our commitment to be with you every step of the way, from enrolment to retirement and beyond, as we strive together towards a secure and sustainable future.



**Jim Keohane**  
President & CEO

# Chairs' Message



We know that HOOPP members and employers depend on the Plan to pay defined benefit (DB) pensions, today and in the future. Above all else, the Plan must be stable, secure, and sustainable.

HOOPP's Board of Trustees ensures that investment strategies and risk management, service to members and employers, and changes to the Plan are aligned to deliver a secure retirement income to more than 300,000 healthcare workers across the province.



We are proud to say HOOPP continued to deliver on its promise in 2015, and increased its strong funded status in a difficult year.

We thank all HOOPP management and staff for the dedication, collaboration, and commitment that drive them every day.

## Providing a secure retirement

Thanks to the strong financial position of the Plan, the Board took steps to protect pensions from inflation.

The Board approved a cost of living adjustment (COLA) for 2015 to provide an

increase at 100% of the consumer price index (CPI). As a result, all current and deferred pensions will increase by 1.61%, effective April 1, 2016.

That increase comes on top of two adjustments paid in 2015: the first provided retired and deferred members with a one-time catch-up that brought pensions up to where they would be if they had received the maximum COLA increase permitted under HOOPP from 2002 to 2013, and the second was a COLA for 2014 at 100% of the CPI.

Made possible by the Plan's strong financial position, these decisions by the Board ensure that pensions will keep up with the rising cost of living and that HOOPP members are able to live their retirement years with a sense of security.

The Board also made a decision to remove eligibility requirements for part-time and other non-full-time workers at HOOPP employers, effective Oct. 1. In the past, these employees had to work at least 700 hours or earn at least 35% of the year's maximum pensionable earnings (YMPE) in the previous calendar year in order to join the Plan.

Now these employees, in consultation with their employer, can join the Plan as soon as they are hired. Alongside their full-time colleagues, for whom enrolment in HOOPP is mandatory, they can immediately start contributing to their pension and building a secure retirement.

To support this change, HOOPP provided additional online and written communications material, and regional managers met with members and management contacts.

The Board also approved changes to the Plan's disability benefits. These improvements are designed to assist members and employers by making the rules easier to understand and streamline the application and administrative process.

These changes come as HOOPP received its highest client approval scores to date, with members and employers showing increased satisfaction with the service they received.

This is a commendable achievement, and yet another illustration of the organization's commitment to member and employer service.

## Advocating for DB pensions

HOOPP continues to expand its DB Ambassador program, encouraging members and other interested stakeholders to take an active role in support of the DB model. Our commitment to this issue is stronger than ever, as HOOPP's latest research, conducted by the Gandalf Group in September 2015, found that more than half of Ontarians without workplace pension plans were unable to save anything for retirement in the last year.

The study also showed that nearly two-thirds of those surveyed wonder if they will have enough money for retirement, and 85% worry that without good workplace pensions Ontarians will face senior poverty.

The research illustrates that Ontarians are unable to save — even as they worry about not having enough for the future. This suggests that the kind of stable income provided by a DB plan could be a significant benefit to many people.

In 2015, HOOPP held its first DB Ambassador roundtables, allowing our Ambassadors to come together to compare best practices and exchange ideas on ways to spread the word and facts about the advantages DB plans have over alternative savings vehicles. More sessions are planned for 2016.

As a result, the Board, along with HOOPP employees, continues to have a clear picture of the Plan's funding position, as well as the risks we face.

Together, we are committed to ensuring that the Plan is able to deliver on its pension promise today, and in the future.



**Helen Fetterly**  
Chair



**Bryce Walker**  
Vice Chair

## Balancing risk and returns

The Board continued to work with HOOPP staff to improve governance and risk management by enhancing our existing risk-based approach to its oversight of HOOPP investments and investment strategy.

# Management's Discussion & Analysis (MD&A)

## **CONTENTS**

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In addition to historical information, the MD&A contains forward-looking statements regarding management's objectives, outlook and expectations. By their very nature, such statements are subject to risks and uncertainties, which may cause actual results to differ from those anticipated.

# 2015 Financial Highlights

**122%\***

STATE OF THE PLAN

**\$3,103**  
MILLION

NET INVESTMENT  
INCOME

**5.12%**

RATE OF RETURN  
FOR 2015<sup>†</sup>

**9.32%**

10-YEAR ANNUALIZED  
RETURN<sup>†</sup>



**\$63.9**  
BILLION

NET ASSETS



**309,000**

MEMBERS

\* On a Smoothed Asset Basis (130% Funded Ratio on a Net Assets Basis)

† Registered Pension Plan



## Plan Overview

Offered at over 490 employers across the province, the Healthcare of Ontario Pension Plan (HOOPP or the Plan) is a multi-employer contributory defined benefit plan serving 309,000 working and retired healthcare workers. HOOPP was originally established by the Ontario Hospital Association (the OHA) in 1960.

In 1993, the structure of HOOPP changed: it was settled as a trust with a jointly-governed Board of Trustees (the Board). The Settlers of HOOPP and the appointed members of the Board signed HOOPP's Agreement & Declaration of Trust (ADT), empowering the Board to administer the Plan and manage and invest the fund assets. The Settlers of the Plan are:

- Ontario Hospital Association (OHA)
- Ontario Nurses' Association (ONA)
- Canadian Union of Public Employees (CUPE)
- Ontario Public Service Employees' Union (OPSEU)
- Service Employees International Union (SEIU)

The ADT, as amended from time to time, establishes the foundation for HOOPP's governance.

HOOPP's Board has 16 Trustees. Eight of the Trustees are appointed by the OHA and the other eight by the four Settlor unions, with each union nominating two Trustees.

In fulfilling its responsibility to administer the Plan and manage its assets, the Board has delegated authority to administer the Plan, as specified under the ADT, to a Plan Manager, with the title "President & Chief Executive Officer" (CEO).

The Plan is registered under, and regulated by, the *Pension Benefits Act* (Ontario) and the *Income Tax Act* (Canada).

## State of the Plan

At HOOPP, our singular focus remains on delivering on our pension promise to our members – that is, to provide a secure and predictable income to our members that comprises a key component of their overall retirement security. We endeavour to deliver on this promise in a manner that is consistent with our objective of ensuring the Plan remains affordable to our members and their employers, both now and in the future.

The key measure of our ability to meet this promise is the funded status of the Plan – the Plan's net assets expressed as a percentage of all current and estimated future benefits promised to our members. On this measure, HOOPP's funded status is currently at 130% on a net assets basis, unchanged from 2014. On a smoothed<sup>(1)</sup> asset basis, for regulatory filing purposes, the ratio of smoothed assets to our pension liabilities is 122%, up from 115% in 2014. Despite a challenging year in the financial markets, the funded ratios of the Plan remained stable / improved as a result of HOOPP's continued refinement of its Liability Driven Investing (LDI) strategy, discussed in more detail in the *Investments* section.

*The chart below shows the Funded Status of the Plan for 2015 and 2014, shown on both a net assets basis and on a smoothed asset value basis:*

| Funded Status                                          | 2015 | 2014 | Year-Over-Year Change |
|--------------------------------------------------------|------|------|-----------------------|
| Net Assets to Regulatory Pension Obligation            | 130% | 130% | +0%                   |
| Smoothed Asset Values to Regulatory Pension Obligation | 122% | 115% | +7%                   |

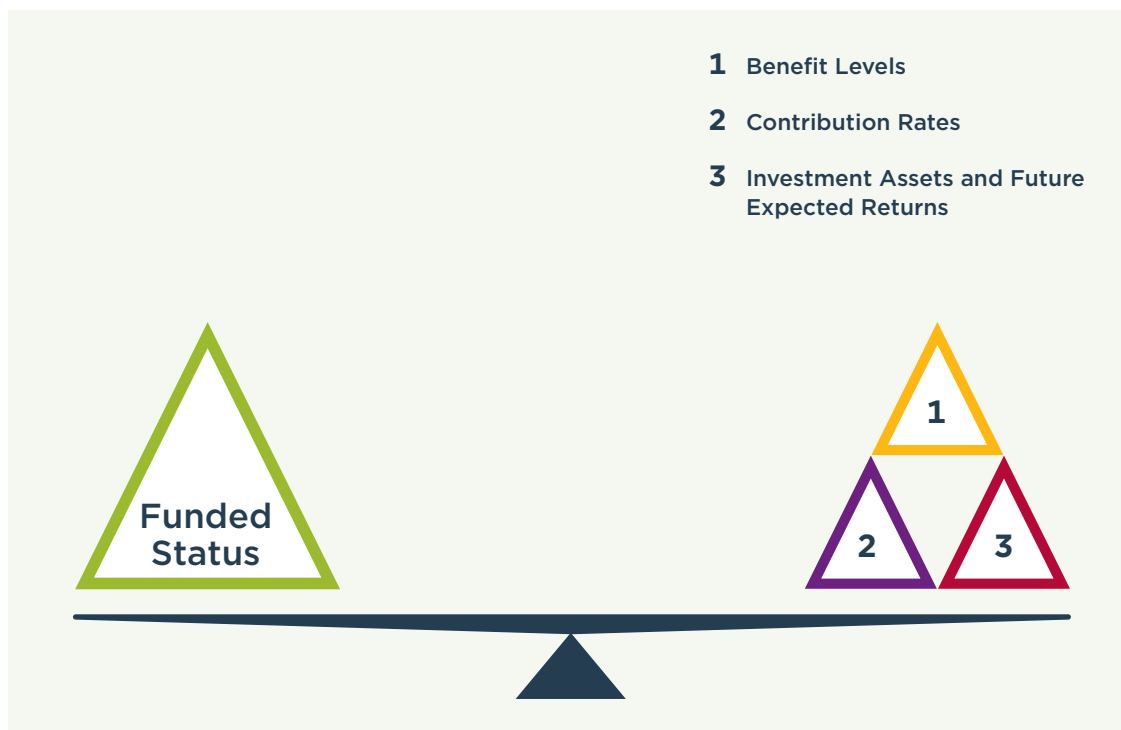
<sup>(1)</sup> Actuarial technique that recognizes gains and losses, not as they occur, but slowly over a specified period of time.

## Pension Plan Funding Management

Although HOOPP currently has a funding surplus, with current net assets higher than its current estimated future benefits, there always remains a risk with maintaining this funding surplus in the future owing to the constantly changing economic and market environment and demographic profiles of our members. Delivering on the pension promise is a complex challenge that involves anticipating these changes and prudently making adjustments using the levers at our disposal.

In managing the Plan, there are three main components that Management and the Board must balance to meet our promise to our members:

1. The level of pension benefits upon retirement;
2. Contribution rates from both Plan members and their employers; and
3. Total investment assets and future expected investment return and risk.



The objective in managing the first component – benefits – is to provide a predictable and stable level of pension income to our members upon retirement. The goal is to try to ensure that the level of benefits that members receive from their HOOPP pensions, in addition to income from other sources such as the Canada Pension Plan, provide a total retirement income that ensures retirement security. The task of managing benefit levels would not be difficult if it could be done in isolation. However, the realities of managing the second component, contribution rates, are what make managing benefit levels such a real challenge - contribution rates must be managed so that the Plan remains affordable to both our members and their employers to ensure the long-term sustainability of the Plan.

In 2015, no changes were made to the benefit levels of the Plan, and the Board has committed to maintain contribution rates at current levels until the end of 2017. These contribution rates have remained at the same level since 2004.

The third component is total available investment assets and current and future expected investment returns and investment risk. This component attracts the most attention and plays an essential role in our mission to deliver on the pension promise, as it is estimated that roughly 75% of pension benefits paid are derived from investment income. Managing expected investment returns and risk is also the component that Management and the Board can most quickly adapt due to rapidly changing economic conditions.

Balancing these three components in a prudent and effective manner will ultimately direct the Plan on the path towards delivering on its promise 80 years and longer into the future. An added complexity in managing the Plan is the need to ensure intergenerational equity exists among members; that is, meeting the goal of having each generation of members receive the level of benefit that is generally proportional to their contributions, such that no generation is disadvantaged to the detriment of their own retirement security.

## Future Funding Sustainability

Although HOOPP currently has a funding surplus, the risks to maintaining this position in the future are constantly present, as evidenced by the variability in the Plan's funded status over the years. We remain vigilant in trying to mitigate this funding risk to the greatest extent possible, primarily through the prudent management of the third component, as described above, of investment assets and future expected investment returns and risk. However, we recognize that the complete elimination of funding risk is neither practicable nor even advisable. The Plan chooses to take investment risk within its risk tolerance, in order to earn higher rates of return and thus to keep the costs of the Plan (contribution rates) reasonable. Furthermore, the future demographic profile of our members is subject to a level of uncertainty.

In general, the two broad categories of risks that contribute to total funding risk come from financial or economic factors and demographic factors.

### Economic and Financial Risk

As mentioned previously, investment income is a significant source of funding of pension benefits paid to our members, and is also a key determinant of how the other two of the three components are managed, i.e. the levels of contribution rates and benefits. The positive performance of investment strategies is essential to the long-term sustainability of the Plan. Investment returns that exceed our expectations lead us towards fulfilling the pension promise and allow us flexibility in managing benefit levels and contribution rates, while the opposite is true should returns be below expectations. In establishing an appropriate investment strategy, we aim to strike a balance between generating a sufficient return to meet our pension obligations and assuming an acceptable level of risk that does not jeopardize our ability to meet those obligations.

Of all the financial and economic risks, the three that are of the greatest concern to the Plan are, the level of interest rates, inflation, and the returns on equities and other return seeking strategies.

The level of interest rates affects our expected return on investments. As rates fall, so do expected returns on investments, making it more difficult to earn the returns needed to pay our benefits.

Increases in inflation, especially when unanticipated, could translate into higher wages which form the basis of the pension benefits promised to our members. Additionally, members' pension benefits are to a large degree protected against inflation and therefore higher inflation increases the Plan's pension obligation.

Lastly, if equities and other return seeking strategies fall short of their respective expected returns, investment income will fall short of the required levels to pay future pension benefits. Also, the volatility of returns of these strategies could cause shortfalls with respect to investment returns and funded status, risks that the Plan must diligently work to mitigate.

As a relatively young pension plan (in terms of the average age of our active members and the number of active members in relation to the number of retired members) and based on our long-term expected growth, HOOPP's investment assets and pension liabilities tend to double approximately every 12 years. At some point in the future, this may present an operational challenge as certain investment strategies may not be readily scalable to meet this growth and this may pose an incremental challenge to the overall investment strategy as we strive to generate sustainable asset growth over the long-term.

## Demographic Risk

Demographic risks to the Plan include increased life expectancy of our members, changing retirement trends (e.g. early retirements) and the natural aging of the plan membership. Demographic risks are difficult to identify as changes occur slowly over long periods of time and are generally identified by looking at longer periods of historical information. With demographic factors, the longer term trends must be monitored closely as year-over-year changes can be minor and easy to overlook. The biggest demographic risk is an unanticipated increase in the life expectancy of our members, as this will increase the amount of pension benefits to be paid beyond what was estimated. In 2015, no changes to the life expectancy assumption were made (changes were made in 2014 following the release of new mortality tables by the Canadian Institute of Actuaries), while small adjustments were made to the retirement rate assumption during the year, following a recent retirement experience study that was completed (no changes were made to the retirement rate assumption in 2014).

The Plan monitors demographic trends carefully with an annual analysis of all assumptions by the Board's actuary that reviews recent experience. Additionally, detailed demographic experience studies are conducted from time to time to help ensure assumptions about future expectations remain relevant.

The changing demographic profile of our membership, referred to as plan maturity, is another important trend to follow as it impacts the future sustainability of the Plan and is discussed in more detail below.

## Plan Maturity

All pension plans naturally age over time, a process often referred to as plan maturity. Newer plans have a greater proportion of working or “active” members relative to retired members or retirees. Among other factors, one key determinant of how quickly a plan ages is the rate at which new and younger members join the plan, thereby partially offsetting newly retired members. Over longer periods of time as a plan matures, the average plan participant age rises, due to the increasing pool of retirees and the difficulty in offsetting these retirees with new younger members in greater numbers.

As the plan ages, there are several management implications to consider. Firstly, a plan’s risk-taking capacity falls as the plan matures, which could pose a challenge to maintaining the growth rate of investment assets. Also, more mature plans pay out more in benefits than the contributions they receive from active members, which increases a plan’s sensitivity to investment market declines - the remaining asset base with which to “earn back” losses is reduced since there are no new net contributions to help rebuild the asset base. Additionally, any funding deficiencies are more difficult to address since contribution rate increases will have a diminishing impact given the smaller proportion of active members.

One key measure of the relative age of the plan is net cash flow between contributions received and pension benefits paid.

The chart below shows that HOOPP is a relatively young plan as cash flows received from contributions was greater than benefits paid by \$174 million in 2015 (2014: \$302 million), however, the Plan is slowly maturing as this difference is projected to narrow over time. Note, a contribution rate reduction was in place from 1999 – 2002 to help ensure compliance with legislation that limited the maximum surplus a registered pension plan can have.

### Contributions vs Benefits Paid (\$ millions)



Another key measure of the relative maturity of the plan is the ratio of active members to retirees. The numbers below portray the gradual maturing of the Plan, as the active to retiree ratio has declined from 3.4 at the end of December 31, 1995 to 2.2 at the end of December 31, 2015 and is forecasted to decline further to 1.8 by December 31, 2025. New entrants to the Plan are a key contributor in slowing the maturity of the Plan; however, all pension plans naturally age over time due to the ever growing population of retirees.

### Ratio of Active Members to Retirees

|                         | Dec. 31, 1995 | Dec. 31, 2005 | Dec. 31, 2015 | Dec. 31, 2025 |
|-------------------------|---------------|---------------|---------------|---------------|
| Active to Retiree Ratio | 3.4           | 2.5           | <b>2.2</b>    | 1.8           |

HOOPP is a slowly maturing, relatively young pension plan. We currently benefit from the flexibility that this affords us, but in the decades to come we will have to adjust to the effects of becoming more mature.

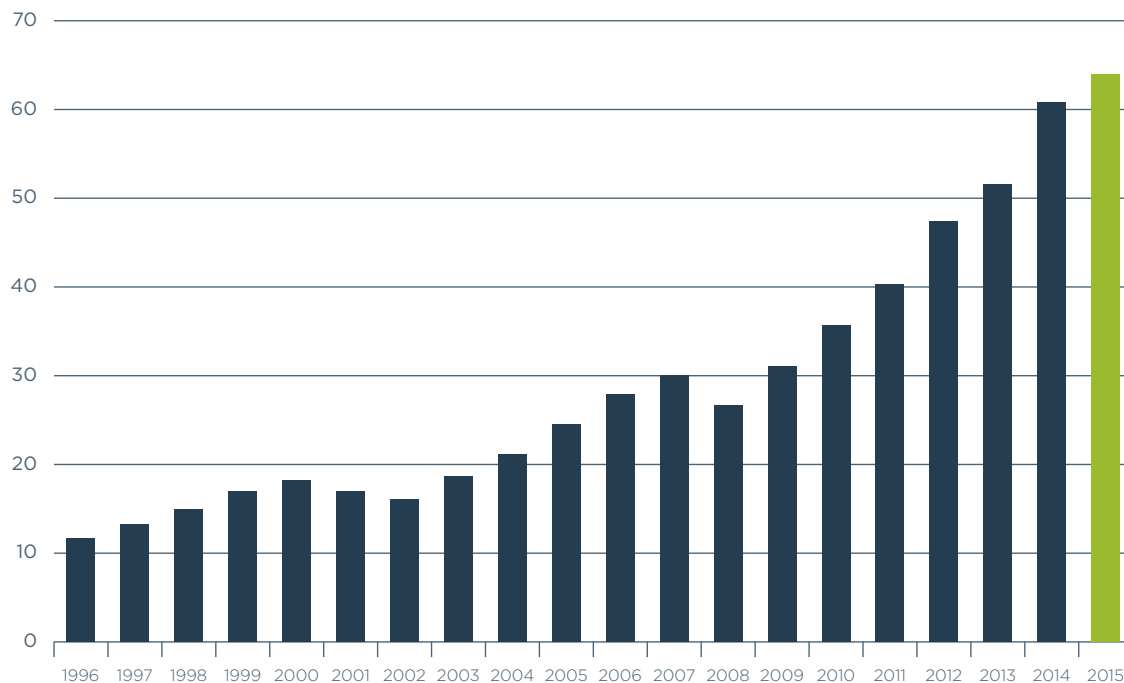
## Investments

In order to ensure that it can fulfill its mission to deliver on the pension promise, HOOPP employs a Liability Driven Investing (LDI) approach. In LDI the Plan's liabilities and the Fund's assets are considered together and, with the focus on the risk of having insufficient assets to provide funding for members' retirements, this approach helps to ensure that the Plan remains fully funded even in a very challenging environment.

In implementing LDI at HOOPP, the Fund's assets are allocated between two broad portfolios: the Liability Hedge Portfolio and the Return Seeking Portfolio. The Liability Hedge Portfolio is designed to hedge the major risks that can impact pension obligations – namely, inflation and interest rates – and contains investment assets which perform in a manner similar to that of the Plan's liabilities. The Return Seeking Portfolio is designed for controlled risk-taking in investment assets and strategies which are expected to deliver incremental return to the Fund and provide diversification benefits.

*The chart below shows the growth in HOOPP's Net Assets over the last two decades from \$11.6 billion in 1996 to \$63.9 billion at the end of 2015.*

### Net Assets (\$ billions)





The table below shows investment performance for 2015 and 2014 as well as the 10-year and 20-year performance of the Fund (Registered Pension Plan):

|                    | 2015         | 2014   | 10-Year | 20-Year |
|--------------------|--------------|--------|---------|---------|
| Total Return       | <b>5.12%</b> | 17.72% | 9.32%   | 9.46%   |
| Benchmark*         | <b>3.95%</b> | 15.62% | 7.58%   | 8.18%   |
| Value-Added Return | <b>1.17%</b> | 2.10%  | 1.74%   | 1.28%   |

\* Benchmarks are established to measure the performance of investment strategies relative to the risk taken. Some of these benchmarks are discussed below in the discussion of specific investment strategies.

## 2015 Results

2015 saw the global economy continue to experience disappointing growth and, in particular, serious concerns emerged regarding the sustainable growth rate of the Chinese economy. The slowing economy in China further pressured commodity prices generally, while the oil price resumed its weakness largely as a result of a significant increase in supply from shale oil producers in the U.S. With all this uncertainty regarding global economic growth prospects, central banks maintained their extremely accommodative stance, although much of the latter part of the year was focused on when the U.S. Federal Reserve might begin to raise interest rates.

With equity markets having entered the year close to fully valued, the fears of slowing global economic growth and the attendant pressure this would put on corporate profits provided for a mixed year for stocks. Markets with a heavy weighting to commodities performed poorly; for example, Canada's S&P/TSX Composite Index was down 8.33% on a total return basis for the year. The S&P 500 Index in the United States was up only 1.37% on a total return basis in 2015. As noted, the performance of other major markets on a total return basis was mixed, and included Japan's Nikkei Index up 10.96%, Frankfurt's DAX Index up 9.56% and London's FTSE Index down 1.03%.

In the interest rate environment, 2015 saw the continued decline in interest rates in Canada: the 10-year government of Canada bond yield declined from 1.79% at the beginning of the year to 1.39% at the end of the year, and the 30-year yield declined from 2.34% to 2.15%. In the U.S., government bonds rose during the year, with the 10-year yield moving from 2.17% to 2.27% and the 30-year yield from 2.75% to 3.02%. Credit spreads, the difference in yield between a "risk-free" government benchmark and a corporate borrower, increased in 2015, with the five-year CDX.NA.IG index widening from 66 basis points at the beginning of the year to 88 basis points by year end.

For the year, HOOPP posted the following results:

- on a net assets basis, a funded ratio of 130% as of December 31, 2015, unchanged from 2014;
- net investment income of \$3.1 billion (compared to \$9.1 billion in 2014);
- investment return of 5.12% (compared to 17.72% in 2014), of which 3.95% represented benchmark return and 1.17% return from active management strategies; and
- growth in net assets to \$63.9 billion from \$60.8 billion in 2014.

## Major Drivers in the Change in Funded Position

The chart below summarizes the change in HOOPP's funded status and provides details on changes in specific investment strategies and the Plan's liabilities:

|                                                   | 2015 Change    | 2014 Change    |
|---------------------------------------------------|----------------|----------------|
| (\$ millions)                                     |                |                |
| <b>Liability Hedge Portfolio</b>                  |                |                |
| Short-Term                                        | (167)          | 329            |
| Nominal Bonds                                     | 1,441          | 4,806          |
| Real Return Bonds                                 | 167            | 860            |
| Real Estate                                       | 473            | 546            |
| <b>Total Liability Hedge Portfolio</b>            | <b>1,914</b>   | <b>6,541</b>   |
| <b>Return Seeking Portfolio</b>                   |                |                |
| Public Equities                                   | (130)          | 1,524          |
| Private Equity                                    | 614            | 473            |
| Corporate Credit                                  | 54             | 131            |
| Long-Term Option Strategy                         | 334            | 157            |
| Asset Allocation Strategies                       | 107            | (6)            |
| Absolute Return Strategies                        | 188            | 203            |
| FX Hedges and Other                               | 22             | 82             |
| <b>Total Return Seeking Portfolio</b>             | <b>1,189</b>   | <b>2,564</b>   |
| <b>Changes due to Net Investment Income</b>       | <b>3,103</b>   | <b>9,105</b>   |
| Change due to Operations                          | (27)           | 117            |
| <b>Total Change in Net Assets</b>                 | <b>3,076</b>   | <b>9,222</b>   |
| <b>Change in Pension Obligations</b>              | <b>(2,228)</b> | <b>(5,445)</b> |
| <b>Net Change in Surplus on a Net Asset Basis</b> | <b>848</b>     | <b>3,777</b>   |
| <b>Funded Ratio on a Net Asset Basis</b>          | <b>130%</b>    | <b>130%</b>    |
| Change in Smoothing Adjustment*                   | 3,049          | (2,529)        |
| <b>Regulatory Funded Ratio</b>                    | <b>122%</b>    | <b>115%</b>    |

\* Change in the average of the current net assets and the net assets for the four preceding years brought forward with interest at the asset valuation rate and adjusted for contributions, benefit payments and administrative expenses.

The Liability Hedge Portfolio produced a return of \$1,914 million in 2015, down from a return of \$6,541 million in 2014. During 2014 there was a significant decline in interest rates which resulted in sizable gains on fixed income assets, while the decline in interest rates in 2015 was more moderate, and in fact rates were up slightly in the U.S., resulting in much smaller gains. As will be discussed in further detail below in the section titled *Plan Liabilities*, the decline in interest rates resulted in the discount rate used to calculate the present value of HOOPP's total pension obligation falling further to 5.65% in 2015, from 5.85% in 2014. This change in the discount rate increased the total pension obligation in 2015 by approximately \$1.4 billion and was more than offset by the increase in the value of the Liability Hedge Portfolio. Details of the performance of individual strategies within the Liability Hedge Portfolio follow below, in the *Liability Hedge Portfolio Discussion*.

The Return Seeking Portfolio posted a gain of \$1,189 million in 2015 which was down from the strong results in 2014 of a gain of \$2,564 million. Most strategies in the Return Seeking Portfolio posted positive results, with the largest contributions coming from Private Equity at \$614 million (2014: \$473 million) and the Long-Term Option Strategy at \$334 million (2014: \$157 million). Details of the performance of individual strategies within the Return Seeking Portfolio follow below in the *Return Seeking Portfolio Discussion*.

The total pension obligation increased by \$2,228 million in 2015 compared to an increase of \$5,445 million in 2014. The increase is a result of the noted decrease in the discount rate assumption, as well as from service accrued and changes in other actuarial assumptions, less benefits paid during the year. A more detailed discussion follows in the *Plan Liabilities* section.

Overall in 2015, the investment return of 5.12%, combined with the growth in the Plan's liabilities of 4.75%, allowed the funded status of the Plan to remain stable. The funded status of the Plan on a net assets basis was unchanged in 2015 at 130%, while on a smoothed value of assets basis the regulatory funded ratio ended 2015 at 122%, up from 115% in 2014.

## Active Management and Relative Performance

In 2015, the total return of 5.12% exceeded the benchmark return of 3.95% by 1.17% or \$708 million. This active management return, or "value-added," came from a variety of sources in 2015 within both the Liability Hedge and Return Seeking Portfolios. The Liability Hedge Portfolio generated 0.13% of value-added, with a significant contribution coming from Real Estate, while the Return Seeking Portfolio generated 1.04% of value-added with large contributions from Private Equity and Absolute Return Strategies.

|                           | 2015          |              | 2014          |         |
|---------------------------|---------------|--------------|---------------|---------|
|                           | (\$ millions) | Percent      | (\$ millions) | Percent |
| <b>VALUE ADDED</b>        |               |              |               |         |
| Liability Hedge Portfolio | <b>81</b>     | <b>0.13%</b> | 584           | 1.19%   |
| Return Seeking Portfolio  | <b>627</b>    | <b>1.04%</b> | 449           | 0.91%   |
| <b>Total</b>              | <b>708</b>    | <b>1.17%</b> | 1,033         | 2.10%   |

## Liability Hedge Portfolio Discussion

### Short-Term and Cash

In 2015, the portfolio returned -\$167 million (2014: \$329 million). There are two components to the return – accrual income and the marked-to-market (MTM) loss on the portfolio.

The year was marked by a number of events and developments which affected both the income and the MTM gains/losses. Two rate cuts by the Bank of Canada cut the income that the portfolio earns. The MTM performance started to deteriorate in the second half of the year, as credit spreads widened.

Turbulence in global markets – Foreign Exchange, Equities and Fixed Income – created an environment where credit spreads widened, ending the long Credit rally that had prevailed since 2009. In addition, central bank selling of global bonds, including those of Canadian Governments, both Federal and Provincial, created a deterioration in the MTM gains/losses.

With respect to bonds issued by financial companies, the portfolio was defensively positioned since the yield increase from Governments to Financials was not sufficient to make it attractive to invest in them.

The status of the portfolio going into year-end was improving. Credit spreads were trading in a defined range and the running credit spread in the portfolio was slowly increasing as proceeds from maturing bonds were re-invested at wider spreads. Generally, the outlook is more positive. The steep Provincial credit curve creates an opportunity to earn calendar curve roll down which will recapture some of the MTM losses taken in 2015. The steeper credit curve also rewards managing the portfolio with a shorter duration.

### Nominal Bonds: Mid-Term and Long-Term Bonds

A large decline in commodity prices, waning global economic growth momentum and a domestic “technical recession” (i.e. two consecutive quarters of GDP declines) led to two Bank of Canada rate cuts in 2015 – the first in January and the second in July. These factors led to declines in interest rates on Government of Canada bonds with the magnitude of these declines being greatest in shorter term maturities. The average yield on the wider FTSE TMX All Government “Universe” Bond index fell by 30 basis points (bps), from 2.04% to 1.74%, whilst the yield on the Long Term All Government Bond index (which measures the performance on maturities greater than 10 years) was down only 8 basis points, from 2.90% to 2.82%.

HOOPP’s Liability Hedge Fixed Income portfolios returned about \$1.44 billion (2014: \$4.81 billion), which included value added of about \$64 million in the mandated portfolios.

### Real Return Bonds (RRB)

Real interest rates also declined in 2015. The average yield on the FTSE TMX Real Return Bond Index declined by 12 basis points, from 0.57% to 0.45%, and represented a return to HOOPP’s self-benchmarking RRB portfolio of \$167 million (2014: \$860 million).

## Real Estate

In 2015, the HOOPP real estate portfolio produced a return of 7.96% on a currency hedged basis compared to 9.88% in 2014 (the return on an unhedged basis was 10.30% compared to 9.82% in 2014). The return represents a continuation of the trend of strong real estate performance over the past several years and an out performance relative to the Canadian Investment Property Databank (IPD) benchmark of 7.53% in 2015.

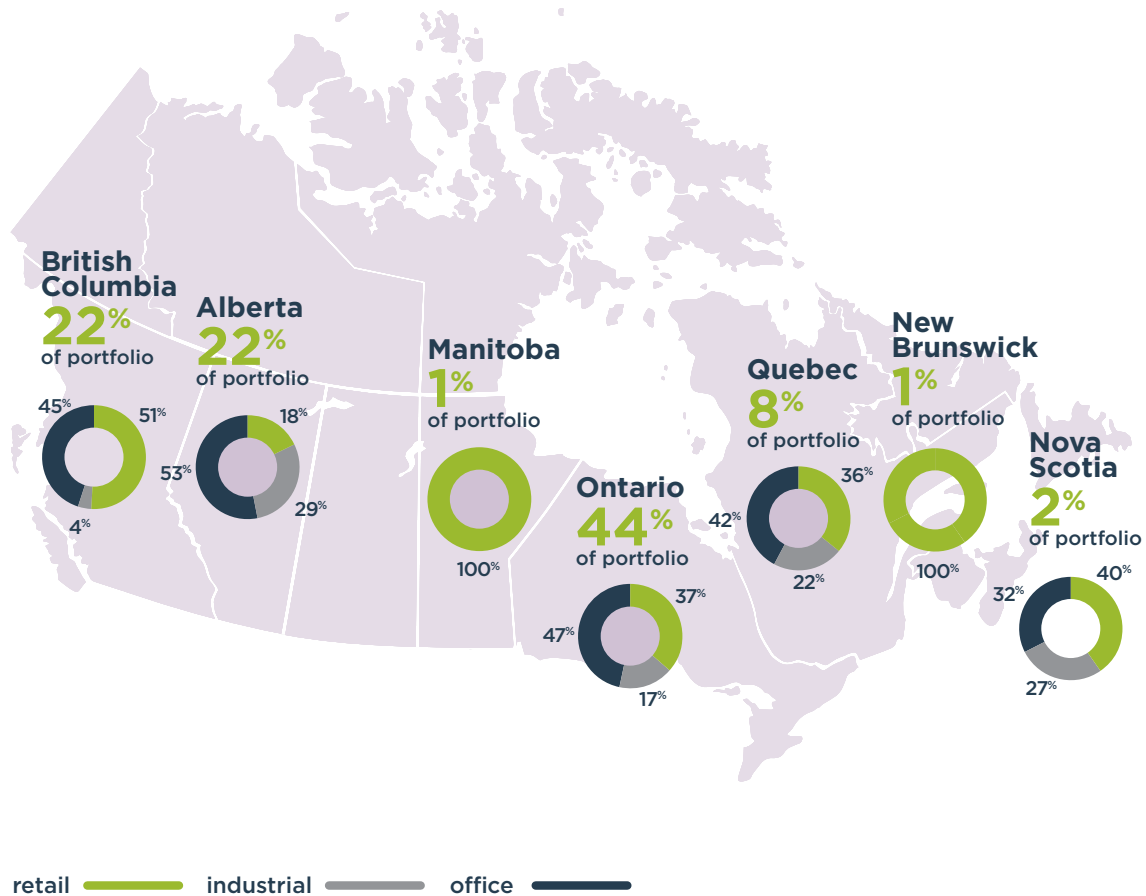
The year was an active one for the portfolio in terms of acquisitions, development, and selective divestment activity. A total of more than \$1.8 billion in new investments or investment commitments were made, including activity in all three major geographies in which HOOPP invests: Canada, the U.S. and Europe.

Major highlights of 2015 include:

- the purchase of interests in two large regional shopping centres located in Belleville and Windsor, Ontario;
- the acquisition of a \$198 million (US\$140 million) interest in 32 Old Slip, a 1.2 million square foot office tower located in lower Manhattan;
- the commitment of \$1.1 billion to real estate investment funds globally, including \$243 million to four funds operating in Canada, \$403 million to three funds in the U.S. and \$468 million to four funds in Europe;
- the successful completion of six development projects during the year, bringing on-stream an additional \$368 million of new income producing properties; (including 150 Elgin Street (Ottawa), Broadway Shopping Centre (Bradford, England), Parkside Student Residence (Toronto), Atboro House II (Halifax), and two industrial properties in Calgary and Edmonton);
- commitment to new developments totalling \$170 million, including three industrial projects in Germany and the U.K., a residential tower at Brentwood Town Centre (Burnaby), and a new office at Gateway Centre (Mississauga);
- continued progress on the construction and lease-up of other major retail, office, industrial and mixed use development projects, including Creechurch Place (London), One York (Toronto), Brentwood Town Centre and Marine Gateway (Greater Vancouver) and Spectrum Square and Gateway Centre (Mississauga); and
- the sale of \$176 million of properties, including two office buildings in Winnipeg, an office complex in Richmond Hill, and an office building and development site in Montreal.

At year end 2015, the total gross real estate asset base had reached \$10.4 billion. The graphic below illustrates the diversification of HOOPP's Canadian real estate portfolio by geography and by product type (excluding multi-residential, property developments and limited partnerships) and represents approximately 66% of our total real estate holdings on a gross value basis.

### HOOPP's 2015 Canadian Real Estate Portfolio Composition



## Return Seeking Portfolio Discussion

### Public Equities

North American equity markets presented investors with plenty of volatility in 2015, but unfortunately little return. In the U.S., a strong dollar, slower earnings growth, and less favorable monetary policy all served to offset the favorable trend in employment growth, resulting in flat returns for 2015. In Canada, the heavy exposure to commodities, and the persistent weakness in energy prices, all contributed to equity returns that were materially down.

In 2015, HOOPP's public equity performance was generally in-line with market returns. Throughout the past year, our disciplined valuation approach helped HOOPP navigate equity markets well.

HOOPP uses a variety of active management strategies to generate equity returns, including long/short portfolios and the use of derivatives. Augmenting the returns cited below, these combined activities in 2015 detracted marginally from overall returns.

### *Canadian Equities*

2015 proved to be a very difficult year for Canadian investors. The weak market performance was led by the Energy, Materials and Industrial groups. Sector rotation provided investors with little cover as the majority of groups in the market generated negative returns. The steady decline in the Canadian dollar over the course of 2015 also served to undermine the attractiveness of Canadian equities to foreign investors.

HOOPP's Canadian equity total return was -7.9% (2014: 12.1%) compared to the -7.8% return for its benchmark, the S&P/TSX 60 Total Return Index.

### *U.S. Equities*

U.S. equity markets started the year with an upward bias through the first quarter, and then traded in a narrow range until August. At that point markets entered a corrective phase until October, after which the market embarked on a recovery, ultimately finishing the year in marginally positive territory. The year's volatility presented many challenges, with returns being heavily sector dependant. Like Canada the most severe losses were reserved for the commodity sectors.

HOOPP's U.S. equity total return of 1.5% (2014: 12.6%) outperformed its benchmark, the S&P 500 Total Return Index by 0.1%.

### *Non-North American Equities*

In Europe, aggressive monetary policy from The European Central Bank helped propel the major market indices of Germany, France and Italy all higher. The U.K. market materially underperformed the large markets of continental Europe with a small loss. Throughout most of 2015, emerging markets struggled. China, Brazil and India all delivered negative returns for investors, whereas Russia performed very well. In Japan, favorable monetary initiatives helped their equity market generate a positive return.

The total return for HOOPP's International equity portfolio was 5.6% (2014: 5.9%), underperforming its benchmark, a composite on non-North American equity indices by 1.7%.

## Private Equity

HOOPP Capital Partners (HCP) selectively invests in (i) private equity funds; (ii) privately-held businesses directly; and (iii) other private capital opportunities.

At the end of 2015, HCP had \$4.3 billion invested, with a further \$3.5 billion committed to private funds and direct investee companies. The invested portfolio generated a currency-hedged return of 17.7% for the year compared to 16.3% in 2014 (the return on an unhedged basis was 28.7% compared to 18.2% in 2014), exceeding its benchmark by \$397 million.

The fair market value of the invested portfolio represents 6.8% of the total Fund, meaning there is considerable scope for managed growth and for considering significant investment opportunities.

## Corporate Credit

Credit spreads had a selloff in 2015. The Markit CDX Investment Grade index spread widened from 66 basis points (bps) at the start of the year to 88 bps at year end. Corporate Bonds also had a selloff. The Barclay's Aggregate U.S. Credit Index OAS spread for corporate bonds widened from 125 bps at start of the year to 155 bps at year-end.

HOOPP has three credit sub-portfolios which generated a cumulative value-added return of \$61 million for the year, compared to \$60 million in 2014:

- 1) The general asset active credit portfolio was positioned slightly short with overweight positions in senior tranches, Canadian and U.S. corporate bonds and credit curves offset by shorts in single names and index positions and credit options.
- 2) The structured credit active portfolio was positioned with a long bias. The return was generated from three strategies: commercial mortgage backed securities (CMBS), collateralized loan obligations (CLOs) and real estate backed assets.
- 3) The corporate passive portfolio provides the bulk of the Plan's credit exposure and was managed dynamically throughout 2015.

## Long-Term Option Strategy

This strategy, in which equity index exposure is combined with equity index options, was a contributor to the Return Seeking Portfolio, increasing in value by \$334 million during the year, compared to \$157 million in 2014. This strategy is self-benchmarked.



## Asset Allocation Strategies

HOOPP engages in the strategic re-weighting of major asset class risks (equities, fixed income and corporate credit) in order to manage the risk and return of the Fund. Throughout the year, HOOPP took various overweight and underweight positions in credit, U.S. equities, U.S. Treasury bonds, and Canadian government bonds. In 2015, this program generated a gain of \$107 million, compared with a loss of \$6 million in 2014. Value was added during the year by selling U.S. Treasuries early in 2015 and buying them back at much cheaper levels later in the year. All gains or losses on these strategies contribute to the value-added of the Fund.

## Absolute Return Strategies

HOOPP engages in absolute return strategies designed to earn positive returns with minimal sensitivities to interest rates, credit or equities. These strategies made \$188 million in 2015 compared to \$203 million in 2014.

## Responsible Investing

HOOPP believes that the appropriate consideration of Environmental, Social and Governance (ESG) issues is an integral part of the investment decision making process that allows investors to gain a more complete view of the potential risks and opportunities in an investment.

Our approach to responsible investing integrates available ESG data and information alongside traditional fundamental analysis incorporating financial and economic information. This approach in our investment decision making process ensures that we consider all types of relevant information when assessing an investment's total potential risk and future expected opportunities, and importantly, also ensures that we meet our fiduciary obligations to our members by making investment decisions that ultimately serves their best financial interest.

As the availability and quality of ESG data and information is continually expanding and evolving, the level of integration of ESG factors into each investment decision will vary depending on the specific situation. HOOPP does not make investment decisions on ESG factors alone.

To encourage better consideration of ESG issues by companies, HOOPP may engage with company management to encourage adoption of generally accepted best practices on environmental, social and governance matters. Engagements may take the form of direct engagements with company management and boards, or collectively with other like minded investors or through third party organizations such as the Canadian Coalition for Good Governance (CCGG). HOOPP believes that engaging with companies is the preferred approach for encouraging desired changes.

Examples of direct ESG engagement efforts throughout the year have included:

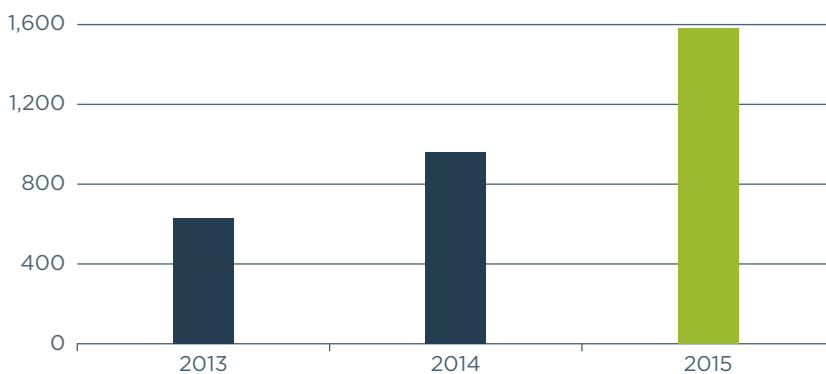
- direct engagement with a U.S. electric utility to encourage better disclosures on carbon emissions, including reporting to the CDP, and improvements to their below average employee health and safety record;

- direct engagements with a number of gold mining companies to discuss their plans following unfavourable outcomes on their say-on-pay advisory votes; and
- direct engagement with a power generation company to improve their water usage intensity levels;

Once an investment is made, in our approach to being responsible owners, we encourage better ESG practices by exercising our influence as owners. In our ownership of public companies, we take seriously our voting rights on proposals put forth by shareholders and management and vote our shares in accordance with our obligation as fiduciaries to maximize long-term shareholder value. Our position on certain management issues is outlined in our Statement of Guidelines and Procedures on Proxy Voting, available on our website. On ESG matters, we generally encourage companies to effectively implement ESG standards and to increase ESG disclosures as appropriate. However, given the increasing number of ESG issues and the increasing complexity and continuing evolution of these issues, voting on ESG matters is done after thorough analysis on a case-by-case basis.

During the year, we voted on 1,584 proxy proposals, up from 959 proposals in 2014.

### Proxy Proposals



Although HOOPP engages a third party service provider to assist in providing recommendations on voting proxies in accordance with our Proxy Voting Guidelines, we review each issue internally and may override their recommendations when deemed appropriate. For example, in 2015 we voted against the advice of our proxy advisor on the issue of board composition at a U.S. based retailer. Additionally, we may vote against management on shareholder proposals, as we did in 2015 on certain occasions on the issues of Board chair independence and say-on-pay resolutions.

For a number of years, HOOPP's real estate group has worked on implementing responsible investment principles across its property acquisition, development and management activities. The team follows internal processes and guidelines and also works in close collaboration with its development, asset- and property-management company partners.

Since the start of the program in 2010, the focus has been on implementing sustainability initiatives in new developments and in our existing real estate portfolio. For example, we

have implemented initiatives to reduce energy, water, waste and greenhouse gas (GHG) emissions, to engage with tenants and suppliers and to achieve green building certification. We report on these results through our “Pillar Scorecard”, which is published annually in HOOPP’s Real Estate *Sustainability Report*, available on our website.

In 2015, the real estate team continued to focus on incorporating sustainability in the underwriting of new building acquisitions as well as within ongoing asset management with the intent to formalize sustainability considerations and implement a fully integrated approach across the portfolio. The group also rolled out its first Leadership in Environmental Advancement Program or LEAP Conference in 2015 which took place in conjunction with HOOPP’s annual LEAP Awards. The Conference theme in 2015 was “Collaboration” and the Conference brought together over 70 of HOOPP’s management partners to share ideas and best practices on how working together can advance sustainability in real estate.

Other 2015 real estate responsible investing accomplishments included the following:

- the introduction of new toolkits and information packages within our Industrial Excellence Group – a program that supports sustainability practices in the industrial building portfolio, which will allow property managers to educate their respective industrial tenants on the benefits of and how to finance energy efficiency projects;
- receiving the 2015 Investment & Pensions Europe (IPE) Real Estate Global Award for Sustainable Strategy, which recognizes HOOPP as an industry leader with an established sustainability strategy to protect and enhance the value of its real estate assets;
- the fourth annual celebration of our property managers’ sustainability successes at the LEAP Awards and first LEAP Conference;
- achieving new LEED®, Leadership in Energy and Environmental Design, certifications for eight properties, bringing the total portfolio certification to 22 LEED® certifications; and
- being named as “Green Star” by GRESB, Global Real Estate Sustainability Benchmark, for the third consecutive year.



HOOPP is a signatory to the United Nations-supported Principles for Responsible Investment (PRI), the Canadian Coalition for Good Governance (CCGG), the CDP and a GRESB investor member.



## Plan Liabilities

The process of estimating the value of the Plan's pension liabilities, or future benefit payments, relies upon establishing numerous economic, financial and demographic assumptions. Financial or economic assumptions include inflation expectations, the future growth rate of employee wages and the future expected rate of return of the various investment strategies that comprise the investment portfolio.

Demographic assumptions include the retirement age of our members and their life expectancy. All of the assumptions made in the estimation of the total pension obligation implicitly assume that the Plan will operate for the foreseeable future, as a "going concern". Using these and other assumptions, together with our actual member data, we project the future benefits owed to plan members out over 80 years.

The valuation of these future pension liabilities into a monetary value today depends upon the financial assumption of the future expected return of our investment portfolio or the discount rate. To calculate the total value of these future pension benefits today, these estimated future payments are "*discounted*" by the estimated expected return of our investment portfolio. In simpler terms, we add up, for each future year, the amount of money that we would have to put aside today to make that future year's benefit payment, assuming the money put aside grows at the expected return. This sum is the present value of the pension liabilities.

Note that the actual future outcomes, both of financial and economic and demographic assumptions, will almost certainly differ from the assumptions made, and it is the difference between the actual outcomes and the assumptions made that is the main source of funding risk as discussed earlier in the section *Pension Plan Funding Management*.

A summary of the estimated plan liabilities or pension obligations as at the end of December 31, 2015 and 2014 is presented below:

|                            | 2015          | 2014   | % Change |
|----------------------------|---------------|--------|----------|
| (\$ millions)              |               |        |          |
| <b>Pension Obligations</b> | <b>49,151</b> | 46,923 | 4.75%    |

Changes in the value of the Plan's pension liabilities occur for a number of reasons.

Firstly, as members contribute to the Plan throughout the year, they "earn" future benefits, also called "benefit accrual". Additionally, the value of previously earned benefits grows at roughly the same rate as the expected return or discount rate, currently 5.65% per year. Offsetting the growth due to benefits accrued and the increase in value of previously earned benefits, are the pension benefits that were paid out during the year, which reduces the total pension obligation.

Secondly, changes in economic or demographic assumptions, such as changes in the future expected inflation rate, estimated life expectancy or retirement age will impact the calculation of the pension obligation. In 2015, we lowered our long-term assumption for inflation to 2.00% from 2.25%, due to the extended period of a low inflationary environment that we have

experienced since the financial crisis of 2008, and our current outlook that this scenario will likely persist into the future. This change reduced the estimated total pension obligation. We also reduced the members' earnings growth assumption, in the short-term, to reflect the most recent experience of our members. Additionally, minor changes were made to the retirement rate assumption to reflect recent experience and future expectations. Both of these changes also reduced the total pension obligation in 2015.

Finally, and perhaps most importantly, the discount rate or the future expected return on the investment portfolio can have a significant impact on the change in the total pension obligation. In 2015, a reduction in the discount rate from 5.85% to 5.65%, a 20 basis point decline, resulted in a \$1.4 billion increase in the estimated pension obligations. A more detailed discussion on the discount rate follows below.

*The table below shows the change in the Plan's Pension Obligation from 2014 to 2015.*

| (\$ millions)                                   |               |
|-------------------------------------------------|---------------|
| <b>Pension Obligations at December 31, 2014</b> | <b>46,923</b> |
| Increases in benefits due to members            | 2,362         |
| Changes in assumptions                          | (1,511)       |
| Change in discount rate (expected return)       | 1,377         |
| <b>Pension Obligations at December 31, 2015</b> | <b>49,151</b> |

## Discount Rate

Of all the assumptions underlying the estimation of the Plan's pension liabilities, one of the most important is the Fund's long-term expected return assumption, also referred to as the discount rate. The expected return is impacted to a significant extent by interest rates, since expected asset returns are based on interest rates across the entire yield curve. Lower interest rates mean new investments in fixed income assets will earn lower yields. Return seeking strategies (e.g. equities) also have expected returns that fall and rise with interest rates, since their return estimates are comprised of a theoretical "risk free" interest rate and risk premiums, or incremental returns in addition to the risk free rate. A decrease / (increase) in the discount rate causes a corresponding increase / (decrease) in the pension liability value. This volatility in the discount rate and its sensitivity to the valuation of the Plan's pension obligations was a primary reason for HOOPP's adoption of a Liability Driven Investing approach, where investment returns are sought with a view to offsetting the risk in the value of the Plan's liabilities due to changes in the discount rate.

At the end of 2015, the discount rate was decreased to 5.65% from 5.85% in 2014 due principally to declines in interest rates in Canada during the year.

|                    | <b>2015</b>  | <b>2014</b> |
|--------------------|--------------|-------------|
| Inflation Rate     | <b>2.00%</b> | 2.25%       |
| Real Discount Rate | <b>3.65%</b> | 3.60%       |
| Discount Rate      | <b>5.65%</b> | 5.85%       |

The table below highlights the sensitivity of the estimated pension obligation to changes in the discount rate:

| Change | Discount Rate | Pension Liability | Change as % |
|--------|---------------|-------------------|-------------|
|        |               | (\$ millions)     |             |
| +1.00% | 6.65%         | 42,806            | (13%)       |
|        | <b>5.65%</b>  | <b>49,151</b>     | -           |
| -1.00% | 4.65%         | 57,172            | 16%         |

## Operating Expenses

Prudent management of expenses is consistent with our mission to deliver on the pension promise by ensuring that more assets are available to deliver on future pension benefits. We prioritize spending to ensure that the Plan can operate efficiently today and invest in intellectual and technological capital that will allow us to continue to do so into the future.

HOOPP's 2015 operating expenses were \$201 million, a \$16 million or 8.6% increase over 2014 operating expenses of \$185 million and represent 0.31% of net assets (2014: 0.30%).

The table below shows 2015 and 2014 operating expenses in absolute amounts and expressed as a percentage of Net Assets.

|                                          | 2015          | 2014          |
|------------------------------------------|---------------|---------------|
| (\$ millions)                            |               |               |
| Investment Expenses                      | \$ 126        | \$ 116        |
| Plan Administration                      | 75            | 69            |
| <b>Total</b>                             | <b>\$ 201</b> | <b>\$ 185</b> |
| <b>Total Expenses as % of Net Assets</b> | <b>0.31%</b>  | 0.30%         |

## Member and Employer Services

**309,079**  
TOTAL MEMBERS

**61**  
AVERAGE AGE  
OF NEW RETIREES

**35**  
AVERAGE AGE  
OF NEW MEMBERS  
19,403 total; 59% work part-time

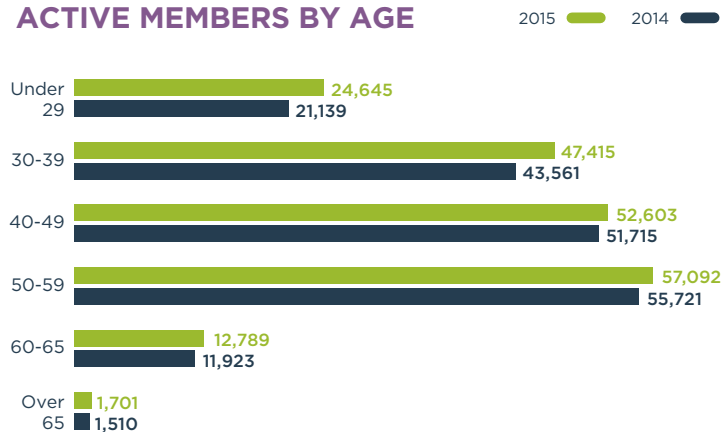


**196,245**  
ACTIVE

**87,195**  
RETIRED

**25,639**  
DEFERRED MEMBERS

### ACTIVE MEMBERS BY AGE



**\$24,000**  
AVERAGE NEW UNREDUCED  
ANNUAL PENSION

**70%**  
OF ACTIVE MEMBERS  
WORK FULL-TIME

**82.5%** **17.5%**  
ACTIVE MEMBERS

**30%**  
OF ACTIVE MEMBERS  
WORK PART-TIME



## Delivering on Our Pension Promise

HOOPP reached important milestones in 2015.

The Board of Trustees modified the Plan to expand part-time enrolment, providing an opportunity for all healthcare workers at HOOPP employers to start building a secure retirement income sooner.

As we welcomed new members and employers into the Plan, our commitment to outstanding service remains.

It was a year in which we built on our solid foundation, focusing on our promise to pay and protect our members' pensions, while making changes to prepare for the future.

## Stability and Security for all Plan Members

In 2015, HOOPP's Board of Trustees made a decision to remove eligibility requirements for part-time and other non-full-time workers at HOOPP employers. These employees now have the option to join the Plan – and start contributing to their pension – as soon as they begin working.

To support employers and members through this change, we provided additional outreach through regional manager meetings and new written and online materials clearly explaining the benefits of joining the Plan early in one's career.

### Cost of Living Adjustments

Understanding that inflation can erode purchasing power over time, the Board made a significant decision that continues to protect existing and future pensions from rising prices.

In 2015, retired and deferred members received two cost of living adjustments (COLA):

- a one-time catch-up that brought pension benefit levels, payable from April 2015 onwards, up to the amounts that now reflect adjustments at 100% of the Consumer Price Index (CPI) for the 2002 to 2013 period; during those years, COLA had been paid at 75% of the CPI; and
- a COLA to increase the pension benefit by 100% of the increase in the Consumer Price Index observed in 2014.

Made possible by the strong funded position of the Plan, these decisions by the Board to increase pensions to keep up with the rising cost of living will help ensure that HOOPP members are able to retire with security and dignity.

### Contribution Rates

HOOPP members contribute a percentage of their earnings above and below the year's maximum pensionable earnings (YMPE), set by the federal government. In 2015, the YMPE was \$53,600. Members contribute 6.9% of their annualized earnings up to the YMPE and 9.2% above the YMPE.

In 2015, the Board approved a measure to keep contribution rates, which have been unchanged since 2004, stable through the end of 2017.



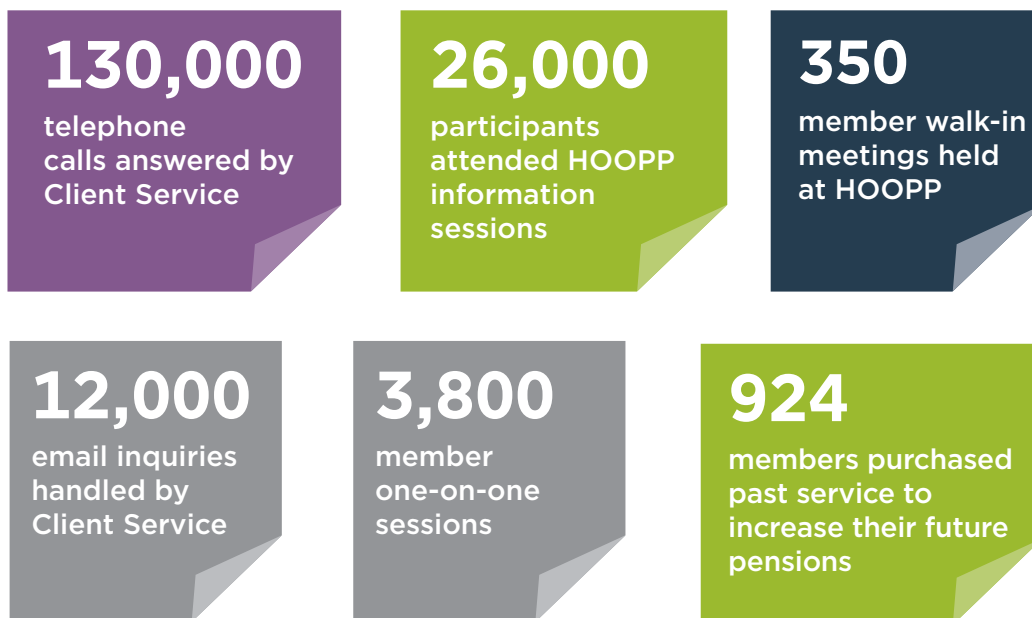
Among major pension plans in Ontario that are similar to HOOPP, ours is the only plan that has maintained this price stability while continuing to deliver a valuable pension. It is also one of the lowest cost plans for members and employers.

## Building on a Tradition of Exceptional Service

In 2015, HOOPP reached a new benchmark; we are proud to report that the Plan now has more than 300,000 active, retired, and deferred members.

We welcome this growth, as it ensures the continued health of the Plan, and the opportunity to deliver exceptional personal service to each and every member.

We're here to help our members – over the phone, in-person, and online – by providing clear, relevant, and timely information so they can make knowledgeable decisions about their pension.



HOOPP conducts client satisfaction research on a quarterly basis to track improvements in service and communications, and to monitor overall satisfaction levels.

According to our latest report, members showed a higher level of satisfaction with all aspects of our communications, as well as with the accuracy, consistency, and timeliness of the service they received from HOOPP.

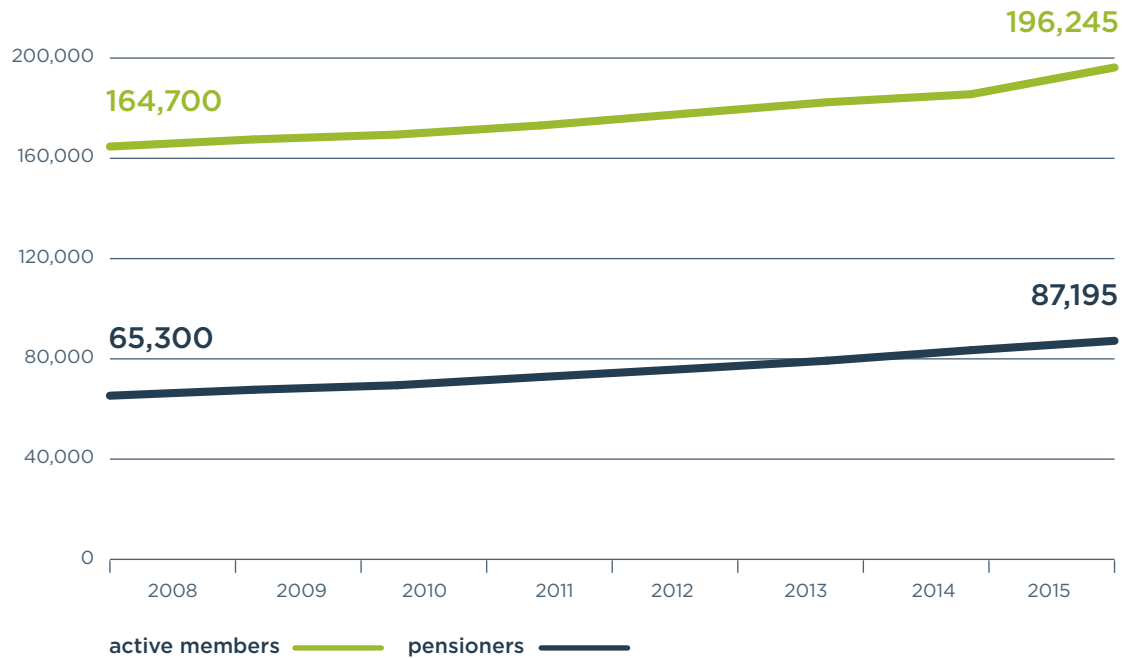
As a result, our client satisfaction rate, which has been gradually increasing for the last six years, reached a new high in 2015.

Employers also reported increased satisfaction in their experiences with Client Service and Member Data Collection, which is an annual initiative to ensure our membership data is accurate and up-to-date.

We are proud of this achievement. However, we are not resting on our laurels. Our aim is to deliver great service in a timely and accurate way while balancing cost.

## Our Members

### Membership Growth



Our membership reflects the changing face of the healthcare industry in Ontario.

While roughly half of our current members are employed at hospitals, our membership now includes employees at Family Health Teams, Local Health Integration Networks (LHIN), and other healthcare providers. Our diverse membership includes home care workers, dietitians, geriatric specialists, registered nurses, registered practical nurses, nurse practitioners, physical therapists, and medical technicians, as well as food and housekeeping services employees, and administrative staff.

More than 19,400 healthcare workers joined HOOPP in 2015, bringing our active membership to 196,245 members.

By the end of 2015, total plan membership, including 87,195 retired members and 25,639 deferred members reached 309,079 members. Nearly one-third, 30%, of our active members are part-time.

On average, our retired members are age 61 when they choose to begin their pensions. Our connection with these members stretches well beyond their retirement date; at the end of 2015, HOOPP had 70 retired members who were over age 100.

We recognize that for many of our members, their HOOPP pension may be one of their largest financial assets. We also know that pensions can be complex, and that's why we are committed to providing services and programs to help members make informed decisions about their benefits.

In 2015, HOOPP:

- held 21 pre-retirement planning seminars across the province, in 18 cities, educating over 5,000 participants about the features and benefits of the Plan. These sessions discussed basics about the Plan, how to determine the best time to retire, and early retirement options. These sessions also provided members the opportunity to meet one-on-one with Regional Managers and ask questions about their personal situations.
- held six post-retirement seminars in five cities for retired members, offering 1,000 participants the opportunity to learn about survivor benefits and inflation protection, as well as meet with HOOPP representatives to ask questions.
- embarked on new programs to reach deferred members by offering two convenient webcasts to discuss their options with HOOPP.

## New Ways to Engage Members

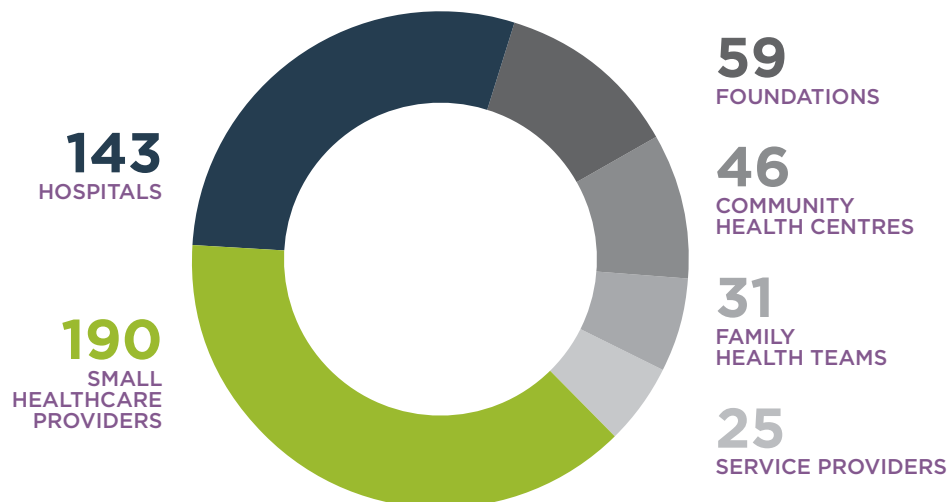
We continue to find ways to engage members through newsletters and online communications via our website and email. In 2015, we enhanced our presence on social media channels such as Twitter @HOOPPnow, as well as on Facebook, YouTube and LinkedIn.

Our members have told us that they want timely and relevant information, and we have responded to their feedback by using these channels to deliver information about the Plan, what's happening at HOOPP, and the importance of defined benefit (DB) pensions, in a way that lessens our impact on the environment.

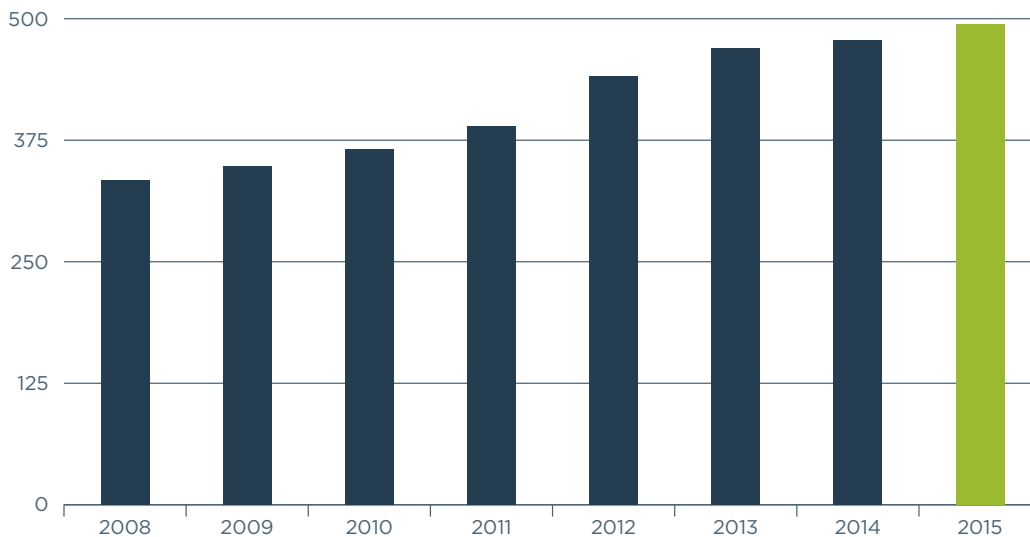
## Our Employers

At the end of 2015, HOOPP had over 490 participating employers across the province, including hospitals, Family Health Teams, Community Health Centres, and other healthcare organizations. Our employers range in size from hospitals with as many as 10,000 HOOPP members to Family Health Teams with fewer than a dozen members.

## Employer Breakdown



## Employer Growth



Offering the HOOPP defined benefit (DB) pension helps employers attract and retain the best employees and we are committed to assisting employers in these efforts. By providing constant communication and educational opportunities, our HOOPP employers can confidently provide information and tools to help members plan for retirement.

We couldn't deliver on our pension promise without our employers, who demonstrate their ongoing commitment and dedication as they fulfill their responsibilities to remit contributions, provide service data, and help their employees understand the value of their pension. We are proud to support these efforts; in 2015, HOOPP educated 1,600 employer contacts across the province about the Plan.

HOOPP continues to liaise with all areas of the healthcare industry, offering opportunities for employers and their staff to join HOOPP so they can benefit from a secure financial future.

## Sustainability for Tomorrow

At HOOPP, we pride ourselves on being a recognized leader in the pension industry and so it's important to us that our service levels are in line with this objective now and in the future.

In 2015, we upgraded our phone system which will enable us to continue to provide excellent service. We accomplished this significant and complex technological change without any disruption to our Client Service operation, which received 130,000 calls during the year.

Over the next few years, we will be upgrading our pension administration system. This initiative will enhance our ability to service our clients in the coming years, by lowering our costs and providing added flexibility to adapt to Plan changes.

As we reflect on 2015, we see a year in which we reached new thresholds, in both the size of our membership and the quality of service that we provide to them. Just as we took steps to protect the buying power of our members' pensions, we are preparing our organization and its technology infrastructure for the coming years.

What will not change: our commitment to deliver on the pension promise.

# Plan Governance

## The HOOPP Mission

The HOOPP Board of Trustees governs the HOOPP Plan and Fund with the important context and distinct focus of meeting our mission to deliver on the pension promise. HOOPP's management is similarly dedicated to delivering on HOOPP's pension promise and serving the best interests of HOOPP members. This alignment among HOOPP's Board members and management is a defining feature of HOOPP's governance. It is also entirely consistent with the type of duties (fiduciary) owed to plan beneficiaries on which everyone responsible for the administration of the Plan and the investment of the Fund must stay focused and be accountable.

## The HOOPP Board

The HOOPP Board's sole function and focus is the administration of the HOOPP Plan and the investment and management of the assets of the HOOPP Fund. The Board's authority, derived from the creators (or settlors) of the HOOPP pension trust is consistent with this function and focus.

## Standing Committees

The work of the HOOPP Board is supported by its four standing committees:

- the Asset-Liability Management Committee;
- the Audit & Finance Committee;
- the Governance & HR Committee, and
- the Plan Committee.

As important components of HOOPP's governance framework, there are documented mandates for each of these Committees and for the Board itself, as well as documented descriptions of the roles and responsibilities of the Board Chair and Vice Chair and of the various Committee Chairs. These documents outline and clarify the various roles and responsibilities in the Board governance process. Processes and protocols are followed to ensure that the information and documentation which the Board and its Committees require to function properly are accurate, complete and prepared and delivered in a timely manner.

## Delegations of Authority

The Board clearly documents and regularly reviews the authority that it delegates to the President & CEO (the Plan Manager) in accordance with the terms of the HOOPP Trust. In turn, HOOPP's President & CEO also clearly documents and regularly reviews further delegations of authority to designated HOOPP employees covering significant day-to-day operations: the investment of Fund assets, the procurement of goods and services, the making of payments including electronic funds transfers and the accessing of critical HOOPP data and IT systems

HOOPP also negotiates written agreements with its agents, advisors and other service providers to clearly document in each case the service providers' roles, responsibilities and accountabilities in relation to HOOPP in addition to the applicable business terms. Examples of the Board's key agents and advisors include the Plan actuary, auditors, custodian, independent legal counsel, investment advisors and compensation advisor.

## Governance Reviews

Good governance should involve an organizational commitment to continuous improvement. Such a commitment is particularly important in relation to change management. As the organization undergoes change, good governance requires periodic reviews of the continuing effectiveness or appropriateness of an organization's structures, mandates, policy documents and its practices and procedures. HOOPP's Board and management share such a commitment to continuous improvement and follow an approach that involves such periodic reviews.

## Role of Risk Management in Governance

As a defined benefit (DB) pension plan with a mission to deliver on HOOPP's pension promise, the main risk which HOOPP must manage particularly well is funding risk, detailed in the earlier section, *State of the Plan*, because a failure to adequately manage this risk could threaten HOOPP's mission.

HOOPP also manages other risks which, while not of the same impact, are treated as very important nevertheless: these other risks fall into the category of either entity-level risks or operational risks. The entity-level risks which HOOPP faces are identified, assessed and managed as part of the organization's enterprise risk management (ERM) framework which, among other things, identifies the roles and responsibilities for risk identification, mitigation, reporting and oversight. An overall assessment of entity-level risks is undertaken and the results are documented annually with input from HOOPP's senior executives. These annual results are reported to the Audit & Finance Committee of the Board. The assessment and management of individual risks are also reported on a regular basis.

HOOPP's Board and senior management also consider the management of operational risks to be very important. HOOPP's senior management has for many years sought to foster a risk-conscious culture throughout the organization.

HOOPP's governance and risk management programs and processes continue to include:

- programs and processes designed to prudently manage the recruitment, retention, performance and development of HOOPP employees, its critical resource;
- a *Code of Business Conduct* and supporting policies which emphasize HOOPP's commitment to members and other beneficiaries and the roles and responsibilities of Board members, staff and agents and advisors for helping to meet the commitment;
- a well-developed board and committee reporting and decision-making process;
- robust "stress testing" tools custom designed and maintained to measure the impact of potential future economic scenarios on both Fund assets and Plan liabilities - to best manage the risks relating to investment assets, pension obligations payable in the future, as well as the investment strategies employed to achieve the required risk-adjusted returns;

- an Internal Audit team that provides to management and the Audit & Finance Committee of the Board independent assurance through audits of certain identified operational processes intended to help management maintain and, where needed, improve the effectiveness of operational controls;
- the appointment of a Privacy Officer who works closely with those HOOPP staff members who share the responsibility of implementing, maintaining and monitoring HOOPP's policies and procedures as they relate to the protection of members', pensioners' and employees' personal information;
- the ongoing maintenance of records and data retention schedules guided by both Board- and organization-level policies and a policy framework;
- disaster recovery and business continuity programs that are mature and tested to help maintain and, where needed, improve the resiliency of HOOPP's core operations and processes in the event of disruption; and
- a number of stakeholder communications channels that include regular engagement with members and employers by dedicated Regional Managers and periodic pension seminars for members held in venues throughout the province (including opportunities for one-on-one sessions between members and HOOPP staff) where information is provided to enable members to better understand the value of their HOOPP pension and how to make the most of it in retirement.

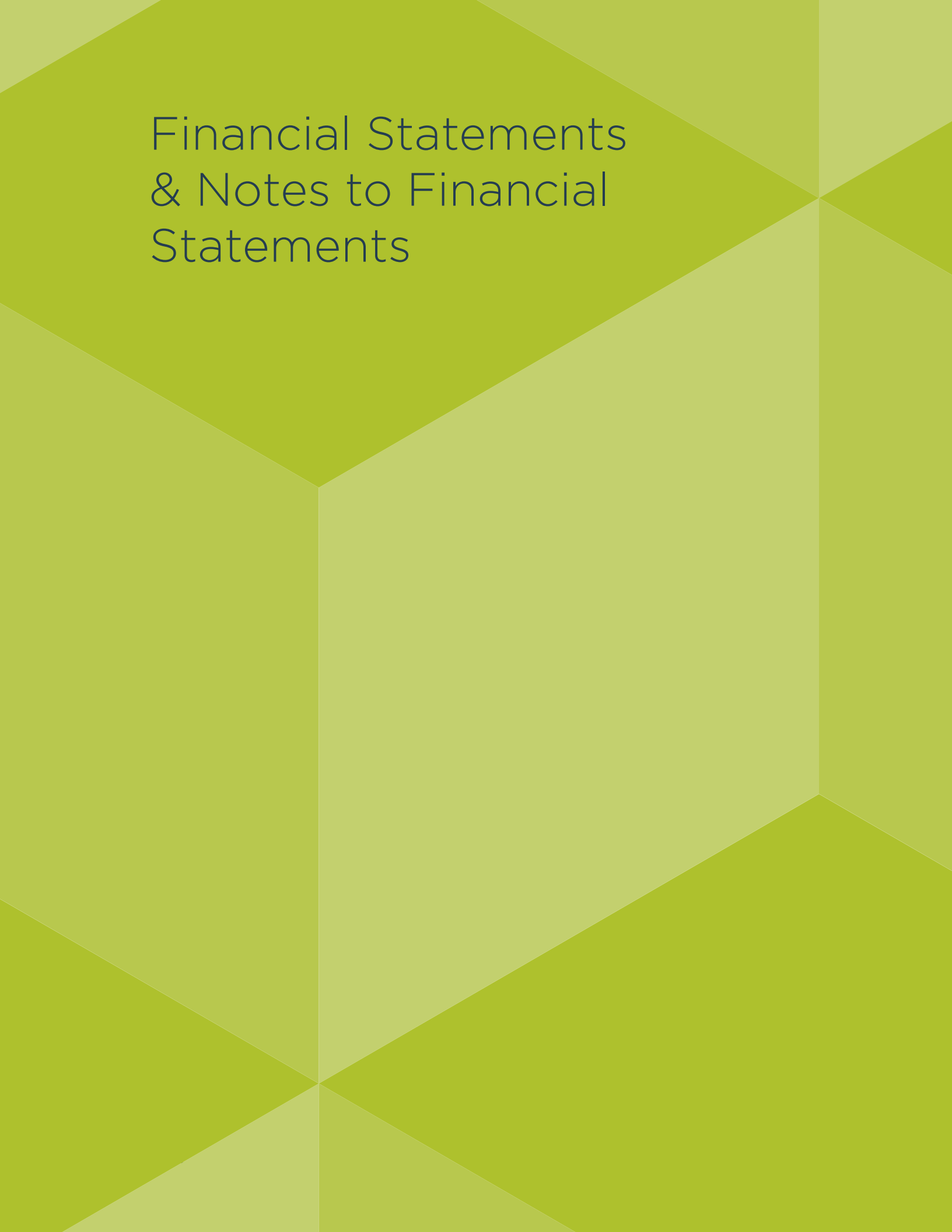
## Internal Controls Over Financial Reporting

As part of HOOPP's commitment to effective governance, HOOPP elects to follow the standards outlined in National Instrument 52-109 published by the Canadian Securities Administrators for reporting issuers, though these rules and policies are not binding on HOOPP.

The President and Chief Executive Officer (CEO) and the Senior Vice-President and Chief Financial Officer (CFO) are responsible for ensuring that procedures are established and maintained to ensure internal control over financial reporting and Financial Statement note disclosures. These controls are designed to provide reasonable assurance regarding the reliability of financial reporting including the preparation of financial statements for external purposes in accordance with Canadian generally accepted accounting principles (GAAP).

During the past year, HOOPP leveraged the framework and criteria set out in the *Internal Control - Integrated Framework (2013)* issued by the *Committee of Sponsoring Organizations of the Treadway Commission* (COSO) to conduct a comprehensive evaluation of its internal control over financial reporting (ICFR).

HOOPP has evaluated the effectiveness of its ICFR and the results confirm its ICFR is properly designed and operating effectively to provide reasonable assurance regarding the reliability of financial reporting as at December 31, 2015.



# Financial Statements & Notes to Financial Statements



## Management's Responsibility for Financial Reporting

The financial statements of the Healthcare of Ontario Pension Plan (the Plan) and the accompanying notes, which are an integral part of the financial statements, have been prepared by management and approved by the Board of Trustees (the Board).

Management is responsible for the integrity and fairness of the information presented, including amounts that are based on best estimates and judgments. These financial statements were prepared in accordance with Canadian generally accepted accounting principles (GAAP) and comply with the financial reporting requirements of the *Pension Benefits Act* (Ontario) and *Regulations* (PBA). The significant accounting policies are disclosed in note 1 to the financial statements and the financial information presented throughout the annual report is consistent with that found in the financial statements.

Systems of internal control and supporting procedures have been established and maintained to provide reasonable assurance that transactions are authorized, assets safeguarded and proper records maintained. These controls include an organizational structure that provides a well-defined division of responsibilities, a corporate code of conduct, accountability for performance and the timely communication of policies and guidelines throughout the organization.

Ultimate responsibility for the financial statements rests with the members of the Board. The Audit & Finance Committee, consisting of four members who are not officers or employees of the Plan, reviews the financial statements and recommends them to the Board for approval. The Audit & Finance Committee also assists the Board in its responsibilities by reviewing

recommendations from the external and internal auditors, and management's action plans to respond to recommendations for improvements in internal control over financial reporting arising from their audits. The Audit & Finance Committee meets regularly with management and the external and internal auditors to review the scope and timing of their audits, findings, and recommendations for improvement, and to satisfy itself that it has appropriately discharged its responsibilities.

The Plan's external auditor, PricewaterhouseCoopers LLP, was appointed by the Board and is directly responsible to the Audit & Finance Committee. The Plan's external auditor has conducted an independent examination of the financial statements in accordance with Canadian generally accepted auditing standards, performing such tests and procedures as they consider necessary to express an opinion in their Independent Auditor's Report. The external auditor has full and unrestricted access to management and the Audit & Finance Committee to discuss their audit approach and any findings arising from their financial statement audit that relate to the integrity of the Plan's financial reporting and the adequacy of the systems of internal control.



**Jim Keohane**  
President &  
Chief Executive  
Officer



**Barbara Thomson**  
Senior Vice President,  
Finance & Chief Financial  
Officer

March 2, 2016

## Actuaries' Opinion

Towers Watson Canada Inc. (Towers Watson) was retained by the Board of Trustees of the Healthcare of Ontario Pension Plan to perform an actuarial valuation of the Plan as at December 31, 2015. The purpose of this valuation is to determine pension obligations of the Plan as at December 31, 2015, for inclusion in the Plan's financial statements in accordance with Section 4600, *Pension Plans*, of the Chartered Professional Accountants of Canada (CPA Canada) Handbook.

We have undertaken such a valuation and provided the Board with our related report. As this valuation was undertaken for purposes of the Plan's financial statements under the CPA Canada Handbook Section 4600, *Pension Plans*, it might not be appropriate for other purposes and should not be relied upon or used for any other purpose.

The results of the valuation disclosed total going concern pension obligations of \$49,151 million in respect of service accrued to December 31, 2015 and a smoothed value of net assets of \$59,998 million determined at the same date.

The valuation of the Plan's going concern pension obligations was based on:

- members' demographic data provided by HOOPP management as at October 1, 2015 and members' pay data provided as at December 31, 2014, all of which was projected to December 31, 2015, using management's estimates of experience for the intervening periods;
- the benefits specified by the terms of the Plan including the 100% of 2015 CPI adjustment (1.61%) which will become effective April 1, 2016 in respect of all pensioners' and deferred vested members' benefits and the expected ad hoc inflation protection intended to be granted April 1, 2017 through April 1, 2018 (75% of increase in CPI) which the Board approved in 2012; and
- assumptions about future events (for example, economic factors such as future rates of inflation and returns on the pension fund, as well as demographic factors) which were developed by Plan

management in consultation with Towers Watson and have been adopted by Plan management and approved by the Board.

Changes have been made to the actuarial assumptions affecting the pension obligations since the previous valuation for the purpose of the Plan's financial statements at December 31, 2014, as described in the notes to the financial statements.

The smoothed value of the Plan's net assets was based on financial information provided by HOOPP management and the asset smoothing method adopted by Plan management which smoothes out short-term market fluctuations.

We have reviewed the data used for the valuation and have performed tests of reasonableness and consistency.

*In our opinion,*

- *the membership data are sufficient and reliable for the purpose of the valuation;*
- *the assumptions adopted are appropriate for the purpose of the valuation;*
- *the methods employed in the valuation are appropriate for the purpose of the valuation; and*
- *this valuation has been completed in accordance with our understanding of the requirements of the Chartered Professional Accountants of Canada (CPA Canada) Handbook Section 4600, Pension Plans.*

Nonetheless, differences between future experience and our assumptions about such future events will result in gains or losses which will be revealed in future valuations.

Our valuation was prepared and our opinions given in accordance with accepted actuarial practice in Canada.

**Towers Watson Canada Inc.**



**Ian Markham**  
Fellow, Canadian  
Institute of Actuaries

March 2, 2016



**Laura Newman**  
Fellow, Canadian  
Institute of Actuaries

# Independent Auditor's Report

## To the Board of Trustees of Healthcare of Ontario Pension Plan (HOOPP)

We have audited the accompanying financial statements of HOOPP, which comprise the statements of financial position as at December 31, 2015 and 2014 and the statements of changes in net assets available for benefits and changes in pension obligations for the years then ended, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment

of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of HOOPP as at December 31, 2015 and 2014 and the changes in its net assets available for benefits and changes in its pension obligations for the years then ended in accordance with Canadian accounting standards for pension plans.

*PricewaterhouseCoopers LLP*

**Chartered Professional Accountants,  
Licensed Public Accountants**

Toronto, Ontario  
March 2, 2016

# Statements of Financial Position

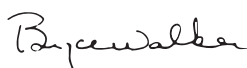
| As at December 31                        | 2015           | 2014           |
|------------------------------------------|----------------|----------------|
| (\$ millions)                            |                |                |
| <b>NET ASSETS AVAILABLE FOR BENEFITS</b> |                |                |
| <b>Assets</b>                            |                |                |
| Investment assets (note 2)               | \$ 147,336     | \$ 129,404     |
| Contributions receivable                 |                |                |
| Employers                                | 87             | 86             |
| Members                                  | 69             | 70             |
| Other assets (note 7)                    | 165            | 151            |
| <b>Total assets</b>                      | <b>147,657</b> | <b>129,711</b> |
| <b>Liabilities</b>                       |                |                |
| Investment liabilities (note 2)          | 83,616         | 68,753         |
| Other liabilities                        | 117            | 110            |
| <b>Total liabilities</b>                 | <b>83,733</b>  | <b>68,863</b>  |
| <b>Net assets available for benefits</b> | <b>63,924</b>  | <b>60,848</b>  |
| <b>Pension obligations</b> (note 11)     | <b>49,151</b>  | <b>46,923</b>  |
| <b>Surplus</b> (note 11)                 | <b>14,773</b>  | <b>13,925</b>  |

See Description of Plan and accompanying notes to financial statements.

## ON BEHALF OF THE BOARD OF TRUSTEES



**Helen Fetterly**  
Chair of the Board



**Bryce Walker**  
Vice Chair of the Board



**Wayne Gladstone**  
Chair, Audit &  
Finance Committee

## Statements of Changes in Net Assets Available for Benefits

| Year ended December 31                                      | 2015             | 2014             |
|-------------------------------------------------------------|------------------|------------------|
| (\$ millions)                                               |                  |                  |
| <b>Net assets available for benefits, beginning of year</b> | <b>\$ 60,848</b> | <b>\$ 51,626</b> |
| <b>Investment operations</b>                                |                  |                  |
| Net interest and dividend income (note 4a)                  | <b>5,385</b>     | 5,468            |
| Net gain (loss) on investments (note 4a)                    | <b>(2,282)</b>   | 3,637            |
| Operating expenses - investment (note 10)                   | <b>(126)</b>     | (116)            |
| <b>Total investment operations</b>                          | <b>2,977</b>     | 8,989            |
| <b>Plan operations</b>                                      |                  |                  |
| Contributions (note 8)                                      |                  |                  |
| Employers                                                   | <b>1,108</b>     | 1,075            |
| Members                                                     | <b>991</b>       | 929              |
| Benefit payments (note 9)                                   | <b>(1,835)</b>   | (1,630)          |
| Refunds and transfers (note 9)                              | <b>(90)</b>      | (72)             |
| Operating expenses - plan (note 10)                         | <b>(75)</b>      | (69)             |
| <b>Total plan operations</b>                                | <b>99</b>        | 233              |
| <b>Change in net assets available for benefits</b>          | <b>3,076</b>     | 9,222            |
| <b>Net assets available for benefits, end of year</b>       | <b>\$ 63,924</b> | <b>\$ 60,848</b> |

See Description of Plan and accompanying notes to financial statements.

## Statements of Changes in Pension Obligations

| Year ended December 31                        | 2015             | 2014             |
|-----------------------------------------------|------------------|------------------|
| (\$ millions)                                 |                  |                  |
| <b>Pension obligations, beginning of year</b> | <b>\$ 46,923</b> | <b>\$ 41,478</b> |
| <b>Changes in pension obligations</b>         |                  |                  |
| Interest accrued on benefits                  | <b>2,746</b>     | 2,594            |
| Benefits accrued                              | <b>1,947</b>     | 1,763            |
| Amendments to the plan (note 11)              | <b>115</b>       | 666              |
| Changes in actuarial assumptions (note 11)    | <b>(134)</b>     | 2,201            |
| Estimated experience gains (note 11)          | <b>(521)</b>     | (77)             |
| Benefits paid (note 9)                        | <b>(1,925)</b>   | (1,702)          |
| <b>Total changes in pension obligations</b>   | <b>2,228</b>     | 5,445            |
| <b>Pension obligations, end of year</b>       | <b>\$ 49,151</b> | <b>\$ 46,923</b> |

See Description of Plan and accompanying notes to financial statements.

# Notes to Financial Statements

## Description of Plan

The following description of the Healthcare of Ontario Pension Plan Trust Fund (HOOPP or the Plan) is a summary only. A complete description of the Plan provisions can be found in the *HOOPP Plan Text*, the official Plan document.

### General

The Plan is a contributory defined benefit jointly sponsored pension plan, where factors, such as earnings and years of service, define members' benefits. The Plan was established under an *Agreement and Declaration of Trust* (as amended) for the benefit of eligible employees of participating employers.

The Board, consisting of 16 voting members, governs HOOPP. The Ontario Hospital Association (OHA) appoints eight Trustees, while four unions, namely the Ontario Nurses' Association (ONA), the Canadian Union of Public Employees (CUPE), the Ontario Public Service Employees Union (OPSEU) and the Service Employees International Union (SEIU), each appoint two Trustees. Each Trustee has a legal obligation to administer the Plan in the best interests of all its members, regardless of their union or other affiliation.

HOOPP is registered with the Financial Services Commission of Ontario (FSCO), and with the Canada Revenue Agency (CRA) under Registration Number 0346007.

In conjunction with its Registered Pension Plan (RPP), HOOPP operates a Retirement Compensation Arrangement (RCA). The RCA is administered as part of the overall Plan; however, its assets are held in a segregated account. The RCA provides supplementary pension benefits to members whose earnings result in a pension that exceeds the maximum pension permitted under the *Income Tax Act* (Canada) and *Regulations* (ITA) for RPPs. Additional information on the RCA is disclosed in note 13.

The Board is responsible for administering the Plan in accordance with the PBA, the ITA, the *Plan Text* and HOOPP's policies and procedures.

### Funding

Plan benefits are funded by contributions and investment earnings. The Board's Funding Decision Framework aims to secure the pension promise and achieve long-term stability in contribution rates for both employers and members. Actuarial funding valuations are conducted annually to determine pension obligations, the funded position, and contribution requirements of the Plan.

Under the terms of the Plan, contributions are set by the Board to cover the total annual cost of benefits. This includes the current service cost of benefits (with recognition of HOOPP's administrative expenses), plus special payments required to amortize unfunded pension obligations less any surplus amortization amounts, if applicable.

## Retirement Pensions

A retirement pension is based on the member's contributory service, the highest average annualized earnings during any consecutive five-year period, and the most recent three-year average year's maximum pensionable earnings (YMPE).

Members can receive an unreduced pension at the earlier of age 60 or as soon as they have completed 30 years of eligibility service, provided they have attained at least 55 years of age. Members are eligible to retire at age 55, usually with a reduced pension.

Members who retire early will receive a bridge benefit until age 65 or death, whichever occurs first. The bridge benefit supplements a member's basic HOOPP pension until age 65 when CPP benefits normally begin. An early retirement transition benefit, which provides an additional supplement payable until age 65, is also available to retiring members who met certain eligibility requirements by the end of 2005.

Members who choose to work beyond age 65 can continue to earn benefits until November 30 of the calendar year in which the member turns age 71.

## Disability Benefits

A disability pension is available to disabled members who meet the eligibility requirements. A disability pension is based on the member's contributory service and average annualized earnings earned to the date of disability retirement with no reduction for early pension commencement and no entitlement to a bridge benefit.

Alternatively, a disabled member may elect to continue to accrue service at no cost until age 65 or until they have accrued 35 years of contributory service, whichever occurs first.

## Death Benefits

A death benefit may be available to a surviving spouse or designated beneficiary upon the death of a member. Depending on eligibility requirements, the benefit may be paid in the form of a survivor pension or lump-sum payment.

## Portability

Members who terminate employment shall be entitled to receive a deferred pension. They may also opt to transfer the commuted value of the benefit out of HOOPP to another pension plan or registered retirement vehicle, subject to locking-in provisions and certain age restrictions.

Members wanting to transfer their contributions or the value of their benefits from another registered pension plan to HOOPP can do so, provided the transfer meets all eligibility requirements and the other plan agrees to transfer the funds.

## Inflation Protection

Retirement pensions and deferred pensions are adjusted annually by an amount equal to 75% of the previous year's increase in the Canadian Consumer Price Index (CPI) for all contributory service earned through to the end of 2005. Depending on the Plan's financial status and other factors, the Board can approve an annual increase above the guaranteed level up to 100% of the increase in the previous year's CPI.

For retirements and deferred retirements occurring after 2005, the Board may approve an annual increase of up to 100% of the increase in CPI in respect of pensions earned for service after 2005.

In all cases, the increases in CPI are limited to an annual maximum of 10%.

### Income Taxes

The Plan is comprised of an RPP and an RCA as defined in the ITA. The RPP component is generally exempt from income taxes for contributions and investment income earned. Funds received and income earned in the RCA are taxable. Depending on the contributions received, benefit payments made, and investment income earned through the RCA, a portion of taxes may be refundable and is disclosed in note 7 as refundable withholding tax on contributions.

## Note 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Basis of Presentation

The financial statements of the RPP and RCA plans are combined for purposes of presenting HOOPP's financial statements, prepared in accordance with accounting standards for pension plans and compliant with the requirements of Part IV of the CPA Canada Handbook, specifically Section 4600, *Pension Plans*, and the relevant sections of the Canadian accounting standards for private enterprises (AsPE) in Part II of the CPA Canada Handbook (referred to herein as "Canadian GAAP").

The financial statements also address certain disclosure requirements issued by FSCO in 2013 and amended in 2014. These disclosure requirements came into effect for fiscal years ending on or after July 1, 2013. The requirements are addressed by disclosures within certain notes to the financial statements.

Certain comparative amounts have been reclassified to conform to the current year's presentation. The significant accounting policies used in the preparation of these financial statements are summarized below.

### Investments

#### Valuation

All investment transactions are recorded when the risks and rewards of ownership are transferred. Investment transactions relating to marketable securities and derivatives are recorded as of the trade date. Investments are recorded at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market between market participants at the measurement date under current market conditions, regardless of whether that price is directly observable or estimated using another valuation technique.

The quoted market price, when available, is used to measure fair value. When the quoted market price is not available, management uses appropriate valuation techniques to determine fair value. The valuation techniques include discounted cash flows, earnings multiples, prevailing market rates for comparable instruments with similar characteristics and/or in similar industries, pricing models and management's best estimates. Inputs used to determine fair values include contractual cash flows and interest rates, interest rate discount curves, credit



spreads and volatilities. The output of any pricing model is an approximation of a fair value that cannot be determined with certainty and valuation techniques employed may not fully reflect all factors relevant to the investments held.

The fair values of investments are determined as follows:

- i. Cash and cash collateral pledged or received are recorded at cost, which is equivalent to their fair value.
- ii. Short-term securities are valued at quoted market prices if they exist. Otherwise, they are recorded at cost or amortized cost, which together with accrued interest approximates fair value due to their short-term nature.
- iii. Bonds are generally valued based on quoted mid-market prices obtained from independent, multi-contributor third party pricing sources. Where quoted prices are not available, fair values are calculated using either discounted cash flows based on current market yields on comparable securities, or prices provided by independent third parties.
- iv. Commercial loans are valued using discounted cash flows based on current market yields on comparable securities.
- v. Securities purchased under resell agreements and securities sold under repurchase agreements, all of which mature within 90 days, are accounted for as collateralized lending and collateralized borrowing transactions, respectively, and are recorded at cost, which together with accrued interest approximates fair value due to their short-term nature.
- vi. Public equities are valued at quoted closing market prices. When quoted closing market prices are not available, appropriate valuation techniques and pricing models are used to estimate fair value.
- vii. Investments in real estate include investments held directly and through ownership in limited partnership funds. Direct investments in income-producing properties are valued at estimated fair values based on annual appraisals determined by independent accredited appraisers. Independent accredited appraisers review any appraisals occurring prior to December 1 at year end to determine whether further adjustments to fair value are required. In the year of acquisition, cost is used as an approximation for fair value, unless there is evidence of a significant change in value. Properties under development are recorded at cost. Investments in limited partnership funds are valued based on financial information provided by the funds' General Partners under limited partnership agreements (unless a specific and conclusive reason exists to vary from the value provided by the General Partners). Mortgages held on real estate investments are valued using discounted cash flows based on current market yields on comparable securities.
- viii. Investments in private equities and special situations include investments held directly and through ownership in limited partnership funds. Direct investments are valued using quoted market prices, or through the use of other appropriate valuation techniques. In the year of acquisition, cost is used as an approximation for fair value, unless there is evidence of a significant change in value. Investments in limited partnership funds are valued based on financial information provided by the funds' General Partners under limited partnership agreements (unless a specific and conclusive reason exists to vary from the value provided by the General Partners).

- ix. Exchange-traded derivatives are valued based on quoted closing market prices. For over-the-counter derivatives, where quoted closing prices are not available, appropriate valuation techniques and pricing models are used to estimate fair value. These internally developed pricing models, based on generally accepted valuation models, use readily observable market prices and inputs that are actively quoted and can be validated with external sources, including industry data and pricing services. Depending on the types and contractual terms of derivatives, fair value can be modeled using a series of techniques that are consistently applied. The valuation techniques used by HOOPP require one or more of the following key inputs:
- bond prices – quoted prices are generally available from pricing services for government bonds and most corporate bonds;
  - credit spreads – obtained from independent pricing services or derived based on other credit-based instruments;
  - foreign currency exchange rates – forward and spot exchange rates are obtained from an independent data service;
  - implied volatilities – obtained or derived from independent data services;
  - interest rates – quoted rates obtained from central banks and from swap, bond and futures markets; and
  - public equity and equity indices prices – based on quoted closing market prices.

Investments also include pending trades, accrued investment income and accrued investment liabilities. These investments are recorded at amortized cost, which approximates fair value due to their short-term nature.

## Net Investment Income (Loss) Recognition

### Net Investment Income (loss)

Net investment income (loss) generally consists of net interest and dividend income, which includes net operating income (loss) from investments in real estate, and private equity and special situations, as well as realized gains (losses) and cash settlements on investments, and unrealized gains (losses) resulting from changes in fair value.

Net interest income, which includes net real estate operating income, is recognized on an accrual basis and net dividend income is recognized on the ex-dividend date. The change in unrealized gains and losses on investments represents the year-over-year change in the difference between the cost and the fair value of investments. Realized gains and losses on investments are recognized upon disposition and are calculated based on average cost.

### Management Fees

Certain management and performance fees related to investments in real estate and private equity are expensed as incurred and reported as a component of total investment income.

## Transaction Costs

Transaction costs, which are incremental costs attributable to the acquisition, issue or disposal of investments, are expensed as incurred, and reported as a component of total investment income.

## Foreign Currency Translation

Investment assets and investment liabilities denominated in foreign currencies are translated into Canadian dollars at the rate of exchange prevailing at the year-end date. Investment income and expenses are translated into Canadian dollars at the rate of exchange prevailing on the date of the transaction. The realized gains and losses arising from these investment transactions are included in realized gains and losses on the sale of investments. Unrealized gains and losses on translation of investment assets and investment liabilities are included in the change in unrealized gains and losses on investments.

## Pension Obligations

Pension obligations are determined based on an actuarial valuation prepared by an independent actuarial consulting firm. These pension obligations are measured in accordance with accepted actuarial methods using actuarial assumptions and methods adopted by HOOPP for the purpose of establishing the long-term funding requirements of the Plan. The year-end valuation of pension obligations is based on data extrapolated to the current valuation date of December 31. The valuation uses the projected accrued benefit actuarial cost method and management's estimate of certain future events.

The pension obligations included in these financial statements are consistent with the results that would be used for a December 31 regulatory filing valuation if one were to be completed.

## Contributions

Contributions from members and employers are recorded on an accrual basis. Contributions for past service purchases and transfers from other plans are recorded when received.

Contributions received are reconciled annually, one year in arrears, to ensure the appropriate amounts have been remitted. To perform this reconciliation, HOOPP requires each employer to verify and update HOOPP's records for each of their member's service and contributions. With this information, HOOPP performs a reconciliation for each employer to determine if the correct amount of contributions has been remitted to HOOPP. Once this reconciliation is complete, HOOPP is able to calculate the amount of any differences related to contributions. Any shortfalls are recovered from the employer and overpayments are refunded.

## Benefits

Benefit payments to members and pensioners, commuted value transfers, refunds to former members, and transfers to other pension plans are recorded in the period in which they are paid. Any benefit payment accruals not paid are reflected in the pension obligations.

## Fixed Assets

Fixed assets are recorded at cost and amortized on a straight-line basis over their estimated useful lives.

## Use of Estimates

The preparation of the financial statements requires management to make estimates and assumptions based on information available as at the date of the financial statements. Such estimates and assumptions may affect the reported amounts of assets and liabilities, income and expenses, pension obligations and related disclosures. Significant estimates are used primarily in the determination of pension obligations (note 11) and the fair value of certain investments (note 2). Actual results could differ from those estimates.

## Related Party Transactions

HOOPP's Board, management and subsidiaries are considered related parties according to CPA Canada Handbook, Section 3840, *Related Party Transactions*. Any transactions between these related parties and HOOPP are not significant for the purposes of these financial statements, except for those disclosed in note 14.

## Note 2 – INVESTMENTS

The investment objective of the Plan is to earn an annual average rate of return that exceeds its long-term funding target by employing appropriate asset mix policies and risk diversification strategies. The nominal long-term return target of the Plan during the year was 6.04%.

Investment assets and investment liabilities are measured at fair value and classified using a fair value hierarchy that is based on the methods and assumptions used to determine their fair values. The fair value hierarchy gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and lowest priority to unobservable inputs. The fair value hierarchy has the following three levels:

- *Level 1* – unadjusted quoted prices in active markets for identical assets or liabilities;
- *Level 2* – inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- *Level 3* – inputs for the asset or liability that are not based on observable market data (i.e., unobservable inputs).

In some cases the inputs used to measure the fair value of an investment asset or investment liability might be categorized within different levels of the fair value hierarchy. In those cases, the classification for each asset or liability is determined based on the lowest level input that is significant to the entire assessment. For this purpose, the significance of an input is assessed against the fair value measurement in its entirety. Assessing the significance of a particular input to the fair value measurement requires judgment and evaluation of factors specific to the investment asset or investment liability being considered. Determining whether an input is observable also requires considerable judgment. Observable data is considered to be market data that is readily available, regularly distributed and updated, easily corroborated and obtained from independent sources that are actively involved in that particular market.

Investments that are classified as Level 1 include actively traded equity investments and exchange traded derivatives. These investments are valued at quoted, unadjusted, closing market prices. Cash is also included as Level 1.

Investments that are classified as Level 2 include most government and corporate bonds and over-the-counter derivatives. For these investments, fair values are either derived from a number of prices that are provided by independent price sources or from pricing models that use observable market data such as swap curves, credit spreads and volatilities.

There were no significant transfers between Level 1 and Level 2 during 2015 or 2014.

Investments that are classified as Level 3 include investments in real estate, private equity and special situations, some over-the-counter derivatives and some marketable securities. For these investments, trading activity is infrequent and fair values are derived using valuation techniques. The significant inputs used in the pricing models are either not observable or assumptions are made about significant inputs.

Transfers from Level 2 to Level 3 occur when an investment asset's or investment liability's fair value, which was determined previously through the use of a valuation technique with significant observable inputs, is now determined using a valuation technique with significant unobservable inputs. Transfers from Level 3 to Level 2 occur when techniques used for valuing the investment involve significant observable inputs that were previously unobservable.

## a. Fair value hierarchy

The Plan's investment assets and investment liabilities are presented in the table below:

| 2015                                                        |                    |                  |                  |                         |                  |                  |
|-------------------------------------------------------------|--------------------|------------------|------------------|-------------------------|------------------|------------------|
| (\$ millions)                                               | Level 1            | Level 2          | Level 3          | No Level <sup>(1)</sup> | Total Fair Value | Total Cost       |
| <b>INVESTMENT ASSETS</b>                                    |                    |                  |                  |                         |                  |                  |
| <b>Cash</b>                                                 | \$ 57              | \$ -             | \$ -             | \$ -                    | \$ 57            | \$ 57            |
| <b>Fixed Income</b>                                         |                    |                  |                  |                         |                  |                  |
| Short-term securities                                       | -                  | 357              | -                | -                       | 357              | 357              |
| Bonds                                                       |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | 103,675          | -                | -                       | 103,675          | 96,515           |
| Non-Canadian                                                | -                  | 10,669           | 1,229            | -                       | 11,898           | 10,493           |
| Non-Canadian commercial loans                               | -                  | -                | -                | -                       | -                | -                |
| <b>Total fixed income</b>                                   | -                  | 114,701          | 1,229            | -                       | 115,930          | 107,365          |
| <b>Securities purchased under resell agreements</b>         | -                  | 2,498            | -                | -                       | 2,498            | 2,452            |
| <b>Public equity</b>                                        |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | 121                | -                | 607              | -                       | 728              | 717              |
| Non-Canadian                                                | 8,422              | -                | -                | -                       | 8,422            | 8,219            |
| <b>Total public equity</b>                                  | 8,543              | -                | 607              | -                       | 9,150            | 8,936            |
| <b>Equity-oriented</b>                                      |                    |                  |                  |                         |                  |                  |
| Real estate                                                 |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | -                | 7,451            | -                       | 7,451            | 5,673            |
| Non-Canadian                                                | -                  | -                | 1,612            | -                       | 1,612            | 1,139            |
| Private equity and special situations                       |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | -                | 1,314            | -                       | 1,314            | 752              |
| Non-Canadian                                                | -                  | -                | 3,025            | -                       | 3,025            | 2,641            |
| <b>Total equity-oriented</b>                                | -                  | -                | 13,402           | -                       | 13,402           | 10,205           |
| <b>Derivative instruments</b> (note 3)                      | -                  | 5,127            | 109              | -                       | 5,236            | 1,163            |
| <b>Investment receivables</b>                               |                    |                  |                  |                         |                  |                  |
| Cash collateral pledged (note 5)                            | -                  | -                | -                | -                       | -                | -                |
| Pending trades <sup>(1)</sup>                               | -                  | -                | -                | 80                      | 80               | 60               |
| Accrued investment income <sup>(1)</sup>                    | -                  | -                | -                | 983                     | 983              | 983              |
| <b>Total investment receivables</b>                         | -                  | -                | -                | 1,063                   | 1,063            | 1,043            |
| <b>Total investment assets</b>                              | 8,600              | 122,326          | 15,347           | 1,063                   | 147,336          | 131,221          |
| <b>INVESTMENT LIABILITIES</b>                               |                    |                  |                  |                         |                  |                  |
| <b>Equities sold short</b> (note 5)                         | (36,278)           | -                | -                | -                       | (36,278)         | (35,648)         |
| <b>Bonds sold short</b> (note 5)                            | -                  | (2,130)          | -                | -                       | (2,130)          | (1,907)          |
| <b>Derivative instruments</b> (note 3)                      | (110)              | (20,360)         | (72)             | -                       | (20,542)         | (7,284)          |
| <b>Securities sold under repurchase agreements</b> (note 5) | -                  | (21,520)         | -                | -                       | (21,520)         | (21,219)         |
| <b>Cash collateral received</b> (note 5)                    | (2,729)            | -                | -                | -                       | (2,729)          | (2,729)          |
| <b>Pending trades</b> <sup>(1)</sup>                        | -                  | -                | -                | (299)                   | (299)            | (299)            |
| <b>Accrued investment liabilities</b> <sup>(1)</sup>        | -                  | -                | -                | (118)                   | (118)            | (118)            |
| <b>Total investment liabilities</b>                         | (39,117)           | (44,010)         | (72)             | (417)                   | (83,616)         | (69,204)         |
| <b>Net investments</b>                                      | <b>\$ (30,517)</b> | <b>\$ 78,316</b> | <b>\$ 15,275</b> | <b>\$ 646</b>           | <b>\$ 63,720</b> | <b>\$ 62,017</b> |

<sup>(1)</sup> These are investment assets or investment liabilities for which a fair value hierarchy classification is not required.

| 2014                                                        |                    |                  |                  |                         |                  |                  |
|-------------------------------------------------------------|--------------------|------------------|------------------|-------------------------|------------------|------------------|
| (\$ millions)                                               | Level 1            | Level 2          | Level 3          | No Level <sup>(1)</sup> | Total Fair Value | Total Cost       |
| <b>INVESTMENT ASSETS</b>                                    |                    |                  |                  |                         |                  |                  |
| <b>Cash</b>                                                 | \$ 2               | \$ -             | \$ -             | \$ -                    | \$ 2             | \$ 2             |
| <b>Fixed Income</b>                                         |                    |                  |                  |                         |                  |                  |
| Short-term securities                                       | -                  | -                | -                | -                       | -                | -                |
| Bonds                                                       |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | 99,429           | -                | -                       | 99,429           | 93,155           |
| Non-Canadian                                                | -                  | 6,225            | 516              | -                       | 6,741            | 5,774            |
| Non-Canadian commercial loans                               | -                  | -                | 30               | -                       | 30               | 27               |
| <b>Total fixed income</b>                                   | -                  | 105,654          | 546              | -                       | 106,200          | 98,956           |
| <b>Securities purchased under resell agreements</b>         | -                  | 3,286            | -                | -                       | 3,286            | 3,260            |
| <b>Public equity</b>                                        |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | 134                | -                | -                | -                       | 134              | 120              |
| Non-Canadian                                                | 2,048              | -                | -                | -                       | 2,048            | 1,991            |
| <b>Total public equity</b>                                  | 2,182              | -                | -                | -                       | 2,182            | 2,111            |
| <b>Equity-oriented</b>                                      |                    |                  |                  |                         |                  |                  |
| Real estate                                                 |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | -                | 6,922            | -                       | 6,922            | 5,076            |
| Non-Canadian                                                | -                  | -                | 795              | -                       | 795              | 610              |
| Private equity and special situations                       |                    |                  |                  |                         |                  |                  |
| Canadian                                                    | -                  | -                | 988              | -                       | 988              | 753              |
| Non-Canadian                                                | -                  | -                | 2,287            | -                       | 2,287            | 2,171            |
| <b>Total equity-oriented</b>                                | -                  | -                | 10,992           | -                       | 10,992           | 8,610            |
| <b>Derivative instruments</b> (note 3)                      | 6                  | 5,662            | 140              | -                       | 5,808            | 1,081            |
| <b>Investment receivables</b>                               |                    |                  |                  |                         |                  |                  |
| Cash collateral pledged (note 5)                            | 22                 | -                | -                | -                       | 22               | 22               |
| Pending trades <sup>(1)</sup>                               | -                  | -                | -                | 137                     | 137              | 138              |
| Accrued investment income <sup>(1)</sup>                    | -                  | -                | -                | 775                     | 775              | 775              |
| <b>Total investment receivables</b>                         | 22                 | -                | -                | 912                     | 934              | 935              |
| <b>Total investment assets</b>                              | 2,212              | 114,602          | 11,678           | 912                     | 129,404          | 114,955          |
| <b>INVESTMENT LIABILITIES</b>                               |                    |                  |                  |                         |                  |                  |
| <b>Equities sold short</b> (note 5)                         | (27,762)           | -                | -                | -                       | (27,762)         | (22,849)         |
| <b>Bonds sold short</b> (note 5)                            | -                  | (2,784)          | -                | -                       | (2,784)          | (2,611)          |
| <b>Derivative instruments</b> (note 3)                      | (8)                | (16,933)         | (81)             | -                       | (17,022)         | (7,323)          |
| <b>Securities sold under repurchase agreements</b> (note 5) | -                  | (20,016)         | -                | -                       | (20,016)         | (19,909)         |
| <b>Cash collateral received</b> (note 5)                    | (804)              | -                | -                | -                       | (804)            | (804)            |
| <b>Pending trades</b> <sup>(1)</sup>                        | -                  | -                | -                | (281)                   | (281)            | (282)            |
| <b>Accrued investment liabilities</b> <sup>(1)</sup>        | -                  | -                | -                | (84)                    | (84)             | (84)             |
| <b>Total investment liabilities</b>                         | (28,574)           | (39,733)         | (81)             | (365)                   | (68,753)         | (53,862)         |
| <b>Net investments</b>                                      | <b>\$ (26,362)</b> | <b>\$ 74,869</b> | <b>\$ 11,597</b> | <b>\$ 547</b>           | <b>\$ 60,651</b> | <b>\$ 61,093</b> |

<sup>(1)</sup> These are investment assets or investment liabilities for which a fair value hierarchy classification is not required.

## b. Offsetting financial assets and financial liabilities

The following financial instruments are subject to enforceable master netting arrangements or similar agreements and/or may require the transfer of collateral. In accordance with Canadian GAAP, HOOPP presents these financial instruments as gross amounts in the statements of financial position, since the netting provisions contained in the respective agreements apply in limited circumstances. If the effect of these arrangements, together with the collateral pledged or received were taken into consideration, the potential impact on HOOPP's financial position would be as follows:

| 2015                                                                |                                                            |                                                                                                   |                                                                  |                 |
|---------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------|
| Related Amounts Not Set Off in the Statements of Financial Position |                                                            |                                                                                                   |                                                                  |                 |
| (\$ millions)                                                       | Gross Amounts of Financial Instruments Presented (note 2a) | Amounts Subject to an Enforceable Master Netting Arrangement or Similar Agreements <sup>(1)</sup> | Cash and Securities Collateral Pledged (Received) <sup>(2)</sup> | Net Amount      |
| <b>Financial assets</b>                                             |                                                            |                                                                                                   |                                                                  |                 |
| Securities purchased under resell agreements                        | \$ 2,498                                                   | \$ (2,304)                                                                                        | \$ (193)                                                         | \$ 1            |
| Securities on loan <sup>(3)</sup>                                   | 8,306                                                      | -                                                                                                 | (8,306)                                                          | -               |
| Derivative instruments <sup>(4)</sup>                               | 5,264                                                      | (4,487)                                                                                           | (763)                                                            | 14              |
| <b>Total financial assets</b>                                       | <b>16,068</b>                                              | <b>(6,791)</b>                                                                                    | <b>(9,262)</b>                                                   | <b>15</b>       |
| <b>Financial liabilities</b>                                        |                                                            |                                                                                                   |                                                                  |                 |
| Securities sold under repurchase agreements                         | (21,520)                                                   | 2,304                                                                                             | 19,214                                                           | (2)             |
| Derivative instruments <sup>(4)</sup>                               | (20,569)                                                   | 4,487                                                                                             | 15,664                                                           | (418)           |
| <b>Total financial liabilities</b>                                  | <b>\$ (42,089)</b>                                         | <b>\$ 6,791</b>                                                                                   | <b>\$ 34,878</b>                                                 | <b>\$ (420)</b> |

<sup>(1)</sup> Refer to note 6 for additional information on master netting arrangements.

<sup>(2)</sup> Refer to note 5 for additional information on cash and securities collateral.

<sup>(3)</sup> These securities are included within fixed income and public equity investment assets in note 2a.

<sup>(4)</sup> Includes pending trade receivables and payables of \$28 million and \$27 million, respectively.

| 2014                                                                |                                                            |                                                                                                   |                                                                  |                 |
|---------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------|
| Related Amounts Not Set Off in the Statements of Financial Position |                                                            |                                                                                                   |                                                                  |                 |
| (\$ millions)                                                       | Gross Amounts of Financial Instruments Presented (note 2a) | Amounts Subject to an Enforceable Master Netting Arrangement or Similar Agreements <sup>(1)</sup> | Cash and Securities Collateral Pledged (Received) <sup>(2)</sup> | Net Amount      |
| <b>Financial assets</b>                                             |                                                            |                                                                                                   |                                                                  |                 |
| Securities purchased under resell agreements <sup>(4)</sup>         | \$ 3,361                                                   | \$ (2,338)                                                                                        | \$ (1,022)                                                       | \$ 1            |
| Securities on loan <sup>(3)</sup>                                   | 2,403                                                      | -                                                                                                 | (2,355)                                                          | 48              |
| Derivative instruments <sup>(4)</sup>                               | 5,861                                                      | (5,057)                                                                                           | (739)                                                            | 65              |
| <b>Total financial assets</b>                                       | <b>11,625</b>                                              | <b>(7,395)</b>                                                                                    | <b>(4,116)</b>                                                   | <b>114</b>      |
| <b>Financial liabilities</b>                                        |                                                            |                                                                                                   |                                                                  |                 |
| Securities sold under repurchase agreements <sup>(4)</sup>          | (20,173)                                                   | 2,338                                                                                             | 17,828                                                           | (7)             |
| Derivative instruments <sup>(4)</sup>                               | (17,058)                                                   | 5,057                                                                                             | 11,872                                                           | (129)           |
| <b>Total financial liabilities</b>                                  | <b>\$ (37,231)</b>                                         | <b>\$ 7,395</b>                                                                                   | <b>\$ 29,700</b>                                                 | <b>\$ (136)</b> |

<sup>(1)</sup> Refer to note 6 for additional information on master netting arrangements.

<sup>(2)</sup> Refer to note 5 for additional information on cash and securities collateral.

<sup>(3)</sup> These securities are included within fixed income and public equity investment assets in note 2a.

<sup>(4)</sup> Includes pending trade receivables and payables of \$128 million and \$193 million, respectively.



### c. Changes in fair value measurement for investments in Level 3

The following table presents the changes in fair value measurement for investments included in Level 3 during the year ended December 31, 2015.

| 2015                                           |                                |                                                                        |                           |                             |                                |                                 |                                |  |
|------------------------------------------------|--------------------------------|------------------------------------------------------------------------|---------------------------|-----------------------------|--------------------------------|---------------------------------|--------------------------------|--|
| (\$ millions)                                  | Fair Value<br>Dec. 31,<br>2014 | Total Gains<br>(Losses)<br>Included<br>in Net<br>Income <sup>(1)</sup> | Purchase<br>and<br>Issues | Sales<br>and<br>Settlements | Transfers<br>In <sup>(2)</sup> | Transfers<br>Out <sup>(2)</sup> | Fair Value<br>Dec. 31,<br>2015 |  |
| <b>Bonds</b>                                   |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Non-Canadian                                   | \$ 516                         | \$ 135                                                                 | \$ 583                    | \$ (5)                      | \$ -                           | \$ -                            | \$ 1,229                       |  |
| <b>Equities</b>                                |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | -                              | 7                                                                      | 600                       | -                           | -                              | -                               | 607                            |  |
| <b>Non-Canadian commercial loans</b>           | 30                             | 2                                                                      | -                         | (32)                        | -                              | -                               | -                              |  |
| <b>Real estate<sup>(3)</sup></b>               |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | 6,922                          | (26)                                                                   | 520                       | 35                          | -                              | -                               | 7,451                          |  |
| Non-Canadian                                   | 795                            | 296                                                                    | 438                       | 83                          | -                              | -                               | 1,612                          |  |
| <b>Private equity and special situations</b>   |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | 988                            | 414                                                                    | 76                        | (164)                       | -                              | -                               | 1,314                          |  |
| Non-Canadian                                   | 2,287                          | 568                                                                    | 860                       | (690)                       | -                              | -                               | 3,025                          |  |
| <b>Assets from derivative instruments</b>      | 140                            | 29                                                                     | 78                        | (138)                       | -                              | -                               | 109                            |  |
| <b>Liabilities from derivative instruments</b> | (81)                           | (9)                                                                    | (44)                      | 62                          | -                              | -                               | (72)                           |  |
| <b>Total</b>                                   | <b>\$ 11,597</b>               | <b>\$ 1,416</b>                                                        | <b>\$ 3,111</b>           | <b>\$ (849)</b>             | <b>\$ -</b>                    | <b>\$ -</b>                     | <b>\$ 15,275</b>               |  |

<sup>(1)</sup> For those investment assets and investment liabilities held at the end of the year, the total gains were \$1,319 million.

<sup>(2)</sup> Transfers into and transfers out of Level 3 are assumed to occur at the end of the year.

<sup>(3)</sup> For real estate, additional mortgage debt borrowings of \$395 million are netted in Purchases and Issues and mortgage debt repayments of \$306 million are netted in Sales and Settlements.

| 2014                                           |                                |                                                                        |                           |                             |                                |                                 |                                |  |
|------------------------------------------------|--------------------------------|------------------------------------------------------------------------|---------------------------|-----------------------------|--------------------------------|---------------------------------|--------------------------------|--|
| (\$ millions)                                  | Fair Value<br>Dec. 31,<br>2013 | Total Gains<br>(Losses)<br>Included<br>in Net<br>Income <sup>(1)</sup> | Purchase<br>and<br>Issues | Sales<br>and<br>Settlements | Transfers<br>In <sup>(2)</sup> | Transfers<br>Out <sup>(2)</sup> | Fair Value<br>Dec. 31,<br>2014 |  |
| <b>Bonds</b>                                   |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Non-Canadian                                   | \$ 283                         | \$ 36                                                                  | \$ 220                    | \$ (23)                     | \$ -                           | \$ -                            | \$ 516                         |  |
| <b>Equities</b>                                |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | -                              | -                                                                      | -                         | -                           | -                              | -                               | -                              |  |
| <b>Non-Canadian commercial loans</b>           | 135                            | 7                                                                      | 49                        | (161)                       | -                              | -                               | 30                             |  |
| <b>Real estate<sup>(3)</sup></b>               |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | 6,378                          | 123                                                                    | 481                       | (60)                        | -                              | -                               | 6,922                          |  |
| Non-Canadian                                   | 630                            | 136                                                                    | 150                       | (121)                       | -                              | -                               | 795                            |  |
| <b>Private equity and special situations</b>   |                                |                                                                        |                           |                             |                                |                                 |                                |  |
| Canadian                                       | 913                            | 295                                                                    | 134                       | (354)                       | -                              | -                               | 988                            |  |
| Non-Canadian                                   | 1,667                          | 179                                                                    | 872                       | (431)                       | -                              | -                               | 2,287                          |  |
| <b>Assets from derivative instruments</b>      | 149                            | 71                                                                     | 70                        | (150)                       | -                              | -                               | 140                            |  |
| <b>Liabilities from derivative instruments</b> | (166)                          | 63                                                                     | (60)                      | 84                          | (2)                            | -                               | (81)                           |  |
| <b>Total</b>                                   | <b>\$ 9,989</b>                | <b>\$ 910</b>                                                          | <b>\$ 1,916</b>           | <b>\$ (1,216)</b>           | <b>\$ (2)</b>                  | <b>\$ -</b>                     | <b>\$ 11,597</b>               |  |

<sup>(1)</sup> For those investment assets and investment liabilities held at the end of the year, the total gains were \$747 million.

<sup>(2)</sup> Transfers into and transfers out of Level 3 are assumed to occur at the end of the year.

<sup>(3)</sup> For real estate, additional mortgage debt borrowings of \$450 million are netted in Purchases and Issues and mortgage debt repayments of \$189 million are netted in Sales and Settlements.

For individual direct investments included in Level 3, management's judgment is that changing one or more of the inputs to a reasonably possible alternative assumption would not change the fair value of the overall Plan significantly. For investments in private equity limited partnership funds, HOOPP has limited access to specific underlying investment information. As a result, HOOPP is not able to determine a change in the fair values derived from a reasonably possible alternative assumption.

#### d. Significant investments

Investments, excluding short sales and derivative exposures, where the cost or fair value exceeds 1% of the cost or fair value of the Fund, being approximately \$620 and \$630 million respectively, as at December 31, 2015, are as follows:

|                                         | Maturity Date | Coupon Rate %                 | Fair Value | Cost Value |
|-----------------------------------------|---------------|-------------------------------|------------|------------|
| (\$ millions)                           |               |                               |            |            |
| <b>Fixed income</b>                     |               |                               |            |            |
| Canadian federal bonds                  | 2017-2045     | 0.79-9.00                     | \$ 14,921  | \$ 14,167  |
| United States treasury bonds            | 2045          | 2.88-3.00                     | 4,413      | 4,072      |
| Canadian provincial and municipal bonds | 2019-2045     | 3.45-11.00                    | 16,436     | 15,489     |
| Canadian real return bonds              | 2021-2044     | 1.50-4.55<br><i>Plus CPI*</i> | 6,617      | 5,546      |
| <b>Public Equity</b>                    |               |                               |            |            |
| S&P 500 ETF trust                       |               |                               | \$ 809     | \$ 781     |
| <b>Other</b>                            |               |                               |            |            |
| Private Equity                          |               |                               | \$ 710     | \$ 26      |

\* CPI - Canadian Consumer Price Index

### Note 3 – DERIVATIVE FINANCIAL INSTRUMENTS

Derivatives are financial instruments whose values change as a result of an underlying asset, index of prices or rates, interest rate or foreign exchange rate.

The Plan's investment objectives for the use of derivatives are to enhance returns by facilitating changes in the investment asset mix, to enhance equity and fixed income portfolio returns, and to manage financial risk. Derivatives may be used in all of HOOPP's permitted asset classes. The Plan utilizes the following derivative financial instruments:

#### Foreign Exchange Forward Contracts

Foreign exchange forward contracts are customized agreements negotiated between two parties to buy or sell a specific amount of foreign currency at a price specified at origination of the contract with settlement at a specified future date. Forward contracts are used to modify the Plan's exposure to currency risk.

## Futures Contracts

Futures contracts are standardized agreements, which can be purchased or sold on a futures exchange market at a predetermined future date and price, in accordance with terms specified by the regulated futures exchange, and they are subject to daily cash margining. HOOPP invests in both bond futures and equity futures, which relate to a specific equity or bond, or index of equities or bonds, a basket of equities or bonds, or a single equity or bond. These types of derivatives are used to modify exposures efficiently without actually purchasing or selling the underlying asset.

## Options

Options are contractual agreements under which the seller grants the purchaser the right, but not the obligation, either to buy (call option) or sell (put option) a financial instrument at a predetermined price on or before a specified future date. The seller receives a premium from the purchasers for this right. HOOPP invests in interest rate options, swaptions, foreign currency options, equity options, options on credit default swaps, and caps and floors. Options are used to manage the exposures to market risks and to enhance returns.

## Swaps

Swaps are contractual agreements between two counterparties to exchange a series of cash flows. HOOPP utilizes the following swap instruments:

- Equity swaps (including variance and volatility swaps) are agreements between two parties to exchange a series of cash flows based on the return of an equity, a basket of equities or an equity index. One party typically agrees to pay a floating interest rate in return for receiving the equity return. Variance and volatility swaps are contracts where cash flows are exchanged based on the difference between the realized variance or volatility of an equity, a basket of equities, or an equity index and the fixed strike level specified in the contract. Equity-based swaps are used for yield enhancement purposes and to adjust exposures to particular indices without directly purchasing or selling the securities that comprise the index.
- Interest rate swaps and cross-currency swaps are agreements between two parties to exchange a series of fixed or floating cash flows in the same currency or different currencies based on the notional amount. Interest rate swaps are used to manage interest rate exposures and cross-currency swaps are used to manage both interest rate and currency exposures.
- Credit default swaps are agreements between two parties where the buyer of the credit protection pays a premium to the seller in exchange for payment of the notional amount from the seller against delivery of the related/relevant debt securities if a credit event such as a default occurs. Instead of physical settlement, credit default swaps can also be cash settled. Credit default swaps are used to promote credit diversification and for risk mitigation.

The following table summarizes the notional and fair values of the Plan's derivative positions.

| 2015                                |                               |                 |                                          |
|-------------------------------------|-------------------------------|-----------------|------------------------------------------|
| (\$ millions)                       | Notional Value <sup>(1)</sup> | Assets          | Fair Value <sup>(2)</sup><br>Liabilities |
| <b>Credit derivatives</b>           |                               |                 |                                          |
| Credit default swap options         | \$ 3,529                      | \$ 8            | \$ (5)                                   |
| Credit default swaps <sup>(3)</sup> | 23,792                        | 125             | (157)                                    |
| <b>Currency derivatives</b>         |                               |                 |                                          |
| Forwards                            | 8,232                         | 51              | (32)                                     |
| Options                             | 1,262                         | 30              | (7)                                      |
| Swaps                               | 16,937                        | 487             | (4,240)                                  |
| <b>Equity derivatives</b>           |                               |                 |                                          |
| Caps/floors                         | -                             | -               | -                                        |
| Futures contracts                   | 13,435                        | -               | (109)                                    |
| Options                             | 80,175                        | 3,781           | (11,612)                                 |
| Swaps                               | 58,459                        | 282             | (679)                                    |
| <b>Interest rate derivatives</b>    |                               |                 |                                          |
| Futures contracts                   | 828                           | -               | (1)                                      |
| Options                             | 317                           | -               | -                                        |
| Swaps                               | 35,326                        | 430             | (3,695)                                  |
| Swaptions                           | 20,624                        | 42              | (5)                                      |
| <b>Total</b>                        | <b>\$ 262,916</b>             | <b>\$ 5,236</b> | <b>\$ (20,542)</b>                       |

<sup>(1)</sup> Notional values represent the contractual amounts to which a rate or price is applied for computing the cash flows to be exchanged, and are therefore not recorded as assets or liabilities in these financial statements. Notional values are also the basis on which the fair values of the contracts and the returns are determined. Notional values do not necessarily represent the future cash flows to be exchanged, nor do they indicate the Plan's exposure to market or credit risk.

<sup>(2)</sup> Contracts with a positive fair value are recorded as investment assets while contracts with a negative fair value are recorded as investment liabilities in note 2.

<sup>(3)</sup> HOOPP, through the sale of credit protection, indirectly guarantees the underlying reference obligations. The notional amount and fair value of the credit protection sold are \$12,613 million and \$49 million, respectively. These contracts mature between 2016 and 2023.

| 2014                                |                               |                 |                                          |
|-------------------------------------|-------------------------------|-----------------|------------------------------------------|
| (\$ millions)                       | Notional Value <sup>(1)</sup> | Assets          | Fair Value <sup>(2)</sup><br>Liabilities |
| <b>Credit derivatives</b>           |                               |                 |                                          |
| Credit default swap options         | \$ 2,586                      | \$ 7            | \$ (3)                                   |
| Credit default swaps <sup>(3)</sup> | 24,168                        | 147             | (180)                                    |
| <b>Currency derivatives</b>         |                               |                 |                                          |
| Forwards                            | 5,063                         | 48              | (21)                                     |
| Options                             | -                             | -               | -                                        |
| Swaps                               | 20,942                        | 450             | (2,623)                                  |
| <b>Equity derivatives</b>           |                               |                 |                                          |
| Caps/floors                         | 581                           | -               | -                                        |
| Futures contracts                   | 6,227                         | 6               | (7)                                      |
| Options                             | 64,614                        | 3,879           | (10,669)                                 |
| Swaps                               | 55,106                        | 818             | (302)                                    |
| <b>Interest rate derivatives</b>    |                               |                 |                                          |
| Futures contracts                   | 406                           | -               | (1)                                      |
| Options                             | 266                           | -               | -                                        |
| Swaps                               | 38,934                        | 413             | (3,206)                                  |
| Swaptions                           | 7,277                         | 40              | (10)                                     |
| <b>Total</b>                        | <b>\$ 226,170</b>             | <b>\$ 5,808</b> | <b>\$ (17,022)</b>                       |

<sup>(1)</sup> Notional values represent the contractual amounts to which a rate or price is applied for computing the cash flows to be exchanged, and are therefore not recorded as assets or liabilities in these financial statements. Notional values are also the basis on which the fair values of the contracts and the returns are determined. Notional values do not necessarily represent the future cash flows to be exchanged, nor do they indicate the Plan's exposure to market or credit risk.

<sup>(2)</sup> Contracts with a positive fair value are recorded as investment assets while contracts with a negative fair value are recorded as investment liabilities in note 2.

<sup>(3)</sup> HOOPP, through the sale of credit protection, indirectly guarantees the underlying reference obligations. The notional amount and fair value of the credit protection sold are \$12,844 million and \$(3) million, respectively. These contracts mature between 2015 and 2023.

The following table summarizes the notional values for the Plan's derivative positions by term to maturity.

| 2015                             |                   |                   |                  |                   |
|----------------------------------|-------------------|-------------------|------------------|-------------------|
| (\$ millions)                    | Within<br>1 Year  | 1 to 5<br>Years   | Over 5<br>Years  | Total             |
| <b>Credit derivatives</b>        |                   |                   |                  |                   |
| Credit default swap options      | \$ 3,529          | \$ -              | \$ -             | \$ 3,529          |
| Credit default swaps             | 2,171             | 17,227            | 4,394            | 23,792            |
| <b>Currency derivatives</b>      |                   |                   |                  |                   |
| Forwards                         | 8,232             | -                 | -                | 8,232             |
| Options                          | 277               | 847               | 138              | 1,262             |
| Swaps                            | 6,936             | 9,223             | 778              | 16,937            |
| <b>Equity derivatives</b>        |                   |                   |                  |                   |
| Caps/floors                      | -                 | -                 | -                | -                 |
| Futures contracts                | 13,435            | -                 | -                | 13,435            |
| Options                          | 18,960            | 61,111            | 104              | 80,175            |
| Swaps                            | 31,536            | 26,923            | -                | 58,459            |
| <b>Interest rate derivatives</b> |                   |                   |                  |                   |
| Futures contracts                | 828               | -                 | -                | 828               |
| Options                          | -                 | -                 | 317              | 317               |
| Swaps                            | 7,655             | 17,002            | 10,669           | 35,326            |
| Swaptions                        | 17,810            | 1,984             | 830              | 20,624            |
| <b>Total</b>                     | <b>\$ 111,369</b> | <b>\$ 134,317</b> | <b>\$ 17,230</b> | <b>\$ 262,916</b> |

| 2014                             |                  |                  |                  |                   |
|----------------------------------|------------------|------------------|------------------|-------------------|
| (\$ millions)                    | Within<br>1 Year | 1 to 5<br>Years  | Over 5<br>Years  | Total             |
| <b>Credit derivatives</b>        |                  |                  |                  |                   |
| Credit default swap options      | \$ 2,586         | \$ -             | \$ -             | \$ 2,586          |
| Credit default swaps             | 1,858            | 16,082           | 6,228            | 24,168            |
| <b>Currency derivatives</b>      |                  |                  |                  |                   |
| Forwards                         | 5,063            | -                | -                | 5,063             |
| Options                          | -                | -                | -                | -                 |
| Swaps                            | 8,241            | 10,310           | 2,391            | 20,942            |
| <b>Equity derivatives</b>        |                  |                  |                  |                   |
| Caps/floors                      | 581              | -                | -                | 581               |
| Futures contracts                | 6,227            | -                | -                | 6,227             |
| Options                          | 16,659           | 16,594           | 31,361           | 64,614            |
| Swaps                            | 28,291           | 26,310           | 505              | 55,106            |
| <b>Interest rate derivatives</b> |                  |                  |                  |                   |
| Futures contracts                | 406              | -                | -                | 406               |
| Options                          | -                | -                | 266              | 266               |
| Swaps                            | 9,683            | 16,626           | 12,625           | 38,934            |
| Swaptions                        | 1,944            | 4,636            | 697              | 7,277             |
| <b>Total</b>                     | <b>\$ 81,539</b> | <b>\$ 90,558</b> | <b>\$ 54,073</b> | <b>\$ 226,170</b> |

## Note 4 – NET INVESTMENT INCOME

a. Net investment income for the year ended December 31, reported based on investment assets and investment liabilities, is as follows:

|                                       | 2015                                                  |                                                  |                          |
|---------------------------------------|-------------------------------------------------------|--------------------------------------------------|--------------------------|
| (\$ millions)                         | Net Interest and<br>Dividend Income <sup>(1)(2)</sup> | Net Gain (Loss)<br>on Investments <sup>(3)</sup> | Net Investment<br>Income |
| <b>Cash and pending trades</b>        | \$ (1)                                                | \$ (616)                                         | \$ (617)                 |
| <b>Fixed income</b>                   |                                                       |                                                  |                          |
| Short-term securities                 | 6                                                     | -                                                | 6                        |
| Net bonds                             |                                                       |                                                  |                          |
| Canadian                              | 3,237                                                 | 1,609                                            | 4,846                    |
| Non-Canadian                          | 199                                                   | 1,203                                            | 1,402                    |
| Commercial loans                      |                                                       |                                                  |                          |
| Canadian                              | 1                                                     | -                                                | 1                        |
| Non-Canadian                          | 1                                                     | 2                                                | 3                        |
| <b>Total fixed income</b>             | 3,444                                                 | 2,814                                            | 6,258                    |
| <b>Net repurchase agreements</b>      | (95)                                                  | (174)                                            | (269)                    |
| <b>Net public equity</b>              |                                                       |                                                  |                          |
| Canadian                              | (1,030)                                               | 3,408                                            | 2,378                    |
| Non-Canadian                          | 2,693                                                 | (2,497)                                          | 196                      |
| <b>Total public equity</b>            | 1,663                                                 | 911                                              | 2,574                    |
| <b>Equity-oriented</b>                |                                                       |                                                  |                          |
| Net real estate operating income      |                                                       |                                                  |                          |
| Canadian                              | 349                                                   | (26)                                             | 323                      |
| Non-Canadian                          | 19                                                    | 296                                              | 315                      |
| Private equity and special situations |                                                       |                                                  |                          |
| Canadian                              | 26                                                    | 414                                              | 440                      |
| Non-Canadian                          | (20)                                                  | 536                                              | 516                      |
| <b>Total equity-oriented</b>          | 374                                                   | 1,220                                            | 1,594                    |
| <b>Derivative instruments</b>         | -                                                     | (6,418)                                          | (6,418)                  |
| <b>Total investment income</b>        | 5,385                                                 | (2,263)                                          | 3,122                    |
| <b>Transaction costs</b>              | -                                                     | (19)                                             | (19)                     |
| <b>Net investment income</b>          | <b>\$ 5,385</b>                                       | <b>\$ (2,282)</b>                                | <b>\$ 3,103</b>          |

<sup>(1)</sup> Net of investment income and investment expenses.

<sup>(2)</sup> Includes net operating income (loss) from investments in real estate and private equity.

<sup>(3)</sup> Includes realized losses from investments of \$4,407 million and change in unrealized gains from investments of \$2,144 million before allocating the effect of transaction costs.

|                                       | 2014                                                  |                                                  |                          |
|---------------------------------------|-------------------------------------------------------|--------------------------------------------------|--------------------------|
| (\$ millions)                         | Net Interest and<br>Dividend Income <sup>(1)(2)</sup> | Net Gain (Loss)<br>on Investments <sup>(3)</sup> | Net Investment<br>Income |
| <b>Cash and pending trades</b>        | \$ 4                                                  | \$ (321)                                         | \$ (317)                 |
| <b>Fixed income</b>                   |                                                       |                                                  |                          |
| Short-term securities                 | -                                                     | -                                                | -                        |
| Net bonds                             |                                                       |                                                  |                          |
| Canadian                              | 3,048                                                 | 5,018                                            | 8,066                    |
| Non-Canadian                          | 153                                                   | 1,025                                            | 1,178                    |
| Commercial loans                      |                                                       |                                                  |                          |
| Canadian                              | -                                                     | -                                                | -                        |
| Non-Canadian                          | 2                                                     | 7                                                | 9                        |
| <b>Total fixed income</b>             | 3,203                                                 | 6,050                                            | 9,253                    |
| <b>Net repurchase agreements</b>      | (149)                                                 | (58)                                             | (207)                    |
| <b>Net public equity</b>              |                                                       |                                                  |                          |
| Canadian                              | (822)                                                 | (2,027)                                          | (2,849)                  |
| Non-Canadian                          | 2,857                                                 | (2,255)                                          | 602                      |
| <b>Total public equity</b>            | 2,035                                                 | (4,282)                                          | (2,247)                  |
| <b>Equity-oriented</b>                |                                                       |                                                  |                          |
| Net real estate operating income      |                                                       |                                                  |                          |
| Canadian                              | 322                                                   | 123                                              | 445                      |
| Non-Canadian                          | 9                                                     | 136                                              | 145                      |
| Private equity and special situations |                                                       |                                                  |                          |
| Canadian                              | 25                                                    | 295                                              | 320                      |
| Non-Canadian                          | 19                                                    | 178                                              | 197                      |
| <b>Total equity-oriented</b>          | 375                                                   | 732                                              | 1,107                    |
| <b>Derivative instruments</b>         | -                                                     | 1,534                                            | 1,534                    |
| <b>Total investment income</b>        | 5,468                                                 | 3,655                                            | 9,123                    |
| <b>Transaction costs</b>              | -                                                     | (18)                                             | (18)                     |
| <b>Net investment income</b>          | <b>\$ 5,468</b>                                       | <b>\$ 3,637</b>                                  | <b>\$ 9,105</b>          |

<sup>(1)</sup> Net of investment income and investment expenses.

<sup>(2)</sup> Includes net operating income (loss) from investments in real estate and private equity.

<sup>(3)</sup> Includes realized gains from investments of \$978 million and change in unrealized gains from investments of \$2,677 million before allocating the effect of transaction costs.

## b. Real estate income

The Plan's net real estate operating income for the year ended December 31 is as follows:

|                                         | 2015          | 2014          |
|-----------------------------------------|---------------|---------------|
| (\$ millions)                           |               |               |
| Rental revenue                          | \$ 779        | \$ 713        |
| Property operating and other expenses   | (362)         | (334)         |
| Operating income                        | 417           | 379           |
| Mortgage interest                       | (49)          | (48)          |
| <b>Net real estate operating income</b> | <b>\$ 368</b> | <b>\$ 331</b> |

## c. Net investment income for the year ended December 31, reported based on the underlying investment strategies of HOOPP's portfolios, is as follows:

|                                        | 2015                                               |                                |                       |
|----------------------------------------|----------------------------------------------------|--------------------------------|-----------------------|
| (\$ millions)                          | Net Interest and Dividend Income <sup>(1)(2)</sup> | Net Gain (Loss) on Investments | Net Investment Income |
| <b>Liability hedge portfolio</b>       |                                                    |                                |                       |
| Short term                             | \$ 1,339                                           | \$ (1,506)                     | \$ (167)              |
| Mid-term bonds                         | 420                                                | 12                             | 432                   |
| Long-term bonds                        | 594                                                | 70                             | 664                   |
| Real return bonds                      | 168                                                | (1)                            | 167                   |
| Real estate                            | 341                                                | 132                            | 473                   |
| Transition strategy                    | 363                                                | (18)                           | 345                   |
| <b>Total liability hedge portfolio</b> | <b>3,225</b>                                       | <b>(1,311)</b>                 | <b>1,914</b>          |
| <b>Return seeking portfolio</b>        |                                                    |                                |                       |
| Canadian equities                      | 59                                                 | (538)                          | (479)                 |
| United States equities                 | 24                                                 | 40                             | 64                    |
| International equities                 | 12                                                 | 273                            | 285                   |
| Long-term option strategy              | 198                                                | 136                            | 334                   |
| Corporate credit                       | 63                                                 | (9)                            | 54                    |
| Private equity                         | 6                                                  | 608                            | 614                   |
| Asset allocation strategies            | -                                                  | 107                            | 107                   |
| Absolute return strategies             | 1,793                                              | (1,605)                        | 188                   |
| Foreign exchange hedges                | -                                                  | 13                             | 13                    |
| Other                                  | 5                                                  | 4                              | 9                     |
| <b>Total return seeking portfolio</b>  | <b>2,160</b>                                       | <b>(971)</b>                   | <b>1,189</b>          |
| <b>Net investment income</b>           | <b>\$ 5,385</b>                                    | <b>\$ (2,282)</b>              | <b>\$ 3,103</b>       |

<sup>(1)</sup> Net of investment income and investment expenses.

<sup>(2)</sup> Includes net operating income (loss) from investments in real estate and private equity.



|                                        | 2014                                                  |                                   |                          |
|----------------------------------------|-------------------------------------------------------|-----------------------------------|--------------------------|
| (\$ millions)                          | Net Interest and<br>Dividend Income <sup>(1)(2)</sup> | Net Gain (Loss)<br>on Investments | Net Investment<br>Income |
| <b>Liability hedge portfolio</b>       |                                                       |                                   |                          |
| Short term                             | \$ 1,197                                              | \$ (868)                          | \$ 329                   |
| Mid-term bonds                         | 367                                                   | 564                               | 931                      |
| Long-term bonds                        | 568                                                   | 1,593                             | 2,161                    |
| Real return bonds                      | 161                                                   | 699                               | 860                      |
| Real estate                            | 308                                                   | 238                               | 546                      |
| Transition strategy                    | 407                                                   | 1,307                             | 1,714                    |
| <b>Total liability hedge portfolio</b> | <b>3,008</b>                                          | <b>3,533</b>                      | <b>6,541</b>             |
| <b>Return seeking portfolio</b>        |                                                       |                                   |                          |
| Canadian equities                      | 45                                                    | 580                               | 625                      |
| United States equities                 | 11                                                    | 629                               | 640                      |
| International equities                 | 16                                                    | 243                               | 259                      |
| Long-term option strategy              | 175                                                   | (18)                              | 157                      |
| Corporate credit                       | 47                                                    | 84                                | 131                      |
| Private equity                         | 43                                                    | 430                               | 473                      |
| Asset allocation strategies            | -                                                     | (6)                               | (6)                      |
| Absolute return strategies             | 2,119                                                 | (1,916)                           | 203                      |
| Foreign exchange hedges                | -                                                     | 62                                | 62                       |
| Other                                  | 4                                                     | 16                                | 20                       |
| <b>Total return seeking portfolio</b>  | <b>2,460</b>                                          | <b>104</b>                        | <b>2,564</b>             |
| <b>Net investment income</b>           | <b>\$ 5,468</b>                                       | <b>\$ 3,637</b>                   | <b>\$ 9,105</b>          |

<sup>(1)</sup> Net of investment income and investment expenses.

<sup>(2)</sup> Includes net operating income (loss) from investments in real estate and private equity.

## Note 5 – TRANSFERS OF FINANCIAL ASSETS

### a. Financial assets transferred to HOOPP's counterparties

Transfers of financial assets result from HOOPP's arrangements with its counterparties, whereby the Plan:

- transfers the contractual rights to receive the cash flows of the financial assets; or
- retains the contractual rights to receive the cash flows of the financial assets, but assumes a contractual obligation to pay the cash flows to one or more recipients in an arrangement.

For HOOPP, transfers of financial assets to counterparties occur directly through securities lending arrangements. HOOPP also transfers financial assets indirectly through collateral pledged to counterparties as a result of investment strategies such as repurchase agreements, securities borrowing arrangements and derivatives. Transferred financial assets continue to be recognized as HOOPP's assets on the statements of financial position if the risks and rewards of ownership remain with HOOPP.

The following describes HOOPP's transactions that may result in the direct or indirect transfer of financial assets:

### **Securities lending program and other transfers of financial assets (direct)**

The Plan participates in a securities lending program where it lends securities that it owns directly to third parties in exchange for a fee. The borrower provides cash or marketable securities of higher value as collateral which mitigates the credit risk associated with the program. The Plan also lends securities through a third party, in accordance with a securities lending agreement, in exchange for a fee.

The Plan also transfers financial assets received from HOOPP's counterparties as a result of various transactions. These financial assets have not been recognized on HOOPP's statements of financial position as the risks and rewards remain with the counterparty.

### **Collateral pledged (indirect)**

#### *i. Repurchase agreements*

The Plan enters into repurchase agreements, which are economically similar to collateralized loans. Under these agreements, the Plan effectively sells securities and simultaneously agrees to buy them back at a specified price at a future date. The net position represents the fair value of collateral pledged, as a result of the change in value of the securities sold under repurchase agreements.

#### *ii. Securities borrowing arrangements*

The Plan enters into short positions, where it agrees to sell securities that it does not already own, to reduce or eliminate economic exposures as part of certain active management strategies and as an offset to long positions in some derivative strategies. The Plan borrows securities, or uses securities received through other strategies, to facilitate the taking of short positions. For securities borrowed, the Plan is required to pledge cash or marketable securities of higher value as collateral, which mitigates the counterparty's credit risk associated with the program.

#### *iii. Derivatives*

A transfer of financial assets only occurs when the Plan pledges collateral, typically in the form of cash, fixed income or equities, for obligations incurred in the ordinary course of trading in derivatives.

When the Plan pledges cash collateral for any of the above investment strategies, this cash is derecognized from the statements of financial position. A receivable for the equivalent amount is then recognized to reflect this cash collateral due from the Plan's counterparties.

## **b. Financial assets received from HOOPP's counterparties**

Securities are received from HOOPP's counterparties directly through securities borrowing arrangements, or indirectly through investment strategies such as securities lending arrangements, resell agreements, and derivatives, which give rise to the counterparty transferring or pledging collateral with HOOPP. These securities are only recognized as HOOPP's assets on the statements of financial position if the risks and rewards of ownership are transferred to HOOPP.

The following describes HOOPP's transactions that may result in financial assets received from its counterparties:

### **Securities borrowing arrangements (direct)**

The Plan borrows securities, or uses securities received through other strategies, to facilitate the taking of short positions. For securities borrowed, the Plan is required to pledge cash or marketable securities of higher value as collateral which mitigates the counterparty's credit risk associated with the program.

### **Collateral received (indirect)**

#### *i. Resell agreements*

The Plan enters into resell agreements, which are economically similar to collateralized loans. Under these agreements, the Plan effectively purchases securities and simultaneously agrees to sell them back at a specified price at a future date. The net position represents the fair value of collateral received, as a result of the change in value of the securities under resell agreements.

#### *ii. Securities lending program*

For securities lent, the borrower provides cash or marketable securities of higher value as collateral which mitigates the credit risk to the Plan, associated with the program.

#### *iii. Derivatives*

The Plan receives collateral, typically in the form of cash, fixed income or equities, for receivables recognized in the ordinary course of trading in derivatives.

When the Plan receives cash collateral for any of the above investment strategies, this cash is recognized on the statements of financial position. A liability for the equivalent amount is recognized to reflect this cash collateral due to the Plan's counterparties.

For any collateral received, the Plan has the right to re-pledge, loan or use it under repurchase agreements in the absence of default by the owner of the collateral. On termination of the agreement, the Plan is obligated to return the collateral received to the owner. As at December 31, 2015, the fair value of total collateral rehypothecated by the Plan is \$2,004 million (\$2014: \$1,910 million).

### c. Net position of financial assets transferred to and received from HOOPP's counterparties

As at December 31, the fair values and carrying amounts of HOOPP's direct and indirect transferred financial assets, their associated liabilities and receivables and the financial assets received from counterparties were as follows:

|                                                                               | 2015         |                                       |                 |
|-------------------------------------------------------------------------------|--------------|---------------------------------------|-----------------|
|                                                                               | Repurchase   | Securities                            |                 |
| (\$ millions)                                                                 | Agreements   | Lending/Borrowing and Other Transfers | Derivatives     |
| Fair value/carrying amount of financial assets transferred out <sup>(1)</sup> | \$ -         | \$ 13,633                             | \$ -            |
| Fair value/carrying amount of collateral pledged <sup>(2)</sup>               | 21,667       | 37,026                                | 17,285          |
| Fair value/carrying amount of financial assets received <sup>(3)</sup>        | -            | (4,978)                               | -               |
| Fair value/carrying amount of collateral received <sup>(4)</sup>              | (2,582)      | (5,835)                               | (873)           |
| Fair value/carrying amount of associated receivables (note 2)                 | 2,498        | -                                     | 5,236           |
| Fair value/carrying amount of associated liabilities <sup>(5)</sup>           | (21,520)     | (38,523)                              | (20,542)        |
| <b>Net position</b>                                                           | <b>\$ 63</b> | <b>\$ 1,323</b>                       | <b>\$ 1,106</b> |

<sup>(1)</sup> Includes securities lent, both directly and through a third party, of \$8,306 million, which have not been derecognized from HOOPP's statements of financial position as the risks and rewards remain with HOOPP. The remaining amount of \$5,327 million represents other transfers of financial assets received from various transactions, which have not been recognized on HOOPP's statements of financial position as the risks and rewards remain with the counterparty.

<sup>(2)</sup> Includes cash collateral pledged of \$nil. The full amount represents securities that have not been derecognized from HOOPP's statements of financial position, as the risks and rewards remain with HOOPP.

<sup>(3)</sup> These securities have not been recognized on HOOPP's statements of financial position as the risks and rewards remain with the counterparty.

<sup>(4)</sup> Includes cash collateral received of \$2,729 million. The remaining amount represents securities that have not been recognized on HOOPP's statements of financial position, as the risks and rewards remain with HOOPP's counterparty, or the third party's counterparty in accordance with the securities lending agreement.

<sup>(5)</sup> Includes \$115 million of accrued investment liabilities relating to investments sold short. Amounts for repurchase agreements and derivatives are presented in note 2.

|                                                                               | 2014         |                                       |                 |
|-------------------------------------------------------------------------------|--------------|---------------------------------------|-----------------|
|                                                                               | Repurchase   | Securities                            |                 |
| (\$ millions)                                                                 | Agreements   | Lending/Borrowing and Other Transfers | Derivatives     |
| Fair value/carrying amount of financial assets transferred out <sup>(1)</sup> | \$ -         | \$ 8,982                              | \$ -            |
| Fair value/carrying amount of collateral pledged <sup>(2)</sup>               | 20,259       | 28,664                                | 13,201          |
| Fair value/carrying amount of financial assets received <sup>(3)</sup>        | -            | (3,471)                               | -               |
| Fair value/carrying amount of collateral received <sup>(4)</sup>              | (3,507)      | (2,546)                               | (834)           |
| Fair value/carrying amount of associated receivables (note 2)                 | 3,286        | -                                     | 5,808           |
| Fair value/carrying amount of associated liabilities <sup>(5)</sup>           | (20,016)     | (30,627)                              | (17,022)        |
| <b>Net position</b>                                                           | <b>\$ 22</b> | <b>\$ 1,002</b>                       | <b>\$ 1,153</b> |

<sup>(1)</sup> Includes securities lent, both directly and through a third party, of \$2,403 million, which have not been derecognized from HOOPP's statements of financial position, as the risks and rewards remain with HOOPP. The remaining amount of \$6,579 million represents other transfers of financial assets received from various transactions, which have not been recognized on HOOPP's statements of financial position as the risks and rewards remain with the counterparty.

<sup>(2)</sup> Includes cash collateral pledged of \$22 million, which has been derecognized. The remaining amount represents securities that have not been derecognized from HOOPP's statements of financial position, as the risks and rewards remain with HOOPP.

<sup>(3)</sup> These securities have not been recognized on HOOPP's statements of financial position as the risks and rewards remain with the counterparty.

<sup>(4)</sup> Includes cash collateral received of \$804 million. The remaining amount represents securities that have not been recognized on HOOPP's statements of financial position, as the risks and rewards remain with HOOPP's counterparty, or the third party's counterparty in accordance with the securities lending agreement.

<sup>(5)</sup> Includes \$81 million of accrued investment liabilities relating to investments sold short. Amounts for repurchase agreements and derivatives are presented in note 2.

## Note 6 – RISK MANAGEMENT

HOOPP's primary mission is to secure the pension promise for all of its members, pensioners and beneficiaries (HOOPP members). In order to accomplish this, the Plan must actively manage its net funded position (i.e., surplus or deficit). There are two major components to the net funded position - the Plan's going concern pension obligations and net investment assets - which HOOPP manages and measures in concert. The risk that the imbalance between the net investment assets and pension obligations becomes a deficit is referred to as funding risk.

The Plan's net investment assets are exposed to financial risks (i.e., market risk, credit risk and liquidity risk) through its investment activities.

HOOPP's Board is responsible, with the assistance of staff, agents and advisors, for prudently managing, investing and administering the Plan in order to secure the pension promise for HOOPP's members. This requires Board oversight of the assets and pension obligations to ensure they are being managed in the best interests of HOOPP members. The Board has established a policy framework, which outlines the Board's risk tolerances, and which guides the development of investment strategies to meet HOOPP's overall objectives.

The cornerstone of the policy framework is the Funding Decision Framework. The Funding Decision Framework sets out criteria to be considered when contemplating changes to contribution rates and/or benefits levels, and establishes a target range for the Plan's funded ratio, which is the ratio of the Plan's assets to its pension obligations. HOOPP's investment policy and strategic asset mix will also impact the Plan's funded ratio and can be altered to support the management of HOOPP's funded position.

Broadly, the Plan manages funding risk by:

- utilizing a liability driven investment (LDI) approach, an investment strategy that aligns the Plan's assets to the Plan's pension obligations, which helps determine appropriate investments and reduces funding risk;
- setting and managing to a minimum and a target expected range for the Plan's funded ratio;
- annually reviewing the actuarial assumptions underlying the Plan's pension obligations to ensure continued appropriateness; and
- complying with the PBA, the ITA, the Plan's Agreement and Declaration of Trust, and the Plan Text.

The Board provides a framework for the investment of Plan assets through the following key documents, which collectively form HOOPP's policy framework, and which the Board reviews and approves at least annually:

- Investment Risk Framework – the Board's view of the Plan's risk tolerance;
- Statement of Investment Policies and Procedures (SIP&P) – investment guidelines for the management of the Plan, including objectives and how they will be reached; and
- Investment Policies and Guidelines (IP&G) – the Plan's policy benchmark, policy asset mix and detailed investment limits.

The Investment Management team provides advice and recommendations to the Board about the investing of Plan assets to meet the Plan's target funding ratio and they design and execute investment strategies, in compliance with HOOPP's policy framework. The Finance division, which is independent from the Investment Management team, monitors the limits set out in the IP&G. Compliance reporting is provided quarterly to the Board's Asset Liability Management Committee and the Board.

The Board's Plan Committee oversees the Plan's benefits design and administration. It reviews, monitors and makes recommendations to the Board on matters such as proposed changes to benefits, Plan amendments, and contribution rates, as well as benefit administration. The Committee also monitors compliance with legislative and regulatory requirements and the Board's policies.

The Board's Asset Liability Management Committee oversees the management and investment of the Plan's assets and pension obligations. It monitors and evaluates the investment management process and performance of the Plan and reviews and recommends to the Board asset liability management policies. The Committee also reviews, monitors and makes recommendations to the Board on matters such as actuarial valuations and the appointment and performance of the Board's external actuarial advisors.

### Funding Risk

The primary risk that HOOPP faces is funding risk - the risk that the Plan's investment asset growth and contribution rates will not be sufficient to cover the Plan's pension obligations resulting in an unfunded liability (i.e., a funding deficit). If the funding deficit reaches a certain level, or persists, it may need to be eliminated by reducing benefits, raising contributions, or a combination of both.

The Plan's net funded position can change relatively quickly if there are changes in the value of the Plan's net investment assets or pension obligations, which may result in a mismatch between the Plan's assets and its pension obligations. The most significant economic contributors to funding risk are as follows:

- declines in interest rates;
- equity markets failing to achieve expected returns; and
- unexpected increases in inflation.

In addition to the economic contributors to funding risk listed above and further described in the Financial Risk Management section below, the Plan's pension obligations are also affected by non-economic factors such as changes in member demographics.

As at December 31, 2015, the Plan had a surplus for financial statement purposes of \$14,773 million (2014: \$13,925 million) based on the difference between the market value of net assets available for benefits and the pension obligations. On a regulatory filing basis at December 31, 2015, the Plan had a regulatory filing surplus of \$10,847 million, compared to \$6,950 million as at December 31, 2014 (based on the smoothed asset value of net assets described in note 11).

The Board manages funding risk by monitoring and reviewing the funded ratio on an ongoing basis, relying on the results of various scenarios, to ensure it remains in the targeted range. If and when the future funded ratio falls outside the range, the Board determines whether changes to the investment policy, strategic asset mix, and contribution rates and/or benefits may be required.

When formulating the investment policy to effectively manage both risk and the net funded position, HOOPP must consider investment strategies that are suitable for the Plan's pension obligations. Failing to do this would result in greater volatility in the Plan's funded status, leading to a greater risk of making changes to benefits and/or contribution rates.

The Board's external actuary performs an annual valuation to determine the Plan's funded status and also forecasts future results.

HOOPP is registered with FSCO and is required to file a regulatory filing valuation periodically. It last filed a regulatory filing valuation for the period ended December 31, 2014. See note 12 for more information on HOOPP's regulatory filing valuation.

## Financial Risk Management

The Plan's investment activities expose it to financial risks, which include:

- market risk (interest rate risk, foreign currency risk and other price risk);
- credit risk; and
- liquidity risk.

### Market risk

Market risk is the risk that the fair value of a financial instrument will fluctuate due to changes in market prices, whether those changes are caused by factors specific to the individual investment or its issuer or factors affecting all securities traded in the market.

*a. Interest rate risk*

Interest rate risk is the risk that the fair value of a financial instrument will fluctuate because of changes in market interest rates.

The Plan is exposed to interest rate risk as a result of the policy decision to invest in interest sensitive instruments as part of the LDI approach to investing. The Plan's interest rate sensitive instruments and the remaining term to maturity or repricing dates, whichever is earlier as at December 31, are summarized below by class of financial instrument.

| 2015                                       |                  |                   |                  |                  |                  |
|--------------------------------------------|------------------|-------------------|------------------|------------------|------------------|
| (\$ millions)                              | Within<br>1 Year | 1 to 5<br>Years   | 5 to 10<br>Years | Over 10<br>Years | Total            |
| <b>Short-term securities</b>               | \$ 357           | \$ -              | \$ -             | \$ -             | <b>\$ 357</b>    |
| <b>Public equities - preferred shares</b>  | -                | 607               | -                | -                | <b>607</b>       |
| <b>Canadian bonds<sup>(1)(2)</sup></b>     |                  |                   |                  |                  |                  |
| Federal bonds                              | 17,016           | 4,507             | 2,456            | 8,292            | <b>32,271</b>    |
| Provincial and municipal bonds             | 4,737            | 16,820            | 17,889           | 15,814           | <b>55,260</b>    |
| Real return bonds                          | -                | -                 | 781              | 6,938            | <b>7,719</b>     |
| Corporate bonds                            | 4,982            | 2,442             | 247              | 263              | <b>7,934</b>     |
| <b>Non-Canadian bonds<sup>(1)(2)</sup></b> | 3,865            | 837               | 333              | 5,971            | <b>11,006</b>    |
| <b>Non-Canadian commercial loans</b>       | -                | -                 | -                | -                | <b>-</b>         |
| <b>Derivative instruments</b>              | (11,548)         | (28,389)          | (12,614)         | 224              | <b>(52,327)</b>  |
| <b>Repurchase agreements</b>               | (19,022)         | -                 | -                | -                | <b>(19,022)</b>  |
| <b>Total</b>                               | <b>\$ 387</b>    | <b>\$ (3,176)</b> | <b>\$ 9,092</b>  | <b>\$ 37,502</b> | <b>\$ 43,805</b> |

<sup>(1)</sup> Net of Canadian bonds sold short of \$1,167 million and non-Canadian bonds sold short of \$963 million.

<sup>(2)</sup> Includes accrued interest of \$676 million on Canadian bonds and \$71 million on non-Canadian bonds.

| 2014                                       |                   |                 |                  |                  |                  |
|--------------------------------------------|-------------------|-----------------|------------------|------------------|------------------|
| (\$ millions)                              | Within<br>1 Year  | 1 to 5<br>Years | 5 to 10<br>Years | Over 10<br>Years | Total            |
| <b>Short-term securities</b>               | \$ -              | \$ -            | \$ -             | \$ -             | <b>\$ -</b>      |
| <b>Public equities - preferred shares</b>  | -                 | -               | -                | -                | <b>-</b>         |
| <b>Canadian bonds<sup>(1)(2)</sup></b>     |                   |                 |                  |                  |                  |
| Federal bonds                              | 15,620            | 3,240           | 2,995            | 8,639            | 30,494           |
| Provincial and municipal bonds             | 2,119             | 13,725          | 22,873           | 16,595           | 55,312           |
| Real return bonds                          | -                 | -               | 781              | 6,552            | 7,333            |
| Corporate bonds                            | 2,822             | 2,071           | 85               | 186              | 5,164            |
| <b>Non-Canadian bonds<sup>(1)(2)</sup></b> | 1,494             | 840             | (97)             | 3,507            | 5,744            |
| <b>Non-Canadian commercial loans</b>       | -                 | -               | 30               | -                | 30               |
| <b>Derivative instruments</b>              | (9,699)           | (18,983)        | (22,613)         | 333              | (50,962)         |
| <b>Repurchase agreements</b>               | (16,730)          | -               | -                | -                | (16,730)         |
| <b>Total</b>                               | <b>\$ (4,374)</b> | <b>\$ 893</b>   | <b>\$ 4,054</b>  | <b>\$ 35,812</b> | <b>\$ 36,385</b> |

<sup>(1)</sup> Net of Canadian bonds sold short of \$1,767 million and non-Canadian bonds sold short of \$1,042 million.

<sup>(2)</sup> Includes accrued interest of \$633 million on Canadian bonds and \$28 million on non-Canadian bonds.



***Risk measurement***

The Plan's interest rate sensitive portfolio is reviewed to ensure compliance to policy. The Asset Liability Management Committee receives quarterly reports, which include interest rate exposure for the interest rate sensitive portfolio. As at December 31, 2015, a 1% increase/decrease in interest rates would have decreased/increased the Plan's net assets available for benefits by \$6,650 million (2014: \$6,257 million). While the increase/decrease in interest rates would have decreased/increased the value of the Plan's assets, longer-term trends in increases/decreases in interest rates would have also decreased/increased the value of the Plan's pension obligations.

***Risk management***

While the Plan's interest sensitive products are exposed to interest rate risk, this risk has been assumed purposefully as part of the LDI approach to offset the interest rate risk inherent in the Plan's pension obligation. HOOPP uses duration to measure the sensitivity of the fair value of fixed income investments to changes in market interest rates. HOOPP manages its exposure to investment interest rate risk by ensuring the modified duration of the fixed income mandates remains within the approved ranges of the respective benchmarks as stipulated in the IP&G and the overall asset mix remains within the approved policy weights specified in the IP&G. This is accomplished by rebalancing the portfolio on a regular basis and through the use of derivatives, including interest rate swaps, cross-currency swaps and interest rate futures.

***b. Foreign currency risk***

Foreign currency risk is the risk that the fair value of a financial instrument denominated in a foreign currency will fluctuate due to changes in applicable foreign exchange rates. While HOOPP pension benefits are paid in Canadian dollars, some of the Plan's financial instruments are denominated in other currencies. The Plan's foreign currency exposure (including through derivatives) as at December 31 is presented below. The table also includes the Canadian dollar equivalent impact of a 5% increase/decrease in the applicable foreign exchange rate on the Plan's net assets available for benefits.

| (\$ millions)         | 2015              |                                  |                               | 2014              |                                  |                               |
|-----------------------|-------------------|----------------------------------|-------------------------------|-------------------|----------------------------------|-------------------------------|
|                       | Local<br>Currency | Canadian<br>Dollar<br>Equivalent | Impact<br>of +/-<br>5% Change | Local<br>Currency | Canadian<br>Dollar<br>Equivalent | Impact<br>of +/-<br>5% Change |
| Euros                 | (37)              | (60)                             | (3)/3                         | (27)              | (37)                             | (2)/2                         |
| United States Dollars | 33                | 46                               | 2/(2)                         | (28)              | (33)                             | (2)/2                         |
| British Pounds        | 27                | 54                               | 3/(3)                         | 48                | 87                               | 4/(4)                         |
| Japanese Yen          | -                 | -                                | -(/-)                         | 482               | 5                                | -(/-)                         |

Risk measurement

The exposures to foreign currency are measured daily and reported on a monthly basis for compliance purposes. Each quarter, management provides the Board with reports and analysis, illustrating the impact on assets of foreign currency rate changes. As at December 31, 2015, a strengthening/decline in the Canadian dollar of 1% against other currencies would result in a decrease/increase to the Plan's net assets available for benefits of approximately \$0.4 million (2014: decrease/increase of approximately \$0.2 million).

Risk management

While certain limited risk taking activities are permitted, HOOPP manages its exposure to foreign currency risk by ensuring the exposures are effectively hedged in accordance with the limits stipulated in the IP&G. These limits generally require the Plan's foreign currency exposure to be hedged within a 5% tolerance of the Fund's net asset value. This is accomplished through the use of derivatives, which include foreign exchange forward contracts and cross-currency swaps.

**c. Other price risk**

The Plan is also exposed to other price risk, which is the risk that the fair value of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk). HOOPP is exposed to other price risk, which includes primarily equity price risk through its investment in public equities and derivative instruments. In addition, HOOPP has exposure to other equity price risk of \$687 million (2014: \$495 million) through its investments in an index that is proprietary to another financial institution. The 1% increase/decrease in the index would have resulted in an increase/decrease in the Plan's net assets available for benefits of \$7 million (2014: \$5 million).

The Plan's total exposure to equity price risk (including through derivatives) as at December 31 is presented below. The table also includes the impact of a 10% increase/decrease in the equity markets benchmark price index on the Plan's net assets available for benefits.

| 2015                 |                                 |                                                    |                                               |                                               |
|----------------------|---------------------------------|----------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| (\$ millions)        | Effective<br>Equity<br>Exposure | % of Net<br>Assets<br>Available<br>for<br>Benefits | Benchmark                                     | Impact<br>of a 10%<br>Increase/<br>(Decrease) |
| <b>Canadian</b>      | \$ 6,611                        | 10.4%                                              | S&P/TSX 60 Total Return Index                 | 661/(661)                                     |
| <b>United States</b> |                                 |                                                    |                                               |                                               |
| United States equity | 5,014                           |                                                    | S&P 500 Total Return Index                    | 501/(501)                                     |
| Long option strategy | (1,136)                         |                                                    | S&P 500 Futures with 10-Year Options          | 104/298                                       |
|                      | 3,878                           | 6.1%                                               |                                               | 605/(203)                                     |
| <b>International</b> | 5,436                           | 8.5%                                               | Blend of International Indices <sup>(1)</sup> | 544/(544)                                     |
|                      | <b>\$ 15,925</b>                |                                                    |                                               | <b>1,810/(1,408)</b>                          |

<sup>(1)</sup> The blended benchmark is composed of the following international stock market indices: Dow Jones Euro Stoxx 50 Index, Tokyo Stock Price Index (Topix), FTSE 100, Swiss Market Index (SMI), Hang Seng Index, Australian Securities Exchange (ASX) 200.

| 2014                 |                                 |                                                    |                                               |                                               |  |
|----------------------|---------------------------------|----------------------------------------------------|-----------------------------------------------|-----------------------------------------------|--|
| (\$ millions)        | Effective<br>Equity<br>Exposure | % of Net<br>Assets<br>Available<br>for<br>Benefits | Benchmark                                     | Impact<br>of a 10%<br>Increase/<br>(Decrease) |  |
| <b>Canadian</b>      | \$ 6,214                        | 10.2%                                              | S&P/TSX 60 Total Return Index                 | 621/(621)                                     |  |
| <b>United States</b> |                                 |                                                    |                                               |                                               |  |
| United States equity | 4,918                           |                                                    | S&P 500 Total Return Index                    | 492/(492)                                     |  |
| Long option strategy | (254)                           |                                                    | S&P 500 Futures with 10-Year Options          | 141/233                                       |  |
|                      | 4,664                           | 7.7%                                               |                                               | 633/(259)                                     |  |
| <b>International</b> | 4,933                           | 8.1%                                               | Blend of International Indices <sup>(1)</sup> | 493/(493)                                     |  |
|                      | <b>\$ 15,811</b>                |                                                    |                                               | <b>1,747/(1,373)</b>                          |  |

<sup>(1)</sup> The blended benchmark is composed of the following international stock market indices: Dow Jones Euro Stoxx 50 Index, Tokyo Stock Price Index (Topix), FTSE 100, Swiss Market Index (SMI), Hang Seng Index, Australian Securities Exchange (ASX) 200.

### Risk measurement

HOOPP measures risk daily by monitoring exposure levels to Board approved limits, which include total equity exposure and single-name limits. Compliance limit reporting is provided to the Board on a quarterly basis. Sensitivity analysis is performed to measure the impact of public equity market changes, to quantify the underlying risk and to ensure risk mitigation strategies are effective.

As at December 31, 2015, a 1% increase/decrease in equity markets would have resulted in an increase/decrease in the Plan's net assets available for benefits of \$159 million (2014: \$158 million).

### Risk management

HOOPP manages equity risk through diversification, by investing in major equity markets with benchmarks approved by the Board, and through physical and derivative markets in order to minimize non-systemic risk. Rebalancing occurs regularly to ensure the weighting of the equity investments, in respect to the overall value of the Plan, remains within the limits established by the Board.

## **Credit risk**

Credit risk is the risk of loss associated with an obligor's potential inability or unwillingness to fulfill its contractual obligations.

Counterparty credit risk is the risk of loss in the event the counterparty (excluding clearing houses) defaults on a transaction, or otherwise fails to perform under the terms of a contract.

The Plan assumes credit risk exposure through its investment in fixed income instruments and the underlying reference bond of credit derivatives. Counterparty credit risk is introduced through the Plan's securities lending program, repurchase agreements and derivatives.

HOOPP has investment policies and procedures in place, which specify the requirements for using collateral to reduce the total net credit risk exposure to individual corporate entities. Only collateral of a certain quality is considered acceptable. Contracts with various

counterparties are in place and define the terms under which collateral is transferred. Terms may include minimum transfer amounts or thresholds, eligible securities, and rules for the settlement of disputes. The collateral pledged and received is the only recourse available to the counterparties of these transactions.

The Plan's total credit risk exposure as at December 31 was as follows:

|                                                | 2015                  |             | 2014                  |             |
|------------------------------------------------|-----------------------|-------------|-----------------------|-------------|
| (\$ millions)                                  | Total Credit Exposure | % of Total  | Total Credit Exposure | % of Total  |
| <b>Sovereign securities AAA<sup>(1)</sup></b>  | \$ 31,243             | 23.1%       | \$ 29,308             | 23.9%       |
| <b>Fixed income instruments</b>                |                       |             |                       |             |
| AAA                                            | 20,375                | 15.1%       | 18,038                | 14.7%       |
| AA                                             | 12,627                | 9.3%        | 32,205                | 26.3%       |
| A                                              | 47,456                | 35.1%       | 23,247                | 19.0%       |
| BBB                                            | 1,734                 | 1.3%        | 650                   | 0.5%        |
| BB or below                                    | 915                   | 0.7%        | 224                   | 0.2%        |
| <b>Credit derivatives</b>                      | 13,191                | 9.8%        | 13,941                | 11.4%       |
| <b>Counterparty credit risk exposure</b>       |                       |             |                       |             |
| Derivatives                                    | 777                   | 0.6%        | 785                   | 0.6%        |
| Repurchase agreements                          | 258                   | 0.2%        | 1,142                 | 0.9%        |
| Securities lending program                     | 6,539                 | 4.8%        | 3,043                 | 2.5%        |
| <b>Maximum credit risk exposure</b>            | <b>135,115</b>        | <b>100%</b> | <b>122,583</b>        | <b>100%</b> |
| Credit risk protection<br>(credit derivatives) | (10,797)              |             | (11,680)              |             |
| Collateral received                            | (5,249)               |             | (3,095)               |             |
| <b>Total</b>                                   | <b>\$ 119,069</b>     |             | <b>\$ 107,808</b>     |             |

<sup>(1)</sup> As at December 31, 2015, includes securities issued by the governments of Canada, Germany, and the United States (2014: Canada, Germany, and the United States).

### Risk measurement

HOOPP measures the risk by monitoring the Plan's exposure each day to credit based on Board-approved credit limits, which include overall exposure limits, single-name limits, and also counterparty exposure to determine whether collateral should be requested. Counterparty credit risk exposure for financial contracts is measured by the positive fair value of the contractual obligations with the counterparties, less any collateral or margin received, as at the reporting date. Compliance reporting is provided quarterly to the Asset Liability Committee and the Board. Investments in any one issuer are limited to 5% of the total net assets of the Plan.

### Risk management

HOOPP's policy is to manage credit risk by placing limits on investments in below-investment grade debt, diversifying credit holdings, and limiting investments based on single-name issuer limits as stipulated by the Board in the IP&G. HOOPP assigns credit ratings to its sovereign securities and fixed income instruments as determined by recognized credit rating agencies, where available. For fixed income instruments that are not rated by a recognized credit ratings agency, HOOPP assigns credit ratings based on an internal rating process. HOOPP will also employ the use of credit derivatives to achieve its objective of managing credit risk. HOOPP has a long-term focus on credit risk; therefore, changes in the market value of securities due to fluctuations in credit spreads are not of primary concern.

HOOPP mitigates counterparty credit risk by transacting exchange-traded derivative contracts and, when required, by dealing primarily with over-the-counter derivatives counterparties with a minimum credit rating of A, as determined by a recognized credit rating agency. HOOPP also uses an internal credit-limit monitoring process and has master netting arrangements in place and the right to obtain collateral, all of which mitigate counterparty credit risk. Exposure to any counterparty with whom the Plan has non-exchange traded derivative contracts shall not exceed the limits specified and approved by the Board in the IP&G. Counterparty exposure is determined daily and collateral is either requested or delivered in accordance with the agreements in place. Note 5 provides more information on collateral.

### Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

The Plan's financial liabilities include investment-related liabilities (note 2), accrued pension obligations (note 11), and contracts that give rise to commitments for future payments (notes 14 and 15). The Plan is also exposed to the daily settlement of derivatives and margin calls on derivatives.

The Plan's investment-related liabilities by maturity, on an undiscounted basis, as at December 31 are as follows:

| (\$ millions)                             | 2015                  |                   |                    |                    | 2014                  |                   |                    |                    |
|-------------------------------------------|-----------------------|-------------------|--------------------|--------------------|-----------------------|-------------------|--------------------|--------------------|
|                                           | Less than<br>3 Months | 3 to 12<br>Months | Over 1<br>Year     | Total              | Less than<br>3 Months | 3 to 12<br>Months | Over 1<br>Year     | Total              |
| Non-derivative<br>investments liabilities | \$ (63,074)           | \$ -              | \$ -               | \$ (63,074)        | \$ (51,364)           | \$ (367)          | \$ -               | \$ (51,731)        |
| Derivative<br>investments liabilities     | (6,199)               | (2,741)           | (12,256)           | (21,196)           | (4,215)               | (2,237)           | (11,762)           | (18,214)           |
| <b>Total investment<br/>liabilities</b>   | <b>\$ (69,273)</b>    | <b>\$ (2,741)</b> | <b>\$ (12,256)</b> | <b>\$ (84,270)</b> | <b>\$ (55,579)</b>    | <b>\$ (2,604)</b> | <b>\$ (11,762)</b> | <b>\$ (69,945)</b> |

### Risk measurement

On a daily basis, HOOPP forecasts cash flow requirements for up to one week to ensure sufficient cash is made available to meet short-term requirements.

Also, the ratio of assets available to cover potential margin calls is determined daily. When calculating the assets available, factors such as market value, posted collateral, repurchase agreements and securities lending positions are considered. The potential margin call is based on the Plan's exposure to various derivatives and their potential daily market movement.

### Risk management

HOOPP manages liquidity risk by maintaining sufficient cash and cash equivalents, investing in highly liquid fixed income investments and securities which can be easily disposed of, and through the use of investment income and contributions received, to meet liquidity requirements. These sources of funds are used to pay pension benefits, settle financial liabilities and pay for operating expenses.

## Note 7 – OTHER ASSETS

As at December 31, other assets consist of the following amounts:

|                                             | 2015          | 2014          |
|---------------------------------------------|---------------|---------------|
| (\$ millions)                               |               |               |
| Refundable withholding tax on contributions | \$ 140        | \$ 141        |
| Fixed assets                                | 19            | 6             |
| Other                                       | 6             | 4             |
| <b>Total</b>                                | <b>\$ 165</b> | <b>\$ 151</b> |

## Note 8 – CONTRIBUTIONS

Contributions received or receivable during the year ended December 31 were comprised of the following:

|                                         | 2015            | 2014            |
|-----------------------------------------|-----------------|-----------------|
| (\$ millions)                           |                 |                 |
| <b>Employers</b>                        |                 |                 |
| Current service contributions           | \$ 1,108        | \$ 1,075        |
| <b>Members</b>                          |                 |                 |
| Current service contributions           | 879             | 853             |
| Past service contributions from members | 32              | 36              |
| Transfers from other plans              | 80              | 40              |
|                                         | <b>991</b>      | <b>929</b>      |
| <b>Total</b>                            | <b>\$ 2,099</b> | <b>\$ 2,004</b> |

## Note 9 – BENEFITS

Benefits paid during the year ended December 31 were comprised of the following:

|                                                       | 2015            | 2014            |
|-------------------------------------------------------|-----------------|-----------------|
| (\$ millions)                                         |                 |                 |
| <b>Benefit payments</b>                               |                 |                 |
| Retirement pension and bridge benefits <sup>(1)</sup> | \$ 1,544        | \$ 1,408        |
| Commuted value transfers and death benefits           | 291             | 222             |
|                                                       | <b>1,835</b>    | <b>1,630</b>    |
| <b>Refunds and transfers</b>                          |                 |                 |
| Refunds                                               | 57              | 55              |
| Transfers to other plans                              | 33              | 17              |
|                                                       | <b>90</b>       | <b>72</b>       |
| <b>Total</b>                                          | <b>\$ 1,925</b> | <b>\$ 1,702</b> |

<sup>(1)</sup> Includes disability payments of \$81 million (2014: \$80 million)

## Note 10 – OPERATING EXPENSES

For the year ended December 31, HOOPP incurred operating expenses for Investment and Plan-related activities as follows:

|                                                             | 2015          | 2014          |
|-------------------------------------------------------------|---------------|---------------|
| (\$ millions)                                               |               |               |
| <b>Investment<sup>(1)</sup></b>                             |               |               |
| Administration                                              | \$ 118        | \$ 109        |
| Legal, actuarial and other professional fees <sup>(2)</sup> | 6             | 4             |
| Custodial                                                   | 2             | 3             |
|                                                             | <b>126</b>    | <b>116</b>    |
| <b>Plan<sup>(1)</sup></b>                                   |               |               |
| Administration                                              | 69            | 62            |
| Legal, actuarial and other professional fees <sup>(2)</sup> | 6             | 7             |
|                                                             | <b>75</b>     | <b>69</b>     |
| <b>Total</b>                                                | <b>\$ 201</b> | <b>\$ 185</b> |

<sup>(1)</sup> Based on an allocation of corporate expenses that includes direct and indirect expenses associated with Investment and Plan related activities. Management allocates these costs using estimates of time associated with each activity.

<sup>(2)</sup> Includes amounts paid or payable to the auditors pertaining to statutory audit services of \$936,100 (2014: \$820,800), and non-audit services of \$116,200 (2014: \$159,300). Also includes amounts paid or payable to the actuary pertaining to actuarial services of \$634,800 (2014: \$565,300).

## Note 11 – PENSION OBLIGATIONS

### Pension Obligations

The pension obligations are based on management's assumptions and include a provision for investment expenses. The Plan provisions considered in the valuations were those in effect at the valuation dates.

Estimates used for financial reporting purposes reflect management's expectations of long-term economic and demographic conditions. The primary economic assumptions include the discount rate, salary escalation rate and price inflation rate. The non-economic assumptions include considerations such as mortality, withdrawal and retirement rates.

The discount rate is based on the long-term expected Fund return and includes a margin for conservatism (as appropriate for a funding valuation). The price inflation rate is based on the expected CPI rate.

For the December 31, 2015 actuarial valuation, the Board approved decreases to the discount rate, rate of price inflation and salary escalation rate as indicated below. The change in the rate of price inflation also had corresponding impacts to other inflation-linked assumptions (e.g. salary escalation rate). The Board also approved changes to certain demographic assumptions based on recent experience.

To determine the pension obligations as at December 31, 2015, and December 31, 2014, the following economic assumptions were analyzed and reviewed by management and the Plan's actuarial advisors for reasonableness and approved by the Board for financial reporting purposes:

|                                       | 2015 <sup>(3)</sup> | 2014 <sup>(3)</sup> |
|---------------------------------------|---------------------|---------------------|
| December 31                           |                     |                     |
| Discount rate <sup>(1)</sup>          | 5.65%               | 5.85%               |
| Rate of price inflation               | 2.00%               | 2.25%               |
| Real discount rate                    | 3.65%               | 3.60%               |
| Salary escalation rate <sup>(2)</sup> | 3.50%               | 3.75%               |

<sup>(1)</sup> Net of allowance for investment expenses of 0.25% (2014: 0.25%).

<sup>(2)</sup> For 2015, a two-tiered rate of 3.20% per annum for the first three years following the valuation date and 3.50% thereafter is assumed (2014: single rate of 3.75%).

<sup>(3)</sup> Net impact from changes to the discount rate, rate of price inflation, salary escalation rate and all other assumption changes resulted in an actuarial gain of \$134 million (2014: changes to the discount rate, salary escalation and mortality assumptions resulted in an actuarial loss of \$2,201 million).

## Actuarial Methodology for Financial Reporting

For the determination of the actuarial present value of the pension obligations as at December 31, 2015, an actuarial valuation was conducted by Towers Watson Canada Inc. The valuation uses the projected accrued benefit actuarial cost method with respect to all benefits and assumes that the Plan will continue on a going-concern basis. The data used in the valuation was based on members' demographic data provided by HOOPP staff as at October 1, 2015 and members' pay data provided as at December 31, 2014, all of which were projected to December 31, 2015 using management's estimates of experience for the intervening periods. The pensionable earnings estimates were determined based on 2014 experience and estimate assumptions.

Using this method and data, the pension obligations (or going concern actuarial pension obligations) as at December 31, 2015, were \$49,151 million (2014: \$46,923 million).

## Estimated Experience Gains and Losses

Estimated experience gains and losses represent the change in the pension obligations due to the difference between actual economic and demographic experience and expected experience. During 2015, there was an estimated experience gain of \$521 million (2014: gain of \$77 million).

## Plan Provisions

As discussed under the Description of the Plan, the Board has the authority to provide ad hoc inflation protection for retirees and deferred retirees. During 2014, the Board approved a one-time ad hoc inflation protection adjustment equal to 25% of the annual CPI increases for the years 2002 to 2013, which results in 100% of the CPI inflation protection for these years, effective April 1, 2015. The related one-time impact of \$542 million was reflected in the pension obligations as at December 31, 2014. Also during 2014, the Board confirmed 100% of the 2014 CPI increase as an ad hoc increase effective April 1, 2015, which had an additional impact to the pension obligations as at December 31, 2014 of \$124 million. There is no additional impact for



these in 2015. During 2015, the Board confirmed 100% of the 2015 CPI increase as an ad hoc increase effective April 1, 2016. As at December 31, 2015, the additional impact to the pension obligations for this ad hoc inflation protection adjustment is \$115 million. Also included in the pension obligations are the ad hoc CPI inflation increases at 75% of CPI, intended to be granted April 1, 2017 to April 1, 2018, which the Board approved in 2012.

## Surplus

According to CPA Canada Handbook Section 4600, *Pension Plans*, the surplus for financial statement presentation purposes is the difference between the market value of net assets available for benefits and the pension obligations. The surplus for financial statement purposes on December 31, 2015, was \$14,773 million (2014: \$13,925 million).

Prior to 2011, the surplus reported on the Statements of Financial Position was the same as that used for regulatory filing purposes, which utilized a longer-term view of Plan net asset values. The net assets value used for regulatory filing purposes, referred to as the “smoothed” value of net assets, is determined in a manner that reflects long-term market trends consistent with assumptions underlying the actuarial present value of pension obligations. The smoothed value of net assets is determined by taking an average of the current market value of net assets and the market values for the four preceding years. The market values for the four preceding years are adjusted for contributions, benefit payments and operating expenses. They are also adjusted to include assumed investment return, which is based on long-term expected fund returns. This is a common actuarial practice for long-term valuations filed with the regulators and has the effect of stabilizing the contribution rates of the Plan during periods of short-term market volatility. The regulatory filing surplus on December 31, 2015, was \$10,847 million (2014: \$6,950 million).

The market value of net assets available for benefits exceeds the smoothed value of net assets, resulting in a difference between the surplus for financial statement purposes and that for regulatory filing purposes of \$3,926 million at December 31, 2015 (2014: \$6,975 million).

A reconciliation of the surplus is presented in the table below:

|                                          | 2015         | 2014      |
|------------------------------------------|--------------|-----------|
| (\$ millions)                            |              |           |
| Surplus for financial statement purposes | \$ 14,773    | \$ 13,925 |
| Regulatory filing surplus                | 10,847       | 6,950     |
| <b>Difference</b>                        | <b>3,926</b> | 6,975     |

## Note 12 - REGULATORY FILING VALUATION

In accordance with the PBA and the ITA, an actuarial valuation is required to be filed at least every three years to estimate the Plan's surplus or deficit, and to determine the Plan's minimum funding requirements. Towers Watson Canada Inc. prepared the last actuarial valuation for regulatory filing purposes, as at December 31, 2014, and a copy of that valuation was filed with FSCO and CRA. The effective date of the next required valuation is December 31, 2017.

The funding valuation method used to determine the pension obligations is the projected accrued benefit actuarial cost method. Under this method, the pension obligations are determined by calculating the actuarial present value of benefits based on service at the valuation date and projected final average earnings. The actuarial current service cost of benefits is determined based on benefits (with projected final average earnings) in respect of service in the year following the valuation date, a portion of which is covered by member contributions.

The external actuary, in consultation with management, recommended the actuarial assumptions to be used for the regulatory filing valuation. The economic assumptions used for the December 31, 2014 regulatory filing valuation were as follows:

| Economic Assumptions         | Rates |
|------------------------------|-------|
| Discount rate <sup>(1)</sup> | 5.85% |
| Rate of price inflation      | 2.25% |
| Real discount rate           | 3.60% |
| Salary escalation rate       | 3.75% |

<sup>(1)</sup> Net of allowance for investment expenses of 0.25%

The most recent regulatory filing valuation conducted as at December 31, 2014, disclosed a smoothed value of net assets of \$53,873 million with accrued going concern pension obligations of \$46,923 million, resulting in a going concern surplus of \$6,950 million. In accordance with the PBA, the solvency deficiency at December 31, 2014, was \$nil.

## Note 13 - RETIREMENT COMPENSATION ARRANGEMENT

The RCA is an arrangement that is funded by member and employer contributions as well as investment earnings and managed in accordance with the overall Plan. The RCA assets are segregated under a separate account from the assets of the RPP. The allocation of contributions to the RCA and RPP are driven by the requirements of the ITA in a manner that is expected to be sufficient to pay the benefits as they become due. Total pension benefits are calculated using the pension formula disclosed under the Description of the Plan based on a member's total pensionable earnings. Benefits payable from the RCA are then determined as those which exceed amounts permitted under the ITA for an RPP.

The net asset value available for RCA benefits at December 31, 2015 was \$294 million (2014: \$298 million).

## Note 14 – RELATED PARTY TRANSACTIONS – LEASE COMMITMENT

As at December 31, 2015, a wholly-owned subsidiary of the Plan held a significant ownership interest in a commercial office tower under construction called One York Street. The Plan's commitment to the construction of this office building is included in the commitments to invest in real estate investments in note 15.

The Plan entered into a lease agreement to become a tenant at One York Street. The term of the lease is for 15 years with two renewal options, each for 5 years. Rental payments will commence in 2016, once construction of One York Street is complete. The future minimum lease payments by year, and in aggregate, are as follows:

| Minimum Lease Payments              |               |
|-------------------------------------|---------------|
| (\$ millions)                       |               |
| 2016                                | \$ 2          |
| 2017                                | 5             |
| 2018                                | 5             |
| 2019                                | 5             |
| 2020                                | 5             |
| Thereafter                          | 96            |
| <b>Total minimum lease payments</b> | <b>\$ 118</b> |

## Note 15 – COMMITMENTS

As part of normal business operations, the Plan enters into commitments related to the funding of investments. The Plan or its subsidiaries have committed to either purchase limited partnership units, which fund real estate and private equity investments, or to directly invest in real estate and private equity. These commitments will be funded over the next several years in accordance with agreed-on terms and conditions. As at December 31, 2015, these commitments totalled \$2,305 million related to real estate investments and \$3,496 million related to private equity investments (2014: \$1,767 million and \$3,269 million, respectively). The Plan has also committed to purchasing services related to its pension administration systems totalling approximately \$78 million (2014: \$88 million), payable over the next 12 years in accordance with the contractual terms and conditions. Commitments that are deemed to be insignificant have not been disclosed.

## Note 16 – CAPITAL

HOOPP defines its capital as the Plan's surplus or deficit. The objective of managing the Plan's capital is to ensure that the Plan is fully funded in order to meet the pension obligations over the long term. Refer to note 6 for further disclosure on HOOPP's capital.

## Note 17 – GUARANTEES, INDEMNIFICATIONS AND CONTINGENCIES

Guarantees are contracts under which the guarantor is required to make payment to a third party where a principal obligor fails to pay or perform a stated obligation owed to that party. Indemnification agreements are similar to guarantees in that the indemnifying party may be required to make payments to the indemnified party in the event that the indemnified party incurs certain specified losses or expenses, often as a result of the act or omission of the indemnifying party.

### Guarantees

The Plan indirectly guarantees the underlying reference obligations when it sells credit protection, i.e., it commits to compensate the counterparty in the event of a default in relation to the reference obligation. The maximum potential exposure is the notional amount of the credit protection sold. However, when carefully structured and coupled with other hedging instruments, the exposure can be limited with certainty. The notional amount, fair value and the term to maturity of the credit protection sold entered into by the Plan are disclosed in note 3.

### Indemnifications

According to the Agreement and Declaration of Trust, the Plan may indemnify its trustees and employees against certain claims that may be made against them. In addition, the Plan may in certain circumstances in the course of the Plan's investment activities and its normal course of operations, agree to indemnify a contractual counterparty. Under the terms of these various arrangements, the Plan may be required to compensate counterparties for costs incurred because of various contingencies such as legal claims or changes in laws and regulations. The number of such agreements, the range of indemnifications and the contingent nature of the liabilities in such agreements, prevent HOOPP from making a reasonable estimate of the maximum amount that would be required to pay all such indemnifications. As at December 31, 2015, the amount recorded as a liability for claims under these arrangements was \$nil (2014: \$nil).

### Contingencies

As at December 31, 2015, the Plan was involved in defending against certain claims or asserting claims against third parties. The outcome and possible impact to the Plan of such litigation or claims is inherently difficult to predict. A provision for a present obligation is recognized when a reliable estimate can be determined and the settlement of any contingent obligation is probable. However, it is the opinion of management that any impact that may result would not have a significant adverse effect on the Plan's financial statements.





# TEN YEAR REVIEW

(unaudited)

For the year ended December 31

|                                                             | 2015             | 2014             | 2013             | 2012             | 2011             | 2010             | 2009             | 2008             | 2007             | 2006             |
|-------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| (\$ millions)                                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Net assets available for benefits, beginning of year</b> | <b>\$ 60,848</b> | <b>\$ 51,626</b> | <b>\$ 47,414</b> | <b>\$ 40,321</b> | <b>\$ 35,717</b> | <b>\$ 31,116</b> | <b>\$ 26,732</b> | <b>\$ 30,002</b> | <b>\$ 27,914</b> | <b>\$ 24,512</b> |
| Net investment income (loss)                                | <b>3,103</b>     | 9,105            | 4,046            | 6,857            | 4,327            | 4,245            | 4,040            | (3,591)          | 1,748            | 3,136            |
| Contributions                                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Employers                                                   | <b>1,108</b>     | 1,075            | 1,033            | 1,003            | 954              | 921              | 890              | 840              | 782              | 718              |
| Members                                                     | <b>991</b>       | 929              | 880              | 860              | 797              | 793              | 744              | 713              | 737              | 658              |
| Benefits                                                    | <b>(1,925)</b>   | (1,702)          | (1,587)          | (1,486)          | (1,335)          | (1,229)          | (1,159)          | (1,143)          | (1,079)          | (1,019)          |
| Operating expenses                                          | <b>(201)</b>     | (185)            | (160)            | (141)            | (139)            | (129)            | (131)            | (89)             | (100)            | (91)             |
| Increase (decrease) in net assets available for benefits    | <b>3,076</b>     | 9,222            | 4,212            | 7,093            | 4,604            | 4,601            | 4,384            | (3,270)          | 2,088            | 3,402            |
| <b>Net assets available for benefits, end of year</b>       | <b>\$ 63,924</b> | <b>\$ 60,848</b> | <b>\$ 51,626</b> | <b>\$ 47,414</b> | <b>\$ 40,321</b> | <b>\$ 35,717</b> | <b>\$ 31,116</b> | <b>\$ 26,732</b> | <b>\$ 30,002</b> | <b>\$ 27,914</b> |
| <b>Net Assets</b>                                           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Investment assets                                           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Cash                                                        | <b>\$ 57</b>     | \$ 2             | \$ 8             | \$ (1)           | \$ 3             | \$ 14            | \$ -             | \$ 35            | \$ 38            | \$ 81            |
| Fixed income                                                | <b>115,930</b>   | 106,200          | 86,694           | 74,669           | 71,241           | 60,322           | 49,121           | 46,125           | 42,875           | 30,487           |
| Public equity                                               | <b>9,150</b>     | 2,182            | 4,596            | 1,705            | 931              | 773              | 889              | 1,904            | 4,612            | 6,374            |
| Equity-oriented                                             | <b>13,402</b>    | 10,992           | 9,588            | 7,853            | 6,896            | 5,941            | 5,040            | 4,836            | 4,290            | 3,647            |
| Securities purchased under resell agreements                | <b>2,498</b>     | 3,286            | 3,046            | 3,117            | 3,188            | 1,134            | 336              | -                | 348              | -                |
| Derivative instruments                                      | <b>5,236</b>     | 5,808            | 5,053            | 1,624            | 3,041            | 1,831            | 1,019            | 1,754            | 1,566            | 892              |
| Investment receivables                                      | <b>1,063</b>     | 934              | 1,438            | 1,276            | 1,538            | 1,322            | 1,566            | 1,333            | 557              | 642              |
|                                                             | <b>147,336</b>   | 129,404          | 110,423          | 90,243           | 86,838           | 71,337           | 57,971           | 55,987           | 54,286           | 42,123           |
| Contributions receivable                                    | <b>156</b>       | 156              | 150              | 150              | 142              | 135              | 133              | 124              | 111              | 102              |
| Other assets                                                | <b>165</b>       | 151              | 146              | 150              | 148              | 142              | 142              | 148              | 127              | 104              |
| <b>Total assets</b>                                         | <b>147,657</b>   | 129,711          | 110,719          | 90,543           | 87,128           | 71,614           | 58,246           | 56,259           | 54,524           | 42,329           |
| <b>Investment liabilities</b>                               | <b>(83,616)</b>  | (68,753)         | (58,999)         | (43,046)         | (46,722)         | (35,825)         | (27,071)         | (29,502)         | (24,493)         | (14,391)         |
| Other liabilities                                           | <b>(117)</b>     | (110)            | (94)             | (83)             | (85)             | (72)             | (59)             | (25)             | (29)             | (24)             |
| <b>Total liabilities</b>                                    | <b>(83,733)</b>  | (68,863)         | (59,093)         | (43,129)         | (46,807)         | (35,897)         | (27,130)         | (29,527)         | (24,522)         | (14,415)         |
| <b>Net assets</b>                                           | <b>\$ 63,924</b> | \$ 60,848        | \$ 51,626        | \$ 47,414        | \$ 40,321        | \$ 35,717        | \$ 31,116        | \$ 26,732        | \$ 30,002        | \$ 27,914        |
| <b>Pension obligations</b>                                  | <b>49,151</b>    | 46,923           | 41,478           | 39,919           | 36,782           | 34,897           | 32,020           | 31,244           | 28,683           | 25,808           |
| <b>Surplus (deficit)</b>                                    | <b>\$ 14,773</b> | \$ 13,925        | \$ 10,148        | \$ 7,495         | \$ 3,539         | \$ 820           | \$ (904)         | \$ (4,512)       | \$ 1,319         | \$ 2,106         |
| <b>Investment Performance</b>                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Investment rate of return-net                               | <b>5.12%</b>     | 17.72%           | 8.55%            | 17.10%           | 12.19%           | 13.68%           | 15.18%           | -11.96%          | 6.23%            | 12.79%           |
| Benchmark return                                            | <b>3.95%</b>     | 15.62%           | 6.46%            | 14.29%           | 9.87%            | 10.31%           | 9.77%            | -8.98%           | 4.78%            | 11.88%           |
| Long-term return target                                     | <b>6.04%</b>     | 6.93%            | 6.34%            | 6.50%            | 6.50%            | 6.63%            | 6.50%            | 6.50%            | 6.75%            | 7.00%            |



# GOVERNANCE



**Standing (left to right):** Sue McSheffrey, Dan Anderson, Louis Rodrigues, Yves Shank, Martin Reid, Dr. Kevin Smith, Jim Flett, Adrian Foster, James Sanders, Terry McCarthy, R. Wayne Gladstone, Jon Clark **Seated (left to right):** Marlene Puffer, Helen Fetterly, Bonnie Adamson, Julie Giraldi, Bryce Walker, Linda Haslam-Stroud

In 1993, HOOPP's five Settlor organizations signed an Agreement of Declaration of Trust, creating a joint-governance structure that features equal representation from members and employers. As a result, HOOPP is governed by an independent Board of Trustees made up of 16 voting members; eight trustees are appointed by the Ontario Hospital Association and eight are appointed by the four unions representing the majority of Plan members:

- Ontario Nurses' Association (ONA)
- Canadian Union of Public Employees (CUPE)
- Ontario Public Service Employees Union (OPSEU)
- Service Employees International Union (SEIU)

There are also two non-voting Board members. One observer representing

pensioners is appointed by the OHA, and one is appointed by the Settlor Unions.

The Board is responsible for overseeing all aspects of the Plan and the HOOPP Trust Fund. Its duties include:

- approving changes to the Plan and benefits
- setting contribution levels
- establishing investment policy
- monitoring investment performance
- approving annual operating budgets

The Trustees have a fiduciary duty to act in the best interests of all members. The Board regularly reviews its approach to governance in order to remain current with best practices.

HOOPP's President & CEO assumes day-to-day responsibility for overall leadership and management of the Plan.

# EXECUTIVE LEADERSHIP



Jim Keohane



Reno Bugiardini



Victoria S. Hubbell



David Long



Steven McCormick



David L. Miller



Barbara Thomson



Jeff Wendling

Lead by President & CEO, Jim Keohane, HOOPP's executive team is committed to the organization's mission in delivering on the pension promise and works in accordance with Board policy in the best interests of the Plan's members, pensioners and employees.



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2015 Chair  
Secretary-Treasurer,  
Ontario Council of  
Hospital Unions (OCHU)

**Bryce Walker**

2015 Vice-Chair  
Former Chair, Board  
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**TRUSTEES****Dan Anderson**

Director and Chief  
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Nurses' Association  
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**Terry McCarthy**

Executive Assistant,  
SEIU Healthcare

**Jon Clark**

SEIU Healthcare

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The HOOPP 2015 Annual Report was produced  
by the Healthcare of Ontario Pension Plan.



**HOOPP**  
Healthcare of Ontario  
Pension Plan

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2016 CAATPP Funding Valuation.pdf

# **THE COLLEGES OF APPLIED ARTS AND TECHNOLOGY PENSION PLAN REPORT ON THE ACTUARIAL VALUATION FOR FUNDING PURPOSES AS AT JANUARY 1, 2016**

MARCH 2016

Financial Services Commission of Ontario and  
Canada Revenue Agency Registration Number: 0589895

**Note to reader regarding actuarial valuations:**

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date. The content of the report may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used, or relied upon without reference to the report as a whole.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future, and other factors.

The valuation results shown in this report also illustrate the sensitivity to one of the key actuarial assumptions, the discount rate. We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes, and the results are sensitive to all the assumptions used in the valuation.

Should the plan be wound up, the going concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the plan assuming it is wound up on the valuation date. Emerging experience will affect the wind-up financial position of the plan assuming it is wound up in the future. In fact, even if the plan were wound up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security, and/or benefit-related issues should not be made solely on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic, and societal factors, including financial scenarios that assume future sustained investment losses.

Funding calculations reflect our understanding of the requirements of the Ontario Pension Benefits Act, the Income Tax Act, and related regulations that are effective as of the valuation date. Mercer is not a law firm, and the analysis presented in this report is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this report.

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# 1

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## Introduction

### To The Board of Trustees of the CAAT Pension Plan

At the request of the Board of Trustees of The Colleges of Applied Arts and Technology Pension Plan (the “Board”), we have conducted an actuarial valuation of The Colleges of Applied Arts and Technology Pension Plan (the “Plan”) as at the valuation date, January 1, 2016. We are pleased to present the results of the valuation.

### Purpose

The purpose of this valuation is to determine:

- The funded status of the Plan as at January 1, 2016 on going concern, hypothetical wind-up, and solvency bases; and
- The required contributions from 2016, in accordance with the *Pension Benefits Act (Ontario)* (“the Act”).

The information contained in this report was prepared for the internal use of the Board and Plan staff, and for filing with the Financial Services Commission of Ontario and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report will be filed with the Financial Services Commission of Ontario and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

In accordance with Section 14 of the regulations to the *Pension Benefits Act (Ontario)*, the next actuarial valuation of the Plan will be required as at a date not later than January 1, 2019, or as at the date of an earlier amendment to the Plan that would have a material impact on the valuation results.

### Terms of Engagement

In accordance with our terms of engagement with the Board, our actuarial valuation of the Plan is based on the following material terms:

- We have not reflected a margin for adverse deviations in the going concern valuation.

- We have reflected the Board's decisions for determining the solvency financial position, summarized as follows:
  - The same Plan wind-up scenario was hypothesized for both hypothetical wind-up and solvency valuations.
  - Certain excludable benefits were excluded from the solvency liabilities.
  - The solvency financial position was determined on a market value basis.
  - The solvency deficiency, as defined in the Regulations to the *Pension Benefits Act (Ontario)*, has been specified to be zero in accordance with Section 1.3.1(3) of the Regulations.

See the Valuation Results - Solvency section of the report for more information.

## Events since the Last Valuation at January 1, 2015

### ***Pension Plan***

This valuation reflects the provisions of the Plan as at January 1, 2016. The Plan's benefit provisions have not been amended since the date of the previous valuation, and we are not aware of any pending definitive or virtually definitive amendments that would have a material impact on the valuation results. The Plan provisions are summarized in Appendix F.

The Plan is fully funded on a going-concern basis as of January 1, 2016. Since the Plan provides for indexation adjustments in respect of post-2007 service that are contingent upon the funded status of the Plan, we have made an allowance in the Plan's actuarial liability for those adjustments that may occur prior to the filing of the next expected actuarial valuation (January 1, 2019), i.e. at January 1, 2017, 2018 and 2019.

### ***Assumptions***

We have made changes to the going concern valuation assumptions since the previous valuation, as summarized below. All other assumptions and methods are unchanged from the previous valuation.

|                                    | Current valuation                                                                                                          | Previous valuation                                                                                               |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Discount rate:                     | 5.70%                                                                                                                      | 5.80%                                                                                                            |
| Interest on member contributions   | 2.20%                                                                                                                      | 2.30%                                                                                                            |
| Retirement rates (active members): | 4.9% per year prior to unreduced age, 14.8% per year on or after unreduced age, revised age-related table at ages 65 to 71 | 3.1% per year prior to unreduced age, 16% per year on or after unreduced age, age-related table at ages 65 to 70 |
| Termination rates:                 | Service-based table                                                                                                        | Age-related table                                                                                                |



|                                    | Current valuation                                                                                                                                                                                                                                | Previous valuation                                                                                                                                                                           |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mortality rates:                   | <u>Pre-Retirement</u><br>55% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)<br><u>Post-Retirement</u><br>105% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ) | <u>Pre and Post-Retirement</u><br>95% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)                                                               |
| Basis used to determine lump sums  | <u>Non-indexed interest rates</u><br>1.9% per year for 10 years, 3.6% per year thereafter<br><u>Partially indexed interest rates</u><br>1.4% per year for 10 years, 2.2% per year thereafter                                                     | <u>Non-indexed interest rates</u><br>2.4% per year for 10 years, 3.7% per year thereafter<br><u>Partially indexed interest rates</u><br>1.6% per year for 10 years, 2.1% per year thereafter |
| Rate of part-time service accrual: | Assume same rate of service accrual as previous year                                                                                                                                                                                             | 0.5 years                                                                                                                                                                                    |

A summary of the going concern methods and assumptions is provided in Appendix C.

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date, and to exclude grow-in benefits pursuant to the Board's election to opt out of providing grow-in benefits pursuant to Section 74.1 of the Act. A summary of the hypothetical wind-up and solvency methods and assumptions is provided in Appendix D.

## ***Regulatory Environment and Actuarial Standards***

At its meeting on June 9, 2015, the Actuarial Standards Board (ASB) decided to promulgate the use of the following mortality table with respect of the computation of pension commuted values ("CIA CV Standard"), effective October 1, 2015: *Mortality rates equal to the 2014 Canadian Pensioners Mortality Table (CPM2014) combined with mortality improvement scale CPM Improvement Scale B (CPM-B)*. The Regulations to the *Pension Benefits Act (Ontario)* were amended effective December 10, 2015 for the CIA CV Standard. The change affects the mortality assumption used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer. It also affects the mortality assumption used to determine the commuted values payable upon termination for members assumed to elect a lump-sum transfer under the going-concern basis. The financial impact of the change in the CIA CV Standard was already reflected in the previous actuarial valuation on a going-concern basis and is reflected on a solvency and hypothetical wind-up basis for this valuation.

## **Subsequent Events**

In November 2015, the Plan entered into an agreement with the Royal Ontario Museum (ROM) for the ROM to become a participating employer of the Plan. In December 2015, ROM plan members voted in favour of joining the Plan, and active ROM members began earning benefits in the Plan as of January 1, 2016. Upon regulatory approval from the Financial Services Commission of Ontario, assets and past service liabilities under the ROM pension plan will be

merged into the Plan. Our valuation does not take in to account the impact of this plan merger, the benefits earned by ROM employees in the Plan on and after January 1, 2016, nor the contributions to be made by ROM and its employees in the Plan on and after January 1, 2016. The merger is not expected to materially impact the financial position of the Plan.

After checking with representatives of the Plan, to the best of our knowledge there have been no other events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation. Our valuation reflects the financial position of the Plan as of the valuation date and does not take into account any experience after the valuation date.

### **Impact of Case Law**

This report has been prepared on the assumption that all claims on the Plan after the valuation date will be in respect of benefits payable to members of the Plan determined in accordance with the Plan terms and that all Plan assets are available to provide for these benefits. It is possible that court and regulatory decisions and changes in legislation could give rise to additional entitlements to benefits under the Plan and cause the results in this report to change.

# 2

## Valuation Results – Going Concern

### Financial Status – Current Valuation

A going concern valuation compares the value of Plan assets, including expected future contributions, and the present value of expected future benefits in respect of accrued and future service for the current membership, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows:

| (000's)                                                                                                       | 01.01.2016   | 01.01.2015   |
|---------------------------------------------------------------------------------------------------------------|--------------|--------------|
| <b>Assets</b>                                                                                                 |              |              |
| Market value of assets                                                                                        | \$8,592,300  | \$7,964,800  |
| Asset smoothing adjustment                                                                                    | (\$558,900)  | (\$579,000)  |
| Smoothed value of assets                                                                                      | \$8,033,400  | \$7,385,800  |
| Present value of future contributions                                                                         |              |              |
| ▪ basic contributions                                                                                         | \$3,263,500  | \$2,949,300  |
| ▪ supplemental contributions                                                                                  | \$1,229,300  | \$1,156,400  |
| Actuarial value of assets                                                                                     | \$12,526,200 | \$11,491,500 |
| <b>Going concern funding target</b>                                                                           |              |              |
| Present value of accrued benefits for:                                                                        |              |              |
| ▪ active members                                                                                              | \$3,953,800  | \$3,882,700  |
| ▪ pensioners                                                                                                  | \$4,074,700  | \$3,857,200  |
| ▪ survivors                                                                                                   | \$213,400    | \$206,400    |
| ▪ deferred pensioners                                                                                         | \$94,200     | \$84,400     |
| ▪ terminations in progress                                                                                    | \$8,000      | \$3,000      |
| Total liabilities for accrued benefits                                                                        | \$8,344,100  | \$8,033,700  |
| Present value of future benefits for active members                                                           | \$2,978,100  | \$2,665,700  |
| Provision for indexation adjustments relating to post-2007 service to the year of the next required valuation | \$24,900     | \$19,100     |
| Total actuarial liability                                                                                     | \$11,347,100 | \$10,718,500 |
| Funding excess (shortfall)                                                                                    | \$1,179,100  | \$773,000    |

The going concern funding target is based on best-estimate assumptions and does not include a provision for adverse deviations.

## Reconciliation of Financial Status (000's)

|                                                                                      |             |             |
|--------------------------------------------------------------------------------------|-------------|-------------|
| Funding excess (shortfall) as at previous valuation                                  |             | \$773,000   |
| Interest on funding excess (shortfall) at 5.80% per year                             |             | \$44,800    |
| Recognition of additional year of supplemental contributions                         |             | \$65,400    |
| Expected funding excess (shortfall)                                                  |             | \$883,200   |
| Net experience gains (losses)                                                        |             |             |
| • Investment return                                                                  | \$139,000   |             |
| • Increases in pensionable earnings/YMPE                                             | \$45,400    |             |
| • Termination experience                                                             | \$15,600    |             |
| • Inflation experience                                                               | \$13,500    |             |
| • Mortality experience                                                               | \$5,700     |             |
| • Retirement experience                                                              | (\$18,100)  |             |
| • Present value of future contribution in excess of future benefits for new entrants | \$36,200    |             |
| Total experience gains (losses)                                                      |             | \$237,300   |
| Impact of changes in assumptions                                                     |             |             |
| • Withdrawal assumption                                                              | \$700       |             |
| • Retirement assumption                                                              | (\$32,100)  |             |
| • Mortality assumptions                                                              | \$198,300   |             |
| • Discount rate                                                                      | (\$144,300) |             |
| Total assumption changes impact                                                      |             | \$22,600    |
| Impact of extension of indexing in respect of post-2007 service to Jan. 1, 2019      |             | (\$9,500)   |
| Data corrections and valuation refinements                                           |             | (\$4,500)   |
| Impact of asset smoothing                                                            |             | \$53,800    |
| Net impact of other elements of gains and losses                                     |             | (\$3,800)   |
| Funding excess (shortfall) as at current valuation                                   |             | \$1,179,100 |

## Reference Valuation

Pursuant to Section 4(2.2) of the Regulations to the *Act*, a going-concern valuation of the Plan using an actuarial cost method that is not a benefit allocation method, must test the present value of minimum required contributions under the Current Valuation against a valuation prepared ("the Reference Valuation") using a benefit allocation method (projected unit credit in the case of this valuation).

However, pursuant to Section 47.7.1 of the Regulations to the *Act*, the minimum required contribution test under Section 4(2.2)(b) does not apply to the Plan for a report with a valuation date between January 1, 2012 and January 1, 2018. Consequently, the results below are for information purposes only.

The results of the Reference Valuation, compared with those from the previous valuation, are summarized as follows:

| (000's)                                                                                                         | 01.01.2016  | 01.01.2015  |
|-----------------------------------------------------------------------------------------------------------------|-------------|-------------|
| <b>Assets</b>                                                                                                   |             |             |
| Market value of assets                                                                                          | \$8,592,300 | \$7,964,800 |
| Asset smoothing adjustment                                                                                      | (\$558,900) | (\$579,000) |
| Smoothed value of assets                                                                                        | \$8,033,400 | \$7,385,800 |
| <b>Going concern funding target</b>                                                                             |             |             |
| Present value of accrued benefits for:                                                                          |             |             |
| ▪ active members                                                                                                | \$3,953,800 | \$3,882,700 |
| ▪ pensioners                                                                                                    | \$4,074,700 | \$3,857,200 |
| ▪ survivors                                                                                                     | \$213,400   | \$206,400   |
| ▪ deferred pensioners                                                                                           | \$94,200    | \$84,400    |
| ▪ terminations in progress                                                                                      | \$8,000     | \$3,000     |
| ▪ provision for indexation adjustments relating to post-2007 service to the year of the next required valuation | \$24,200    | \$18,500    |
| Total liabilities for accrued benefits                                                                          | \$8,368,300 | \$8,052,200 |
| Funding excess (shortfall)                                                                                      | (\$334,900) | (\$666,400) |

The actuarial assumptions used for the Reference Valuation are identical to those used under the going-concern valuation. The going concern funding target in the Reference Valuation is based on best estimate assumptions and does not include a provision for adverse deviations.

## Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely.

The current service cost during the year following the valuation date, compared with the corresponding value determined in the previous valuation, is as follows:

| (000's)                                                                         | 2016      | 2015      |
|---------------------------------------------------------------------------------|-----------|-----------|
| Total current service cost                                                      | \$253,300 | \$238,500 |
| Current service cost expressed as a percentage of members' pensionable earnings | 15.14%    | 15.06%    |

## Discount Rate Sensitivity

The following table summarizes the effect of using a discount rate which is 1% lower than that used in the valuation on the total liability for future benefits, total liability for accrued benefits (including the provision for conditional indexation until the next valuation report is filed), the current service cost and the present value of future contributions:

| Scenario (000's)                      | Valuation Basis | Reduce Discount Rate by 1% |
|---------------------------------------|-----------------|----------------------------|
| Total liability for future benefits   | \$11,347,100    | \$13,417,600               |
| Total liability for accrued benefits  | \$8,368,300     | \$9,539,400                |
| Current Service Cost                  | \$253,300       | \$311,000                  |
| Present value of future contributions |                 |                            |
| ▪ basic contributions                 | \$3,263,500     | \$3,542,900                |
| ▪ supplemental contributions          | \$1,229,300     | \$1,315,200                |

# 3

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## Valuation Results – Hypothetical Wind-up Financial Position

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances producing the maximum wind-up liabilities on the valuation date.

There are significant difficulties in establishing appropriate assumptions for purposes of conducting a wind-up valuation for this Plan due to the size of the liabilities expected to be settled through the purchase of annuities relative to the size of the Canadian group annuity market, and the contractual cost of living adjustments provided to these members on their benefits.

The estimated cost of purchasing annuities has been determined in accordance with the Canadian Institute of Actuaries Educational Note Supplement: *Assumptions for Hypothetical Wind-Up and Solvency Valuations with Effective Dates from December 31, 2015, to December 30, 2016*. The estimated cost is based on the cost of purchasing annuities of significantly smaller size that would not be affected by the capacity constraints of the Canadian group annuity market. The actual cost of setting the Plan benefits could differ, perhaps significantly, from the costs estimated on this basis.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows:

| (000's)                                       | 01.01.2016    | 01.01.2015    |
|-----------------------------------------------|---------------|---------------|
| <b>Assets</b>                                 |               |               |
| Market value of assets                        | \$8,592,300   | \$7,964,800   |
| Termination expense provision                 | (\$20,000)    | (\$20,000)    |
| Wind-up assets                                | \$8,572,300   | \$7,944,800   |
| <b>Present value of accrued benefits for:</b> |               |               |
| ▪ active members                              | \$6,098,300   | \$5,823,400   |
| ▪ pensioners                                  | \$5,638,500   | \$5,153,700   |
| ▪ survivors                                   | \$295,300     | \$275,800     |
| ▪ deferred pensioners                         | \$142,700     | \$124,100     |
| ▪ terminations in progress                    | \$12,100      | \$4,100       |
| Total wind-up liability                       | \$12,186,900  | \$11,381,100  |
| Wind-up excess (shortfall)                    | (\$3,614,600) | (\$3,436,300) |

The wind-up liabilities for active members as of January 1, 2016 reflect the Board's election to opt out of providing grow-in benefits pursuant to Section 74.1 of the Act.

## Wind-up Incremental Cost

The wind-up incremental cost is an estimate of the present value of the projected change in the hypothetical wind-up liabilities from the valuation date until the next scheduled valuation date, adjusted for the benefit payments expected to be made in that period.

The hypothetical wind-up incremental cost determined in this valuation, compared with the corresponding value determined in the previous valuation, is as follows:

| (000's)                                                                                                                                                                                | 01.01.2016   | 01.01.2015   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Number of years covered by report                                                                                                                                                      | 3 years      | 3 years      |
| Total hypothetical wind-up liabilities at the valuation date (A)                                                                                                                       | \$12,186,900 | \$11,381,100 |
| Present value of projected hypothetical wind-up liability at the next required valuation (including expected new entrants) plus benefit payments until the next required valuation (B) | \$13,700,100 | \$12,895,000 |
| Hypothetical wind-up incremental cost (B – A)                                                                                                                                          | \$1,513,200  | \$1,513,900  |

The incremental cost is not an appropriate measure of the contributions that would be required to maintain the financial position of the Plan on a hypothetical wind-up basis unchanged from the valuation date to the next required valuation date, if actual experience is exactly in accordance with the going concern valuation assumptions. This is because it does not reflect the



fact that the expected return on plan assets (based on the going concern assumptions) is greater than the discount rate used to determine the hypothetical wind-up liabilities.

Also note that the above incremental cost at January 1, 2015 does not take into account the impact of the change in the mortality table to be used for the computation of pension commuted values as described in the introduction of this report.

### **Discount Rate Sensitivity**

The following table summarizes the effect on the hypothetical wind-up liabilities shown in this report of using a discount rate which is 1% lower than that used in the valuation:

| <b>Scenario (000's)</b>              | <b>Valuation Basis</b> | <b>Reduce Discount<br/>Rate by 1%</b> |
|--------------------------------------|------------------------|---------------------------------------|
| Total hypothetical wind-up liability | \$12,186,900           | \$14,024,200                          |

# 4

## Valuation Results – Solvency

### Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on a solvency basis is determined in a similar manner to the Hypothetical Wind-up Basis, except for the following:

| Exceptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reflected in valuation based on the terms of engagement                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| The circumstance under which the Plan is assumed to be wound up could differ for the solvency and hypothetical wind-up valuations.                                                                                                                                                                                                                                                                                                                                                                                                                 | The same circumstances were assumed for the solvency valuation as were assumed for the hypothetical wind-up valuation. |
| Certain benefits can be excluded from the solvency financial position. These include:<br>(a) any escalated adjustment (e.g. indexing),<br>(b) certain plant closure benefits,<br>(c) certain permanent layoff benefits,<br>(d) special allowances other than funded special allowances,<br>(e) consent benefits other than funded consent benefits,<br>(f) prospective benefit increases,<br>(g) potential early retirement window benefit values, and<br>(h) pension benefits and ancillary benefits payable under a qualifying annuity contract. | Indexing was excluded from the solvency liabilities shown in this valuation.                                           |
| The financial position on the solvency basis needs to be adjusted for any Prior Year Credit Balance.                                                                                                                                                                                                                                                                                                                                                                                                                                               | Not applicable.                                                                                                        |
| The solvency financial position can be determined by smoothing assets and the solvency discount rate over a period of up to 5 years.                                                                                                                                                                                                                                                                                                                                                                                                               | Smoothing was not used.                                                                                                |
| The benefit rate increases coming into effect after the valuation date can be reflected in the solvency valuation.                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not applicable.                                                                                                        |
| Section 1.3.1(3) of the Regulations to the Act state that a valuation report prepared on certain pension plans, including the Plan with an effective date on or after December 31, 2010 may specify the solvency deficiency to be a stated amount (not to be less than zero)                                                                                                                                                                                                                                                                       | The solvency deficiency has been specified to be zero.                                                                 |

## Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows:

| (000's)                                       | 01.01.2016    | 01.01.2015    |
|-----------------------------------------------|---------------|---------------|
| <b>Assets</b>                                 |               |               |
| Market value of assets                        | \$8,592,300   | \$7,964,800   |
| Termination expense provision                 | (\$20,000)    | (\$20,000)    |
| Net assets                                    | \$8,572,300   | \$7,944,800   |
| <b>Total hypothetical wind-up liabilities</b> | \$12,186,900  | \$11,381,100  |
| Value of excluded benefits                    | (\$1,455,900) | (\$1,457,300) |
| Liabilities on a solvency basis               | \$10,731,000  | \$9,923,800   |
| Surplus (shortfall) on a market value basis   | (\$2,158,700) | (\$1,979,000) |
| Solvency ratio                                | 0.80          | 0.80          |
| Transfer ratio                                | 0.70          | 0.70          |

As permitted under Section 1.3.1(3) of the regulations to the *Pension Benefits Act (Ontario)*, the solvency deficiency may be specified to be a stated amount, not to be less than zero. Consequently, the solvency deficiency as at January 1, 2016 has been specified to be zero.

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## Funding Requirements

### Scheduled Contributions

Members must contribute an amount equal to the sum of the following in 2016:

- 11.20% of pensionable earnings up to the YMPE, plus
- 14.80% of pensionable earnings in excess of the YMPE.

Consistent with the Plan's Funding Policy, the total scheduled member contribution rate consists of a 8.20%/11.80% basic contribution rate and a supplemental contribution rate of 3% of pensionable earnings. Employers are required to match member scheduled contributions.

The table below summarizes the estimated total contributions (by members and employers) for the year, in comparison to the estimated total contributions as of the last valuation:

| (000's)                                        | 2016        | 2015        |
|------------------------------------------------|-------------|-------------|
| Members' contributions                         | \$209,350   | \$198,000   |
| Employers' contributions                       | \$209,350   | \$198,000   |
| Total contributions                            | \$418,700   | \$396,000   |
| Payroll for year (excludes LTD's) <sup>1</sup> | \$1,672,600 | \$1,583,900 |
| Total contributions as a % of payroll          | 25.03%      | 25.00%      |

<sup>1</sup> Annual member pensionable earnings capped at maximum allowable for accruing benefits in the Plan under the Income Tax Act.

As illustrated in Section 2, the Plan is fully funded on a going-concern basis under the Current Valuation. In addition, the solvency deficiency has been specified to be zero. Consequently, no additional special payments are required to be made in addition to the scheduled contributions.

The *Act* prescribes the minimum contributions that members and employers must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going concern current service cost and special payments to fund any going concern or solvency shortfalls. However, pursuant to Section 47.7.1 of the Regulations to the *Act*, the minimum required contribution test under Section 4(2.2)(b) does not apply to the Plan for a report with a valuation date between January 1, 2012 and January 1, 2018.

In our opinion, the contributions being made to the Plan are sufficient to meet the requirements of the *Act*.

## **Other Considerations**

### ***Differences Between Valuation Bases***

There is no provision in the Plan's scheduled contributions to fund the hypothetical wind-up deficit. Consequently, the Plan is likely to remain under-funded on a wind-up basis unless there are strong investment returns and/or significant increases in long-term nominal and real interest rates.

### ***Payment of Benefits***

The Act imposes certain restrictions on the payment of lump sums from the Plan when the transfer ratio revealed in an actuarial valuation is less than one. Since the transfer ratio shown in this report is less than one, the Plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Additional restrictions are imposed when:

- The transfer ratio revealed in the most recently filed actuarial valuation is less than one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined by 10% or more since the date the last valuation was filed.
- The transfer ratio revealed in the most recently filed actuarial valuation is greater than or equal to one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined to less than 0.9 since the date the last valuation was filed.

As such, the administrator should monitor the transfer ratio of the Plan and, if necessary, take the prescribed actions.

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## Actuarial Opinion

In our opinion, for the purposes of the valuations,

- The membership data on which the valuation is based are sufficient and reliable.
- The assumptions are appropriate.
- The methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by the *Pension Benefits Act (Ontario)* and Regulations.



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Paul Christiani

Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of Actuaries

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**March 12, 2016**

Date



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Manuel Monteiro

Fellow of the Society of Actuaries  
Fellow of the Canadian Institute of Actuaries

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**March 12, 2016**

Date

# APPENDIX A

## Prescribed Disclosure

### Definitions

The Act defines a number of terms as follows:

| Defined Term               | Description                                                                                                                                                                                                                                                                                                                                                                                                                   | Result                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Transfer Ratio             | The ratio of:<br>(a) Solvency Assets minus the lesser of the Prior Year Credit Balance and the minimum required employer contributions until the next required valuation; to<br>(b) the sum of the Solvency Liabilities and liabilities for benefits, other than benefits payable under qualifying annuity contracts that were excluded in calculating the Solvency Liabilities.                                              | 0.70                     |
| Prior Year Credit Balance  | Accumulated excess of contributions made to the pension plan in excess of the minimum required contributions (note: only applies if the Company chooses to treat the excess contributions as a Prior Year Credit Balance).                                                                                                                                                                                                    | \$0                      |
| Solvency Assets<br>(000's) | Market value of assets including accrued or receivable income and excluding the value of any qualifying annuity contracts.                                                                                                                                                                                                                                                                                                    | \$8,592,300              |
| Solvency Asset Adjustment  | The sum of:<br>(a) the difference between smoothed value of assets and the market value of assets<br>(b) the present value of going concern special payments (including those identified in this report) within 6 years following the valuation date<br>(c) the present value of any previously scheduled solvency special payments (excluding those identified in this report)<br>(d) the face value of the letter of credit | \$0<br>\$0<br>\$0<br>\$0 |
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                               | \$0                      |

| Defined Term                    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Result                                                                                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solvency Liabilities<br>(000's) | Liabilities determined as if the plan had been wound up on the valuation date, including liabilities for plant closure benefits or permanent layoff benefits that would be immediately payable if the employer's business were discontinued on the valuation date of the report, but, if elected by the plan sponsor, excluding liabilities for,<br>(a) any escalated adjustment,<br>(b) excluded plant closure benefits,<br>(c) excluded permanent layoff benefits,<br>(d) special allowances other than funded special allowances,<br>(e) consent benefits other than funded consent benefits,<br>(f) prospective benefit increases,<br>(g) potential early retirement window benefit values, and<br>(h) pension benefits and ancillary benefits payable under a qualifying annuity contract. | \$10,731,000                                                                                                                                                                                                                                   |
| Solvency Liability Adjustment   | The amount by which solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of market interest rates calculated over the period of time used in the determination of the smoothed value of assets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | \$0                                                                                                                                                                                                                                            |
| Solvency Deficiency<br>(000's)  | The amount, if any, by which the sum of:<br>(a) the Solvency Liabilities<br>(b) the Solvency Liability Adjustment<br>(c) the Prior Year Credit Balance<br><br>Exceeds the sum of<br>(d) the Solvency Assets net of estimated termination expenses <sup>2</sup><br>(e) the Solvency Asset Adjustment<br>(f)<br>In accordance with Section 1.3.1(3) of the Regulations, the Solvency Deficiency can be specified to be an amount less than (f) above, not to be less than zero                                                                                                                                                                                                                                                                                                                    | <div> <div>\$10,731,000</div> <div>\$0</div> <div>\$0</div> <div>\$10,731,000</div> <div>\$8,572,300</div> <div>\$0</div> <div>\$8,572,300</div> <div>\$2,158,700</div> <div>The solvency deficiency has been specified to be \$0</div> </div> |

<sup>2</sup> In accordance with accepted actuarial practice, for purposes of determining the financial position, the market value of plan assets was reduced by a provision for estimated termination expenses payable from the Plan's assets that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.



### **Timing of Next Required Valuation**

In accordance with Section 14 of the regulations to the *Pension Benefits Act (Ontario)*, the next valuation of the Plan would be required as of no later than January 1, 2019, or as at the date of an earlier amendment to the Plan.

### **Special Payments – Current Valuation**

Since there is no going-concern funding shortfall under the Current Valuation, no going-concern special payments are required. Also, since the solvency deficiency has been specified to be zero, no solvency special payments are required.

### **Pension Benefit Guarantee Fund (PBGF) Assessment**

In accordance with Section 37(1.1) of the regulations to the *Pension Benefits Act (Ontario)*, the Plan is not subject to assessment by the Pension Benefits Guarantee Fund.

## APPENDIX B

### Plan Assets

The pension fund is held in trust by the Plan. In preparing this report, we have relied upon the draft auditors' report for 2015 without further audit. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy.

### Reconciliation of Market Value of Plan Assets

The pension fund transactions since the last valuation are summarized in the following table:

| (000's)                                     | 2015              |
|---------------------------------------------|-------------------|
| January 1                                   | \$7,964,803       |
| PLUS                                        |                   |
| Members' contributions                      | \$201,319         |
| Company's contributions                     | \$201,319         |
| Service purchases                           | \$9,472           |
| Transfer from other pension plans           | \$19,961          |
| Investment income                           | \$621,481         |
|                                             | <hr/> \$1,053,552 |
| LESS                                        |                   |
| Pensions paid                               | \$372,351         |
| Lump-sums paid                              | \$33,963          |
| Transfer to other pension plans             | \$0               |
| Administration and investment fees          | \$19,740          |
|                                             | <hr/> \$426,054   |
| December 31                                 | <hr/> \$8,592,301 |
| Gross rate of return <sup>3</sup>           | 7.8%              |
| Rate of return net of expenses <sup>4</sup> | 7.5%              |

We have tested the pensions paid, the lump-sums paid, and the contributions for consistency with the membership data for the Plan members who have received benefits or made contributions. The results of these tests were satisfactory.

<sup>3</sup> Assuming mid-period cash flows.

<sup>4</sup> Assuming mid-period cash flows.

## Investment Policy

The plan administrator has adopted a statement of investment policy and procedures. This policy is intended to provide guidelines for the managers as to the level of risk that is consistent with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The plan administrator is solely responsible for selecting the plan's investment policies, asset allocations, and individual investments. The constraints on the asset mix and the actual asset mix at the valuation date are provided for information purposes:

|                           | Investment Policy |        |         | Actual Asset Mix as<br>at<br>December 31, 2015 |
|---------------------------|-------------------|--------|---------|------------------------------------------------|
|                           | Minimum           | Target | Maximum |                                                |
| Canadian Equities         | 6.0%              | 8.0%   | 10.0%   | 7.8%                                           |
| Global Equities           | 30.0%             | 34.0%  | 40.0%   | 33.2%                                          |
| Emerging Market Equities  | 8.0%              | 10.0%  | 12.0%   | 10.0%                                          |
| Private Equities          | 2.0%              | 5.0%   | 10.0%   | 5.5%                                           |
| Commodities               | 3.0%              | 5.0%   | 7.0%    | 4.3%                                           |
| Infrastructure            | 5.0%              | 10.0%  | 15.0%   | 7.0%                                           |
| Real Estate               | 2.0%              | 5.0%   | 10.0%   | 4.9%                                           |
| Nominal Long Bonds        | 10.0%             | 12.0%  | 30.0%   | 15.7%                                          |
| Nominal Universe Bonds    | 3.0%              | 5.0%   | 7.0%    | 4.8%                                           |
| Real Return Bonds         | 4.0%              | 6.0%   | 8.0%    | 6.4%                                           |
| Cash and Cash Equivalents | 0.0%              | 0.0%   | 0.0%    | 0.4%                                           |
|                           |                   | 100.0% |         | 100.0%                                         |

# APPENDIX C

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## Methods and Assumptions – Going Concern

### Determining the January 1, 2016 Liabilities

The effective date of the data at this valuation is December 31, 2014 (one year prior to the valuation date). In determining the actuarial liabilities as at January 1, 2016, we first calculated the actuarial liabilities as at January 1, 2015, and then projected the liabilities to January 1, 2016. The one year projection reflected any known as well as anticipated experience during 2015 with respect to benefit payments, contributions, and YMPE growth and inflation. We assumed that salary growth would be consistent with the last valuation assumption. For active members on LTD we reflected the deemed salary increases. We also compared the actual termination and retirement experience with what was expected based on our decrement rates. However, the difference was not significant enough to require special adjustments in the projection. For purposes of this valuation, we believe that this projection process produces results that are within acceptable tolerances from the results that would have been determined using actual membership data (at December 31, 2015).

### Valuation of Assets

For this valuation, we have continued to use an adjusted market value method for purposes of determining the actuarial value of the plan assets.

For periods commencing January 1, 2013, investment gains and losses relative to the discount rate are recognized on a linear basis over five years. This method is applied prospectively from January 1, 2013.

Gains and losses incurred prior to January 1, 2013 continue to be recognized using the following approach:

- Fixed income assets were valued at market value; and
- Equity assets were smoothed over 5 years. The equity gain or loss was measured as the difference between actual market index returns (S&P/TSX Composite index for Canadian equities and MSCI World Index for non-Canadian equities) and expected market index returns (Change in CPI + 6%) in each of the 4 years preceding the valuation date

The table below shows the calculation of the gain/(loss) on assets under the smoothing approach for periods commencing January 1, 2013:

| <b>(\$000)</b>                                       | <b>2013</b> | <b>2014</b> | <b>2015</b> |
|------------------------------------------------------|-------------|-------------|-------------|
| Market value of assets at beginning of year          | \$6,259,906 | \$7,127,136 | \$7,964,803 |
| Net cashflows in the year                            | \$24,815    | \$48,522    | \$25,757    |
| Expected return on assets                            | \$363,794   | \$414,781   | \$462,706   |
| Expected value of assets at end of year              | \$6,648,515 | \$7,590,439 | \$8,453,266 |
| Actual value of assets at end of year                | \$7,127,136 | \$7,964,803 | \$8,592,301 |
| Gain/(loss)                                          | \$478,621   | \$374,364   | 139,035     |
| Liability discount rate at the beginning of the year | 5.80%       | 5.80%       | \$5.80%     |

The following table shows the calculation of the equity gain/(loss) from 2012 under the prior smoothing approach:

| <b>(000's)</b>                          | <b>2012</b>      |
|-----------------------------------------|------------------|
| <b>Canadian Equities</b>                |                  |
| % at December 31*                       | 14.7%            |
| Actual index return (S&P/TSX Composite) | 7.19%            |
| Expected return                         | 6.83%            |
| Actual minus expected return            | 0.36%            |
| Average market value                    | \$844,710        |
| Gain/(loss)                             | \$3,041          |
| <b>Non-Canadian Equities</b>            |                  |
| % at December 31                        | 39.1%            |
| Actual index return (MSCI World)        | 13.96%           |
| Expected return                         | 6.83%            |
| Actual minus expected return            | 7.13%            |
| Average market value                    | \$2,171,008      |
| Gain/(loss)                             | \$154,793        |
| <b>Total equity gain/(loss)</b>         | <b>\$157,834</b> |

\*includes private equity investments

The smoothed value of the assets at January 1, 2016, was derived as follows:

**(000's)**

|                          |                         |             |
|--------------------------|-------------------------|-------------|
| Market value of assets   |                         | \$8,592,301 |
| LESS                     |                         |             |
| Total Equity Gain/(Loss) | 2012: \$157,834 x 20% = | \$31,568    |
|                          | 2013: \$478,621 x 40% = | \$191,448   |
|                          | 2014: \$374,364 x 60% = | \$224,618   |
|                          | 2015: \$139,035 x 80% = | \$111,228   |
|                          |                         | <hr/>       |
|                          |                         | \$558,862   |
| Smoothed value of assets |                         | <hr/>       |
|                          |                         | \$8,033,439 |

The asset values produced by this method are related to the market value of the assets, with the advantage that, over time, the market-related asset values will tend to be more stable than market values. To the extent that more investment gains than losses will arise over the long term, the smoothed value will tend to be lower than the market value.

## Going Concern Funding Target

Over time, the real cost to the employers and contributing members of a pension plan is the excess of benefits and expenses over contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

## Current Valuation

For purposes of the Current Valuation, we have continued to use the modified aggregate actuarial cost method. Under this method, the funding target is determined as the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, plus service expected to accrue to currently active members in the future, based on projected earnings.

The funding excess or funding shortfall, as the case may be, is the difference between the market or smoothed value of assets plus the present value of contributions expected to be made by employers and members and the funding target. A funding excess indicates that the value of assets and expected contributions and investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date and after the valuation date, as well as expected expenses – assuming the Plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets and expected contributions is not expected to be sufficient to meet the Plan's cash flow requirements in respect of accrued and future benefits, absent additional contributions.

As required under the Act, a funding shortfall must be amortized over no more than 15 years through special payments. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer and member contributions unless precluded by the terms of the Plan or by legislation.

This method does not produce a normal cost in the usual sense. Rather, it determines whether or not the contributions expected to be made in the future by the members and the employers together with the assets of the Plan and investment income thereon are expected to be sufficient to meet the obligations of the Plan.

The present value of future basic contributions has been determined on a closed group basis. The present value of future supplemental contributions has been determined on an open group basis over a 15 year period.

The *funding excess* or *unfunded liability*, as the case may be, is the difference between the actuarial value of assets and the actuarial liability.

### ***Reference Valuation***

For purposes of the Reference Valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, the funding target is determined as the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected earnings. For each individual Plan member, accumulated contributions with interest are established as a minimum actuarial liability.

The projected unit credit actuarial cost method used for the purposes of the Reference Valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

Under the Reference Valuation, the current service cost is the present value of projected benefits to be paid under the Plan with respect to service expected to accrue during the period until the next valuation.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

## Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the Current Valuation and the Reference Valuation in comparison with those used in the previous valuation.

| Assumption                                            | Current valuation                                                                                                                                                                                                                                                             | Previous valuation                                                                                                                                                                                                                                                            |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discount rate:                                        | 5.70%                                                                                                                                                                                                                                                                         | 5.80%                                                                                                                                                                                                                                                                         |
| Inflation:                                            | 2.00%                                                                                                                                                                                                                                                                         | 2.00%                                                                                                                                                                                                                                                                         |
| ITA limit / YMPE increases:                           | 3.00%                                                                                                                                                                                                                                                                         | 3.00%                                                                                                                                                                                                                                                                         |
| Pensionable earnings increases:                       | 3.75%                                                                                                                                                                                                                                                                         | 3.75%                                                                                                                                                                                                                                                                         |
| Indexing:                                             | 1.50%                                                                                                                                                                                                                                                                         | 1.50%                                                                                                                                                                                                                                                                         |
| Interest on member contributions:                     | 2.20%                                                                                                                                                                                                                                                                         | 2.30%                                                                                                                                                                                                                                                                         |
| Retirement rates (active members):                    | 4.9% per year prior to unreduced age, 14.8% per year on or after unreduced age, revised age-related table at ages 65 to 71 (see below)                                                                                                                                        | 3.1% per year prior to unreduced age, 16% per year on or after unreduced age, age-related table at ages 65 to 70 (see below)                                                                                                                                                  |
| Retirement rates (deferred members)                   | Age 55                                                                                                                                                                                                                                                                        | Age 55                                                                                                                                                                                                                                                                        |
| Retirement rates (LTD members)                        | Age 65                                                                                                                                                                                                                                                                        | Age 65                                                                                                                                                                                                                                                                        |
| Termination rates:                                    | Service-based table (see below)                                                                                                                                                                                                                                               | Age-related table (see below)                                                                                                                                                                                                                                                 |
| Proportion of terminating members electing a lump sum | 80%                                                                                                                                                                                                                                                                           | 80%                                                                                                                                                                                                                                                                           |
| Basis used to determine lump sums                     | <u>Mortality rates</u><br>CPM2014 mortality table with projection scale CPM-B<br><u>Non-indexed interest rates</u><br>1.9% per year for 10 years, 3.6% per year thereafter<br><u>Partially indexed interest rates</u><br>1.4% per year for 10 years, 2.2% per year thereafter | <u>Mortality rates</u><br>CPM2014 mortality table with projection scale CPM-B<br><u>Non-indexed interest rates</u><br>2.4% per year for 10 years, 3.7% per year thereafter<br><u>Partially indexed interest rates</u><br>1.6% per year for 10 years, 2.1% per year thereafter |



|                                    |                                                                                                                                                                                                                                                  |                                                                                                 |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Mortality rates at valuation date: | <u>Pre-Retirement</u><br>55% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)<br><u>Post-Retirement</u><br>105% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ) | <u>Pre and Post-Retirement</u><br>95% of the rates of the CPM2014 Public Sector mortality table |
| Future mortality improvements:     | Fully generational using Scale CPM-B                                                                                                                                                                                                             | Fully generational using Scale CPM-B                                                            |
| Disability rates:                  | None                                                                                                                                                                                                                                             | None                                                                                            |
| Eligible spouse at retirement:     | 85% of male members and 65% of female members                                                                                                                                                                                                    | 85% of male members and 65% of female members                                                   |
| Spousal age difference:            | Male 3 years older                                                                                                                                                                                                                               | Male 3 years older                                                                              |
| Rate of part-time service accrual  | Assume same rate of service accrual as previous year                                                                                                                                                                                             | 0.5                                                                                             |

The assumptions are best-estimates and do not include a margin for adverse deviations.

## Retirement Rates

Retirement rates on or after age 65 are summarized in the following table:

| Age | Retirement Rates -<br>Current Valuation | Retirement Rates –<br>Previous Valuation |
|-----|-----------------------------------------|------------------------------------------|
| 65  | 35%                                     | 35%                                      |
| 66  | 17%                                     | 17%                                      |
| 67  | 17%                                     | 17%                                      |
| 68  | 17%                                     | 17%                                      |
| 69  | 30%                                     | 30%                                      |
| 70  | 50%                                     | 100%                                     |
| 71  | 100%                                    | 100%                                     |

## Termination Rates

Sample rates from the termination assumption are summarized in the following tables:

### *Termination Rates - Current Valuation*

| Service | Rate  |
|---------|-------|
| < 1     | 5.90% |
| 1       | 5.15% |
| 2       | 4.30% |
| 3       | 3.70% |
| 4       | 3.20% |
| 5       | 2.70% |
| 6       | 2.30% |
| 7       | 2.00% |
| 8       | 1.80% |
| 9       | 1.65% |
| 10      | 1.55% |
| 11      | 1.50% |
| 12      | 1.40% |
| 13      | 1.30% |
| 14      | 1.20% |
| 15      | 1.10% |
| 16      | 1.05% |
| 17-29   | 1.00% |
| 30+     | 0.00% |

### *Termination Rates - Previous Valuation*

| Age | Rate  |
|-----|-------|
| 20  | 14.9% |
| 25  | 9.9%  |
| 30  | 6.9%  |
| 35  | 4.9%  |
| 40  | 2.9%  |
| 45  | 1.8%  |
| 50  | 0.7%  |
| 55  | 0.0%  |

## ***Pensionable Earnings***

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken 2014 earnings and assumed that such pensionable earnings will increase at the assumed rate.

## **Rationale for Assumptions**

A rationale for each of the assumptions used in the current valuation is provided below.

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### **Discount Rate**

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We have discounted the expected benefit payment cash flows using the expected investment return on Plan assets. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- A long-term expected return on Plan assets reduced by:
- An implicit provision for expenses determined as the average rate of investment and administrative expenses paid from the fund over the last three years.

The discount rate was developed as follows:

|                                      |         |
|--------------------------------------|---------|
| Gross expected return on Plan assets | 6.10%   |
| Implicit provision for expenses      | (0.40%) |
| Margin for adverse deviation         | 0.00%   |
| Net discount rate                    | 5.70%   |

The long-term expected return on Plan assets was derived based on expected returns for each of the major asset classes based on market conditions at the valuation date and the target asset mix specified in the Plan's investment policy.

The Board has established a detailed funding policy that describes how contributions and benefits (including post-retirement indexation) should be adjusted, depending on the financial position of the Plan. The funding policy also describes the size of the margin to be used in the going-concern valuations of the Plan, again depending on the financial position of the Plan.

Under the funding policy, the margin is used as (1) a mechanism to reduce the frequency and magnitude of adjustments to contribution and benefit levels and (2) to further the goal of equity between different generations of plan members and equity between the employers whose employment size and patterns will evolve differently over time. Although benefit security is a goal of the Sponsors of the Plan, it is less critical than the above factors in determining the size of the margin given the nature of the employers and the very low probability that the Plan would be wound up in the foreseeable future.

Based on the current financial position of the Plan, the funding policy indicates that no margins should be used in the valuation. The rationale for no margins in the current situation is as follows. Current members and employers are already making significant contributions to the Plan. If the going-concern basis is too conservative, it will likely result in the current generation of plan members and employers paying too much for their generation's benefits, with the excess funds generated being at least partly used to subsidize the benefits of subsequent generations. Conversely, if the going-concern basis is too aggressive, it will likely result in the current generation being subsidized by the subsequent generation. This suggests that the most appropriate way to fund the Plan in the current circumstance is to use best estimate assumptions (i.e. no margins for adverse deviations).

In accordance with the funding policy, should the financial position of the Plan improve in the future beyond certain thresholds, a part of the experience gains would be used to reduce contribution levels and to grant any past indexation increases that had been missed. The remaining portion of the gains would be used to create margins for adverse deviations and explicit reserves in the going-concern valuation. In the event of subsequent experience losses, the margins for adverse deviations and explicit reserves would be drawn down and therefore reduce the magnitude of required contribution increases and/or benefit reductions. While the use of margins and reserves in this fashion will likely result in some transfer of wealth between generations when the Plan is well funded, this is considered less important than the goal of reducing the magnitude of contribution and benefit adjustments. The inter-generational equity goal is considered less important in circumstances when the Plan is well funded because such transfers are being borne by members and employers who are benefiting through lower future contributions and/or higher benefits.

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**Inflation**

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The inflation assumption is based on the mid-point of the Bank of Canada's inflation target range of between 1% and 3%.

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**Income Tax Act Pension Limit and Year's Maximum Pensionable Earnings**

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The assumption is based on the historical average productivity over the last 40 years of 1% per year and the underlying inflation assumption.

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**Pensionable Earnings**

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The assumption is based on general wage growth assumptions increased by our best estimate of future merit and promotional increases over general wage growth considering industry averages

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**Indexing**

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The assumption is based on the Plan formula and inflation assumption above.

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**Retirement Rates**

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The assumption has been updated based on experience over the years 2008 to 2013. LTD members are assumed to retire at age 65.

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**Termination Rates**

---

The assumption has been updated based on experience over the years 2008 to 2013.

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**Mortality Rates**

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The assumption is based on experience over the years 2008 to 2013.  
Based on the assumption used, the life expectancy of a retired member age 65 at the valuation date is 22.4 years for males and 24.3 years for females.

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**Future Mortality Improvements**

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This assumption is based on rates published by the Canadian Institute of Actuaries in their 2014 research report on Canadian pensioner mortality. There is insufficient experience to develop plan specific mortality improvement rates.

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**Interest on Member Contributions**

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The assumption is based on Plan terms and the Government of Canada long bond yields.

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**Disability Rates**

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Use of a different assumption would not have a material impact on the valuation.

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**Eligible Spouse**

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The assumption is based on an industry standard for non-retired members. For retired members, the actual marital status is used..

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**Spousal Age Difference**

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The assumption is based on an industry standard showing males are typically 3 years older than their spouse.

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**Proportion of Terminating Members Electing a Lump Sum and Basis Used to Determine Lump Sums**

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The percentage of terminating active members assumed to elect a lump sum is based on experience over the years 2007 to 2012.

The cost of future lump sums will depend on the level of market interest rates at the time the lump sum is paid and any changes in the applicable actuarial standards for the determination of pension plan commuted values. The assumed cost of future lump sums is based on the average expected level of market interest rates over the period during which lump sums are expected to be paid, taking into account market conditions on the valuation date. We have also assumed that future lump sums elected by eligible plan participants will be calculated using the new mortality basis applicable under the actuarial standards since October 2015.

## APPENDIX D

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### Methods and Assumptions – Hypothetical Wind-up and Solvency

The hypothetical wind-up and solvency liabilities at January 1, 2016 were determined based on a projection of a valuation performed using membership data as of December 31, 2014. Please refer to Appendix C for a description of the methodology.

#### Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound-up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit. For the purposes of the hypothetical wind-up valuation, the plan wind-up is assumed to occur in circumstances that maximize the actuarial liability.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, including benefits that would be immediately payable if the Plan were discontinued on the valuation date, with all members fully vested in their accrued benefits.

No benefits payable on plan wind-up were excluded from our calculations.

Upon Plan wind-up members are given options for the method of settling their benefit entitlements. The options vary by eligibility, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer is based on the assumptions described in Section 3500 – Pension Commuted Values of the Canadian Institute of Actuaries' Standards of Practice applicable for January 1, 2016.

Benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

However, there is virtually no data available to provide credible guidance on the cost of a purchase of indexed annuities or annuities for a plan of this size in Canada. The estimated cost of purchasing annuities has been determined in accordance with the Canadian Institute of Actuaries Educational Note Supplement: *Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective December 31, 2015, and applicable to Valuations with Effective Dates between December 31, 2015 and December 30, 2016*. The estimated cost is based on the cost of purchasing annuities of significantly smaller size that would not be affected by the capacity constraints of the Canadian group annuity market. The actual cost of setting the Plan benefits could differ, perhaps significantly, from the costs estimated on this basis.

We have not included a margin for adverse deviation in the solvency and hypothetical wind-up valuations.

The assumptions are as follows:

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**Form of Benefit Settlement Elected by Member**

|                  |                                                                                                                                                                                                                                                                |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lump sum         | 70% of active members under age 55 and 50% of active members over age 55 elect to receive their benefit entitlement in a lump sum                                                                                                                              |
| Annuity purchase | All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate annuities from a life insurance company |

---

**Basis for Benefits Assumed to be Settled through a Lump Sum**

|                                   |                                                                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Mortality rates:                  | 100% of the rates of the 2014 Canadian Pensioners Mortality Table (CPM2014) with fully generational improvements using CPM Scale B |
| Interest rate:                    | 1.9% per year for 10 years, 3.6% per year thereafter                                                                               |
| Partially indexed interest rates: | 1.4% per year for 10 years, 2.2% per year thereafter                                                                               |

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**Basis for Benefits Assumed to be Settled through the Purchase of an Annuity**

|                                  |                                                                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Mortality rates:                 | 100% of the rates of the 2014 Canadian Pensioners Mortality Table (CPM2014) with fully generational improvements using CPM Scale B        |
| Interest rate:                   | 3.03% per year based on a duration of 11.1 years determined for the liabilities assumed to be settled through the purchase of an annuity. |
| Partially indexed interest rate: | 0.72% per year based on a duration of 11.1 years determined for the liabilities assumed to be settled through the purchase of an annuity  |

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**Retirement Age**

|                |                                                                                                                                                                                                       |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum value: | Members are assumed to retire at the age which maximizes the value of their entitlement from the Plan based on the eligibility requirements which have been met at the valuation date                 |
| Grow-in:       | Grow-in benefits have not been valued, as an election has been made to exclude grow-in benefits for members of the Plan, as permitted for jointly sponsored pension plans per Section 74.1 of the Act |

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**Other Assumptions**

|                         |                                                                |
|-------------------------|----------------------------------------------------------------|
| Final average earnings: | Based on actual pensionable earnings over the averaging period |
| Family composition:     | Same as for going concern valuation                            |
| Maximum pension limit:  | \$2,890.00 per year                                            |
| Termination expenses:   | \$20,000,000                                                   |

---

To determine the hypothetical wind-up position of the Plan, a provision has been made for estimated termination expenses payable from the Plan's assets in respect of actuarial and administration expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting and legal expenses that would be

incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested. Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the Plan sponsors would be solvent on the wind-up date. We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Actual fees incurred on an actual Plan wind-up may differ materially from the estimates disclosed in this report.

## **Incremental Cost**

In order to determine the incremental cost, we estimate the hypothetical wind-up liabilities at the next valuation date. We have assumed that the cost of settling benefits by way of a lump sum or purchasing annuities remains consistent with the assumptions described above. Since the projected hypothetical wind-up liabilities will depend on the membership in the Plan at the next valuation date, we must make assumptions about how the Plan membership will evolve over the period until the next valuation.

We have assumed that the Plan membership will evolve in a manner consistent with the going concern assumptions as follows:

- Members terminate, retire and die consistent with the termination, retirement and mortality rates used for the going concern valuation.
- Pensionable earnings, the Income Tax Act pension limit and the Year's Maximum Pensionable Earnings increase in accordance with the related going concern assumptions.
- Active members accrue pensionable service in accordance with the terms of the Plan.
- To accommodate for new entrants to the Plan, we have added to the projected liability, an amount equal to the liability of new entrants that have joined the Plan since the previous valuation. For each active member whose membership is assumed to terminate, we have assumed a new active member joins the Plan. The demographics and earnings of the new entrants are consistent with the new entrants hired over the past year.
- Cost of living adjustments are consistent with the inflation assumption used for the going concern valuation.

## **Solvency Basis**

In determining the financial position of the Plan on the solvency basis, we have excluded the value of escalated adjustments from the solvency liabilities.

The solvency position is determined in accordance with the requirements of the Act.



# APPENDIX E

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## Membership Data

### Analysis of Membership Data

The actuarial valuation is based on membership data as at December 31, 2014 (one year prior to the valuation date), provided by The Colleges of Applied Arts and Technology Pension Plan.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest, and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments, and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

|                                                    | 31.12.2014      | 31.12.2013      |
|----------------------------------------------------|-----------------|-----------------|
| <b>Active Members (including LTD)</b>              |                 |                 |
| Number                                             | 24,604          | 22,021          |
| Number of members on LTD                           | 502             | 495             |
| Percentage male                                    | 41%             | 40%             |
| Average age                                        | 48.0            | 48.5            |
| Average pensionable service (with buyback service) | 9.0 years       | 10.0 years      |
| Total pensionable service (with buyback service)   | 221,422 years   | 220,685 years   |
| Number with buyback service                        | 4,352           | 4,314           |
| Total buyback service                              | 11,247 years    | 10,940 years    |
| Total buyback contributions                        | \$67,902,000    | \$63,390,200    |
| Average annual salary                              | \$76,124        | \$74,652        |
| Total regular contributions with interest          | \$1,530,224,200 | \$1,449,954,800 |
| <b>Deferred Pensioners</b>                         |                 |                 |
| Number                                             | 2,119           | 1,692           |
| Percentage male                                    | 38%             | 39%             |
| Average age                                        | 48.8            | 49.7            |
| Average annual pension                             | \$4,700         | \$4,900         |
| Average bridge pension                             | \$1,500         | \$1,500         |
| <b>Terminations in progress<sup>(1)</sup></b>      |                 |                 |
| Number                                             | 282             | 151             |
| Percentage male                                    | 43%             | 40%             |
| Average age                                        | 53.2            | 52.8            |
| Average annual lifetime pension                    | \$4,400         | \$5,900         |
| Average bridge pension                             | \$1,200         | \$1,500         |
| Total contributions with interest                  | \$3,190,500     | \$3,336,600     |

<sup>(1)</sup> "Termination in progress" refers to members who have ceased employment, received a statement of benefit, but have not yet made an election.

**Membership Data (continued)**

|                                         | 31.12.2014    | 31.12.2013    |
|-----------------------------------------|---------------|---------------|
| <b>Retired Members</b>                  |               |               |
| Number                                  | 12,074        | 11,504        |
| Percentage male                         | 47%           | 47%           |
| Average age                             | 71.7          | 71.5          |
| Average annual lifetime pension payable | \$26,800      | \$26,200      |
| Average bridge pension                  | \$7,800       | \$7,600       |
| Number with bridge pension              | 2,320         | 2,246         |
| Total pensions paid                     | \$342,239,059 | \$318,857,051 |
| <b>Survivors</b>                        |               |               |
| Number                                  | 1,715         | 1,647         |
| Percentage male                         | 18%           | 17%           |
| Average age                             | 78.6          | 78.3          |
| Average annual lifetime pension payable | \$12,600      | \$12,200      |
| Total pensions paid                     | \$21,684,452  | \$20,142,885  |
| <b>Non-vested Refunds</b>               |               |               |
| Number                                  | 165           | 169           |
| Percentage male                         | 52%           | 51%           |
| Average age                             | 54.2          | 53.2          |
| Total contributions with interest       | \$962,655     | \$971,507     |

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

|                      | Actives | Deferred Vested | Retired Members | Survivors | Terminations in Progress | Refunds | Total  |
|----------------------|---------|-----------------|-----------------|-----------|--------------------------|---------|--------|
| Total at 31.12.2013  | 22,021  | 1,692           | 11,504          | 1,647     | 151                      | 169     | 37,184 |
| New entrants         | 4,166   |                 |                 |           |                          |         | 4,166  |
| Return to active     | 31      | (23)            | (7)             |           | (1)                      |         | -      |
| Terminations:        |         |                 |                 |           |                          |         |        |
| ▪ deferred pensions  | (620)   | 636             |                 |           | (14)                     | (2)     | -      |
| ▪ in progress        | (158)   | (52)            |                 |           | 212                      | (2)     | -      |
| ▪ refunds            |         |                 |                 |           |                          |         | -      |
| ▪ paid out           | (35)    | (91)            |                 |           | (62)                     |         | (188)  |
| Benefit Expired      |         |                 | (1)             |           |                          |         | (1)    |
| Retirements          | (778)   | (36)            | 818             |           | (4)                      |         | -      |
| Deaths, no survivor  | (19)    | (1)             | (110)           | (74)      |                          |         | (204)  |
| Deaths with survivor | (4)     |                 | (130)           | 134       |                          |         | -      |
| Data Corrections     |         | (6)             |                 | 8         |                          |         | 2      |
| Total at 31.12.2014  | 24,604  | 2,119           | 12,074          | 1,715     | 282                      | 165     | 40,959 |

The distribution of the active members by age and pensionable service as at the valuation date is summarized as follows:

| Age   | Years of Pensionable Service |         |        |        |        |        |         |         | Total  |
|-------|------------------------------|---------|--------|--------|--------|--------|---------|---------|--------|
|       | 0-4                          | 5-9     | 10-14  | 15-19  | 20-24  | 25-29  | 30-34   | 35+     |        |
| < 25  | 210                          |         |        |        |        |        |         |         | 210    |
|       | 39,557                       |         |        |        |        |        |         |         | 39,557 |
| 25-29 | 1,047                        | 93      |        |        |        |        |         |         | 1,140  |
|       | 52,513                       | 58,014  |        |        |        |        |         |         | 52,962 |
| 30-34 | 1,556                        | 517     | 72     |        |        |        |         |         | 2,145  |
|       | 58,899                       | 65,098  | 64,285 |        |        |        |         |         | 60,574 |
| 35-39 | 1,502                        | 711     | 399    | 43     |        |        |         |         | 2,655  |
|       | 65,420                       | 72,436  | 72,451 | 78,352 |        |        |         |         | 68,565 |
| 40-44 | 1,611                        | 716     | 557    | 217    | 20     |        |         |         | 3,121  |
|       | 67,452                       | 77,867  | 81,531 | 80,589 | 68,133 |        |         |         | 73,272 |
| 45-49 | 1,656                        | 744     | 638    | 310    | 232    | 104    | 3       |         | 3,687  |
|       | 68,952                       | 84,686  | 87,416 | 86,840 | 80,180 | 75,800 | 70,980  |         | 77,727 |
| 50-54 | 1,606                        | 791     | 738    | 387    | 389    | 506    | 100     | 2       | 4,519  |
|       | 72,186                       | 83,146  | 89,007 | 91,713 | 85,082 | 83,297 | 76,478  | 67,622  | 80,971 |
| 55-59 | 1,159                        | 606     | 616    | 392    | 342    | 507    | 232     | 67      | 3,921  |
|       | 73,013                       | 87,456  | 89,898 | 92,758 | 89,923 | 94,469 | 86,781  | 77,932  | 85,020 |
| 60-64 | 639                          | 374     | 360    | 221    | 227    | 331    | 166     | 112     | 2,430  |
|       | 74,813                       | 86,299  | 90,512 | 89,493 | 91,114 | 93,106 | 90,070  | 83,535  | 85,700 |
| 65-69 | 217                          | 88      | 129    | 57     | 56     | 83     | 52      | 55      | 737    |
|       | 73,978                       | 94,461  | 93,145 | 89,692 | 94,252 | 96,367 | 100,273 | 108,068 | 89,455 |
| 70 +  | 10                           | 4       | 9      | 1      | 1      | 4      | 5       | 5       | 39     |
|       | 84,854                       | 118,399 | 94,936 | *      | *      | 96,166 | 82,192  | 84,735  | 92,240 |
| Total | 11,213                       | 4,644   | 3,518  | 1,628  | 1,267  | 1,535  | 558     | 241     | 24,604 |
|       | 66,111                       | 79,488  | 85,628 | 88,836 | 86,720 | 89,335 | 87,044  | 87,469  | 76,124 |

\* Pensionable earnings amounts are not displayed to preserve confidentiality

The distribution of the inactive members by age as at the valuation date is summarized as follows:

| Age      | Deferred Pensioners |                 | Retired Members |                 | Survivors |                 |
|----------|---------------------|-----------------|-----------------|-----------------|-----------|-----------------|
|          | Number              | Average Pension | Number          | Average Pension | Number    | Average Pension |
| < 30     | 98                  | 1,003           |                 |                 | 1         | *               |
| 30 – 34  | 164                 | 2,048           |                 |                 |           |                 |
| 35 – 39  | 205                 | 3,098           |                 |                 | 3         | 13,042          |
| 40 – 44  | 271                 | 3,669           |                 |                 | 1         | *               |
| 45 – 49  | 296                 | 5,453           |                 |                 | 2         | 12,557          |
| 50 – 54  | 453                 | 5,676           | 68              | 29,877          | 13        | 15,771          |
| 55 – 59  | 333                 | 5,385           | 616             | 32,492          | 38        | 16,459          |
| 60 – 64  | 223                 | 5,870           | 1,869           | 31,873          | 94        | 18,445          |
| 65 – 69  | 62                  | 6,029           | 3,009           | 30,276          | 154       | 18,716          |
| 70 – 74  | 12                  | 20,458          | 2,676           | 27,668          | 274       | 14,336          |
| 75 – 79  | 1                   | *               | 1,799           | 22,909          | 319       | 12,842          |
| 80 – 84  |                     |                 | 1,142           | 19,703          | 359       | 11,607          |
| 85 – 89  | 1                   | *               | 611             | 16,059          | 282       | 9,585           |
| 90 – 94  |                     |                 | 243             | 13,647          | 138       | 7,320           |
| 95 – 100 |                     |                 | 38              | 13,936          | 33        | 7,266           |
| 100+     |                     |                 | 3               | 5,810           | 4         | 2,193           |
| Total    | 2,119               | 4,740           | 12,074          | 26,847          | 1,715     | 12,644          |

\* Pension amounts are not displayed to preserve confidentiality

## APPENDIX F

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### Summary of Plan Provisions

Mercer has used and relied on the plan documents, including amendments and interpretations of plan provisions, supplied by the Colleges of Applied Arts and Technology Pension Plan. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

This valuation is based on the plan provisions in effect on January 1, 2016. Since the previous valuation, the Plan's benefit provisions have not been amended.

The following is a summary of the main provisions of the Plan in effect on January 1, 2016. This summary is not intended as a complete description of the Plan.

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background</b>                 | The Plan became effective July 1, 1967.<br>Benefits are based on a set formula and are paid for by the members and participating employers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Eligibility for Membership</b> | A full-time employee must join the Plan upon employment. A part-time employee may join the Plan immediately on hire.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Member Contributions</b>       | Members who contribute to the Canada Pension Plan are required to contribute an amount equal to the sum of the following: <ul style="list-style-type: none"><li>▪ 11.2% of pensionable earnings up to the YMPE; plus</li><li>▪ 14.8% of pensionable earnings in excess of the YMPE.</li></ul> Contributions in respect of earnings above the earnings limit (\$163,715 in 2016) are directed to the RCA. The earnings limit is the earnings level at which the pension accrued in the year (calculated based on current year earnings and YMPE only) is equal to the maximum pension limit (\$2,890.00 in 2016).<br>Members who are receiving benefits under a long term disability plan or are disabled under the Worker's Compensation Act are not required to contribute to the Plan. |
| <b>Employer Contributions</b>     | The employers are required to match the member contributions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Retirement Dates</b>          | <p>Normal Retirement Date</p> <ul style="list-style-type: none"> <li>The normal retirement date is the last day of the month coincident with or next following the member's 65<sup>th</sup> birthday.</li> </ul> <p>Early Retirement Date</p> <ul style="list-style-type: none"> <li>A member may choose to retire early on the last day of the month coincident with or next following the earliest of <ul style="list-style-type: none"> <li>Age 55 with 2 years of Plan membership;</li> <li>Age 50 with 20 years of credited service; or</li> <li>Age plus years of credited service totalling 85 years.</li> </ul> </li> </ul>                                                                                                                                                                                                                                  |
| <b>Normal Retirement Pension</b> | <p><u>Basic Benefit</u></p> <p>1.3% of the annualized average pensionable earnings for the 60 consecutive months for which they are the highest, up to the average of the YMPE during the last 5 calendar years</p> <p>PLUS</p> <p>2.0% of the excess, if any, of the member's annualized average pensionable earnings for the 60 consecutive months for which they are the highest, in excess of the average of the YMPE during the last 5 calendar years</p> <p>MULTIPLIED BY</p> <p>The member's total years of credited service.</p><br><p><u>Supplemental Benefit (payable to age 65)</u></p> <p>0.7% of the annualized average pensionable earnings for the 60 consecutive months for which they are the highest, up to the average of the YMPE during the last 5 calendar years</p> <p>MULTIPLIED BY</p> <p>The member's total years of credited service.</p> |
| <b>Early Retirement Pension</b>  | <p>If a member retires early, the member will be entitled to a pension that is calculated the same way as for a normal retirement. The basic pension and supplemental benefit payable, however, will be reduced by ¼% per month for each month that the member's early retirement precedes the earliest date on which the member would have attained the following if the member had continued employment to such date:</p> <ul style="list-style-type: none"> <li>Age 65;</li> <li>Age 60 with 20 years of credited service; or</li> <li>Age plus years of credited service totalling 85 years.</li> </ul>                                                                                                                                                                                                                                                          |
| <b>Maximum Pension</b>           | <p>The total annual pension payable from the Plan upon retirement, death or termination of employment cannot exceed the lesser of:</p> <ul style="list-style-type: none"> <li>2% of the average of the best three consecutive years of total compensation paid to the member by the employer, multiplied by years of credited service; and</li> <li>The defined benefit limit under the <i>Income Tax Act</i>, multiplied by the member's years of credited service. The limit in respect of pre-1990 service credited after June 7, 1990 is 2/3rds of the defined benefit limit.</li> </ul> <p>The maximum pension is subject to minimum early retirement reductions as required under the <i>Income Tax Act</i>.</p> <p>The maximum pension is determined at the date of pension commencement.</p>                                                                 |



|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Death Benefits</b>                                | <p>Pre-retirement:</p> <ul style="list-style-type: none"> <li>▪ If a member dies before the normal retirement date and before any pension payments have begun, the member's spouse, or beneficiary if there is no spouse, will receive a lump sum settlement equal to the value of the benefits to which the member would have been entitled had employment terminated on the date of death.</li> </ul> <p>If the deceased member has children under the age of 18 and does not have a spouse, 50% of the member's accrued pension shall be divided equally among the children under 18. The beneficiary or estate will then receive a lump sum settlement equal to the value of the benefits to which the member would have been entitled had employment terminated on the date of death, less the value of the children's benefits.</p> <p>Post retirement:</p> <ul style="list-style-type: none"> <li>▪ The normal form of payment is a lifetime pension. For a member with a qualifying spouse at death, the normal form is a joint and survivor 60% pension.</li> </ul> |
| <b>Termination Benefits</b>                          | <p>A deferred lifetime pension, based on the member's earnings and years of credited service up to the date of termination. Deferred pensions are payable commencing at age 65, subject to a 5% per annum reduction for commencement prior to age 65.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Pre-retirement and post-retirement indexation</b> | <p>Pensions in payment and deferred pensions in respect of service on or after January 1, 1992 but before January 1, 2008 are increased every January 1 at 75% of the increase in the Consumer Price Index, up to a maximum annual increase of 8%. Increases in excess of 8%, as well as decreases, are carried forward to future years.</p> <p>Pensions in payment and deferred pensions in respect of service prior to January 1, 1992 are increased in the same manner, with the last approved increase occurring on January 1, 2014.</p> <p>Pensions in payment and deferred pensions in respect of service on or after January 1, 2008 are contingent on the funded status of the Plan at the last filed valuation.</p>                                                                                                                                                                                                                                                                                                                                                 |

## APPENDIX G

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### Plan Administrator Certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at January 1, 2016 of The Colleges of Applied Arts and Technology Pension Plan, I hereby certify that, to the best of my knowledge and belief:

- The valuation reflects the terms of the Board's engagement with the actuary described in Section 1 of this report, particularly the requirement to not reflect a margin for adverse deviations in the going concern valuation.
- A copy of the official plan documents and of all amendments made up to January 1, 2016 was provided to the actuary and is reflected appropriately in the summary of plan provisions contained herein.
- The asset information summarized in Appendix B is reflective of the Plan's assets.
- The membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to December 31, 2014.
- All events subsequent to January 1, 2016 that may have an impact on the Plan have been communicated to the actuary.

March 12, 2016  
Date

  
Signed

DEREK DOBSON  
Name  
CEO & Plan Manager



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IPSAS-39-Employee-Benefits.pdf

**Final Pronouncement  
July 2016**

**IPSAS®**

*International Public Sector Accounting Standard®*

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## **IPSAS 39, *Employee Benefits***

**IPSASB**

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# IPSAS 39—EMPLOYEE BENEFITS

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## Objective

1. The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognize:
  - (a) A liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
  - (b) An expense when the entity consumes the economic benefits or service potential arising from service provided by an employee in exchange for employee benefits.

## Scope

2. **This Standard shall be applied by an employer in accounting for all employee benefits, except share-based transactions (see the relevant international or national accounting standard dealing with share-based transactions).**
3. This Standard does not deal with reporting by employee retirement benefit plans (see the relevant international or national accounting standard dealing with employee retirement benefit plans). This Standard does not deal with benefits provided by composite social security programs that are not consideration in exchange for service rendered by employees or past employees of public sector entities.
4. The employee benefits to which this Standard applies include those provided:
  - (a) Under formal plans or other formal agreements between an entity and individual employees, groups of employees, or their representatives;
  - (b) Under legislative requirements, or through industry arrangements, whereby entities are required to contribute to national, state, industry, or other multi-employer plans, or where entities are required to contribute to the composite social security program; or
  - (c) By those informal practices that give rise to a constructive obligation. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.
5. Employee Benefits include:
  - (a) Short-term employee benefits, such as the following, if expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related services:
    - (i) Wages, salaries and social security contributions;
    - (ii) Paid annual leave and paid sick leave;
    - (iii) Profit-sharing and bonuses; and
    - (iv) Non-monetary benefits (such as medical care, housing, cars and free or subsidized goods or services) for current employees;
  - (b) Post-employment benefits, such as the following:
    - (i) Retirement benefits (e.g., pensions and lump sum payments on retirement); and

- (ii) Other post-employment benefits, such as post-employment life insurance and post-employment medical care;
  - (c) Other long-term employee benefits, such as the following:
    - (i) Long-term paid absences such as long-service leave or sabbatical leave;
    - (ii) Jubilee or other long-service benefits; and
    - (iii) Long-term disability benefits; and
  - (d) Termination benefits.
6. Employee benefits include benefits provided either to employees or to their dependants, and may be settled by payments (or the provision of goods or services) made either directly to the employees, to their spouses, children, or other dependants, or to others, such as insurance companies.
7. An employee may provide services to an entity on a full-time, part-time, permanent, casual, or temporary basis. For the purpose of this Standard, employees include key management personnel as defined in IPSAS 20, *Related Party Disclosures*.

## Definitions

8. The following terms are used in this Standard with the meanings specified:

### Definitions of employee benefits

**Employee benefits** are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

**Short-term employee benefits** are employee benefits (other than termination benefits) that are due to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service.

**Post-employment benefits** are employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

**Other long-term employee benefits** are all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits.

**Termination benefits** are employee benefits provided in exchange for the termination of an employee's employment as a result of either:

- (a) An entity's decision to terminate an employee's employment before the normal retirement date; or
- (b) An employee's decision to accept an offer of benefits in exchange for the termination of employment.

### Definitions relating to classification of plans

**Post-employment benefit plans** are formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

**Defined contribution plans** are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or

constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

**Defined benefit plans** are post-employment benefit plans other than defined contribution plans.

**Multi-employer plans** are defined contribution plans (other than state plans) or defined benefit plans (other than state plans) that:

- (a) Pool the assets contributed by various entities that are not under common control; and
- (b) Use those assets to provide benefits to employees of more than one entity, on the basis that contribution and benefit levels are determined without regard to the identity of the entity that employs the employees.

**State plans** are plans established by legislation that operate as if they are multi-employer plans for all entities in economic categories laid down in legislation.

### **Definitions relating to the net defined benefit liability (asset)**

The **net defined benefit liability (asset)** is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling.

The **deficit or surplus** is:

- (a) The present value of the defined benefit obligation less
- (b) The fair value of plan assets (if any).

The **asset ceiling** is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The **present value of a defined benefit obligation** is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

**Plan assets** comprise:

- (a) Assets held by a long-term employee benefit fund; and
- (b) Qualifying insurance policies.

**Assets held by a long-term employee benefit fund** are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- (a) Are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and
- (b) Are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity, unless either:
  - (i) The remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or

- (ii) The assets are returned to the reporting entity to reimburse it for employee benefits already paid.

A **qualifying insurance policy** is an insurance policy\* issued by an insurer that is not a related party (as defined in IPSAS 20) of the reporting entity, if the proceeds of the policy:

- (a) Can be used only to pay or fund employee benefits under a defined benefit plan; and
- (b) Are not available to the reporting entity's own creditors (even in bankruptcy) and cannot be paid to the reporting entity, unless either:
  - (i) The proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or
  - (ii) The proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

### Definitions relating to defined benefit cost

**Service cost** comprises:

- (a) **Current service cost**, which is the increase in the present value of the defined benefit obligation resulting from employee service in the current period;
- (b) **Past service cost**, which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and
- (c) Any gain or loss on settlement.

**Net interest on the net defined benefit liability (asset)** is the change during the period in the net defined benefit liability (asset) that arises from the passage of time.

**Remeasurements** of the net defined benefit liability (asset) comprise:

- (a) Actuarial gains and losses;
- (b) The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- (c) Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

**Actuarial gains and losses** are changes in the present value of the defined benefit obligation resulting from:

- (a) Experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and
- (b) The effects of changes in actuarial assumptions.

---

\* A qualifying insurance policy is not necessarily an insurance contract (see the relevant international or national standard dealing with insurance contracts).

The **return on plan assets** is interest, dividends or similar distributions and other revenue derived from the plan assets, together with realized and unrealized gains or losses on the plan assets, less:

- (a) Any costs of managing the plan assets; and
- (b) Any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the present value of the defined benefit obligation.

A **settlement** is a transaction that eliminates all further legal or constructive obligations for part or all of the benefits provided under a defined benefit plan, other than a payment of benefits to, or on behalf of, employees that is set out in the terms of the plan and included in the actuarial assumptions.

## Short-Term Employee Benefits

9. Short-term employee benefits include items such as the following, if expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related services:
  - (a) Wages, salaries, and social security contributions;
  - (b) Paid annual leave and paid sick leave;
  - (c) Profit-sharing and bonuses; and
  - (d) Non-monetary benefits (such as medical care, housing, cars, and free or subsidized goods or services) for current employees.
10. An entity need not reclassify a short-term employee benefit if the entity's expectations of the timing of settlement change temporarily. However, if the characteristics of the benefit change (such as a change from a non-accumulating benefit to an accumulating benefit) or if a change in expectations of the timing of settlement is not temporary, then the entity considers whether the benefit still meets the definition of short-term employee benefits.

## Recognition and measurement

### *All Short-Term Employee Benefits*

11. **When an employee has rendered service to an entity during an accounting period, the entity shall recognize the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service:**
  - (a) **As a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, an entity shall recognize that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.**
  - (b) **As an expense, unless another Standard requires or permits the inclusion of the benefits in the cost of an asset (see, for example, IPSAS 12, *Inventories*, and IPSAS 17, *Property, Plant, and Equipment*).**
12. Paragraphs 13, 16, and 19 explain how an entity shall apply paragraph 11 to short-term employee benefits in the form of paid absences and profit-sharing and bonus plans.

*Short-Term Paid Absences*

13. **An entity shall recognize the expected cost of short-term employee benefits in the form of paid absences under paragraph 11 as follows:**
  - (a) **In the case of accumulating paid absences, when the employees render service that increases their entitlement to future paid absences; and**
  - (b) **In the case of non-accumulating paid absences, when the absences occur.**
14. An entity may pay employees for absence for various reasons, including holidays, sickness and short-term disability, maternity or paternity, jury service, and military service. Entitlement to paid absences falls into two categories:
  - (a) Accumulating; and
  - (b) Non-accumulating.
15. Accumulating paid absences are those that are carried forward and can be used in future periods if the current period's entitlement is not used in full. Accumulating paid absences may be either vesting (in other words, employees are entitled to a cash payment for unused entitlement on leaving the entity) or nonvesting (when employees are not entitled to a cash payment for unused entitlement on leaving). An obligation arises as employees render service that increases their entitlement to future paid absences. The obligation exists, and is recognized, even if the paid absences are non-vesting, although the possibility that employees may leave before they use an accumulated non-vesting entitlement affects the measurement of that obligation.
16. **An entity shall measure the expected cost of accumulating paid absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.**
17. The method specified in the previous paragraph measures the obligation at the amount of the additional payments that are expected to arise solely from the fact that the benefit accumulates. In many cases, an entity may not need to make detailed computations to estimate that there is no material obligation for unused paid absences. For example, a sick leave obligation is likely to be material only if there is a formal or informal understanding that unused paid sick leave may be taken as paid annual leave.
18. Non-accumulating paid absences do not carry forward; they lapse if the current period's entitlement is not used in full and do not entitle employees to a cash payment for unused entitlement on leaving the entity. This is commonly the case for sick pay (to the extent that unused past entitlement does not increase future entitlement), maternity or paternity leave, and paid absences for jury service or military service. An entity recognizes no liability or expense until the time of the absence, because employee service does not increase the amount of the benefit.

*Profit-Sharing and Bonus Plans*

19. **An entity shall recognize the expected cost of profit-sharing and bonus payments under paragraph 11 when, and only when:**
  - (a) **The entity has a present legal or constructive obligation to make such payments as a result of past events; and**

**(b) A reliable estimate of the obligation can be made.**

**A present obligation exists when, and only when, the entity has no realistic alternative but to make the payments.**

20. In the public sector, some entities have bonus plans that are related to service delivery objectives or aspects of financial performance. Under such plans, employees receive specified amounts, dependent on an assessment of their contribution to the achievement of the objectives of the entity or a segment of the entity. In some cases, such plans may be for groups of employees, such as when performance is evaluated for all or some employees in a particular segment, rather than on an individual basis. Because of the objectives of public sector entities, profit-sharing plans are far less common in the public sector than for profit-oriented entities. However, they are likely to be an aspect of employee remuneration in segments of public sector entities that operate on a commercial basis. Some public sector entities may not operate profit-sharing schemes, but may evaluate performance against financially based measures such as the generation of revenue streams and the achievement of budgetary targets. Some bonus plans may entail payments to all employees who rendered employment services in a reporting period, even though they may have left the entity before the end of the reporting period. However, under other bonus plans, employees receive payments only if they remain with the entity for a specified period, for example, a requirement that employees render services for the whole of the reporting period. Such plans create a constructive obligation as employees render service that increases the amount to be paid if they remain in service until the end of the specified period. The measurement of such constructive obligations reflects the possibility that some employees may leave without receiving profit-sharing payments. Paragraph 22 provides further conditions that are to be satisfied before an entity can recognize the expected cost of performance-related payments, bonus payments, and profit-sharing payments.
21. An entity may have no legal obligation to pay a bonus. Nevertheless, in some cases, an entity has a practice of paying bonuses. In such cases, the entity has a constructive obligation because the entity has no realistic alternative but to pay the bonus. The measurement of the constructive obligation reflects the possibility that some employees may leave without receiving a bonus.
22. An entity can make a reliable estimate of its legal or constructive obligation under a performance-related payment scheme, bonus plan, or profit-sharing scheme when, and only when:
  - (a) The formal terms of the plan contain a formula for determining the amount of the benefit;
  - (b) The entity determines the amounts to be paid before the financial statements are authorized for issue; or
  - (c) Past practice gives clear evidence of the amount of the entity's constructive obligation.
23. An obligation under profit-sharing plans and bonus plans results from employee service and not from a transaction with the entity's owners. Therefore, an entity recognizes the cost of profit-sharing and bonus plans not as a distribution of profit but as an expense.
24. If profit-sharing and bonus payments are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service, those payments are other long-term employee benefits (see paragraphs 155–161).



**Disclosure**

25. Although this Standard does not require specific disclosures about short-term employee benefits, other Standards may require disclosures. For example, IPSAS 20 requires disclosures of the aggregate remuneration of key management personnel and IPSAS 1 requires the disclosure of information about employee benefits expense.

**Post-employment Benefits—Distinction between Defined Contribution Plans and Defined Benefit Plans**

26. Post-employment benefits include items such as the following:

- (a) Retirement benefits (e.g. pensions and lump sum payments on retirement); and
- (b) Other post-employment benefits, such as post-employment life insurance, and post-employment medical care.

Arrangements whereby an entity provides post-employment benefits are post-employment benefit plans. An entity applies this Standard to all such arrangements, whether or not they involve the establishment of a separate entity, such as a pension scheme, superannuation scheme, or retirement benefit scheme, to receive contributions and to pay benefits.

27. Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan, as derived from its principal terms and conditions.
28. Under defined contribution plans the entity's legal or constructive obligation is limited to the amount that it agrees to contribute to the fund. Thus, the amount of the post-employment benefits received by the employee is determined by the amount of contributions paid by an entity (and perhaps also the employee) to a post-employment benefit plan or to an insurance company, together with investment returns arising from the contributions. In consequence, actuarial risk (that benefits will be less than expected) and investment risk (that assets invested will be insufficient to meet expected benefits) fall, in substance, on the employee.
29. Examples of cases where an entity's obligation is not limited to the amount that it agrees to contribute to the fund are when the entity has a legal or constructive obligation through:
- (a) A plan benefit formula that is not linked solely to the amount of contributions and requires the entity to provide further contributions if assets are insufficient to meet the benefits in the plan benefit formula;
  - (b) A guarantee, either indirectly through a plan or directly, of a specified return on contributions; or
  - (c) Those informal practices that give rise to a constructive obligation. For example, a constructive obligation may arise where an entity has a history of increasing benefits for former employees to keep pace with inflation, even where there is no legal obligation to do so.
30. Under defined benefit plans:
- (a) The entity's obligation is to provide the agreed benefits to current and former employees; and



- (b) Actuarial risk (that benefits will cost more than expected) and investment risk fall, in substance, on the entity. If actuarial or investment experience are worse than expected, the entity's obligation may be increased.
31. Paragraphs 32–51 explain the distinction between defined contribution plans and defined benefit plans in the context of multi-employer plans, defined benefit plans that share risks between entities under common control, state plans, and insured benefits.

### **Multi-Employer Plans**

32. **An entity shall classify a multi-employer plan as a defined contribution plan or a defined benefit plan under the terms of the plan (including any constructive obligation that goes beyond the formal terms).**
33. **If an entity participates in a multi-employer defined benefit plan, unless paragraph 34 applies, it shall:**
- (a) **Account for its proportionate share of the defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan; and**
  - (b) **Disclose the information required by paragraphs 137–150 (excluding paragraph 150(d)).**
34. **When sufficient information is not available to use defined benefit accounting for a multi-employer defined benefit plan, an entity shall:**
- (a) **Account for the plan in accordance with paragraphs 53 and 54 as if it were a defined contribution plan; and**
  - (b) **Disclose the information required by paragraph 150.**
35. One example of a multi-employer defined benefit plan is one where:
- (a) The plan is financed on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the benefits falling due in the same period; and future benefits earned during the current period will be paid out of future contributions; and
  - (b) Employees' benefits are determined by the length of their service and the participating entities have no realistic means of withdrawing from the plan without paying a contribution for the benefits earned by employees up to the date of withdrawal. Such a plan creates actuarial risk for the entity: if the ultimate cost of benefits already earned at the end of the reporting period is more than expected, the entity will have to either increase its contributions or persuade employees to accept a reduction in benefits. Therefore, such a plan is a defined benefit plan.
36. Where sufficient information is available about a multi-employer plan defined benefit plan, an entity accounts for its proportionate share of the defined benefit obligation, plan assets, and post-employment benefit cost associated with the plan in the same way as for any other defined benefit plan. However, an entity may not be able to identify its share of the underlying financial position and performance of the plan with sufficient reliability for accounting purposes. This may occur if:

- (a) The plan exposes the participating entities to actuarial risks associated with the current and former employees of other entities, with the result that there is no consistent and reliable basis for allocating the obligation, plan assets, and cost to individual entities participating in the plan; or
- (b) The entity does not have access to sufficient information about the plan that satisfies the requirements of this Standard.

In those cases, an entity accounts for the plan as if it were a defined contribution plan, and discloses the additional information required by paragraph 150.

- 37. There may be a contractual agreement between the multi-employer plan and its participants that determines how the surplus in the plan will be distributed to the participants (or the deficit funded). A participant in a multi-employer plan with such an agreement that accounts for the plan as a defined contribution plan in accordance with paragraph 34 shall recognize the asset or liability that arises from the contractual agreement, and the resulting revenue or expense in surplus or deficit.
- 38. Multi-employer plans are distinct from group administration plans. A group administration plan is merely an aggregation of single employer plans combined to allow participating employers to pool their assets for investment purposes and reduce investment management and administration costs, but the claims of different employers are segregated for the sole benefit of their own employees. Group administration plans pose no particular accounting problems because information is readily available to treat them in the same way as any other single employer plan and because such plans do not expose the participating entities to actuarial risks associated with the current and former employees of other entities. The definitions in this Standard require an entity to classify a group administration plan as a defined contribution plan or a defined benefit plan in accordance with the terms of the plan (including any constructive obligation that goes beyond the formal terms).
- 39. **In determining when to recognize, and how to measure, a liability relating to the wind-up of a multi-employer defined benefit plan, or the entity's withdrawal from a multi-employer defined benefit plan, an entity shall apply IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*.**

#### **Defined Benefit Plans that Share Risks between Entities under Common Control**

- 40. Defined benefit plans that share risks between various entities under common control, for example, controlling and controlled entities, are not multi-employer plans.
- 41. An entity participating in such a plan obtains information about the plan as a whole, measured in accordance with this Standard on the basis of assumptions that apply to the plan as a whole. If there is a contractual agreement, binding arrangement, or stated policy for charging the net defined benefit cost for the plan as a whole measured in accordance with this Standard to individual entities within the economic entity, the entity shall, in its separate or individual financial statements, recognize the net defined benefit cost so charged. If there is no such agreement, arrangement, or policy, the net defined benefit cost shall be recognized in the separate or individual financial statements of the entity that is legally the sponsoring employer for the plan. The other entities shall, in their separate or individual financial statements, recognize a cost equal to their contribution payable for the period.

42. There are cases in the public sector where a controlling entity and one or more controlled entities participate in a defined benefit plan. Unless there is a contractual agreement, binding arrangement, or stated policy, as specified in paragraph 41, the controlled entity accounts on a defined contribution basis and the controlling entity accounts on a defined benefit basis in its consolidated financial statements. The controlled entity also discloses that it accounts on a defined contribution basis in its separate financial statements. A controlled entity that accounts on a defined contribution basis also provides details of the controlling entity, and states that, in the controlling entity's consolidated financial statements, accounting is on a defined benefit basis. The controlled entity also makes the disclosures required in paragraph 151.
43. **Participation in such a plan is a related party transaction for each individual entity. An entity shall therefore, in its separate or individual financial statements, disclose the information required by paragraph 151.**

### State Plans

44. **An entity shall account for a state plan in the same way as for a multi-employer plan (see paragraphs 32 and 39).**
45. State plans are established by legislation to cover all entities (or all entities in a particular category, for example, a specific industry) and are operated by national, state, or local government or by another body (for example, an agency created specifically for this purpose). This Standard deals only with employee benefits of the entity, and does not address accounting for any obligations under state plans related to employees and past employees of entities that are not controlled by the reporting entity. While governments may establish state plans and provide benefits to employees of private sector entities and/or self-employed individuals, obligations arising in respect of such plans are not addressed in this Standard. Some plans established by an entity provide both compulsory benefits, as a substitute for benefits that would otherwise be covered under a state plan, and additional voluntary benefits. Such plans are not state plans.
46. Many state plans are funded on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the required benefits falling due in the same period; future benefits earned during the current period will be paid out of future contributions. Entities covered by state plans account for those plans as either defined contribution or defined benefit plans. The accounting treatment depends upon whether the entity has a legal or constructive obligation to pay future benefits. If an entity's only obligation is to pay the contributions as they fall due, and the entity has no obligation to pay future benefits, it accounts for that state plan as a defined contribution plan.
47. A state plan may be classified as a defined contribution plan by a controlled entity. However, it is a rebuttable presumption that the state plan will be characterized as a defined benefit plan by the controlling entity. Where that presumption is rebutted the state plan is accounted for as a defined contribution plan.

### Insured Benefits

48. **An entity may pay insurance premiums to fund a post-employment benefit plan. The entity shall treat such a plan as a defined contribution plan unless the entity will have (either directly, or indirectly through the plan) a legal or constructive obligation either:**

- a) **To pay the employee benefits directly when they fall due; or**
- b) **To pay further amounts if the insurer does not pay all future employee benefits relating to employee service in the current and prior periods.**

**If the entity retains such a legal or constructive obligation, the entity shall treat the plan as a defined benefit plan.**

49. The benefits insured by an insurance policy need not have a direct or automatic relationship with the entity's obligation for employee benefits. Post-employment benefit plans involving insurance policies are subject to the same distinction between accounting and funding as other funded plans.
50. Where an entity funds a post-employment benefit obligation by contributing to an insurance policy under which the entity (either directly, indirectly through the plan, through the mechanism for setting future premiums, or through a related party relationship with the insurer) retains a legal or constructive obligation, the payment of the premiums does not amount to a defined contribution arrangement. It follows that the entity:
- (a) Accounts for a qualifying insurance policy as a plan asset (see paragraph 8); and
  - (b) Recognizes other insurance policies as reimbursement rights (if the policies satisfy the criteria in paragraph 118).
51. Where an insurance policy is in the name of a specified plan participant or a group of plan participants, and the entity does not have any legal or constructive obligation to cover any loss on the policy, the entity has no obligation to pay benefits to the employees, and the insurer has sole responsibility for paying the benefits. The payment of fixed premiums under such contracts is, in substance, the settlement of the employee benefit obligation, rather than an investment to meet the obligation. Consequently, the entity no longer has an asset or a liability. Therefore, an entity treats such payments as contributions to a defined contribution plan.

## **Post-employment Benefits—Defined Contribution Plans**

52. Accounting for defined contribution plans is straightforward because the reporting entity's obligation for each period is determined by the amounts to be contributed for that period. Consequently, no actuarial assumptions are required to measure the obligation or the expense, and there is no possibility of any actuarial gain or loss. Moreover, the obligations are measured on an undiscounted basis, except where they are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service.

## **Recognition and Measurement**

53. **When an employee has rendered service to an entity during a period, the entity shall recognize the contribution payable to a defined contribution plan in exchange for that service:**
- (a) **As a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, an entity shall recognize that excess as an asset**

(prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and

- (b) **As an expense, unless another Standard requires or permits the inclusion of the contribution in the cost of an asset (see, for example, IPSAS 12 and IPSAS 17).**

- 54. **When contributions to a defined contribution plan are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service, they shall be discounted using the discount rate specified in paragraph 85.**

## **Disclosure**

- 55. **An entity shall disclose the amount recognized as an expense for defined contribution plans.**
- 56. Where required by IPSAS 20, an entity discloses information about contributions to defined contribution plans for key management personnel.

## **Post-employment Benefits—Defined Benefit Plans**

- 57. Accounting for defined benefit plans is complex, because actuarial assumptions are required to measure the obligation and the expense, and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis, because they may be settled many years after the employees render the related service.

## **Recognition and Measurement**

- 58. Defined benefit plans may be unfunded, or they may be wholly or partly funded by contributions by an entity, and sometimes its employees, into an entity, or fund, that is legally separate from the reporting entity and from which the employee benefits are paid. The payment of funded benefits when they fall due depends not only on the financial position and the investment performance of the fund but also on an entity's ability, and willingness, to make good any shortfall in the fund's assets. Therefore, the entity is, in substance, underwriting the actuarial and investment risks associated with the plan. Consequently, the expense recognized for a defined benefit plan is not necessarily the amount of the contribution due for the period.
- 59. Accounting by an entity for defined benefit plans involves the following steps:
  - (a) Determining the deficit or surplus. This involves:
    - (i) Using an actuarial technique, the projected unit credit method, to make a reliable estimate of the ultimate cost to the entity of the benefit that employees have earned in return for their service in the current and prior periods (see paragraphs 69–71). This requires an entity to determine how much benefit is attributable to the current and prior periods (see paragraphs 72–76), and to make estimates (actuarial assumptions) about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries and medical costs) that will affect the cost of the benefit (see paragraphs 77–100);
    - (ii) Discounting that benefit in order to determine the present value of the defined benefit obligation and the current service cost (see paragraphs 69–71 and 85–88);

- (iii) Deducting the fair value of any plan assets (see paragraphs 115–117) from the present value of the defined benefit obligation;
- (b) Determining the amount of the net defined benefit liability (asset) as the amount of the deficit or surplus determined in (a), adjusted for any effect of limiting a net defined benefit asset to the asset ceiling (see paragraph 66).
- (c) Determining amounts to be recognized in surplus or deficit:
  - (i) Current service cost (see paragraphs 72–76).
  - (ii) Any past service cost and gain or loss on settlement (see paragraphs 101–114).
  - (iii) Net interest on the net defined benefit liability (asset) (see paragraphs 125–128).
- (d) Determining the remeasurements of the net defined benefit liability (asset), to be recognized in net assets/equity, comprising:
  - (i) Actuarial gains and losses (see paragraphs 130 and 131);
  - (ii) Return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 132); and
  - (iii) Any change in the effect of the asset ceiling (see paragraph 66), excluding amounts included in net interest on the net defined benefit liability (asset).

Where an entity has more than one defined benefit plan, the entity applies these procedures for each material plan separately.

60. **An entity shall determine the net defined benefit liability (asset) with sufficient regularity that the amounts recognized in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.**
61. This Standard encourages, but does not require, an entity to involve a qualified actuary in the measurement of all material post-employment benefit obligations. For practical reasons, an entity may request a qualified actuary to carry out a detailed valuation of the obligation before the end of the reporting period. Nevertheless, the results of that valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the end of the reporting period.
62. In some cases, estimates, averages, and computational short cuts may provide a reliable approximation of the detailed computations illustrated in this Standard.

#### **Accounting for the Constructive Obligation**

63. **An entity shall account not only for its legal obligation under the formal terms of a defined benefit plan, but also for any constructive obligation that arises from the entity's informal practices. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.**
64. The formal terms of a defined benefit plan may permit an entity to terminate its obligation under the plan. Nevertheless, it is usually difficult for an entity to terminate its obligation under a plan (without payment) if employees are to be retained. Therefore, in the absence of evidence to

the contrary, accounting for post-employment benefits assumes that an entity that is currently promising such benefits will continue to do so over the remaining working lives of employees.

### Statement of Financial Position

65. **An entity shall recognize the net defined benefit liability (asset) in the statement of financial position.**
66. **When an entity has a surplus in a defined benefit plan, it shall measure the net defined benefit asset at the lower of:**
- (a) **The surplus in the defined benefit plan; and**
  - (b) **The asset ceiling, determined using the discount rate specified in paragraph 85.**
67. A net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen. An entity recognizes a net defined benefit asset in such cases because:
- (a) The entity controls a resource, which is the ability to use the surplus to generate future benefits;
  - (b) That control is a result of past events (contributions paid by the entity and service rendered by the employee); and
  - (c) Future economic benefits are available to the entity in the form of a reduction in future contributions or a cash refund, either directly to the entity or indirectly to another plan in deficit. The asset ceiling is the present value of those future benefits.

### Recognition and Measurement—Present Value of Defined Benefit Obligations and Current Service Cost

68. The ultimate cost of a defined benefit plan may be influenced by many variables, such as final salaries, employee turnover and mortality, employee contributions and medical cost trends. The ultimate cost of the plan is uncertain and this uncertainty is likely to persist over a long period of time. In order to measure the present value of the post-employment benefit obligations and the related current service cost, it is necessary:
- (a) To apply an actuarial valuation method (see paragraphs 69–71);
  - (b) To attribute benefit to periods of service (see paragraphs 72–76); and
  - (c) To make actuarial assumptions (see paragraphs 77–100).

#### *Actuarial Valuation Method*

69. **An entity shall use the projected unit credit method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost.**
70. The projected unit credit method (sometimes known as the accrued benefit method prorated on service or as the benefit/years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement (see paragraphs 72–76), and measures each unit separately to build up the final obligation (see paragraphs 77–100).



71. An entity discounts the whole of a post-employment benefit obligation, even if part of the obligation is expected to be settled before twelve months after the reporting period.

*Attributing Benefit to Periods of Service*

72. **In determining the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost, an entity shall attribute benefit to periods of service under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity shall attribute benefit on a straight-line basis from:**
- (a) **The date when service by the employee first leads to benefits under the plan (whether or not the benefits are conditional on further service) until**
  - (b) **The date when further service by the employee will lead to no material amount of further benefits under the plan, other than from further salary increases.**
73. The projected unit credit method requires an entity to attribute benefit to the current period (in order to determine current service cost) and the current and prior periods (in order to determine the present value of defined benefit obligations). An entity attributes benefit to periods in which the obligation to provide post-employment benefits arises. That obligation arises as employees render services in return for post-employment benefits that an entity expects to pay in future reporting periods. Actuarial techniques allow an entity to measure that obligation with sufficient reliability to justify recognition of a liability.
74. Employee service gives rise to an obligation under a defined benefit plan even if the benefits are conditional on future employment (in other words they are not vested). Employee service before the vesting date gives rise to a constructive obligation because, at the end of each successive reporting period, the amount of future service that an employee will have to render before becoming entitled to the benefit is reduced. In measuring its defined benefit obligation, an entity considers the probability that some employees may not satisfy any vesting requirements. Similarly, although some post-employment benefits, for example, post-employment medical benefits, become payable only if a specified event occurs when an employee is no longer employed, an obligation is created when the employee renders service that will provide entitlement to the benefit if the specified event occurs. The probability that the specified event will occur affects the measurement of the obligation, but does not determine whether the obligation exists.
75. The obligation increases until the date when further service by the employee will lead to no material amount of further benefits. Therefore, all benefit is attributed to periods ending on or before that date. Benefit is attributed to individual accounting periods under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity attributes benefit on a straight-line basis until the date when further service by the employee will lead to no material amount of further benefits. That is because the employee's service throughout the entire period will ultimately lead to benefit at that higher level.
76. Where the amount of a benefit is a constant proportion of final salary for each year of service, future salary increases will affect the amount required to settle the obligation that exists for service before the end of the reporting period, but do not create an additional obligation. Therefore:



- (a) For the purpose of paragraph 72(b), salary increases do not lead to further benefits, even though the amount of the benefits is dependent on final salary; and
- (b) The amount of benefit attributed to each period is a constant proportion of the salary to which the benefit is linked.

### *Actuarial Assumptions*

77. **Actuarial assumptions shall be unbiased and mutually compatible.**
78. Actuarial assumptions are an entity's best estimates of the variables that will determine the ultimate cost of providing post-employment benefits. Actuarial assumptions comprise:
- (a) Demographic assumptions about the future characteristics of current and former employees (and their dependants) who are eligible for benefits. Demographic assumptions deal with matters such as:
    - (i) Mortality (see paragraphs 83 and 84);
    - (ii) Rates of employee turnover, disability, and early retirement;
    - (iii) The proportion of plan members with dependants who will be eligible for benefits;
    - (iv) The proportion of plan members who will select each form of payment option available under the plan terms; and
    - (v) Claim rates under medical plans.
  - (b) Financial assumptions, dealing with items such as:
    - (i) The discount rate (see paragraphs 85–88);
    - (ii) Benefit levels, excluding any cost of the benefits to be met by employees, and future salary (see paragraphs 89–97);
    - (iii) In the case of medical benefits, future medical costs, including claim handling costs (i.e., the costs that will be incurred in processing and resolving claims, including legal and adjuster's fees) (see paragraphs 98–100); and
    - (iv) Taxes payable by the plan on contributions relating to service before the end of the reporting period or on benefits resulting from that service.
79. Actuarial assumptions are unbiased if they are neither imprudent nor excessively conservative.
80. Actuarial assumptions are mutually compatible if they reflect the economic relationships between factors such as inflation, rates of salary increase, and discount rates. For example, all assumptions that depend on a particular inflation level (such as assumptions about interest rates and salary and benefit increases) in any given future period assume the same inflation level in that period.
81. An entity determines the discount rate and other financial assumptions in nominal (stated) terms, unless estimates in real (inflation-adjusted) terms are more reliable, for example, in a hyperinflationary economy (see IPSAS 10, *Financial Reporting in Hyperinflationary Economies*), or where the benefit is index-linked, and there is a deep market in index-linked bonds of the same currency and term.

82. **Financial assumptions shall be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.**

*Actuarial Assumptions: Mortality*

83. **An entity shall determine its mortality assumptions by reference to its best estimate of the mortality of plan members both during and after employment.**
84. In order to estimate the ultimate cost of the benefit an entity takes into consideration expected changes in mortality, for example by modifying standard mortality tables with estimates of mortality improvements.

*Actuarial Assumptions—Discount Rate*

85. **The rate used to discount post-employment benefit obligations (both funded and unfunded) shall reflect the time value of money. The currency and term of the financial instrument selected to reflect the time value of money shall be consistent with the currency and estimated term of the post-employment benefit obligations.**
86. One actuarial assumption that has a material effect is the discount rate. The discount rate reflects the time value of money but not the actuarial or investment risk. Furthermore, the discount rate does not reflect the entity-specific credit risk borne by the entity's creditors, nor does it reflect the risk that future experience may differ from actuarial assumptions.
87. The discount rate reflects the estimated timing of benefit payments. In practice, an entity often achieves this by applying a single weighted average discount rate that reflects the estimated timing and amount of benefit payments, and the currency in which the benefits are to be paid.
88. An entity makes a judgment whether the discount rate that reflects the time value of money is best approximated by reference to market yields at the end of the reporting period on government bonds, high quality corporate bonds, or by another financial instrument. In some jurisdictions, market yields at the end of the reporting period on government bonds will provide the best approximation of the time value of money. However, there may be jurisdictions in which this is not the case, for example, jurisdictions where there is no deep market in government bonds, or in which market yields at the end of the reporting period on government bonds do not reflect the time value of money. In such cases, the reporting entity determines the rate by another method, such as by reference to market yields on high quality corporate bonds. There may also be circumstances where there is no deep market in government bonds or high quality corporate bonds with a sufficiently long maturity to match the estimated maturity of all the benefit payments. In such circumstances, an entity uses current market rates of the appropriate term to discount shorter term payments, and estimates the discount rate for longer maturities by extrapolating current market rates along the yield curve. The total present value of a defined benefit obligation is unlikely to be particularly sensitive to the discount rate applied to the portion of benefits that is payable beyond the final maturity of the available financial instrument, such as government bonds or corporate bonds.

*Actuarial Assumptions—Salaries, Benefits and Medical Costs*

89. **An entity shall measure its defined benefit obligations on a basis that reflects:**
- (a) **The benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the end of the reporting period;**

- (b) **Any estimated future salary increases that affect the benefits payable;**
  - (c) **The effect of any limit on the employer's share of the cost of the future benefits;**
  - (d) **Contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and**
  - (e) **Estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:**
    - (i) **Those changes were enacted before the end of the reporting period; or**
    - (ii) **Historical data, or other reliable evidence, indicate that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.**
90. Actuarial assumptions reflect future benefit changes that are set out in the formal terms of a plan (or a constructive obligation that goes beyond those terms) at the end of the reporting period. This is the case if, for example:
- (a) The entity has a history of increasing benefits, for example, to mitigate the effects of inflation, and there is no indication that this practice will change in the future;
  - (b) The entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants (see paragraph 110(c)); or
  - (c) Benefits vary in response to a performance target or other criteria. For example, the terms of the plan may state that it will pay reduced benefits or require additional contributions from employees if the plan assets are insufficient. The measurement of the obligation reflects the best estimate of the effect of the performance target or other criteria.
91. Actuarial assumptions do not reflect future benefit changes that are not set out in the formal terms of the plan (or a constructive obligation) at the end of the reporting period. Such changes will result in:
- (a) Past service cost, to the extent that they change benefits for service before the change; and
  - (b) Current service cost for periods after the change, to the extent that they change benefits for service after the change.
92. Estimates of future salary increases take account of inflation, seniority, promotion, and other relevant factors, such as supply and demand in the employment market.
93. Some defined benefit plans limit the contributions that an entity is required to pay. The ultimate cost of the benefits takes account of the effect of a limit on contributions. The effect of a limit on contributions is determined over the shorter of:
- (a) The estimated life of the entity; and
  - (b) The estimated life of the plan.
94. Some defined benefit plans require employees or third parties to contribute to the cost of the plan. Contributions by employees reduce the cost of the benefits to the entity. An entity considers whether third-party contributions reduce the cost of the benefits to the entity, or are

a reimbursement right as described in paragraph 118. Contributions by employees or third parties are either set out in the formal terms of the plan (or arise from a constructive obligation that goes beyond those terms), or are discretionary. Discretionary contributions by employees or third parties reduce service cost upon payment of these contributions to the plan.

95. Contributions from employees or third parties set out in the formal terms of the plan either reduce service cost (if they are linked to service), or affect remeasurements of the net defined benefit liability (asset) (if they are not linked to service). An example of contributions that are not linked to service is when the contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses. If contributions from employees or third parties are linked to service, those contributions reduce the service cost as follows:
- (a) If the amount of the contributions is dependent on the number of years of service, an entity shall attribute the contributions to periods of service using the same attribution method required by paragraph 72 for the gross benefit (ie either using the plan's contribution formula or on a straight-line basis); or
  - (b) If the amount of the contributions is independent of the number of years of service, the entity is permitted to recognize such contributions as a reduction of the service cost in the period in which the related service is rendered. Examples of contributions that are independent of the number of years of service include those that are a fixed percentage of the employee's salary, a fixed amount throughout the service period or dependent on the employee's age.

Paragraph AG13 provides related application guidance.

96. For contributions from employees or third parties that are attributed to periods of service in accordance with paragraph 95(a), changes in the contributions result in:
- (a) Current and past service cost (if those changes are not set out in the formal terms of a plan and do not arise from a constructive obligation); or
  - (b) Actuarial gains and losses (if those changes are set out in the formal terms of a plan, or arise from a constructive obligation).
97. Some post-employment benefits are linked to variables such as the level of benefit entitlements from social security pensions or state medical care. The measurement of such benefits reflects the best estimate of such variables, based on historical data and other reliable evidence.
98. **Assumptions about medical costs shall take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.**
99. Measurement of post-employment medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. An entity estimates future medical costs on the basis of historical data about the entity's own experience, supplemented where necessary by historical data from other entities, insurance companies, medical providers, or other sources. Estimates of future medical costs consider the effect of technological advances, changes in health care utilization or delivery patterns, and changes in the health status of plan participants.
100. The level and frequency of claims is particularly sensitive to the age, health status, and gender of employees (and their dependants), and may be sensitive to other factors such as

geographical location. Therefore, historical data are adjusted to the extent that the demographic mix of the population differs from that of the population used as a basis for the data. It is also adjusted where there is reliable evidence that historical trends will not continue.

#### **Past service cost and gains and losses on settlement**

101. **Before determining past service cost, or a gain or loss on settlement, an entity shall remeasure the net defined benefit liability (asset) using the current fair value of plan assets and current actuarial assumptions (including current market interest rates and other current market prices) reflecting the benefits offered under the plan before the plan amendment, curtailment or settlement.**
102. An entity need not distinguish between past service cost resulting from a plan amendment, past service cost resulting from a curtailment and a gain or loss on settlement if these transactions occur together. In some cases, a plan amendment occurs before a settlement, such as when an entity changes the benefits under the plan and settles the amended benefits later. In those cases an entity recognizes past service cost before any gain or loss on settlement.
103. A settlement occurs together with a plan amendment and curtailment if a plan is terminated with the result that the obligation is settled and the plan ceases to exist. However, the termination of a plan is not a settlement if the plan is replaced by a new plan that offers benefits that are, in substance, the same.

#### *Past Service Cost*

104. Past service cost is the change in the present value of the defined benefit obligation resulting from a plan amendment or curtailment.
105. **An entity shall recognize past service cost as an expense at the earlier of the following dates:**
- (a) **When the plan amendment or curtailment occurs; and**
  - (b) **When the entity recognizes related restructuring costs (see IPSAS 19) or termination benefits (see paragraph 168).**
106. A plan amendment occurs when an entity introduces, or withdraws, a defined benefit plan or changes the benefits payable under an existing defined benefit plan.
107. A curtailment occurs when an entity significantly reduces the number of employees covered by a plan. A curtailment may arise from an isolated event, such as the closing of a plant, discontinuance of an operation or termination or suspension of a plan.
108. Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when benefits are withdrawn or changed so that the present value of the defined benefit obligation decreases).
109. Where an entity reduces benefits payable under an existing defined benefit plan and, at the same time, increases other benefits payable under the plan for the same employees, the entity treats the change as a single net change.
110. Past service cost excludes:

- (a) The effect of differences between actual and previously assumed salary increases on the obligation to pay benefits for service in prior years (there is no past service cost because actuarial assumptions allow for projected salaries);
- (b) Underestimates and overestimates of discretionary pension increases when an entity has a constructive obligation to grant such increases (there is no past service cost because actuarial assumptions allow for such increases);
- (c) Estimates of benefit improvements that result from actuarial gains or from the return on plan assets that have been recognized in the financial statements if the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants, even if the benefit increase has not yet been formally awarded (there is no past service cost because the resulting increase in the obligation is an actuarial loss, see paragraph 90); and
- (d) The increase in vested benefits (i.e., benefits that are not conditional on future employment, see paragraph 74) when, in the absence of new or improved benefits, employees complete vesting requirements (there is no past service cost because the entity recognized the estimated cost of benefits as current service cost as the service was rendered).

*Gains and losses on settlement*

- 111. The gain or loss on a settlement is the difference between:
  - (a) The present value of the defined benefit obligation being settled, as determined on the date of settlement; and
  - (b) The settlement price, including any plan assets transferred and any payments made directly by the entity in connection with the settlement.
- 112. **An entity shall recognize a gain or loss on the settlement of a defined benefit plan when the settlement occurs.**
- 113. A settlement occurs when an entity enters into a transaction that eliminates all further legal or constructive obligation for part or all of the benefits provided under a defined benefit plan (other than a payment of benefits to, or on behalf of, employees in accordance with the terms of the plan and included in the actuarial assumptions). For example, a one-off transfer of significant employer obligations under the plan to an insurance company through the purchase of an insurance policy is a settlement; a lump sum cash payment, under the terms of the plan, to plan participants in exchange for their rights to receive specified post-employment benefits is not.
- 114. In some cases, an entity acquires an insurance policy to fund some or all of the employee benefits relating to employee service in the current and prior periods. The acquisition of such a policy is not a settlement if the entity retains a legal or constructive obligation (see paragraph 48) to pay further amounts if the insurer does not pay the employee benefits specified in the insurance policy. Paragraphs 118–121 deal with the recognition and measurement of reimbursement rights under insurance policies that are not plan assets.

**Recognition and Measurement—Plan Assets***Fair Value of Plan Assets*

115. The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the deficit or surplus.
116. Plan assets exclude unpaid contributions due from the reporting entity to the fund, as well as any non-transferable financial instruments issued by the entity and held by the fund. Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, for example, trade and other payables and liabilities resulting from derivative financial instruments.
117. Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the related obligations (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

*Reimbursements*

118. **When, and only when, it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, an entity shall:**
- (a) **Recognize its right to reimbursement as a separate asset. The entity shall measure the asset at fair value.**
  - (b) **Disaggregate and recognize changes in the fair value of its right to reimbursement in the same way as for changes in the fair value of plan assets (see paragraphs 126 and 128). The components of defined benefit cost recognized in accordance with paragraph 122 may be recognized net of amounts relating to changes in the carrying amount of the right to reimbursement.**
119. Sometimes, an entity is able to look to another party, such as an insurer, to pay part or all of the expenditure required to settle a defined benefit obligation. Qualifying insurance policies, as defined in paragraph 8, are plan assets. An entity accounts for qualifying insurance policies in the same way as for all other plan assets, and paragraph 118 is not relevant (see paragraphs 48–51 and 117).
120. When an insurance policy held by an entity is not a qualifying insurance policy, that insurance policy is not a plan asset. Paragraph 118 is relevant to such cases: the entity recognizes its right to reimbursement under the insurance policy as a separate asset, rather than as a deduction in determining the defined benefit deficit or surplus. Paragraph 142(b) requires the entity to disclose a brief description of the link between the reimbursement right and the related obligation.
121. If the right to reimbursement arises under an insurance policy or a legally binding agreement that exactly matches the amount and timing of some or all of the benefits payable under a defined benefit plan, the fair value of the reimbursement right is deemed to be the present value of the related obligation (subject to any reduction required if the reimbursement is not recoverable in full).



**Components of defined benefit cost**

122. **An entity shall recognize the components of defined benefit cost, except to the extent that another IPSAS requires or permits their inclusion in the cost of an asset, as follows:**
- (a) **Service cost (see paragraphs 68–114) in surplus or deficit;**
  - (b) **Net interest on the net defined benefit liability (asset) (see paragraphs 125–128) in surplus or deficit; and**
  - (c) **Remeasurements of the net defined benefit liability (asset) (see paragraphs 129–132) in net assets/equity.**
123. Other IPSASs require the inclusion of some employee benefit costs within the cost of assets, such as inventories and property, plant and equipment (see IPSAS 12 and IPSAS 17). Any post-employment benefit costs included in the cost of such assets include the appropriate proportion of the components listed in paragraph 122.
124. **Remeasurements of the net defined benefit liability (asset) recognized in net assets/equity shall not be reclassified to surplus or deficit in a subsequent period. However, the entity may transfer those amounts recognized in net assets/equity within net assets/equity.**

*Net interest on the net defined benefit liability (asset)*

125. **Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the discount rate specified in paragraph 85, both as determined at the start of the reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payments.**
126. Net interest on the net defined benefit liability (asset) can be viewed as comprising interest revenue on plan assets, interest cost on the defined benefit obligation and interest on the effect of the asset ceiling mentioned in paragraph 66.
127. Interest revenue on plan assets is a component of the return on plan assets, and is determined by multiplying the fair value of the plan assets by the discount rate specified in paragraph 85, both as determined at the start of the reporting period, taking account of any changes in the plan assets held during the period as a result of contributions and benefit payments. The difference between the interest revenue on plan assets and the return on plan assets is included in the remeasurement of the net defined benefit liability (asset).
128. Interest on the effect of the asset ceiling is part of the total change in the effect of the asset ceiling, and is determined by multiplying the effect of the asset ceiling by the discount rate specified in paragraph 85, both as determined at the start of the reporting period. The difference between that amount and the total change in the effect of the asset ceiling is included in the remeasurement of the net defined benefit liability (asset).

*Remeasurements of the net defined benefit liability (asset)*

129. Remeasurements of the net defined benefit liability (asset) comprise:
- (a) Actuarial gains and losses (see paragraphs 130 and 131);



- (b) The return on plan assets (see paragraph 132), excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 127); and
  - (c) Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 128).
130. Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligation because of changes in actuarial assumptions and experience adjustments. Causes of actuarial gains and losses include, for example:
- (a) Unexpectedly high or low rates of employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs;
  - (b) The effect of changes to assumptions concerning benefit payment options;
  - (c) The effect of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs; and
  - (d) The effect of changes in the discount rate.
131. Actuarial gains and losses do not include changes in the present value of the defined benefit obligation because of the introduction, amendment, curtailment or settlement of the defined benefit plan, or changes to the benefits payable under the defined benefit plan. Such changes result in past service cost or gains or losses on settlement.
132. In determining the return on plan assets, an entity deducts the costs of managing the plan assets and any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the defined benefit obligation (paragraph 78). Other administration costs are not deducted from the return on plan assets.

## Presentation

### Offset

133. **An entity shall offset an asset relating to one plan against a liability relating to another plan when, and only when, the entity:**
- (a) Has a legally enforceable right to use a surplus in one plan to settle obligations under the other plan; and
  - (b) Intends either to settle the obligations on a net basis, or to realize the surplus in one plan and settle its obligation under the other plan simultaneously.
134. The offsetting criteria are similar to those established for financial instruments in IPSAS 28, *Financial Instruments: Presentation*.

### Current/Non-Current Distinction

135. Some entities distinguish current assets and liabilities from non-current assets and liabilities. This Standard does not specify whether an entity should distinguish current and non-current portions of assets and liabilities arising from post-employment benefits.

*Components of defined benefit cost*

136. Paragraph 122 requires an entity to recognize service cost and net interest on the net defined benefit liability (asset) in surplus or deficit. This Standard does not specify how an entity should present service cost and net interest on the net defined benefit liability (asset). An entity presents those components in accordance with IPSAS 1.

**Disclosure**

137. **An entity shall disclose information that:**
- (a) **Explains the characteristics of its defined benefit plans and risks associated with them (see paragraph 141);**
  - (b) **Identifies and explains the amounts in its financial statements arising from its defined benefit plans (see paragraphs 142–146); and**
  - (c) **Describes how its defined benefit plans may affect the amount, timing and uncertainty of the entity’s future cash flows (see paragraphs 147–149).**
138. To meet the objectives in paragraph 137, an entity shall consider all the following:
- (a) The level of detail necessary to satisfy the disclosure requirements;
  - (b) How much emphasis to place on each of the various requirements;
  - (c) How much aggregation or disaggregation to undertake; and
  - (d) Whether users of financial statements need additional information to evaluate the quantitative information disclosed.
139. If the disclosures provided in accordance with the requirements in this Standard and other IPSASs are insufficient to meet the objectives in paragraph 137, an entity shall disclose additional information necessary to meet those objectives. For example, an entity may present an analysis of the present value of the defined benefit obligation that distinguishes the nature, characteristics and risks of the obligation. Such a disclosure could distinguish:
- (a) Between amounts owing to active members, deferred members, and pensioners.
  - (b) Between vested benefits and accrued but not vested benefits.
  - (c) Between conditional benefits, amounts attributable to future salary increases and other benefits.
140. An entity shall assess whether all or some disclosures should be disaggregated to distinguish plans or groups of plans with materially different risks. For example, an entity may disaggregate disclosure about plans showing one or more of the following features:
- (a) Different geographical locations.
  - (b) Different characteristics such as flat salary pension plans, final salary pension plans or post-employment medical plans.
  - (c) Different regulatory environments.
  - (d) Different reporting segments.
  - (e) Different funding arrangements (e.g. wholly unfunded, wholly or partly funded).

*Characteristics of defined benefit plans and risks associated with them*

141. An entity shall disclose:

- (a) Information about the characteristics of its defined benefit plans, including:
  - (i) The nature of the benefits provided by the plan (e.g. final salary defined benefit plan or contribution-based plan with guarantee).
  - (ii) A description of the regulatory framework in which the plan operates, for example the level of any minimum funding requirements, and any effect of the regulatory framework on the plan, such as the asset ceiling (see paragraph 66).
  - (iii) A description of any other entity's responsibilities for the governance of the plan, for example responsibilities of trustees or of management of the plan.
- (b) A description of the risks to which the plan exposes the entity, focused on any unusual, entity-specific or plan-specific risks, and of any significant concentrations of risk. For example, if plan assets are invested primarily in one class of investments, e.g. property, the plan may expose the entity to a concentration of property market risk.
- (c) A description of any plan amendments, curtailments and settlements.
- (d) The basis on which the discount rate has been determined.

*Explanation of amounts in the financial statements*

142. An entity shall provide a reconciliation from the opening balance to the closing balance for each of the following, if applicable:

- (a) The net defined benefit liability (asset), showing separate reconciliations for:
  - (i) Plan assets.
  - (ii) The present value of the defined benefit obligation.
  - (iii) The effect of the asset ceiling.
- (b) Any reimbursement rights. An entity shall also describe the relationship between any reimbursement right and the related obligation.

143. Each reconciliation listed in paragraph 142 shall show each of the following, if applicable:

- (a) Current service cost.
- (b) Interest revenue or expense.
- (c) Remeasurements of the net defined benefit liability (asset), showing separately:
  - (i) The return on plan assets, excluding amounts included in interest in (b).
  - (ii) Actuarial gains and losses arising from changes in demographic assumptions (see paragraph 78(a)).
  - (iii) Actuarial gains and losses arising from changes in financial assumptions (see paragraph 78(b)).
  - (iv) Changes in the effect of limiting a net defined benefit asset to the asset ceiling, excluding amounts included in interest in (b). An entity shall also disclose how it determined the maximum economic benefit available, i.e. whether those benefits

would be in the form of refunds, reductions in future contributions or a combination of both.

- (d) Past service cost and gains and losses arising from settlements. As permitted by paragraph 102, past service cost and gains and losses arising from settlements need not be distinguished if they occur together.
- (e) The effect of changes in foreign exchange rates.
- (f) Contributions to the plan, showing separately those by the employer and by plan participants.
- (g) Payments from the plan, showing separately the amount paid in respect of any settlements.
- (h) The effects of public sector combinations and disposals.

144. An entity shall disaggregate the fair value of the plan assets into classes that distinguish the nature and risks of those assets, subdividing each class of plan asset into those that have a quoted market price in an active market and those that do not. For example, and considering the level of disclosure discussed in paragraph 138, an entity could distinguish between:

- (a) Cash and cash equivalents;
- (b) Equity instruments (segregated by industry type, company size, geography etc.);
- (c) Debt instruments (segregated by type of issuer, credit quality, geography etc.);
- (d) Real estate (segregated by geography etc.);
- (e) Derivatives (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, credit contracts, longevity swaps etc.);
- (f) Investment funds (segregated by type of fund);
- (g) Asset-backed securities; and
- (h) Structured debt.

145. An entity shall disclose the fair value of the entity's own transferable financial instruments held as plan assets, and the fair value of plan assets that are property occupied by, or other assets used by, the entity.

146. An entity shall disclose the significant actuarial assumptions used to determine the present value of the defined benefit obligation (see paragraph 86). Such disclosure shall be in absolute terms (e.g. as an absolute percentage, and not just as a margin between different percentages and other variables). When an entity provides disclosures in total for a grouping of plans, it shall provide such disclosures in the form of weighted averages or relatively narrow ranges.

*Amount, timing and uncertainty of future cash flows*

147. An entity shall disclose:

- (a) A sensitivity analysis for each significant actuarial assumption (as disclosed under paragraph 146) as of the end of the reporting period, showing how the defined benefit

obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date.

- (b) The methods and assumptions used in preparing the sensitivity analyses required by (a) and the limitations of those methods.
  - (c) Changes from the previous period in the methods and assumptions used in preparing the sensitivity analyses, and the reasons for such changes.
148. An entity shall disclose a description of any asset-liability matching strategies used by the plan or the entity, including the use of annuities and other techniques, such as longevity swaps, to manage risk.
149. To provide an indication of the effect of the defined benefit plan on the entity's future cash flows, an entity shall disclose:
- (a) A description of any funding arrangements and funding policy that affect future contributions.
  - (b) The expected contributions to the plan for the next reporting period.
  - (c) Information about the maturity profile of the defined benefit obligation. This will include the weighted average duration of the defined benefit obligation and may include other information about the distribution of the timing of benefit payments, such as a maturity analysis of the benefit payments.

#### *Multi-employer plans*

150. If an entity participates in a multi-employer defined benefit plan, it shall disclose:
- (a) A description of the funding arrangements, including the method used to determine the entity's rate of contributions and any minimum funding requirements.
  - (b) A description of the extent to which the entity can be liable to the plan for other entities' obligations under the terms and conditions of the multi-employer plan.
  - (c) A description of any agreed allocation of a deficit or surplus on:
    - (i) Wind-up of the plan; or
    - (ii) The entity's withdrawal from the plan.
  - (d) If the entity accounts for that plan as if it were a defined contribution plan in accordance with paragraph 34, it shall disclose the following, in addition to the information required by (a)–(c) and instead of the information required by paragraphs 141–149:
    - (i) The fact that the plan is a defined benefit plan.
    - (ii) The reason why sufficient information is not available to enable the entity to account for the plan as a defined benefit plan.
    - (iii) The expected contributions to the plan for the next reporting period.
    - (iv) Information about any deficit or surplus in the plan that may affect the amount of future contributions, including the basis used to determine that deficit or surplus and the implications, if any, for the entity.

- (v) An indication of the level of participation of the entity in the plan compared with other participating entities. Examples of measures that might provide such an indication include the entity's proportion of the total contributions to the plan or the entity's proportion of the total number of active members, retired members, and former members entitled to benefits, if that information is available.

*Defined benefit plans that share risks between entities under common control*

151. If an entity participates in a defined benefit plan that shares risks between entities under common control, it shall disclose:
- (a) The contractual agreement or stated policy for charging the net defined benefit cost or the fact that there is no such policy.
  - (b) The policy for determining the contribution to be paid by the entity.
  - (c) If the entity accounts for an allocation of the net defined benefit cost as noted in paragraph 41, all the information about the plan as a whole required by paragraphs 137–149.
  - (d) If the entity accounts for the contribution payable for the period as noted in paragraph 41, the information about the plan as a whole required by paragraphs 137–139, 141, 144–146 and 149(a) and (b).
152. The information required by paragraph 151(c) and (d) can be disclosed by cross-reference to disclosures in another group entity's financial statements if:
- (a) That group entity's financial statements separately identify and disclose the information required about the plan; and
  - (b) That group entity's financial statements are available to users of the financial statements on the same terms as the financial statements of the entity and at the same time as, or earlier than, the financial statements of the entity.

*Disclosure requirements in other IPSASs*

153. Where required by IPSAS 20, an entity discloses information about:
- (a) Related party transactions with post-employment benefit plans; and
  - (b) Post-employment benefits for key management personnel.
154. Where required by IPSAS 19, an entity discloses information about contingent liabilities arising from post-employment benefit obligations.

## **Other Long-Term Employee Benefits**

155. Other long-term employee benefits include items such as the following, if not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service:
- (a) Long-term paid absences such as long service or sabbatical leave;
  - (b) Jubilee or other long service benefits;
  - (c) Long-term disability benefits;

- (d) Profit sharing and bonuses;
  - (e) Deferred remuneration; and
  - (f) Compensation payable by the entity until an individual enters new employment.
156. The measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. For this reason, this Standard requires a simplified method of accounting for other long-term employee benefits. Unlike the accounting required for post-employment benefits, this method does not recognize remeasurements in net assets/equity.
157. This Standard includes a rebuttable presumption that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for in accordance with paragraphs 57–154.

### Recognition and Measurement

158. **In recognizing and measuring the surplus or deficit in another long-term employee benefit plan, an entity shall apply paragraphs 58–100 and 115–117. An entity shall apply paragraphs 118–121 in recognizing and measuring any reimbursement right.**
159. **For other long-term employee benefits, an entity shall recognize the net total of the following amounts in surplus or deficit, except to the extent that another IPSAS requires or permits their inclusion in the cost of an asset:**
- (a) **Service cost (see paragraphs 68–114);**
  - (b) **Net interest on the net defined benefit liability (asset) (see paragraphs 125-128); and**
  - (c) **Remeasurements of the net defined benefit liability (asset) (see paragraphs 129–132).**
160. One form of other long-term employee benefit is long-term disability benefit. If the level of benefit depends on the length of service, an obligation arises when the service is rendered. Measurement of that obligation reflects the probability that payment will be required, and the length of time for which payment is expected to be made. If the level of benefit is the same for any disabled employee regardless of years of service, the expected cost of those benefits is recognized when an event occurs that causes a long-term disability.

### Disclosure

161. Although this Standard does not require specific disclosures about other long-term employee benefits, other IPSASs may require disclosures. For example, IPSAS 20 requires disclosures about employee benefits for key management personnel. IPSAS 1 requires disclosure of employee benefits expense.

### Termination Benefits

162. This Standard deals with termination benefits separately from other employee benefits, because the event that gives rise to an obligation is the termination of employment rather than employee service. Termination benefits result from either an entity's decision to terminate the

employment or an employee's decision to accept an entity's offer of benefits in exchange for termination of employment.

163. Termination benefits do not include employee benefits resulting from termination of employment at the request of the employee without an entity's offer, or as a result of mandatory retirement requirements, because those benefits are post-employment benefits. Some entities provide a lower level of benefit for termination of employment at the request of the employee (in substance, a post-employment benefit) than for termination of employment at the request of the entity. The difference between the benefit provided for termination of employment at the request of the employee and a higher benefit provided at the request of the entity is a termination benefit.
164. The form of the employee benefit does not determine whether it is in exchange provided for service or in exchange for termination of the employee's employment. Termination benefits are typically lump sum payments, but sometimes also include:
  - (a) Enhancement of post-employment benefits, either indirectly through an employee benefit plan or directly.
  - (b) Salary until the end of a specified notice period if the employee renders no further service that provides economic benefits to the entity.
165. Indicators that an employee benefit is provided in exchange for services include the following:
  - (a) The benefit is conditional on future service being provided (including benefits that increase if further service is provided).
  - (b) The benefit is provided in accordance with the terms of an employee benefit plan.
166. Some termination benefits are provided in accordance with the terms of an existing employee benefit plan. For example, they may be specified by statute, employment contract or union agreement, or may be implied as a result of the employer's past practice of providing similar benefits. As another example, if an entity makes an offer of benefits available for more than a short period, or there is more than a short period between the offer and the expected date of actual termination, the entity considers whether it has established a new employee benefit plan and hence whether the benefits offered under that plan are termination benefits or post-employment benefits. Employee benefits provided in accordance with the terms of an employee benefit plan are termination benefits if they both result from an entity's decision to terminate an employee's employment and are not conditional on future service being provided.
167. Some employee benefits are provided regardless of the reason for the employee's departure. The payment of such benefits is certain (subject to any vesting or minimum service requirements) but the timing of their payment is uncertain. Although such benefits are described in some jurisdictions as termination indemnities or termination gratuities, they are post-employment benefits rather than termination benefits, and an entity accounts for them as post-employment benefits.

## Recognition

168. **An entity shall recognize a liability and expense for termination benefits at the earlier of the following dates:**
  - (a) **When the entity can no longer withdraw the offer of those benefits; and**



- (b) **When the entity recognizes costs for a restructuring that is within the scope of IPSAS 19 and involves the payment of termination benefits.**

169. For termination benefits payable as a result of an employee's decision to accept an offer of benefits in exchange for the termination of employment, the time when an entity can no longer withdraw the offer of termination benefits is the earlier of:
- (a) When the employee accepts the offer; and
  - (b) When a restriction (e.g. a legal, regulatory or contractual requirement or other restriction) on the entity's ability to withdraw the offer takes effect. This would be when the offer is made, if the restriction existed at the time of the offer.
170. For termination benefits payable as a result of an entity's decision to terminate an employee's employment, the entity can no longer withdraw the offer when the entity has communicated to the affected employees a plan of termination meeting all of the following criteria:
- (a) Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made.
  - (b) The plan identifies the number of employees whose employment is to be terminated, their job classifications or functions and their locations (but the plan need not identify each individual employee) and the expected completion date.
  - (c) The plan establishes the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.
171. When an entity recognizes termination benefits, the entity may also have to account for a plan amendment or a curtailment of other employee benefits (see paragraph 105).

## Measurement

172. **An entity shall measure termination benefits on initial recognition, and shall measure and recognize subsequent changes, in accordance with the nature of the employee benefit, provided that if the termination benefits are an enhancement to post-employment benefits, the entity shall apply the requirements for post-employment benefits. Otherwise:**
- (a) **If the termination benefits are expected to be settled wholly before twelve months after the end of the reporting period in which the termination benefit is recognized, the entity shall apply the requirements for short-term employee benefits.**
  - (b) **If the termination benefits are not expected to be settled wholly before twelve months after the end of the reporting period, the entity shall apply the requirements for other long-term employee benefits.**
173. Because termination benefits are not provided in exchange for service, paragraphs 72–76 relating to the attribution of the benefit to periods of service are not relevant.

## Disclosure

174. Although this Standard does not require specific disclosures about termination benefits, other IPSASs may require disclosures. For example, IPSAS 20 requires disclosures about employee

benefits for key management personnel. IPSAS 1 requires disclosure of employee benefits expense.

### **Transitional Provisions**

175. **An entity shall apply this Standard retrospectively, in accordance with IPSAS 3 *Accounting Policies, Changes in Accounting Estimates and Errors*, except that:**
- (a) **An entity need not adjust the carrying amount of assets outside the scope of this Standard for changes in employee benefit costs that were included in the carrying amount before the date of initial application. The date of initial application is the beginning of the earliest prior period presented in the first financial statements in which the entity adopts this Standard.**
  - (b) **In financial statements for periods beginning before January 1, 2018, an entity need not present comparative information for the disclosures required by paragraph 141 about the sensitivity of the defined benefit obligation.**

### **Effective Date**

176. **An entity shall apply this Standard for annual financial statements covering periods beginning on or after January 1, 2018. Earlier adoption is encouraged. If an entity applies this Standard for a period beginning before January 1, 2018, it shall disclose that fact.**
177. When an entity adopts the accrual basis IPSASs of accounting as defined in IPSAS 33, *First-time Adoption of Accrual Basis International Public Sector Accounting Standards (IPSASs)* for financial reporting purposes subsequent to this effective date, this Standard applies to the entity's annual financial statements covering periods beginning on or after the date of adoption of IPSASs.

### **Withdrawal and Replacement of IPSAS 25 (2008)**

178. This Standard supersedes IPSAS 25 (2008). IPSAS 25 remains applicable until IPSAS 39 is applied or becomes effective, whichever is earlier.

## Application Guidance

*This Appendix is an integral part of IPSAS 39.*

### Example Illustrating Paragraph 20: Accounting for Performance-Related Bonus Plan

- AG1. A performance-related bonus plan requires a government printing unit to pay a specified proportion of its surplus for the year to employees who meet predetermined performance targets and serve throughout the year, i.e., are in post on both the first and last day of the reporting period. If no employees leave during the year, the total bonus payments for the year will be 3% of actual surplus. The entity determines that staff turnover will reduce the payments to 2.5% of actual surplus.

*The entity recognizes a liability and an expense of 2.5% of actual surplus.*

### Example Illustrating Paragraph 37: Accounting for a Multi-Employer Plan

- AG2. Along with similar entities in State X, Local Government Unit A participates in a multi-employer defined benefit plan. Because the plan exposes the participating entities to actuarial risks associated with the current and former employees of other local government units participating in the plan, there is no consistent and reliable basis for allocating the obligation, plan assets, and cost to individual local government units participating in the plan. Local Government Unit A therefore accounts for the plan as if it were a defined contribution plan. A funding valuation, which is not drawn up on the basis of assumptions compatible with the requirements of this Standard, shows a deficit of CU480 million<sup>(a)</sup> in the plan. The plan has agreed, under a binding arrangement, a schedule of contributions with the participating employers in the plan that will eliminate the deficit over the next five years. Local Government Unit A's total contributions under the contract are CU40 million.

*The entity recognizes a liability for the contributions adjusted for the time value of money and an equal expense in surplus or deficit.*

*(a) In this Standard monetary amounts are denominated in "currency units (CU)".*

### Example Illustrating Paragraph 70: Projected Unit Credit Method

- AG3. A lump sum benefit is payable on termination of service and equal to 1% of final salary for each year of service. The salary in year 1 is CU10,000 and is assumed to increase at 7% (compound) each year. The discount rate used is 10% per annum. The following table shows how the obligation builds up for an employee who is expected to leave at the end of year five, assuming that there are no changes in actuarial assumptions. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave the entity at an earlier or later date.

| Year                                | 1          | 2          | 3          | 4          | 5          |
|-------------------------------------|------------|------------|------------|------------|------------|
| <i>Benefit attributed to:</i>       |            |            |            |            |            |
| – prior years                       | 0          | 131        | 262        | 393        | 524        |
| – current year (1% of final salary) | <u>131</u> | <u>131</u> | <u>131</u> | <u>131</u> | <u>131</u> |
| – current and prior years           | <u>131</u> | <u>262</u> | <u>393</u> | <u>524</u> | <u>655</u> |
| Year                                | 1          | 2          | 3          | 4          | 5          |
| Opening obligation                  | –          | 89         | 196        | 324        | 476        |
| Interest at 10%                     | –          | 9          | 20         | 33         | 48         |
| Current service cost                | <u>89</u>  | <u>98</u>  | <u>108</u> | <u>119</u> | <u>131</u> |
| Closing obligation                  | <u>89</u>  | <u>196</u> | <u>324</u> | <u>476</u> | <u>655</u> |

Note:

1. The opening obligation is the present value of benefit attributed to prior years.
2. The current service cost is the present value of benefit attributed to the current year.
3. The closing obligation is the present value of benefit attributed to current and prior years.

### Examples Illustrating Paragraph 73: Attributing Benefit to Years of Service

- AG4. A defined benefit plan provides a lump sum benefit of CU100 payable on retirement for each year of service.

*A benefit of CU100 is attributed to each year. The current service cost is the present value of CU100. The present value of the defined benefit obligation is the present value of CU100, multiplied by the number of years of service up to the end of the reporting period.*

*If the benefit is payable immediately when the employee leaves the entity, the current service cost and the present value of the defined benefit obligation reflect the date at which the employee is expected to leave. Thus, because of the effect of discounting, they are less than the amounts that would be determined if the employee left at the end of the reporting period.*

- AG5. A plan provides a monthly pension of 0.2% of final salary for each year of service. The pension is payable from the age of 65.

*Benefit equal to the present value, at the expected retirement date, of a monthly pension of 0.2% of the estimated final salary payable from the expected retirement date until the expected date of death is attributed to each year of service. The current service cost is the present value of that benefit. The present value of the defined benefit obligation is the present value of monthly pension payments of 0.2% of final salary, multiplied by the number of years of service up to the end of the reporting period. The current service cost and the present value of the defined benefit obligation are discounted, because pension payments begin at the age of 65.*

### Examples Illustrating Paragraph 74: Vesting and Non-Vesting Benefits

- AG6. A plan pays a benefit of CU100 for each year of service. The benefits vest after 10 years of service.

*A benefit of CU100 is attributed to each year. In each of the first 10 years, the current service cost and the present value of the obligation reflect the probability that the employee may not complete 10 years of service.*

- AG7. A plan pays a benefit of CU100 for each year of service, excluding service before the age of 25. The benefits vest immediately.

*No benefit is attributed to service before the age of 25 because service before that date does not lead to benefits (conditional or unconditional). A benefit of CU100 is attributed to each subsequent year.*

### **Examples Illustrating Paragraph 75: Attributing Benefits to Accounting Periods**

- AG8. A plan pays a lump sum benefit of CU1,000 that vests after 10 years of service. The plan provides no further benefit for subsequent service.

*A benefit of CU100 (CU1,000 divided by 10) is attributed to each of the first 10 years. The current service cost in each of the first 10 years reflects the probability that the employee may not complete 10 years of service. No benefit is attributed to subsequent years.*

- AG9. A plan pays a lump sum retirement benefit of CU2,000 to all employees who are still employed at the age of 55 after 20 years of service, or who are still employed at the age of 65, regardless of their length of service.

*For employees who join before the age of 35, service first leads to benefits under the plan at the age of 35 (an employee could leave at the age of 30 and return at the age of 33, with no effect on the amount or timing of benefits). Those benefits are conditional on further service. Also, service beyond the age of 55 will lead to no material amount of further benefits. For these employees, the entity attributes benefit of CU100 (CU2,000 divided by 20) to each year from the age of 35 to the age of 55.*

*For employees who join between the ages of 35 and 45, service beyond twenty years will lead to no material amount of further benefits. For these employees, the entity attributes benefit of 100 (CU2,000 divided by 20) to each of the first 20 years.*

*For an employee who joins at the age of 55, service beyond 10 years will lead to no material amount of further benefits. For this employee, the entity attributes benefit of CU200 (CU2,000 divided by 10) to each of the first 10 years.*

*For all employees, the current service cost and the present value of the obligation reflect the probability that the employee may not complete the necessary period of service.*

- AG10. A post-employment medical plan reimburses 40% of an employee's post-employment medical costs if the employee leaves after more than 10 and less than 20 years of service, and 50% of those costs if the employee leaves after 20 or more years of service.

*Under the plan's benefit formula, the entity attributes 4% of the present value of the expected medical costs (40% divided by 10) to each of the first ten years and 1% (10% divided by 10) to each of the second 10 years. The current service cost in each year reflects the probability that the employee may not complete the necessary period of service to earn part or all of the benefits. For employees expected to leave within 10 years, no benefit is attributed.*

- AG11. A post-employment medical plan reimburses 10% of an employee's post-employment medical costs if the employee leaves after more than 10 and less than 20 years of service, and 50% of those costs if the employee leaves after 20 or more years of service.

*Service in later years will lead to a materially higher level of benefit than in earlier years. Therefore, for employees expected to leave after 20 or more years, the entity attributes benefit on a straight-line basis under paragraph 73. Service beyond 20 years will lead to no material amount of further benefits. Therefore, the benefit attributed to each of the first 20 years is 2.5% of the present value of the expected medical costs (50% divided by 20).*

*For employees expected to leave between 10 and 20 years, the benefit attributed to each of the first 10 years is 1% of the present value of the expected medical costs. For these employees, no benefit is attributed to service between the end of the 10<sup>th</sup> year and the estimated date of leaving.*

*For employees expected to leave within 10 years, no benefit is attributed.*

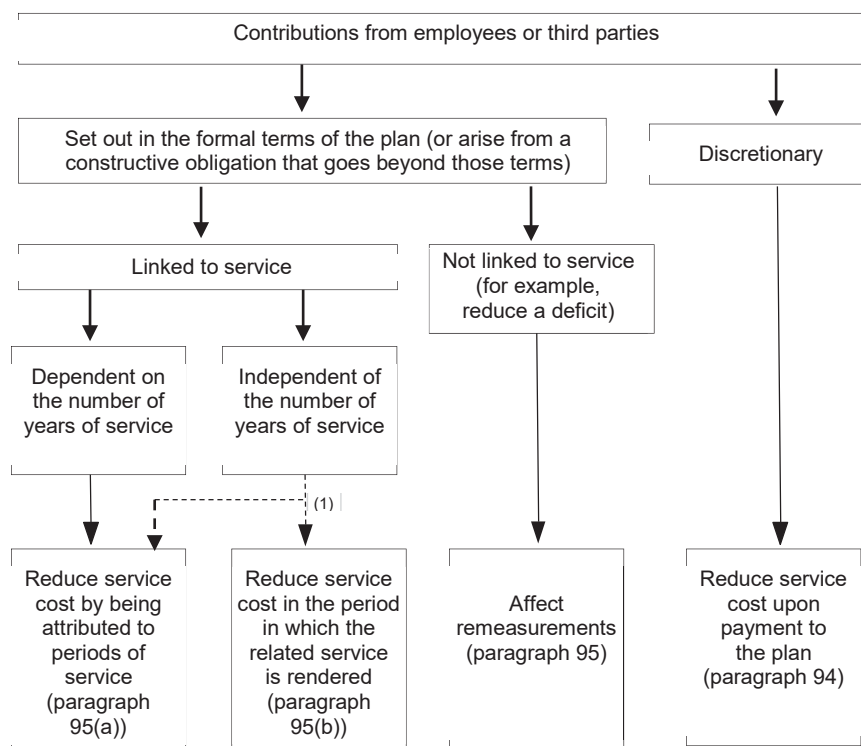
### Example Illustrating Paragraph 76: Attributing Benefits to Accounting Periods

- AG12. Employees are entitled to a benefit of 3% of final salary for each year of service before the age of 55.

*Benefit of 3% of estimated final salary is attributed to each year up to the age of 55. This is the date when further service by the employee will lead to no material amount of further benefits under the plan. No benefit is attributed to service after that age.*

### Example Illustrating Paragraphs 94 and 95: Contributions from employees or third parties

- AG13. The accounting requirements for contributions from employees or third parties are illustrated in the diagram below.



(1) This dotted arrow means that an entity is permitted to choose either accounting

**Example Illustrating Paragraphs 162-173: Termination Benefits****AG14.      *Background***

As a result of a recent acquisition, an entity plans to close a factory in 10 months and, at that time, terminate the employment of all of the remaining employees at the factory. Because the entity needs the expertise of the employees at the factory to complete some contracts, it announces a plan of termination as follows.

Each employee who stays and renders service until the closure of the factory will receive on the termination date a cash payment of CU30,000. Employees leaving before closure of the factory will receive CU10,000.

There are 120 employees at the factory. At the time of announcing the plan, the entity expects 20 of them to leave before closure. Therefore, the total expected cash outflows under the plan are CU3,200,000 (i.e.,  $20 \times \text{CU}10,000 + 100 \times \text{CU}30,000$ ). As required by paragraph 163, the entity accounts for benefits provided for termination of employment as termination benefits and accounts for benefits provided for services as short-term employee benefits.

*Termination benefits*

The benefit provided for termination of employment is CU10,000. This is the amount that an entity would have to pay for terminating the employment regardless of whether the employees stay and render service until closure of the factory or they leave before closure. Even though the employees can leave before closure, the termination of all employees' employment is a result of the entity's decision to close the factory and terminate their employment (i.e., all employees will leave employment when the factory closes). Therefore the entity recognizes a liability of CU1,200,000 (i.e.,  $120 \times \text{CU}10,000$ ) for the termination benefits provided in accordance with the employee benefit plan at the earlier of when the plan of termination is announced and when the entity recognizes the restructuring costs associated with the closure of the factory.

*Benefits provided for service*

The incremental benefits that employees will receive if they provide services for the full ten-month period are for services provided over that period. The entity accounts for them as short-term employee benefits because the entity expects to settle them before twelve months after the end of the reporting period. In this example, discounting is not required, so an expense of CU200,000 (i.e.,  $\text{CU}2,000,000 \div 10$ ) is recognized in each month during the service period of 10 months, with a corresponding increase in the carrying amount of the liability.



## Amendments to Other IPSASs

### IPSAS 1, *Presentation of Financial Statements*

Paragraph 116 is amended. New text is underlined and deleted text is struck through.

116. The choice between the function of expense method and the nature of expense method depends on historical and regulatory factors and the nature of the entity. Both methods provide an indication of those costs that might vary, directly or indirectly, with the outputs of the entity. Because each method of presentation has its merits for different types of entities, this Standard requires management to select the most relevant and reliable presentation. However, because information on the nature of expenses is useful in predicting future cash flows, additional disclosure is required when the function of expense classification is used. In paragraph 115, employee benefits has the same meaning as in IPSAS ~~25~~ 39, *Employee Benefits*.

### IPSAS 17, *Property, Plant, and Equipment*

Paragraph 31 is amended. New text is underlined and deleted text is struck through.

31. Examples of directly attributable costs are:
- (a) Costs of employee benefits (as defined in IPSAS ~~25~~ 39, *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant, and equipment;
  - ...

### IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*

Paragraph 14 is amended. New text is underlined and deleted text is struck through.

14. This Standard does not apply to provisions for income taxes or income tax equivalents (guidance on accounting for income taxes is found in IAS 12, *Income Taxes*.) Nor does it apply to provisions arising from employee benefits (guidance on accounting for employee benefits is found in IPSAS ~~25~~ 39, *Employee Benefits*.)

### IPSAS 20, *Related Party Disclosures*

Paragraph 38 is amended. New text is underlined and deleted text is struck through.

38. Requirements on the measurement of employee benefits are found in IPSAS ~~25~~ 39, *Employee Benefits*. When non-monetary remuneration that is able to be reliably measured has been included in the aggregate amount of remuneration of key management personnel disclosed for the period, disclosure would also be made in the notes to the financial statements of the basis of measurement of the non-monetary remuneration.

### IPSAS 21, *Impairment of Non-Cash-Generating Assets*

Paragraph 43 is amended. New text is underlined and deleted text is struck through.

43. Costs of disposal, other than those that have been recognized as liabilities, are deducted in determining fair value less costs to sell. Examples of such costs are legal costs, stamp duty



and similar transaction taxes, costs of removing the asset, and direct incremental costs to bring an asset into condition for its sale. However, termination benefits (as defined in IPSAS ~~25~~ 39, *Employee Benefits*.) and costs associated with reducing or reorganizing a business following the disposal of an asset, are not direct incremental costs to dispose of the asset.

### **IPSAS 26, *Impairment of Cash-Generating Assets***

Paragraph 2 is amended. New text is underlined and deleted text is struck through.

2. **An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this Standard in accounting for the impairment of cash-generating assets, except for:**
  - (a) ...
  - (g) **Assets arising from employee benefits (see IPSAS ~~25~~ 39, *Employee Benefits*);**

### **IPSAS 28, *Financial Instruments: Presentation***

Paragraph 3 is amended. New text is underlined and deleted text is struck through.

3. **An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this Standard to all types of financial instruments except:**
  - (a) ...
  - (b) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (c) ...

### **IPSAS 29, *Financial Instruments: Recognition and Measurement***

Paragraphs 2 and BC19 are amended. New text is underlined and deleted text is struck through.

2. **This Standard shall be applied by all entities to all types of financial instruments, except:**
  - (a) ...
  - (c) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (d) ...

### **Basis for Conclusions**

- BC19. There may be cases where an active market exists for financial guarantee contracts equivalent to or similar to that issued. In such cases a fair value should be estimated through observation of that active market. Where no active market exists, the IPSASB considered whether an entity should be required to move immediately to an approach based on IPSAS 19. The IPSASB noted that many valuation techniques are highly complex and, as noted in paragraphs AG107 and AG108 may give rise to a range of outcomes. It is arguable that the cost of developing such techniques exceeds the benefits to users of the information provided. An approach based on IPSAS 19 may provide a more reliable and understandable measure of an issuer's risk exposure as a result of entering into a financial guarantee contract. The IPSASB also acknowledged that where an entity does not recognize a liability in accordance with IPSAS 19, the entity makes the disclosures required for contingent liabilities in IPSAS 19 unless an outflow of resources is remote. The information provided to users on risk exposure related to financial

guarantees provided at nil or nominal consideration also includes the credit risk disclosures in IPSAS 30, *Financial Instruments: Disclosures*. Conversely, the IPSASB acknowledged that there are current IPSASs that require the use of experts, such as actuaries, to develop valuation techniques that are inherently complex, such as IPSAS ~~25~~ 39, *Employee Benefits*. On balance the IPSASB concluded that, in the absence of an active market, entities should be permitted to use a valuation technique that does not rely on an observable market where they are satisfied that such a technique provides a reliable and understandable method of determining a fair value for a financial guarantee contract entered into by an issuer by means of a non-exchange transaction. This is particularly the case for non-standard guarantees where there is limited data available on defaults and credit risk.

### **IPSAS 30, *Financial Instruments: Disclosures***

Paragraph 3 is amended. New text is underlined and deleted text is struck through.

3. **This Standard shall be applied by all entities to all types of financial instruments, except:**
  - (a) ...
  - (b) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (d) ...

### **IPSAS 31, *Intangible Assets***

Paragraphs 6, 35 and 64 are amended. New text is underlined and deleted text is struck through.

6. If another IPSAS prescribes the accounting for a specific type of intangible asset, an entity applies that IPSAS instead of this Standard. For example, this Standard does not apply to:
  - (a) ...
  - (c) Assets arising from employee benefits (see IPSAS ~~25~~ 39, *Employee Benefits*);
  - (d) ...
35. Examples of directly attributable costs are:
  - (a) Costs of employee benefits (as defined in IPSAS ~~25~~ 39) arising directly from bringing the asset to its working condition;
  - (b) ...
64. The cost of an internally generated intangible asset comprises all directly attributable costs necessary to create, produce, and prepare the asset to be capable of operating in the manner intended by management. Examples of directly attributable costs are:
  - (a) ...
  - (b) Costs of employee benefits (as defined in IPSAS ~~25~~ 39) arising from the generation of the intangible asset;

### **IPSAS 33, *First-Time Adoption of Accrual Basis IPSASs***

Paragraphs 106, 107 and BC60 are deleted. Paragraphs 36, 102, 104, 105, BC59, BC109, IG50, IG59, IG60, IG61, IG62, IG91, the headings above paragraph 101, BC59 and BC109 and the table in appendix are amended. New text is underlined and deleted text is struck through.

36. **Where a first-time adopter has not recognized assets and/or liabilities under its previous basis of accounting, it is not required to recognize and/or measure the following assets and/or liabilities for reporting periods beginning on a date within three years following the date of adoption of IPSASs:**

- (a) ...
- (d) **Defined benefit plans and other long-term employee benefits (see IPSAS 25 39, *Employee Benefits*);**
- (e) ...

**IPSAS 25 39, *Employee Benefits***

101. ...

*Defined Benefit Plans and Other Long-Term Employee Benefits*

102. **On the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional exemption, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), a first-time adopter shall determine its initial liability for defined benefit plans and other long-term employee benefits at that date as:**

- (a) **The present value of the obligation at the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), by using the Projected Unit Credit Method; and**
- (b) **Minus the fair value, at the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier) of plan assets (if any) out of which the obligations are to be settled directly; and**
- ~~(c) Minus any past service cost that shall be recognized in later periods as an expense on a straight-line basis over the average period until the benefits become vested.~~

103. ...

104. The effect of the change in the accounting policy to IPSAS 25 39 includes any ~~actuarial gains and losses~~ remeasurements that arose, if any, in earlier periods, ~~even if they fall outside the corridor specified in IPSAS 25~~. Under its previous basis of accounting, a first-time adopter may not have recognized and/or measured any liability, in which case the increase in the liability will represent the full amount of the liability minus the fair value, at the date of adoption of IPSASs or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), of any plan assets in accordance with paragraph 102(b) ~~and any past service cost to be recognized in later periods in accordance with paragraph 102(c)~~. This increased liability is recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured.

105. **A first-time adopter shall recognize not ~~separate the cumulative actuarial gains and losses from the inception of the defined benefit plan(s), until the date of adoption of IPSASs into a recognized and unrecognized portion.~~ All cumulative actuarial gains and losses remeasurements shall be recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured.**
- ~~106. A first-time adopter is not permitted to separate cumulative actuarial gains and losses into recognized and unrecognized portions on adoption of IPSAS 25. All cumulative actuarial gains and losses shall be recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured. This requirement does however not preclude a first-time adopter electing to recognize only parts of its actuarial gains and losses in accordance with paragraphs 105–107 of IPSAS 25 in subsequent reporting periods.~~
- ~~107. A first-time adopter shall disclose information on experience adjustments in accordance with paragraph 141(p) of IPSAS 25 prospectively on the date of adoption of IPSASs.~~

### Basis for Conclusions

#### IPSAS 25 39, *Employee Benefits*

- BC59. The IPSASB acknowledged that the recognition and/or measurement of specific liabilities in IPSAS 25 39, will be challenging for many public sector entities as new systems may be required and/or existing systems may need to be upgraded. The IPSASB therefore agreed that a first-time adopter should be given a three year relief period for the recognition and/or measurement of assets and liabilities related to defined benefit plans and other long-term employee benefits. To avoid a skewed statement of financial position, the IPSASB further agreed that any plan assets should be recognized and/or measured at the same time as the liabilities. All other employee benefits should be recognized and/or measured on the date of adoption of IPSASs.
- ~~BC60. The IPSASB further noted that full retrospective application of IPSAS 25 would require a first-time adopter to determine actuarial gains or losses for each year since the inception of the plan in order to determine the net cumulative unrecognized gains or losses at the date of adoption of IPSASs. It was concluded that this would be costly and would not benefit users. A first-time adopter is therefore not required to separate cumulative actuarial gains and losses into recognized and unrecognized portions. All cumulative actuarial gains and losses should be recognized in opening accumulated surplus or deficit.~~

#### IPSAS 25 39, *Employee Benefits*

- BC109. The IPSASB also agreed that, where a first-time adopter takes advantage of the exemptions that provide relief for the recognition and/or measurement of liabilities, it should provide information about amounts for the current and previous four annual periods of the present value of the defined benefit obligation, the fair value of the plan assets, and the surplus or deficit in the plan and adjustments as required by IPSAS 25 39 prospectively.

### Implementation Guidance

- IG50. To illustrate: Entity A's first transitional IPSAS financial statements are for the period ending December 31, 20X5 with the first-time adopter electing to present comparative information. In terms of its previous basis of accounting the following transactions and events are noted in entity A's financial statements for December 31, 20X3 and 20X4:

(a) ...

### Application of Requirements

In preparing its opening statement of financial position at January 1, 20X4 and in its comparative statement of financial position at December 31, 20X4, entity A:

(a) ...

(b) Makes estimates (in the form of actuarial assumptions) necessary to account for the pension plan in accordance with IPSAS ~~25~~ 39, *Employee Benefits*. Entity A's actuarial assumptions at January 1, 20X4 and December 31, 20X4 do not reflect conditions that arose after those dates. For example, entity A's:

(i) ...

### IPSAS ~~25~~ 39, Employee Benefits

IG59. At the date of adoption of IPSASs, a first-time adopter applies IPSAS ~~25~~ 39 in measuring defined benefits plans and other long-term employee benefits, and recognizes all cumulative actuarial gains or losses from the inception of the plan until the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemption that provides a three year transitional relief period from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), ~~even if its accounting policy in accordance with IPSAS 25 will involve leaving some later actuarial gains and losses unrecognized (see paragraph 105 of IPSAS 33).~~

IG60. A first-time adopter's actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), are consistent with actuarial assumptions made at the end of its comparative period (if the first-time adopter elects to present comparative information in accordance with paragraph 78 of IPSAS 33) in accordance with its previous basis of accounting (after adjustments to reflect any difference in accounting policies), unless there is objective evidence that those assumptions were in error (paragraph 23 of the IPSAS 33). Any later revisions to those assumptions are an actuarial gain or loss of the period in which the first-time adopter makes the revisions.

IG61. A first-time adopter may need to make actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), that were not necessary in accordance with its basis of accounting. Such actuarial assumptions do not reflect conditions that arose after the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier). In

particular, discount rates and the fair value of plan assets at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the liabilities are recognized and/or measured in accordance with IPSAS 25 39 (whichever is earlier), reflect market conditions at that date. Similarly, the first-time adopter's actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS 25 39 (whichever is earlier), about future employee turnover rates do not reflect a significant increase in estimated employee turnover rates as a result of a curtailment of the pension plan that occurred after the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS 25 39 (whichever is earlier) (paragraph 23 of IPSAS 33).

IG62. In many cases, a first-time adopter's transitional IPSAS financial statements or its first IPSAS financial statements will reflect measurements of employee benefit obligations at three dates (where a first-time adopter elects to present comparative information in accordance with paragraph 78 of IPSAS 33): the end of the first reporting period, the date of the comparative statement of financial position (where the first-time adopter elects to present comparative information) and the date of adoption of IPSASs, or where the first-time adopter takes advantages of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS 25 39 (whichever is earlier). IPSAS 25 39 encourages the first-time adopter to involve a qualified actuary in the measurement of all material post-employment benefit obligations. To minimize costs, a first-time adopter may request a qualified actuary to carry out a detailed actuarial valuation at one or two of these dates and roll the valuation(s) forward or back to the other date(s). Any such roll forward or roll back reflects any material transactions and other material events (including changes in market prices and interest rates) between those dates (paragraph ~~68~~ 61 of IPSAS 25 39).

IG91. The diagram below summarizes the transitional exemptions and provisions included in other accrual basis IPSASs

...

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**IPSAS 35, *Consolidated Financial Statements***

Paragraph 6 is amended. New text is underlined and deleted text is struck through.

6. This Standard does not apply to post-employment benefit plans or other long-term employee benefit plans to which IPSAS ~~25~~ 39, *Employee Benefits* applies.

**IPSAS 38, *Disclosure of Interests in Other Entities***

Paragraph 4 is amended. New text is underlined and deleted text is struck through.

4. **This Standard does not apply to:**
  - (a) **Post-employment benefit plans or other long-term employee benefit plans to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (b) ...



## Basis for Conclusions

*This Basis for Conclusions accompanies, but is not part of, IPSAS 39.*

### Objective

- BC1. IPSAS 25 (2008), *Employee Benefits*, was drawn primarily from International Accounting Standard (IAS) 19 (2004), *Employee Benefits*, issued by the International Accounting Standards Board (IASB). The IASB made a number of amendments to IAS 19 in the 2011-2015 period.
- BC2. In order to update IPSAS 25, the IPSASB approved a limited scope review of IPSAS 25 to converge with the revised IAS 19. The IPSASB decided not to reopen the public sector specific requirements in IPSAS 25, except for the section on Composite Social Security Programs (see paragraphs BC5 and BC6 below).
- BC3. In January 2016, the IPSASB issued Exposure Draft (ED) 59, *Amendments to IPSAS 25, Employee Benefits*. ED 59 proposed amendments to maintain convergence with IAS 19. The proposed amendments made a large number of changes to the text of IPSAS 25. A number of respondents expressed reservations that the scale of these changes impaired the understandability of IPSAS 25. The IPSASB therefore decided to issue a new IPSAS 39, *Employee Benefits*, rather than a revised IPSAS 25, in order to help preparers.
- BC4. This Basis for Conclusions summarizes the IPSASB's considerations in reaching the conclusions in IPSAS 39, *Employee Benefits*. With the exception of Composite Social Security Programs, the Basis for Conclusions only considers those areas where IPSAS 39 departs from the main requirements of IAS 19 (amended in 2011 onwards), or where the IPSASB considered such departures.

### Composite Social Security Programs

- BC5. ED 59 indicated that the IPSASB was considering the deletion of the section on Composite Social Security Programs, because the IPSASB was not aware that it had been applied in any jurisdiction. The IPSASB specifically asked for comments on this issue.
- BC6. No respondent to ED 59 identified a jurisdiction where entities applied these requirements. The majority of respondents supported the deletion of the section on Composite Social Security Programs. As the IPSASB did not identify a new and compelling reason to retain the section, the IPSASB decided not to include it in IPSAS 39.

### State Plans

- BC7. This Standard retains the requirement in IAS 19 that an entity accounts for a state plan in the same way as for a multi-employer plan. The IPSASB concluded that it should provide further commentary to clarify the approach to accounting for state plans by public sector entities as in IPSAS 25. Paragraph 47 provides a rebuttable presumption that the state plan will be characterized as a defined benefit plan by the controlling entity. Only where that presumption is rebutted is the state plan accounted for as a defined contribution plan.

### Defined Benefit Plans with Participating Entities under Common Control

- BC8. In the public sector, there are likely to be many cases where entities under common control participate in defined benefit plans. IAS 19 includes commentary on defined benefit plans that

share risks between entities under common control. The IPSASB considered that the requirements in IAS 19 are appropriate in the public sector. The IPSASB also considered it appropriate to emphasize that, unless there is a contractual agreement, binding arrangement, or stated policy for charging the net defined benefit cost for the plan as a whole to an individual entity, it is inappropriate for controlled entities to account on a defined benefit basis as in IPSAS 25. In such cases, the controlling entity should account for such plans on a defined benefit basis in its consolidated financial statements. Controlled entities (a) account on a defined contribution basis, (b) identify the controlling entity, and (c) disclose that the controlling entity is accounting on a defined benefit basis in its consolidated financial statements. This is reflected in paragraph 42. Controlled entities also make the disclosures specified in paragraph 151.

### *Discount Rates*

- BC9. IAS 19 requires adoption of a discount rate based on the market yields at the end of the reporting period on high quality corporate bonds. The IPSASB decided that the discount rate should reflect the time value of money, and considered that entities should be left to determine the rate that best achieves that objective in the same way as in IPSAS 25. The IPSASB considered that the time value of money may be best reflected by reference to market yields on government bonds, high quality corporate bonds, or any other financial instrument. The discount rate used is not intended to incorporate the risk associated with defined benefit obligations or entity-specific credit risk. There is an additional disclosure requirement at paragraph 141(d) informing users of the basis on which the discount rate has been determined.
- BC10. The IPSASB considered whether it should provide guidance to assist entities operating in jurisdictions where there is neither a deep market in government bonds nor a deep market in high quality corporate bonds to determine a discount rate that reflects the time value of money. The IPSASB acknowledges that determination of an appropriate discount rate is likely to be a difficult issue for entities operating in such jurisdictions, and that such entities may be in the process of migrating, or have recently migrated, to the accrual basis of accounting. However, the IPSASB concluded that this is not an issue that applies only in the public sector, and that there is an insufficiently clear public sector-specific reason to provide such guidance.

### *Other Long-Term Employee Benefits: Long-Term Disability Benefits*

- BC11. IAS 19 lists long-term disability benefits as an example of an “other long-term employee benefit.” IAS 19 states that “the measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits.” In the public sector, disability benefits related to certain areas of service provision, such as the military, may be financially highly significant, and related actuarial gains or losses volatile.
- BC12. Therefore, IPSAS 39 retains the rebuttable presumption included in IPSAS 25 that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for using the same requirements as for post-employment benefits.

*Other Long-Term Employee Benefits: Compensation Payable by the Reporting Entity until an Individual Enters New Employment*

- BC13. Although it does not consider it likely that such circumstances are widespread, the IPSASB acknowledged that there may be cases where a reporting entity is contractually bound to make compensation payments separate from a termination benefit to a past employee until he/she enters new employment. The list of other long-term benefits in paragraph 155 was therefore amended to include such circumstances, as in IPSAS 25.

*Remeasurements*

- BC14. IAS 19 (amended in 2011) recognizes remeasurements of the net defined liability (asset) in other comprehensive income rather than in profit or loss. The IPSASB noted that *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* does not acknowledge “other comprehensive income”, and that “other comprehensive income” is not a defined term in IPSAS 1, *Presentation of Financial Statements*. The IPSASB considered that recognizing remeasurements in net assets/equity would have the same accounting outcome as IAS 19 in not impacting surplus or deficit with components of defined benefit cost that have different predictive values. Therefore, the IPSASB decided to recognize remeasurements in net assets/equity rather than surplus or deficit.
- BC15. The IPSASB noted that paragraph 45 of IPSAS 1 requires an entity to present each material class of similar items separately in the financial statements. Items of a dissimilar nature or function are presented separately, unless they are immaterial. Therefore, the IPSASB considered that a separate presentation of remeasurements of post-employment benefits may be required in the statement of changes in net assets/equity, if it is material.

*Requirements of Government Finance Statistics Reporting Guidelines*

- BC16. The IPSASB considered the requirements of Government Finance Statistics (GFS) reporting guidelines on the classification, presentation, recognition, measurement and disclosure of employee benefits and identified some differences with both the revised IAS 19 and with IPSAS 39.
- BC17. GFS reporting guidelines do not apply the net interest approach, but rather recognize the proceeds of fund assets and interest on fund liabilities according to the economic nature of these revenues and expenses. GFS then attributes the property income and the increase in the liability for benefit entitlements due to the passage of time through an entry in “property expense for investment income disbursements”. In IPSAS 39 equivalent entries are presented in surplus or deficit.
- BC18. For autonomous funds recognized outside the employer’s accounts, GFS recognizes a claim of the pension fund on the pension manager for deficits of the pension fund in specific circumstances. In these cases, GFS does not require the recognition of an interest expense in the employers’ accounts due to the passage of time in recognizing that claim.
- BC19. In GFS, the plan assets are generally measured on the same basis as other assets, which is normally market value. Therefore, unlike IPSAS 39, no additional calculation to include the discount rate in the plan assets as a whole is necessary to estimate present value. However, in GFS some assets are not measured at market value. This may give rise to different

valuations between IPSAS 39 and GFS (for example: loans are measured at nominal value in GFS and usually at amortized cost in IPSAS).

- BC20. In GFS, any changes in the volume or value of assets that do not result from transactions are recorded in the Statement of Other Economic Flows, which includes the effect of the passage of time. In GFS, the pension fund only records actual revenue from transactions such as interest, dividends and rents in the Statement of Operations.
- BC21. GFS does not disaggregate employee benefits into short-term and long-term employee benefits and does not require specific disclosures on employee benefits, except for the supplementary table on pension schemes in social insurance specified in the System of National Accounts 2008.
- BC22. The IPSASB concluded that these differences are due to the different objectives and presentational frameworks of IPSAS and GFS. They do not constitute public sector specific reasons that warrant departure from IAS 19.

### **Comparison with IAS 19**

IPSAS 39 is drawn primarily from IAS 19 (issued in 2011, including amendments up to December 31, 2015). The main differences between IPSAS 39 and IAS 19 are as follows:

- IPSAS 39 contains additional guidance on public sector bonus plans.
- For discounting post-employment obligations, IAS 19 requires entities to apply a discount rate based on yields on high quality corporate bonds consistent with the currency and estimated term of the post-employment benefit obligations. The requirement in IPSAS 39 is that entities apply a rate that reflects the time value of money. IPSAS 39 also contains a requirement that entities disclose the basis on which the discount rate has been determined.
- IPSAS 39 includes a rebuttable presumption that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for in the same way as for post-employment benefits. IAS 19 does not include such a rebuttable presumption.
- IPSAS 39 recognizes remeasurements of the net defined benefit liability (asset) in net assets/equity. IAS 19 recognizes them in other comprehensive income.
- IPSAS 39 uses different terminology, in certain instances, from IAS 19. The most significant examples are the use of the terms “revenue”, “controlling” and “controlled entities”. The equivalent terms in IAS 19 are “income”, “parent” and “subsidiaries”.

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**IAS Standard 19**

## Employee Benefits

In April 2001 the International Accounting Standards Board (the Board) adopted IAS 19 *Employee Benefits*, which had originally been issued by the International Accounting Standards Committee in February 1998. IAS 19 *Employee Benefits* replaced IAS 19 *Accounting for Retirement Benefits in the Financial Statements of Employers* (issued in January 1983). IAS 19 was further amended in 1993 and renamed as IAS 19 *Retirement Benefit Costs*.

The Board amended the accounting for multi-employer plans and group plans in December 2004. In June 2011 the Board revised IAS 19; this included eliminating an option that allowed an entity to defer the recognition of changes in net defined benefit liability and amending some of the disclosure requirements for defined benefit plans and multi-employer plans.

In November 2013 IAS 19 was amended by *Defined Benefit Plans: Employee Contributions* (Amendments to IAS 19). The amendments simplified the requirements for contributions from employees or third parties to a defined benefit plan, when those contributions are applied to a simple contributory plan that is linked to service.

Other Standards have made minor consequential amendments to IAS 19, including *Annual Improvements to IFRSs 2012–2014 Cycle* (issued September 2014).

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**APPENDICES****A Application guidance****B Amendments to other IFRSs**

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APPROVAL BY THE BOARD OF *ACTUARIAL GAINS AND LOSSES, GROUP PLANS AND DISCLOSURES* (AMENDMENT TO IAS 19) ISSUED IN DECEMBER 2004

APPROVAL BY THE BOARD OF IAS 19 ISSUED IN JUNE 2011

APPROVAL BY THE BOARD OF *DEFINED BENEFIT PLANS: EMPLOYEE CONTRIBUTIONS* (AMENDMENTS TO IAS 19) ISSUED IN NOVEMBER 2013

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**DISSENTING OPINIONS****AMENDMENTS TO GUIDANCE ON OTHER IFRSS****TABLE OF CONCORDANCE**

## IAS 19

International Accounting Standard 19 *Employee Benefits* (IAS 19) is set out in paragraphs 1–177 and Appendices A–B. All the paragraphs have equal authority but retain the IASC format of the Standard when it was adopted by the IASB. IAS 19 should be read in the context of its objective and the Basis for Conclusions, the *Preface to International Financial Reporting Standards* and the *Conceptual Framework for Financial Reporting*. IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

## Introduction

- IN1 IAS 19 *Employee Benefits* prescribes the accounting and disclosure by employers for employee benefits. The Standard does not deal with reporting by employee benefit plans (see IAS 26 *Accounting and Reporting by Retirement Benefit Plans*).
- IN2 The Standard identifies four categories of employee benefits:
- (a) short-term employee benefits, such as the following (if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services): wages, salaries and social security contributions, paid annual leave and paid sick leave, profit-sharing and bonuses and non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees;
  - (b) post-employment benefits such as retirement benefits (eg pensions and lump sum payments on retirement), post-employment life insurance and post-employment medical care;
  - (c) other long-term employee benefits, such as long-service leave or sabbatical leave, jubilee or other long-service benefits, long-term disability benefits; and
  - (d) termination benefits.
- IN3 The Standard requires an entity to recognise short-term employee benefits when an employee has rendered service in exchange for those benefits.
- IN4 Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans. The Standard gives specific guidance on the classification of multi-employer plans, state plans and plans with insured benefits.
- IN5 Under defined contribution plans, an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods. The Standard requires an entity to recognise contributions to a defined contribution plan when an employee has rendered service in exchange for those contributions.
- IN6 All other post-employment benefit plans are defined benefit plans. Defined benefit plans may be unfunded, or they may be wholly or partly funded. The Standard requires an entity:
- (a) to account not only for its legal obligation, but also for any constructive obligation that arises from the entity's practices.
  - (b) to determine the present value of defined benefit obligations and the fair value of any plan assets with sufficient regularity that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.

- (c) to use the projected unit credit method to measure its obligations and costs.
- (d) to attribute benefit to periods of service under the plan's benefit formula, unless an employee's service in later years will lead to a materially higher level of benefit than in earlier years.
- (e) to use unbiased and mutually compatible actuarial assumptions about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries, changes in medical costs and particular changes in state benefits). Financial assumptions should be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.
- (f) to determine the discount rate by reference to market yields at the end of the reporting period on high quality corporate bonds (or, for currencies in which there is no deep market in such high quality corporate bonds, government bonds denominated in that currency) of a currency and term consistent with the currency and term of the post-employment benefit obligations.
- (g) to deduct the fair value of any plan assets from the carrying amount of the obligation in order to determine the net defined benefit liability (asset). Some reimbursement rights that do not qualify as plan assets are treated in the same way as plan assets, except that they are presented as a separate asset, rather than as a deduction from the obligation.
- (h) to limit the carrying amount of a net defined benefit asset so that it does not exceed the economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.
- (i) to recognise all changes in the net defined benefit liability (asset) when they occur, as follows:
  - (i) service cost and net interest in profit or loss; and
  - (ii) remeasurements in other comprehensive income.

IN7 Employee benefits other than short-term employee benefits, post-employment benefits and termination benefits are other long-term employee benefits. For other long-term employee benefits, the Standard requires the same recognition and measurement as for post-employment benefits but all changes in the carrying amount of liabilities for other long-term employment benefits are recognised in profit or loss. The Standard does not require specific disclosures about other long-term employee benefits.

IN8 Termination benefits are employee benefits payable as a result of either an entity's decision to terminate an employee's employment before the normal retirement date or an employee's decision to accept an offer of benefits in exchange for the termination of employment. An entity is required to recognise termination benefits at the earlier of when the entity can no longer withdraw an offer of those benefits and when it recognises any related restructuring costs.

## International Accounting Standard 19

### *Employee Benefits*

#### Objective

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- 1 The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognise:
- (a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
  - (b) an expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

#### Scope

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- 2 **This Standard shall be applied by an employer in accounting for all employee benefits, except those to which IFRS 2 Share-based Payment applies.**
- 3 This Standard does not deal with reporting by employee benefit plans (see IAS 26 *Accounting and Reporting by Retirement Benefit Plans*).
- 4 The employee benefits to which this Standard applies include those provided:
- (a) under formal plans or other formal agreements between an entity and individual employees, groups of employees or their representatives;
  - (b) under legislative requirements, or through industry arrangements, whereby entities are required to contribute to national, state, industry or other multi-employer plans; or
  - (c) by those informal practices that give rise to a constructive obligation. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.
- 5 Employee benefits include:
- (a) short-term employee benefits, such as the following, if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services:
    - (i) wages, salaries and social security contributions;
    - (ii) paid annual leave and paid sick leave;
    - (iii) profit-sharing and bonuses; and
    - (iv) non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees;
  - (b) post-employment benefits, such as the following:

- (i) retirement benefits (eg pensions and lump sum payments on retirement); and
    - (ii) other post-employment benefits, such as post-employment life insurance and post-employment medical care;
  - (c) other long-term employee benefits, such as the following:
    - (i) long-term paid absences such as long-service leave or sabbatical leave;
    - (ii) jubilee or other long-service benefits; and
    - (iii) long-term disability benefits; and
  - (d) termination benefits.
- 6 Employee benefits include benefits provided either to employees or to their dependants or beneficiaries and may be settled by payments (or the provision of goods or services) made either directly to the employees, to their spouses, children or other dependants or to others, such as insurance companies.
- 7 An employee may provide services to an entity on a full-time, part-time, permanent, casual or temporary basis. For the purpose of this Standard, employees include directors and other management personnel.

## Definitions

---

- 8 The following terms are used in this Standard with the meanings specified:

### Definitions of employee benefits

**Employee benefits** are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

**Short-term employee benefits** are employee benefits (other than termination benefits) that are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

**Post-employment benefits** are employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

**Other long-term employee benefits** are all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits.

**Termination benefits** are employee benefits provided in exchange for the termination of an employee's employment as a result of either:

- (a) an entity's decision to terminate an employee's employment before the normal retirement date; or
- (b) an employee's decision to accept an offer of benefits in exchange for the termination of employment.



### Definitions relating to classification of plans

*Post-employment benefit plans* are formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

*Defined contribution plans* are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

*Defined benefit plans* are post-employment benefit plans other than defined contribution plans.

*Multi-employer plans* are defined contribution plans (other than state plans) or defined benefit plans (other than state plans) that:

- (a) pool the assets contributed by various entities that are not under common control; and
- (b) use those assets to provide benefits to employees of more than one entity, on the basis that contribution and benefit levels are determined without regard to the identity of the entity that employs the employees.

### Definitions relating to the net defined benefit liability (asset)

The *net defined benefit liability* (asset) is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling.

The deficit or surplus is:

- (a) the present value of the defined benefit obligation less
- (b) the fair value of plan assets (if any).

The *asset ceiling* is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The *present value of a defined benefit obligation* is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

*Plan assets* comprise:

- (a) assets held by a long-term employee benefit fund; and
- (b) qualifying insurance policies.

*Assets held by a long-term employee benefit fund* are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- (a) are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and
- (b) are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity, unless either:
  - (i) the remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or
  - (ii) the assets are returned to the reporting entity to reimburse it for employee benefits already paid.

A *qualifying insurance policy* is an insurance policy<sup>1</sup> issued by an insurer that is not a related party (as defined in IAS 24 *Related Party Disclosures*) of the reporting entity, if the proceeds of the policy:

- (a) can be used only to pay or fund employee benefits under a defined benefit plan; and
- (b) are not available to the reporting entity's own creditors (even in bankruptcy) and cannot be paid to the reporting entity, unless either:
  - (i) the proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or
  - (ii) the proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

*Fair value* is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (See IFRS 13 *Fair Value Measurement*.)

### Definitions relating to defined benefit cost

*Service cost* comprises:

- (a) *current service cost*, which is the increase in the present value of the defined benefit obligation resulting from employee service in the current period;
- (b) *past service cost*, which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and
- (c) any gain or loss on settlement.

<sup>1</sup> A qualifying insurance policy is not necessarily an insurance contract, as defined in IFRS 4 *Insurance Contracts*.

**Net interest on the net defined benefit liability (asset)** is the change during the period in the net defined benefit liability (asset) that arises from the passage of time.

**Remeasurements of the net defined benefit liability (asset)** comprise:

- (a) actuarial gains and losses;
- (b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- (c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

**Actuarial gains and losses** are changes in the present value of the defined benefit obligation resulting from:

- (a) experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and
- (b) the effects of changes in actuarial assumptions.

**The return on plan assets** is interest, dividends and other income derived from the plan assets, together with realised and unrealised gains or losses on the plan assets, less:

- (a) any costs of managing plan assets; and
- (b) any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the present value of the defined benefit obligation.

**A settlement** is a transaction that eliminates all further legal or constructive obligations for part or all of the benefits provided under a defined benefit plan, other than a payment of benefits to, or on behalf of, employees that is set out in the terms of the plan and included in the actuarial assumptions.

## Short-term employee benefits

---

- 9 Short-term employee benefits include items such as the following, if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services:
- (a) wages, salaries and social security contributions;
  - (b) paid annual leave and paid sick leave;
  - (c) profit-sharing and bonuses; and
  - (d) non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees.
- 10 An entity need not reclassify a short-term employee benefit if the entity's expectations of the timing of settlement change temporarily. However, if the characteristics of the benefit change (such as a change from a non-accumulating benefit to an accumulating benefit) or if a change in expectations of the timing

of settlement is not temporary, then the entity considers whether the benefit still meets the definition of short-term employee benefits.

## **Recognition and measurement**

### **All short-term employee benefits**

- 11** When an employee has rendered service to an entity during an accounting period, the entity shall recognise the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service:
- (a) as a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, an entity shall recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.
  - (b) as an expense, unless another IFRS requires or permits the inclusion of the benefits in the cost of an asset (see, for example, IAS 2 *Inventories* and IAS 16 *Property, Plant and Equipment*).
- 12** Paragraphs 13, 16 and 19 explain how an entity shall apply paragraph 11 to short-term employee benefits in the form of paid absences and profit-sharing and bonus plans.

### **Short-term paid absences**

- 13** An entity shall recognise the expected cost of short-term employee benefits in the form of paid absences under paragraph 11 as follows:
- (a) in the case of accumulating paid absences, when the employees render service that increases their entitlement to future paid absences.
  - (b) in the case of non-accumulating paid absences, when the absences occur.
- 14** An entity may pay employees for absence for various reasons including holidays, sickness and short-term disability, maternity or paternity, jury service and military service. Entitlement to paid absences falls into two categories:
- (a) accumulating; and
  - (b) non-accumulating.
- 15** Accumulating paid absences are those that are carried forward and can be used in future periods if the current period's entitlement is not used in full. Accumulating paid absences may be either vesting (in other words, employees are entitled to a cash payment for unused entitlement on leaving the entity) or non-vesting (when employees are not entitled to a cash payment for unused entitlement on leaving). An obligation arises as employees render service that increases their entitlement to future paid absences. The obligation exists, and is recognised, even if the paid absences are non-vesting, although the possibility that employees may leave before they use an accumulated non-vesting entitlement affects the measurement of that obligation.

**16 An entity shall measure the expected cost of accumulating paid absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.**

17 The method specified in the previous paragraph measures the obligation at the amount of the additional payments that are expected to arise solely from the fact that the benefit accumulates. In many cases, an entity may not need to make detailed computations to estimate that there is no material obligation for unused paid absences. For example, a sick leave obligation is likely to be material only if there is a formal or informal understanding that unused paid sick leave may be taken as paid annual leave.

**Example illustrating paragraphs 16 and 17**

An entity has 100 employees, who are each entitled to five working days of paid sick leave for each year. Unused sick leave may be carried forward for one calendar year. Sick leave is taken first out of the current year's entitlement and then out of any balance brought forward from the previous year (a LIFO basis). At 31 December 20X1 the average unused entitlement is two days per employee. The entity expects, on the basis of experience that is expected to continue, that 92 employees will take no more than five days of paid sick leave in 20X2 and that the remaining eight employees will take an average of six and a half days each.

*The entity expects that it will pay an additional twelve days of sick pay as a result of the unused entitlement that has accumulated at 31 December 20X1 (one and a half days each, for eight employees). Therefore, the entity recognises a liability equal to twelve days of sick pay.*

18 Non-accumulating paid absences do not carry forward: they lapse if the current period's entitlement is not used in full and do not entitle employees to a cash payment for unused entitlement on leaving the entity. This is commonly the case for sick pay (to the extent that unused past entitlement does not increase future entitlement), maternity or paternity leave and paid absences for jury service or military service. An entity recognises no liability or expense until the time of the absence, because employee service does not increase the amount of the benefit.

**Profit-sharing and bonus plans**

**19 An entity shall recognise the expected cost of profit-sharing and bonus payments under paragraph 11 when, and only when:**

- (a) the entity has a present legal or constructive obligation to make such payments as a result of past events; and**
- (b) a reliable estimate of the obligation can be made.**

**A present obligation exists when, and only when, the entity has no realistic alternative but to make the payments.**

20 Under some profit-sharing plans, employees receive a share of the profit only if they remain with the entity for a specified period. Such plans create a

constructive obligation as employees render service that increases the amount to be paid if they remain in service until the end of the specified period. The measurement of such constructive obligations reflects the possibility that some employees may leave without receiving profit-sharing payments.

|                                          |
|------------------------------------------|
| <b>Example illustrating paragraph 20</b> |
|------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A profit-sharing plan requires an entity to pay a specified proportion of its profit for the year to employees who serve throughout the year. If no employees leave during the year, the total profit-sharing payments for the year will be 3 per cent of profit. The entity estimates that staff turnover will reduce the payments to 2.5 per cent of profit.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                           |
|-------------------------------------------------------------------------------------------|
| <p><i>The entity recognises a liability and an expense of 2.5 per cent of profit.</i></p> |
|-------------------------------------------------------------------------------------------|

- 21 An entity may have no legal obligation to pay a bonus. Nevertheless, in some cases, an entity has a practice of paying bonuses. In such cases, the entity has a constructive obligation because the entity has no realistic alternative but to pay the bonus. The measurement of the constructive obligation reflects the possibility that some employees may leave without receiving a bonus.
- 22 An entity can make a reliable estimate of its legal or constructive obligation under a profit-sharing or bonus plan when, and only when:
- (a) the formal terms of the plan contain a formula for determining the amount of the benefit;
  - (b) the entity determines the amounts to be paid before the financial statements are authorised for issue; or
  - (c) past practice gives clear evidence of the amount of the entity's constructive obligation.
- 23 An obligation under profit-sharing and bonus plans results from employee service and not from a transaction with the entity's owners. Therefore, an entity recognises the cost of profit-sharing and bonus plans not as a distribution of profit but as an expense.
- 24 If profit-sharing and bonus payments are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service, those payments are other long-term employee benefits (see paragraphs 153–158).

### Disclosure

- 25 Although this Standard does not require specific disclosures about short-term employee benefits, other IFRSs may require disclosures. For example, IAS 24 requires disclosures about employee benefits for key management personnel. IAS 1 *Presentation of Financial Statements* requires disclosure of employee benefits expense.

### Post-employment benefits: distinction between defined contribution plans and defined benefit plans

- 26 Post-employment benefits include items such as the following:

- (a) retirement benefits (eg pensions and lump sum payments on retirement); and
- (b) other post-employment benefits, such as post-employment life insurance and post-employment medical care.

Arrangements whereby an entity provides post-employment benefits are post-employment benefit plans. An entity applies this Standard to all such arrangements whether or not they involve the establishment of a separate entity to receive contributions and to pay benefits.

27 Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions.

28 Under defined contribution plans the entity's legal or constructive obligation is limited to the amount that it agrees to contribute to the fund. Thus, the amount of the post-employment benefits received by the employee is determined by the amount of contributions paid by an entity (and perhaps also the employee) to a post-employment benefit plan or to an insurance company, together with investment returns arising from the contributions. In consequence, actuarial risk (that benefits will be less than expected) and investment risk (that assets invested will be insufficient to meet expected benefits) fall, in substance, on the employee.

29 Examples of cases where an entity's obligation is not limited to the amount that it agrees to contribute to the fund are when the entity has a legal or constructive obligation through:

- (a) a plan benefit formula that is not linked solely to the amount of contributions and requires the entity to provide further contributions if assets are insufficient to meet the benefits in the plan benefit formula;
- (b) a guarantee, either indirectly through a plan or directly, of a specified return on contributions; or
- (c) those informal practices that give rise to a constructive obligation. For example, a constructive obligation may arise where an entity has a history of increasing benefits for former employees to keep pace with inflation even where there is no legal obligation to do so.

30 Under defined benefit plans:

- (a) the entity's obligation is to provide the agreed benefits to current and former employees; and
- (b) actuarial risk (that benefits will cost more than expected) and investment risk fall, in substance, on the entity. If actuarial or investment experience are worse than expected, the entity's obligation may be increased.

31 Paragraphs 32–49 explain the distinction between defined contribution plans and defined benefit plans in the context of multi-employer plans, defined benefit plans that share risks between entities under common control, state plans and insured benefits.

### **Multi-employer plans**

- 32** An entity shall classify a multi-employer plan as a defined contribution plan or a defined benefit plan under the terms of the plan (including any constructive obligation that goes beyond the formal terms).
- 33** If an entity participates in a multi-employer defined benefit plan, unless paragraph 34 applies, it shall:
- (a) account for its proportionate share of the defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan; and
  - (b) disclose the information required by paragraphs 135-148 (excluding paragraph 148(d)).
- 34** When sufficient information is not available to use defined benefit accounting for a multi-employer defined benefit plan, an entity shall:
- (a) account for the plan in accordance with paragraphs 51 and 52 as if it were a defined contribution plan; and
  - (b) disclose the information required by paragraph 148.
- 35** One example of a multi-employer defined benefit plan is one where:
- (a) the plan is financed on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the benefits falling due in the same period; and future benefits earned during the current period will be paid out of future contributions; and
  - (b) employees' benefits are determined by the length of their service and the participating entities have no realistic means of withdrawing from the plan without paying a contribution for the benefits earned by employees up to the date of withdrawal. Such a plan creates actuarial risk for the entity: if the ultimate cost of benefits already earned at the end of the reporting period is more than expected, the entity will have either to increase its contributions or to persuade employees to accept a reduction in benefits. Therefore, such a plan is a defined benefit plan.
- 36** Where sufficient information is available about a multi-employer defined benefit plan, an entity accounts for its proportionate share of the defined benefit obligation, plan assets and post-employment cost associated with the plan in the same way as for any other defined benefit plan. However, an entity may not be able to identify its share of the underlying financial position and performance of the plan with sufficient reliability for accounting purposes. This may occur if:
- (a) the plan exposes the participating entities to actuarial risks associated with the current and former employees of other entities, with the result that there is no consistent and reliable basis for allocating the obligation, plan assets and cost to individual entities participating in the plan; or
  - (b) the entity does not have access to sufficient information about the plan to satisfy the requirements of this Standard.

In those cases, an entity accounts for the plan as if it were a defined contribution plan and discloses the information required by paragraph 148.



- 37 There may be a contractual agreement between the multi-employer plan and its participants that determines how the surplus in the plan will be distributed to the participants (or the deficit funded). A participant in a multi-employer plan with such an agreement that accounts for the plan as a defined contribution plan in accordance with paragraph 34 shall recognise the asset or liability that arises from the contractual agreement and the resulting income or expense in profit or loss.

**Example illustrating paragraph 37**

An entity participates in a multi-employer defined benefit plan that does not prepare plan valuations on an IAS 19 basis. It therefore accounts for the plan as if it were a defined contribution plan. A non-IAS 19 funding valuation shows a deficit of CU100 million<sup>(a)</sup> in the plan. The plan has agreed under contract a schedule of contributions with the participating employers in the plan that will eliminate the deficit over the next five years. The entity's total contributions under the contract are CU8 million.

*The entity recognises a liability for the contributions adjusted for the time value of money and an equal expense in profit or loss.*

(a) In this Standard monetary amounts are denominated in 'currency units (CU)'.

- 38 Multi-employer plans are distinct from group administration plans. A group administration plan is merely an aggregation of single employer plans combined to allow participating employers to pool their assets for investment purposes and reduce investment management and administration costs, but the claims of different employers are segregated for the sole benefit of their own employees. Group administration plans pose no particular accounting problems because information is readily available to treat them in the same way as any other single employer plan and because such plans do not expose the participating entities to actuarial risks associated with the current and former employees of other entities. The definitions in this Standard require an entity to classify a group administration plan as a defined contribution plan or a defined benefit plan in accordance with the terms of the plan (including any constructive obligation that goes beyond the formal terms).

- 39 **In determining when to recognise, and how to measure, a liability relating to the wind-up of a multi-employer defined benefit plan, or the entity's withdrawal from a multi-employer defined benefit plan, an entity shall apply IAS 37 Provisions, Contingent Liabilities and Contingent Assets.**

**Defined benefit plans that share risks between entities under common control**

- 40 Defined benefit plans that share risks between entities under common control, for example, a parent and its subsidiaries, are not multi-employer plans.
- 41 An entity participating in such a plan shall obtain information about the plan as a whole measured in accordance with this Standard on the basis of assumptions that apply to the plan as a whole. If there is a contractual agreement or stated policy for charging to individual group entities the net defined benefit cost for

the plan as a whole measured in accordance with this Standard, the entity shall, in its separate or individual financial statements, recognise the net defined benefit cost so charged. If there is no such agreement or policy, the net defined benefit cost shall be recognised in the separate or individual financial statements of the group entity that is legally the sponsoring employer for the plan. The other group entities shall, in their separate or individual financial statements, recognise a cost equal to their contribution payable for the period.

- 42 Participation in such a plan is a related party transaction for each individual group entity. An entity shall therefore, in its separate or individual financial statements, disclose the information required by paragraph 149.

### State plans

- 43 **An entity shall account for a state plan in the same way as for a multi-employer plan (see paragraphs 32–39).**

- 44 State plans are established by legislation to cover all entities (or all entities in a particular category, for example, a specific industry) and are operated by national or local government or by another body (for example, an autonomous agency created specifically for this purpose) that is not subject to control or influence by the reporting entity. Some plans established by an entity provide both compulsory benefits, as a substitute for benefits that would otherwise be covered under a state plan, and additional voluntary benefits. Such plans are not state plans.

- 45 State plans are characterised as defined benefit or defined contribution, depending on the entity's obligation under the plan. Many state plans are funded on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the required benefits falling due in the same period; future benefits earned during the current period will be paid out of future contributions. Nevertheless, in most state plans the entity has no legal or constructive obligation to pay those future benefits: its only obligation is to pay the contributions as they fall due and if the entity ceases to employ members of the state plan, it will have no obligation to pay the benefits earned by its own employees in previous years. For this reason, state plans are normally defined contribution plans. However, when a state plan is a defined benefit plan an entity applies paragraphs 32–39.

### Insured benefits

- 46 **An entity may pay insurance premiums to fund a post-employment benefit plan. The entity shall treat such a plan as a defined contribution plan unless the entity will have (either directly, or indirectly through the plan) a legal or constructive obligation either:**

- (a) to pay the employee benefits directly when they fall due; or
- (b) to pay further amounts if the insurer does not pay all future employee benefits relating to employee service in the current and prior periods.

**If the entity retains such a legal or constructive obligation, the entity shall treat the plan as a defined benefit plan.**

- 47 The benefits insured by an insurance policy need not have a direct or automatic relationship with the entity's obligation for employee benefits. Post-employment benefit plans involving insurance policies are subject to the same distinction between accounting and funding as other funded plans.
- 48 Where an entity funds a post-employment benefit obligation by contributing to an insurance policy under which the entity (either directly, indirectly through the plan, through the mechanism for setting future premiums or through a related party relationship with the insurer) retains a legal or constructive obligation, the payment of the premiums does not amount to a defined contribution arrangement. It follows that the entity:
- (a) accounts for a qualifying insurance policy as a plan asset (see paragraph 8); and
  - (b) recognises other insurance policies as reimbursement rights (if the policies satisfy the criterion in paragraph 116).
- 49 Where an insurance policy is in the name of a specified plan participant or a group of plan participants and the entity does not have any legal or constructive obligation to cover any loss on the policy, the entity has no obligation to pay benefits to the employees and the insurer has sole responsibility for paying the benefits. The payment of fixed premiums under such contracts is, in substance, the settlement of the employee benefit obligation, rather than an investment to meet the obligation. Consequently, the entity no longer has an asset or a liability. Therefore, an entity treats such payments as contributions to a defined contribution plan.

### Post-employment benefits: defined contribution plans

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- 50 Accounting for defined contribution plans is straightforward because the reporting entity's obligation for each period is determined by the amounts to be contributed for that period. Consequently, no actuarial assumptions are required to measure the obligation or the expense and there is no possibility of any actuarial gain or loss. Moreover, the obligations are measured on an undiscounted basis, except where they are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

### Recognition and measurement

- 51 **When an employee has rendered service to an entity during a period, the entity shall recognise the contribution payable to a defined contribution plan in exchange for that service:**
- (a) **as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, an entity shall recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.**

- (b) as an expense, unless another IFRS requires or permits the inclusion of the contribution in the cost of an asset (see, for example, IAS 2 and IAS 16).

52 When contributions to a defined contribution plan are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service, they shall be discounted using the discount rate specified in paragraph 83.

### Disclosure

53 An entity shall disclose the amount recognised as an expense for defined contribution plans.

54 Where required by IAS 24 an entity discloses information about contributions to defined contribution plans for key management personnel.

## Post-employment benefits: defined benefit plans

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55 Accounting for defined benefit plans is complex because actuarial assumptions are required to measure the obligation and the expense and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis because they may be settled many years after the employees render the related service.

### Recognition and measurement

56 Defined benefit plans may be unfunded, or they may be wholly or partly funded by contributions by an entity, and sometimes its employees, into an entity, or fund, that is legally separate from the reporting entity and from which the employee benefits are paid. The payment of funded benefits when they fall due depends not only on the financial position and the investment performance of the fund but also on an entity's ability, and willingness, to make good any shortfall in the fund's assets. Therefore, the entity is, in substance, underwriting the actuarial and investment risks associated with the plan. Consequently, the expense recognised for a defined benefit plan is not necessarily the amount of the contribution due for the period.

57 Accounting by an entity for defined benefit plans involves the following steps:

- (a) determining the deficit or surplus. This involves:
  - (i) using an actuarial technique, the projected unit credit method, to make a reliable estimate of the ultimate cost to the entity of the benefit that employees have earned in return for their service in the current and prior periods (see paragraphs 67–69). This requires an entity to determine how much benefit is attributable to the current and prior periods (see paragraphs 70–74) and to make estimates (actuarial assumptions) about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries and medical costs) that will affect the cost of the benefit (see paragraphs 75–98).

- (ii) discounting that benefit in order to determine the present value of the defined benefit obligation and the current service cost (see paragraphs 67–69 and 83–86).
  - (iii) deducting the fair value of any plan assets (see paragraphs 113–115) from the present value of the defined benefit obligation.
- (b) determining the amount of the net defined benefit liability (asset) as the amount of the deficit or surplus determined in (a), adjusted for any effect of limiting a net defined benefit asset to the asset ceiling (see paragraph 64).
- (c) determining amounts to be recognised in profit or loss:
  - (i) current service cost (see paragraphs 70–74).
  - (ii) any past service cost and gain or loss on settlement (see paragraphs 99–112).
  - (iii) net interest on the net defined benefit liability (asset) (see paragraphs 123–126).
- (d) determining the remeasurements of the net defined benefit liability (asset), to be recognised in other comprehensive income, comprising:
  - (i) actuarial gains and losses (see paragraphs 128 and 129);
  - (ii) return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 130); and
  - (iii) any change in the effect of the asset ceiling (see paragraph 64), excluding amounts included in net interest on the net defined benefit liability (asset).

Where an entity has more than one defined benefit plan, the entity applies these procedures for each material plan separately.

**58      An entity shall determine the net defined benefit liability (asset) with sufficient regularity that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.**

59      This Standard encourages, but does not require, an entity to involve a qualified actuary in the measurement of all material post-employment benefit obligations. For practical reasons, an entity may request a qualified actuary to carry out a detailed valuation of the obligation before the end of the reporting period. Nevertheless, the results of that valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the end of the reporting period.

60      In some cases, estimates, averages and computational short cuts may provide a reliable approximation of the detailed computations illustrated in this Standard.

### **Accounting for the constructive obligation**

**61** An entity shall account not only for its legal obligation under the formal terms of a defined benefit plan, but also for any constructive obligation that arises from the entity's informal practices. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.

**62** The formal terms of a defined benefit plan may permit an entity to terminate its obligation under the plan. Nevertheless, it is usually difficult for an entity to terminate its obligation under a plan (without payment) if employees are to be retained. Therefore, in the absence of evidence to the contrary, accounting for post-employment benefits assumes that an entity that is currently promising such benefits will continue to do so over the remaining working lives of employees.

### **Statement of financial position**

**63** An entity shall recognise the net defined benefit liability (asset) in the statement of financial position.

**64** When an entity has a surplus in a defined benefit plan, it shall measure the net defined benefit asset at the lower of:

- (a) the surplus in the defined benefit plan; and
- (b) the asset ceiling, determined using the discount rate specified in paragraph 83.

**65** A net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen. An entity recognises a net defined benefit asset in such cases because:

- (a) the entity controls a resource, which is the ability to use the surplus to generate future benefits;
- (b) that control is a result of past events (contributions paid by the entity and service rendered by the employee); and
- (c) future economic benefits are available to the entity in the form of a reduction in future contributions or a cash refund, either directly to the entity or indirectly to another plan in deficit. The asset ceiling is the present value of those future benefits.

### **Recognition and measurement: present value of defined benefit obligations and current service cost**

**66** The ultimate cost of a defined benefit plan may be influenced by many variables, such as final salaries, employee turnover and mortality, employee contributions and medical cost trends. The ultimate cost of the plan is uncertain and this uncertainty is likely to persist over a long period of time. In order to measure the present value of the post-employment benefit obligations and the related current service cost, it is necessary:

- (a) to apply an actuarial valuation method (see paragraphs 67–69);
- (b) to attribute benefit to periods of service (see paragraphs 70–74); and
- (c) to make actuarial assumptions (see paragraphs 75–98).

### Actuarial valuation method

**67 An entity shall use the projected unit credit method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost.**

**68** The projected unit credit method (sometimes known as the accrued benefit method pro-rated on service or as the benefit/years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement (see paragraphs 70–74) and measures each unit separately to build up the final obligation (see paragraphs 75–98).

#### Example illustrating paragraph 68

A lump sum benefit is payable on termination of service and equal to 1 per cent of final salary for each year of service. The salary in year 1 is CU10,000 and is assumed to increase at 7 per cent (compound) each year. The discount rate used is 10 per cent per year. The following table shows how the obligation builds up for an employee who is expected to leave at the end of year 5, assuming that there are no changes in actuarial assumptions. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave the entity at an earlier or later date.

| <i>Year</i>                                          | <i>1</i>   | <i>2</i>   | <i>3</i>   | <i>4</i>   | <i>5</i>   |
|------------------------------------------------------|------------|------------|------------|------------|------------|
|                                                      | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  |
| <i>Benefit attributed to:</i>                        |            |            |            |            |            |
| – <i>prior years</i>                                 | <i>0</i>   | <i>131</i> | <i>262</i> | <i>393</i> | <i>524</i> |
| – <i>current year</i><br><i>(1% of final salary)</i> | <i>131</i> | <i>131</i> | <i>131</i> | <i>131</i> | <i>131</i> |
| – <i>current and prior years</i>                     | <i>131</i> | <i>262</i> | <i>393</i> | <i>524</i> | <i>655</i> |
| <i>Opening obligation</i>                            | <i>–</i>   | <i>89</i>  | <i>196</i> | <i>324</i> | <i>476</i> |
| <i>Interest at 10%</i>                               | <i>–</i>   | <i>9</i>   | <i>20</i>  | <i>33</i>  | <i>48</i>  |
| <i>Current service cost</i>                          | <i>89</i>  | <i>98</i>  | <i>108</i> | <i>119</i> | <i>131</i> |
| <i>Closing obligation</i>                            | <i>89</i>  | <i>196</i> | <i>324</i> | <i>476</i> | <i>655</i> |

continued...

...continued

| Example illustrating paragraph 68                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Note:</i></p> <ol style="list-style-type: none"> <li>1 <i>The opening obligation is the present value of the benefit attributed to prior years.</i></li> <li>2 <i>The current service cost is the present value of the benefit attributed to the current year.</i></li> <li>3 <i>The closing obligation is the present value of the benefit attributed to current and prior years.</i></li> </ol> |

- 69 An entity discounts the whole of a post-employment benefit obligation, even if part of the obligation is expected to be settled before twelve months after the reporting period.

#### **Attributing benefit to periods of service**

- 70 **In determining the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost, an entity shall attribute benefit to periods of service under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity shall attribute benefit on a straight-line basis from:**

- (a) **the date when service by the employee first leads to benefits under the plan (whether or not the benefits are conditional on further service) until**
- (b) **the date when further service by the employee will lead to no material amount of further benefits under the plan, other than from further salary increases.**

- 71 The projected unit credit method requires an entity to attribute benefit to the current period (in order to determine current service cost) and the current and prior periods (in order to determine the present value of defined benefit obligations). An entity attributes benefit to periods in which the obligation to provide post-employment benefits arises. That obligation arises as employees render services in return for post-employment benefits that an entity expects to pay in future reporting periods. Actuarial techniques allow an entity to measure that obligation with sufficient reliability to justify recognition of a liability.



**Examples illustrating paragraph 71**

- 1 A defined benefit plan provides a lump sum benefit of CU100 payable on retirement for each year of service.  
  
*A benefit of CU100 is attributed to each year. The current service cost is the present value of CU100. The present value of the defined benefit obligation is the present value of CU100, multiplied by the number of years of service up to the end of the reporting period.*  
  
*If the benefit is payable immediately when the employee leaves the entity, the current service cost and the present value of the defined benefit obligation reflect the date at which the employee is expected to leave. Thus, because of the effect of discounting, they are less than the amounts that would be determined if the employee left at the end of the reporting period.*
- 2 A plan provides a monthly pension of 0.2 per cent of final salary for each year of service. The pension is payable from the age of 65.  
  
*Benefit equal to the present value, at the expected retirement date, of a monthly pension of 0.2 per cent of the estimated final salary payable from the expected retirement date until the expected date of death is attributed to each year of service. The current service cost is the present value of that benefit. The present value of the defined benefit obligation is the present value of monthly pension payments of 0.2 per cent of final salary, multiplied by the number of years of service up to the end of the reporting period. The current service cost and the present value of the defined benefit obligation are discounted because pension payments begin at the age of 65.*

72 Employee service gives rise to an obligation under a defined benefit plan even if the benefits are conditional on future employment (in other words they are not vested). Employee service before the vesting date gives rise to a constructive obligation because, at the end of each successive reporting period, the amount of future service that an employee will have to render before becoming entitled to the benefit is reduced. In measuring its defined benefit obligation, an entity considers the probability that some employees may not satisfy any vesting requirements. Similarly, although some post-employment benefits, for example, post-employment medical benefits, become payable only if a specified event occurs when an employee is no longer employed, an obligation is created when the employee renders service that will provide entitlement to the benefit if the specified event occurs. The probability that the specified event will occur affects the measurement of the obligation, but does not determine whether the obligation exists.

**Examples illustrating paragraph 72**

- 1 A plan pays a benefit of CU100 for each year of service. The benefits vest after ten years of service.  
*A benefit of CU100 is attributed to each year. In each of the first ten years, the current service cost and the present value of the obligation reflect the probability that the employee may not complete ten years of service.*
- 2 A plan pays a benefit of CU100 for each year of service, excluding service before the age of 25. The benefits vest immediately.  
*No benefit is attributed to service before the age of 25 because service before that date does not lead to benefits (conditional or unconditional). A benefit of CU100 is attributed to each subsequent year.*

- 73 The obligation increases until the date when further service by the employee will lead to no material amount of further benefits. Therefore, all benefit is attributed to periods ending on or before that date. Benefit is attributed to individual accounting periods under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity attributes benefit on a straight-line basis until the date when further service by the employee will lead to no material amount of further benefits. That is because the employee's service throughout the entire period will ultimately lead to benefit at that higher level.

**Examples illustrating paragraph 73**

- 1 A plan pays a lump sum benefit of CU1,000 that vests after ten years of service. The plan provides no further benefit for subsequent service.  
*A benefit of CU100 (CU1,000 divided by ten) is attributed to each of the first ten years.*  
*The current service cost in each of the first ten years reflects the probability that the employee may not complete ten years of service. No benefit is attributed to subsequent years.*

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| Examples illustrating paragraph 73 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2                                  | <p>A plan pays a lump sum retirement benefit of CU2,000 to all employees who are still employed at the age of 55 after twenty years of service, or who are still employed at the age of 65, regardless of their length of service.</p> <p><i>For employees who join before the age of 35, service first leads to benefits under the plan at the age of 35 (an employee could leave at the age of 30 and return at the age of 33, with no effect on the amount or timing of benefits). Those benefits are conditional on further service. Also, service beyond the age of 55 will lead to no material amount of further benefits. For these employees, the entity attributes benefit of CU100 (CU2,000 divided by twenty) to each year from the age of 35 to the age of 55.</i></p> <p><i>For employees who join between the ages of 35 and 45, service beyond twenty years will lead to no material amount of further benefits. For these employees, the entity attributes benefit of 100 (2,000 divided by twenty) to each of the first twenty years.</i></p> <p><i>For an employee who joins at the age of 55, service beyond ten years will lead to no material amount of further benefits. For this employee, the entity attributes benefit of CU200 (CU2,000 divided by ten) to each of the first ten years.</i></p> <p><i>For all employees, the current service cost and the present value of the obligation reflect the probability that the employee may not complete the necessary period of service.</i></p> <p>3 A post-employment medical plan reimburses 40 per cent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 per cent of those costs if the employee leaves after twenty or more years of service.</p> <p><i>Under the plan's benefit formula, the entity attributes 4 per cent of the present value of the expected medical costs (40 per cent divided by ten) to each of the first ten years and 1 per cent (10 per cent divided by ten) to each of the second ten years. The current service cost in each year reflects the probability that the employee may not complete the necessary period of service to earn part or all of the benefits. For employees expected to leave within ten years, no benefit is attributed.</i></p> |

continued...

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| Examples illustrating paragraph 73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 A post-employment medical plan reimburses 10 per cent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 per cent of those costs if the employee leaves after twenty or more years of service.</p> <p><i>Service in later years will lead to a materially higher level of benefit than in earlier years. Therefore, for employees expected to leave after twenty or more years, the entity attributes benefit on a straight-line basis under paragraph 71. Service beyond twenty years will lead to no material amount of further benefits. Therefore, the benefit attributed to each of the first twenty years is 2.5 per cent of the present value of the expected medical costs (50 per cent divided by twenty).</i></p> <p><i>For employees expected to leave between ten and twenty years, the benefit attributed to each of the first ten years is 1 per cent of the present value of the expected medical costs.</i></p> <p><i>For these employees, no benefit is attributed to service between the end of the tenth year and the estimated date of leaving.</i></p> <p><i>For employees expected to leave within ten years, no benefit is attributed.</i></p> |

- 74 Where the amount of a benefit is a constant proportion of final salary for each year of service, future salary increases will affect the amount required to settle the obligation that exists for service before the end of the reporting period, but do not create an additional obligation. Therefore:
- (a) for the purpose of paragraph 70(b), salary increases do not lead to further benefits, even though the amount of the benefits is dependent on final salary; and
  - (b) the amount of benefit attributed to each period is a constant proportion of the salary to which the benefit is linked.

| Example illustrating paragraph 74                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Employees are entitled to a benefit of 3 per cent of final salary for each year of service before the age of 55.</p> <p><i>Benefit of 3 per cent of estimated final salary is attributed to each year up to the age of 55. This is the date when further service by the employee will lead to no material amount of further benefits under the plan. No benefit is attributed to service after that age.</i></p> |

### Actuarial assumptions

- 75 **Actuarial assumptions shall be unbiased and mutually compatible.**
- 76 Actuarial assumptions are an entity's best estimates of the variables that will determine the ultimate cost of providing post-employment benefits. Actuarial assumptions comprise:

- (a) demographic assumptions about the future characteristics of current and former employees (and their dependants) who are eligible for benefits. Demographic assumptions deal with matters such as:
  - (i) mortality (see paragraphs 81 and 82);
  - (ii) rates of employee turnover, disability and early retirement;
  - (iii) the proportion of plan members with dependants who will be eligible for benefits;
  - (iv) the proportion of plan members who will select each form of payment option available under the plan terms; and
  - (v) claim rates under medical plans.
- (b) financial assumptions, dealing with items such as:
  - (i) the discount rate (see paragraphs 83–86);
  - (ii) benefit levels, excluding any cost of the benefits to be met by employees, and future salary (see paragraphs 87–95);
  - (iii) in the case of medical benefits, future medical costs, including claim handling costs (ie the costs that will be incurred in processing and resolving claims, including legal and adjuster's fees) (see paragraphs 96–98); and
  - (iv) taxes payable by the plan on contributions relating to service before the reporting date or on benefits resulting from that service.

77 Actuarial assumptions are unbiased if they are neither imprudent nor excessively conservative.

78 Actuarial assumptions are mutually compatible if they reflect the economic relationships between factors such as inflation, rates of salary increase and discount rates. For example, all assumptions that depend on a particular inflation level (such as assumptions about interest rates and salary and benefit increases) in any given future period assume the same inflation level in that period.

79 An entity determines the discount rate and other financial assumptions in nominal (stated) terms, unless estimates in real (inflation-adjusted) terms are more reliable, for example, in a hyperinflationary economy (see IAS 29 *Financial Reporting in Hyperinflationary Economies*), or where the benefit is index-linked and there is a deep market in index-linked bonds of the same currency and term.

**80 Financial assumptions shall be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.**

#### **Actuarial assumptions: mortality**

**81 An entity shall determine its mortality assumptions by reference to its best estimate of the mortality of plan members both during and after employment.**

- 82 In order to estimate the ultimate cost of the benefit an entity takes into consideration expected changes in mortality, for example by modifying standard mortality tables with estimates of mortality improvements.

**Actuarial assumptions: discount rate**

- 83 **The rate used to discount post-employment benefit obligations (both funded and unfunded) shall be determined by reference to market yields at the end of the reporting period on high quality corporate bonds. For currencies for which there is no deep market in such high quality corporate bonds, the market yields (at the end of the reporting period) on government bonds denominated in that currency shall be used. The currency and term of the corporate bonds or government bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations.**

- 84 One actuarial assumption that has a material effect is the discount rate. The discount rate reflects the time value of money but not the actuarial or investment risk. Furthermore, the discount rate does not reflect the entity-specific credit risk borne by the entity's creditors, nor does it reflect the risk that future experience may differ from actuarial assumptions.

- 85 The discount rate reflects the estimated timing of benefit payments. In practice, an entity often achieves this by applying a single weighted average discount rate that reflects the estimated timing and amount of benefit payments and the currency in which the benefits are to be paid.

- 86 In some cases, there may be no deep market in bonds with a sufficiently long maturity to match the estimated maturity of all the benefit payments. In such cases, an entity uses current market rates of the appropriate term to discount shorter-term payments, and estimates the discount rate for longer maturities by extrapolating current market rates along the yield curve. The total present value of a defined benefit obligation is unlikely to be particularly sensitive to the discount rate applied to the portion of benefits that is payable beyond the final maturity of the available corporate or government bonds.

**Actuarial assumptions: salaries, benefits and medical costs**

- 87 **An entity shall measure its defined benefit obligations on a basis that reflects:**

- (a) **the benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the end of the reporting period;**
- (b) **any estimated future salary increases that affect the benefits payable;**
- (c) **the effect of any limit on the employer's share of the cost of the future benefits;**
- (d) **contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and**

- (e) **estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:**
    - (i) **those changes were enacted before the end of the reporting period; or**
    - (ii) **historical data, or other reliable evidence, indicate that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.**
- 88 Actuarial assumptions reflect future benefit changes that are set out in the formal terms of a plan (or a constructive obligation that goes beyond those terms) at the end of the reporting period. This is the case if, for example:
- (a) the entity has a history of increasing benefits, for example, to mitigate the effects of inflation, and there is no indication that this practice will change in the future;
  - (b) the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants (see paragraph 108(c)); or
  - (c) benefits vary in response to a performance target or other criteria. For example, the terms of the plan may state that it will pay reduced benefits or require additional contributions from employees if the plan assets are insufficient. The measurement of the obligation reflects the best estimate of the effect of the performance target or other criteria.
- 89 Actuarial assumptions do not reflect future benefit changes that are not set out in the formal terms of the plan (or a constructive obligation) at the end of the reporting period. Such changes will result in:
- (a) past service cost, to the extent that they change benefits for service before the change; and
  - (b) current service cost for periods after the change, to the extent that they change benefits for service after the change.
- 90 Estimates of future salary increases take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market.
- 91 Some defined benefit plans limit the contributions that an entity is required to pay. The ultimate cost of the benefits takes account of the effect of a limit on contributions. The effect of a limit on contributions is determined over the shorter of:
- (a) the estimated life of the entity; and
  - (b) the estimated life of the plan.
- 92 Some defined benefit plans require employees or third parties to contribute to the cost of the plan. Contributions by employees reduce the cost of the benefits to the entity. An entity considers whether third-party contributions reduce the

cost of the benefits to the entity, or are a reimbursement right as described in paragraph 116. Contributions by employees or third parties are either set out in the formal terms of the plan (or arise from a constructive obligation that goes beyond those terms), or are discretionary. Discretionary contributions by employees or third parties reduce service cost upon payment of these contributions to the plan.

- 93 Contributions from employees or third parties set out in the formal terms of the plan either reduce service cost (if they are linked to service), or affect remeasurements of the net defined benefit liability (asset) (if they are not linked to service). An example of contributions that are not linked to service is when the contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses. If contributions from employees or third parties are linked to service, those contributions reduce the service cost as follows:

- (a) if the amount of the contributions is dependent on the number of years of service, an entity shall attribute the contributions to periods of service using the same attribution method required by paragraph 70 for the gross benefit (ie either using the plan's contribution formula or on a straight-line basis); or
- (b) if the amount of the contributions is independent of the number of years of service, the entity is permitted to recognise such contributions as a reduction of the service cost in the period in which the related service is rendered. Examples of contributions that are independent of the number of years of service include those that are a fixed percentage of the employee's salary, a fixed amount throughout the service period or dependent on the employee's age.

Paragraph A1 provides related application guidance.

- 94 For contributions from employees or third parties that are attributed to periods of service in accordance with paragraph 93(a), changes in the contributions result in:

- (a) current and past service cost (if those changes are not set out in the formal terms of a plan and do not arise from a constructive obligation); or
- (b) actuarial gains and losses (if those changes are set out in the formal terms of a plan, or arise from a constructive obligation).

- 95 Some post-employment benefits are linked to variables such as the level of state retirement benefits or state medical care. The measurement of such benefits reflects the best estimate of such variables, based on historical data and other reliable evidence.

- 96 **Assumptions about medical costs shall take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.**

- 97 Measurement of post-employment medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. An entity estimates future medical costs on the basis of historical data about the entity's own experience, supplemented where necessary by historical data from



other entities, insurance companies, medical providers or other sources. Estimates of future medical costs consider the effect of technological advances, changes in health care utilisation or delivery patterns and changes in the health status of plan participants.

- 98 The level and frequency of claims is particularly sensitive to the age, health status and sex of employees (and their dependants) and may be sensitive to other factors such as geographical location. Therefore, historical data are adjusted to the extent that the demographic mix of the population differs from that of the population used as a basis for the data. They are also adjusted where there is reliable evidence that historical trends will not continue.

### **Past service cost and gains and losses on settlement**

- 99 **Before determining past service cost, or a gain or loss on settlement, an entity shall remeasure the net defined benefit liability (asset) using the current fair value of plan assets and current actuarial assumptions (including current market interest rates and other current market prices) reflecting the benefits offered under the plan before the plan amendment, curtailment or settlement.**

- 100 An entity need not distinguish between past service cost resulting from a plan amendment, past service cost resulting from a curtailment and a gain or loss on settlement if these transactions occur together. In some cases, a plan amendment occurs before a settlement, such as when an entity changes the benefits under the plan and settles the amended benefits later. In those cases an entity recognises past service cost before any gain or loss on settlement.

- 101 A settlement occurs together with a plan amendment and curtailment if a plan is terminated with the result that the obligation is settled and the plan ceases to exist. However, the termination of a plan is not a settlement if the plan is replaced by a new plan that offers benefits that are, in substance, the same.

### **Past service cost**

- 102 Past service cost is the change in the present value of the defined benefit obligation resulting from a plan amendment or curtailment.

- 103 **An entity shall recognise past service cost as an expense at the earlier of the following dates:**

- (a) **when the plan amendment or curtailment occurs; and**
- (b) **when the entity recognises related restructuring costs (see IAS 37) or termination benefits (see paragraph 165).**

- 104 A plan amendment occurs when an entity introduces, or withdraws, a defined benefit plan or changes the benefits payable under an existing defined benefit plan.

- 105 A curtailment occurs when an entity significantly reduces the number of employees covered by a plan. A curtailment may arise from an isolated event, such as the closing of a plant, discontinuance of an operation or termination or suspension of a plan.

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- 106 Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when benefits are withdrawn or changed so that the present value of the defined benefit obligation decreases).
- 107 Where an entity reduces benefits payable under an existing defined benefit plan and, at the same time, increases other benefits payable under the plan for the same employees, the entity treats the change as a single net change.
- 108 Past service cost excludes:
- (a) the effect of differences between actual and previously assumed salary increases on the obligation to pay benefits for service in prior years (there is no past service cost because actuarial assumptions allow for projected salaries);
  - (b) underestimates and overestimates of discretionary pension increases when an entity has a constructive obligation to grant such increases (there is no past service cost because actuarial assumptions allow for such increases);
  - (c) estimates of benefit improvements that result from actuarial gains or from the return on plan assets that have been recognised in the financial statements if the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants, even if the benefit increase has not yet been formally awarded (there is no past service cost because the resulting increase in the obligation is an actuarial loss, see paragraph 88); and
  - (d) the increase in vested benefits (ie benefits that are not conditional on future employment, see paragraph 72) when, in the absence of new or improved benefits, employees complete vesting requirements (there is no past service cost because the entity recognised the estimated cost of benefits as current service cost as the service was rendered).

### **Gains and losses on settlement**

- 109 The gain or loss on a settlement is the difference between:
- (a) the present value of the defined benefit obligation being settled, as determined on the date of settlement; and
  - (b) the settlement price, including any plan assets transferred and any payments made directly by the entity in connection with the settlement.
- 110 **An entity shall recognise a gain or loss on the settlement of a defined benefit plan when the settlement occurs.**
- 111 A settlement occurs when an entity enters into a transaction that eliminates all further legal or constructive obligation for part or all of the benefits provided under a defined benefit plan (other than a payment of benefits to, or on behalf of, employees in accordance with the terms of the plan and included in the actuarial assumptions). For example, a one-off transfer of significant employer obligations under the plan to an insurance company through the purchase of an

insurance policy is a settlement; a lump sum cash payment, under the terms of the plan, to plan participants in exchange for their rights to receive specified post-employment benefits is not.

- 112 In some cases, an entity acquires an insurance policy to fund some or all of the employee benefits relating to employee service in the current and prior periods. The acquisition of such a policy is not a settlement if the entity retains a legal or constructive obligation (see paragraph 46) to pay further amounts if the insurer does not pay the employee benefits specified in the insurance policy. Paragraphs 116–119 deal with the recognition and measurement of reimbursement rights under insurance policies that are not plan assets.

## Recognition and measurement: plan assets

### Fair value of plan assets

- 113 The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the deficit or surplus.
- 114 Plan assets exclude unpaid contributions due from the reporting entity to the fund, as well as any non-transferable financial instruments issued by the entity and held by the fund. Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, for example, trade and other payables and liabilities resulting from derivative financial instruments.
- 115 Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the related obligations (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

### Reimbursements

- 116 **When, and only when, it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, an entity shall:**
- (a) **recognise its right to reimbursement as a separate asset. The entity shall measure the asset at fair value.**
  - (b) **disaggregate and recognise changes in the fair value of its right to reimbursement in the same way as for changes in the fair value of plan assets (see paragraphs 124 and 125). The components of defined benefit cost recognised in accordance with paragraph 120 may be recognised net of amounts relating to changes in the carrying amount of the right to reimbursement.**
- 117 Sometimes, an entity is able to look to another party, such as an insurer, to pay part or all of the expenditure required to settle a defined benefit obligation. Qualifying insurance policies, as defined in paragraph 8, are plan assets. An entity accounts for qualifying insurance policies in the same way as for all other plan assets and paragraph 116 is not relevant (see paragraphs 46–49 and 115).
- 118 When an insurance policy held by an entity is not a qualifying insurance policy, that insurance policy is not a plan asset. Paragraph 116 is relevant to such cases:

the entity recognises its right to reimbursement under the insurance policy as a separate asset, rather than as a deduction in determining the defined benefit deficit or surplus. Paragraph 140(b) requires the entity to disclose a brief description of the link between the reimbursement right and the related obligation.

- 119 If the right to reimbursement arises under an insurance policy that exactly matches the amount and timing of some or all of the benefits payable under a defined benefit plan, the fair value of the reimbursement right is deemed to be the present value of the related obligation (subject to any reduction required if the reimbursement is not recoverable in full).

### **Components of defined benefit cost**

- 120 **An entity shall recognise the components of defined benefit cost, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset, as follows:**

- (a) **service cost (see paragraphs 66–112) in profit or loss;**
- (b) **net interest on the net defined benefit liability (asset) (see paragraphs 123–126) in profit or loss; and**
- (c) **remeasurements of the net defined benefit liability (asset) (see paragraphs 127–130) in other comprehensive income.**

- 121 Other IFRSs require the inclusion of some employee benefit costs within the cost of assets, such as inventories and property, plant and equipment (see IAS 2 and IAS 16). Any post-employment benefit costs included in the cost of such assets include the appropriate proportion of the components listed in paragraph 120.

- 122 **Remeasurements of the net defined benefit liability (asset) recognised in other comprehensive income shall not be reclassified to profit or loss in a subsequent period. However, the entity may transfer those amounts recognised in other comprehensive income within equity.**

### **Net interest on the net defined benefit liability (asset)**

- 123 **Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payments.**

- 124 Net interest on the net defined benefit liability (asset) can be viewed as comprising interest income on plan assets, interest cost on the defined benefit obligation and interest on the effect of the asset ceiling mentioned in paragraph 64.

- 125 Interest income on plan assets is a component of the return on plan assets, and is determined by multiplying the fair value of the plan assets by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period, taking account of any changes in the plan assets held during the period as a result of contributions and benefit payments. The difference

between the interest income on plan assets and the return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

- 126 Interest on the effect of the asset ceiling is part of the total change in the effect of the asset ceiling, and is determined by multiplying the effect of the asset ceiling by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period. The difference between that amount and the total change in the effect of the asset ceiling is included in the remeasurement of the net defined benefit liability (asset).

### **Remeasurements of the net defined benefit liability (asset)**

- 127 Remeasurements of the net defined benefit liability (asset) comprise:

- (a) actuarial gains and losses (see paragraphs 128 and 129);
- (b) the return on plan assets (see paragraph 130), excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 125); and
- (c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 126).

- 128 Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligation because of changes in actuarial assumptions and experience adjustments. Causes of actuarial gains and losses include, for example:

- (a) unexpectedly high or low rates of employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs;
- (b) the effect of changes to assumptions concerning benefit payment options;
- (c) the effect of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs; and
- (d) the effect of changes in the discount rate.

- 129 Actuarial gains and losses do not include changes in the present value of the defined benefit obligation because of the introduction, amendment, curtailment or settlement of the defined benefit plan, or changes to the benefits payable under the defined benefit plan. Such changes result in past service cost or gains or losses on settlement.

- 130 In determining the return on plan assets, an entity deducts the costs of managing the plan assets and any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the defined benefit obligation (paragraph 76). Other administration costs are not deducted from the return on plan assets.

## Presentation

### Offset

- 131 **An entity shall offset an asset relating to one plan against a liability relating to another plan when, and only when, the entity:**
- (a) **has a legally enforceable right to use a surplus in one plan to settle obligations under the other plan; and**
  - (b) **intends either to settle the obligations on a net basis, or to realise the surplus in one plan and settle its obligation under the other plan simultaneously.**

- 132 The offsetting criteria are similar to those established for financial instruments in IAS 32 *Financial Instruments: Presentation*.

### Current/non-current distinction

- 133 Some entities distinguish current assets and liabilities from non-current assets and liabilities. This Standard does not specify whether an entity should distinguish current and non-current portions of assets and liabilities arising from post-employment benefits.

### Components of defined benefit cost

- 134 Paragraph 120 requires an entity to recognise service cost and net interest on the net defined benefit liability (asset) in profit or loss. This Standard does not specify how an entity should present service cost and net interest on the net defined benefit liability (asset). An entity presents those components in accordance with IAS 1.

## Disclosure

- 135 **An entity shall disclose information that:**
- (a) **explains the characteristics of its defined benefit plans and risks associated with them (see paragraph 139);**
  - (b) **identifies and explains the amounts in its financial statements arising from its defined benefit plans (see paragraphs 140–144); and**
  - (c) **describes how its defined benefit plans may affect the amount, timing and uncertainty of the entity's future cash flows (see paragraphs 145–147).**
- 136 To meet the objectives in paragraph 135, an entity shall consider all the following:
- (a) the level of detail necessary to satisfy the disclosure requirements;
  - (b) how much emphasis to place on each of the various requirements;
  - (c) how much aggregation or disaggregation to undertake; and
  - (d) whether users of financial statements need additional information to evaluate the quantitative information disclosed.

- 137 If the disclosures provided in accordance with the requirements in this Standard and other IFRSs are insufficient to meet the objectives in paragraph 135, an entity shall disclose additional information necessary to meet those objectives. For example, an entity may present an analysis of the present value of the defined benefit obligation that distinguishes the nature, characteristics and risks of the obligation. Such a disclosure could distinguish:
- (a) between amounts owing to active members, deferred members, and pensioners.
  - (b) between vested benefits and accrued but not vested benefits.
  - (c) between conditional benefits, amounts attributable to future salary increases and other benefits.
- 138 An entity shall assess whether all or some disclosures should be disaggregated to distinguish plans or groups of plans with materially different risks. For example, an entity may disaggregate disclosure about plans showing one or more of the following features:
- (a) different geographical locations.
  - (b) different characteristics such as flat salary pension plans, final salary pension plans or post-employment medical plans.
  - (c) different regulatory environments.
  - (d) different reporting segments.
  - (e) different funding arrangements (eg wholly unfunded, wholly or partly funded).

**Characteristics of defined benefit plans and risks associated with them**

- 139 An entity shall disclose:
- (a) information about the characteristics of its defined benefit plans, including:
    - (i) the nature of the benefits provided by the plan (eg final salary defined benefit plan or contribution-based plan with guarantee).
    - (ii) a description of the regulatory framework in which the plan operates, for example the level of any minimum funding requirements, and any effect of the regulatory framework on the plan, such as the asset ceiling (see paragraph 64).
    - (iii) a description of any other entity's responsibilities for the governance of the plan, for example responsibilities of trustees or of board members of the plan.
  - (b) a description of the risks to which the plan exposes the entity, focused on any unusual, entity-specific or plan-specific risks, and of any significant concentrations of risk. For example, if plan assets are invested primarily in one class of investments, eg property, the plan may expose the entity to a concentration of property market risk.
  - (c) a description of any plan amendments, curtailments and settlements.

**Explanation of amounts in the financial statements**

- 140 An entity shall provide a reconciliation from the opening balance to the closing balance for each of the following, if applicable:
- (a) the net defined benefit liability (asset), showing separate reconciliations for:
    - (i) plan assets.
    - (ii) the present value of the defined benefit obligation.
    - (iii) the effect of the asset ceiling.
  - (b) any reimbursement rights. An entity shall also describe the relationship between any reimbursement right and the related obligation.
- 141 Each reconciliation listed in paragraph 140 shall show each of the following, if applicable:
- (a) current service cost.
  - (b) interest income or expense.
  - (c) remeasurements of the net defined benefit liability (asset), showing separately:
    - (i) the return on plan assets, excluding amounts included in interest in (b).
    - (ii) actuarial gains and losses arising from changes in demographic assumptions (see paragraph 76(a)).
    - (iii) actuarial gains and losses arising from changes in financial assumptions (see paragraph 76(b)).
    - (iv) changes in the effect of limiting a net defined benefit asset to the asset ceiling, excluding amounts included in interest in (b). An entity shall also disclose how it determined the maximum economic benefit available, ie whether those benefits would be in the form of refunds, reductions in future contributions or a combination of both.
  - (d) past service cost and gains and losses arising from settlements. As permitted by paragraph 100, past service cost and gains and losses arising from settlements need not be distinguished if they occur together.
  - (e) the effect of changes in foreign exchange rates.
  - (f) contributions to the plan, showing separately those by the employer and by plan participants.
  - (g) payments from the plan, showing separately the amount paid in respect of any settlements.
  - (h) the effects of business combinations and disposals.
- 142 An entity shall disaggregate the fair value of the plan assets into classes that distinguish the nature and risks of those assets, subdividing each class of plan asset into those that have a quoted market price in an active market (as defined



in IFRS 13 *Fair Value Measurement*) and those that do not. For example, and considering the level of disclosure discussed in paragraph 136, an entity could distinguish between:

- (a) cash and cash equivalents;
- (b) equity instruments (segregated by industry type, company size, geography etc);
- (c) debt instruments (segregated by type of issuer, credit quality, geography etc);
- (d) real estate (segregated by geography etc);
- (e) derivatives (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, credit contracts, longevity swaps etc);
- (f) investment funds (segregated by type of fund);
- (g) asset-backed securities; and
- (h) structured debt.

143 An entity shall disclose the fair value of the entity's own transferable financial instruments held as plan assets, and the fair value of plan assets that are property occupied by, or other assets used by, the entity.

144 An entity shall disclose the significant actuarial assumptions used to determine the present value of the defined benefit obligation (see paragraph 76). Such disclosure shall be in absolute terms (eg as an absolute percentage, and not just as a margin between different percentages and other variables). When an entity provides disclosures in total for a grouping of plans, it shall provide such disclosures in the form of weighted averages or relatively narrow ranges.

#### **Amount, timing and uncertainty of future cash flows**

145 An entity shall disclose:

- (a) a sensitivity analysis for each significant actuarial assumption (as disclosed under paragraph 144) as of the end of the reporting period, showing how the defined benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date.
- (b) the methods and assumptions used in preparing the sensitivity analyses required by (a) and the limitations of those methods.
- (c) changes from the previous period in the methods and assumptions used in preparing the sensitivity analyses, and the reasons for such changes.

146 An entity shall disclose a description of any asset-liability matching strategies used by the plan or the entity, including the use of annuities and other techniques, such as longevity swaps, to manage risk.

147 To provide an indication of the effect of the defined benefit plan on the entity's future cash flows, an entity shall disclose:

- (a) a description of any funding arrangements and funding policy that affect future contributions.
- (b) the expected contributions to the plan for the next annual reporting period.
- (c) information about the maturity profile of the defined benefit obligation. This will include the weighted average duration of the defined benefit obligation and may include other information about the distribution of the timing of benefit payments, such as a maturity analysis of the benefit payments.

### **Multi-employer plans**

148 If an entity participates in a multi-employer defined benefit plan, it shall disclose:

- (a) a description of the funding arrangements, including the method used to determine the entity's rate of contributions and any minimum funding requirements.
- (b) a description of the extent to which the entity can be liable to the plan for other entities' obligations under the terms and conditions of the multi-employer plan.
- (c) a description of any agreed allocation of a deficit or surplus on:
  - (i) wind-up of the plan; or
  - (ii) the entity's withdrawal from the plan.
- (d) if the entity accounts for that plan as if it were a defined contribution plan in accordance with paragraph 34, it shall disclose the following, in addition to the information required by (a)–(c) and instead of the information required by paragraphs 139–147:
  - (i) the fact that the plan is a defined benefit plan.
  - (ii) the reason why sufficient information is not available to enable the entity to account for the plan as a defined benefit plan.
  - (iii) the expected contributions to the plan for the next annual reporting period.
  - (iv) information about any deficit or surplus in the plan that may affect the amount of future contributions, including the basis used to determine that deficit or surplus and the implications, if any, for the entity.
  - (v) an indication of the level of participation of the entity in the plan compared with other participating entities. Examples of measures that might provide such an indication include the entity's proportion of the total contributions to the plan or the entity's proportion of the total number of active members, retired members, and former members entitled to benefits, if that information is available.

### **Defined benefit plans that share risks between entities under common control**

- 149 If an entity participates in a defined benefit plan that shares risks between entities under common control, it shall disclose:
- (a) the contractual agreement or stated policy for charging the net defined benefit cost or the fact that there is no such policy.
  - (b) the policy for determining the contribution to be paid by the entity.
  - (c) if the entity accounts for an allocation of the net defined benefit cost as noted in paragraph 41, all the information about the plan as a whole required by paragraphs 135–147.
  - (d) if the entity accounts for the contribution payable for the period as noted in paragraph 41, the information about the plan as a whole required by paragraphs 135–137, 139, 142–144 and 147(a) and (b).
- 150 The information required by paragraph 149(c) and (d) can be disclosed by cross-reference to disclosures in another group entity's financial statements if:
- (a) that group entity's financial statements separately identify and disclose the information required about the plan; and
  - (b) that group entity's financial statements are available to users of the financial statements on the same terms as the financial statements of the entity and at the same time as, or earlier than, the financial statements of the entity.

### **Disclosure requirements in other IFRSs**

- 151 Where required by IAS 24 an entity discloses information about:
- (a) related party transactions with post-employment benefit plans; and
  - (b) post-employment benefits for key management personnel.
- 152 Where required by IAS 37 an entity discloses information about contingent liabilities arising from post-employment benefit obligations.

### **Other long-term employee benefits**

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- 153 Other long-term employee benefits include items such as the following, if not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service:
- (a) long-term paid absences such as long-service or sabbatical leave;
  - (b) jubilee or other long-service benefits;
  - (c) long-term disability benefits;
  - (d) profit-sharing and bonuses; and
  - (e) deferred remuneration.
- 154 The measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. For this reason, this Standard requires a simplified method of

accounting for other long-term employee benefits. Unlike the accounting required for post-employment benefits, this method does not recognise remeasurements in other comprehensive income.

### **Recognition and measurement**

**155 In recognising and measuring the surplus or deficit in an other long-term employee benefit plan, an entity shall apply paragraphs 56–98 and 113–115. An entity shall apply paragraphs 116–119 in recognising and measuring any reimbursement right.**

**156 For other long-term employee benefits, an entity shall recognise the net total of the following amounts in profit or loss, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset:**

- (a) service cost (see paragraphs 66–112);**
- (b) net interest on the net defined benefit liability (asset) (see paragraphs 123–126); and**
- (c) remeasurements of the net defined benefit liability (asset) (see paragraphs 127–130).**

**157** One form of other long-term employee benefit is long-term disability benefit. If the level of benefit depends on the length of service, an obligation arises when the service is rendered. Measurement of that obligation reflects the probability that payment will be required and the length of time for which payment is expected to be made. If the level of benefit is the same for any disabled employee regardless of years of service, the expected cost of those benefits is recognised when an event occurs that causes a long-term disability.

### **Disclosure**

**158** Although this Standard does not require specific disclosures about other long-term employee benefits, other IFRSs may require disclosures. For example, IAS 24 requires disclosures about employee benefits for key management personnel. IAS 1 requires disclosure of employee benefits expense.

### **Termination benefits**

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**159** This Standard deals with termination benefits separately from other employee benefits because the event that gives rise to an obligation is the termination of employment rather than employee service. Termination benefits result from either an entity's decision to terminate the employment or an employee's decision to accept an entity's offer of benefits in exchange for termination of employment.

**160** Termination benefits do not include employee benefits resulting from termination of employment at the request of the employee without an entity's offer, or as a result of mandatory retirement requirements, because those benefits are post-employment benefits. Some entities provide a lower level of benefit for termination of employment at the request of the employee (in substance, a post-employment benefit) than for termination of employment at the request of the entity. The difference between the benefit provided for

termination of employment at the request of the employee and a higher benefit provided at the request of the entity is a termination benefit.

161 The form of the employee benefit does not determine whether it is provided in exchange for service or in exchange for termination of the employee's employment. Termination benefits are typically lump sum payments, but sometimes also include:

- (a) enhancement of post-employment benefits, either indirectly through an employee benefit plan or directly.
- (b) salary until the end of a specified notice period if the employee renders no further service that provides economic benefits to the entity.

162 Indicators that an employee benefit is provided in exchange for services include the following:

- (a) the benefit is conditional on future service being provided (including benefits that increase if further service is provided).
- (b) the benefit is provided in accordance with the terms of an employee benefit plan.

163 Some termination benefits are provided in accordance with the terms of an existing employee benefit plan. For example, they may be specified by statute, employment contract or union agreement, or may be implied as a result of the employer's past practice of providing similar benefits. As another example, if an entity makes an offer of benefits available for more than a short period, or there is more than a short period between the offer and the expected date of actual termination, the entity considers whether it has established a new employee benefit plan and hence whether the benefits offered under that plan are termination benefits or post-employment benefits. Employee benefits provided in accordance with the terms of an employee benefit plan are termination benefits if they both result from an entity's decision to terminate an employee's employment and are not conditional on future service being provided.

164 Some employee benefits are provided regardless of the reason for the employee's departure. The payment of such benefits is certain (subject to any vesting or minimum service requirements) but the timing of their payment is uncertain. Although such benefits are described in some jurisdictions as termination indemnities or termination gratuities, they are post-employment benefits rather than termination benefits, and an entity accounts for them as post-employment benefits.

## Recognition

165 **An entity shall recognise a liability and expense for termination benefits at the earlier of the following dates:**

- (a) **when the entity can no longer withdraw the offer of those benefits; and**
- (b) **when the entity recognises costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits.**

- 166 For termination benefits payable as a result of an employee's decision to accept an offer of benefits in exchange for the termination of employment, the time when an entity can no longer withdraw the offer of termination benefits is the earlier of:
- (a) when the employee accepts the offer; and
  - (b) when a restriction (eg a legal, regulatory or contractual requirement or other restriction) on the entity's ability to withdraw the offer takes effect. This would be when the offer is made, if the restriction existed at the time of the offer.
- 167 For termination benefits payable as a result of an entity's decision to terminate an employee's employment, the entity can no longer withdraw the offer when the entity has communicated to the affected employees a plan of termination meeting all of the following criteria:
- (a) Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made.
  - (b) The plan identifies the number of employees whose employment is to be terminated, their job classifications or functions and their locations (but the plan need not identify each individual employee) and the expected completion date.
  - (c) The plan establishes the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.
- 168 When an entity recognises termination benefits, the entity may also have to account for a plan amendment or a curtailment of other employee benefits (see paragraph 103).

### Measurement

- 169 **An entity shall measure termination benefits on initial recognition, and shall measure and recognise subsequent changes, in accordance with the nature of the employee benefit, provided that if the termination benefits are an enhancement to post-employment benefits, the entity shall apply the requirements for post-employment benefits. Otherwise:**
- (a) **if the termination benefits are expected to be settled wholly before twelve months after the end of the annual reporting period in which the termination benefit is recognised, the entity shall apply the requirements for short-term employee benefits.**
  - (b) **if the termination benefits are not expected to be settled wholly before twelve months after the end of the annual reporting period, the entity shall apply the requirements for other long-term employee benefits.**
- 170 Because termination benefits are not provided in exchange for service, paragraphs 70–74 relating to the attribution of the benefit to periods of service are not relevant.

**Example illustrating paragraphs 159–170***Background*

As a result of a recent acquisition, an entity plans to close a factory in ten months and, at that time, terminate the employment of all of the remaining employees at the factory. Because the entity needs the expertise of the employees at the factory to complete some contracts, it announces a plan of termination as follows.

Each employee who stays and renders service until the closure of the factory will receive on the termination date a cash payment of CU30,000. Employees leaving before closure of the factory will receive CU10,000.

There are 120 employees at the factory. At the time of announcing the plan, the entity expects 20 of them to leave before closure. Therefore, the total expected cash outflows under the plan are CU3,200,000 (ie  $20 \times \text{CU}10,000 + 100 \times \text{CU}30,000$ ). As required by paragraph 160, the entity accounts for benefits provided in exchange for termination of employment as termination benefits and accounts for benefits provided in exchange for services as short-term employee benefits.

*Termination benefits*

The benefit provided in exchange for termination of employment is CU10,000. This is the amount that an entity would have to pay for terminating the employment regardless of whether the employees stay and render service until closure of the factory or they leave before closure. Even though the employees can leave before closure, the termination of all employees' employment is a result of the entity's decision to close the factory and terminate their employment (ie all employees will leave employment when the factory closes). Therefore the entity recognises a liability of CU1,200,000 (ie  $120 \times \text{CU}10,000$ ) for the termination benefits provided in accordance with the employee benefit plan at the earlier of when the plan of termination is announced and when the entity recognises the restructuring costs associated with the closure of the factory.

*Benefits provided in exchange for service*

The incremental benefits that employees will receive if they provide services for the full ten-month period are in exchange for services provided over that period. The entity accounts for them as short-term employee benefits because the entity expects to settle them before twelve months after the end of the annual reporting period. In this example, discounting is not required, so an expense of CU200,000 (ie  $\text{CU}2,000,000 \div 10$ ) is recognised in each month during the service period of ten months, with a corresponding increase in the carrying amount of the liability.

**Disclosure**

171

Although this Standard does not require specific disclosures about termination benefits, other IFRSs may require disclosures. For example, IAS 24 requires

disclosures about employee benefits for key management personnel. IAS 1 requires disclosure of employee benefits expense.

### Transition and effective date

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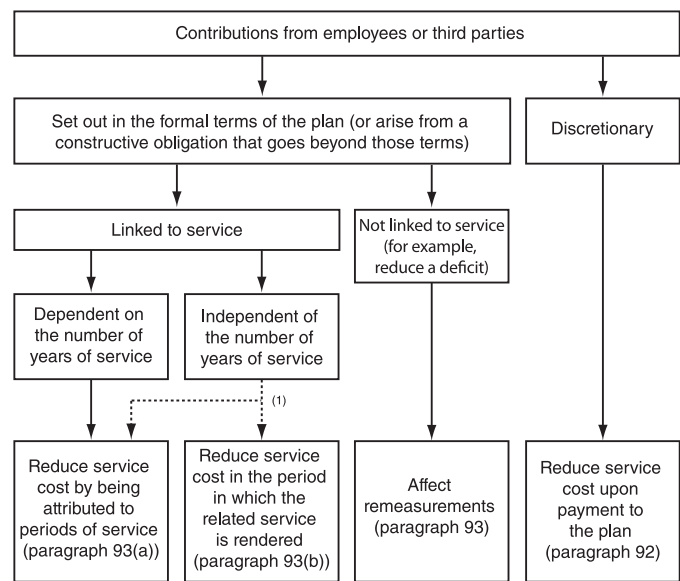
- 172 An entity shall apply this Standard for annual periods beginning on or after 1 January 2013. Earlier application is permitted. If an entity applies this Standard for an earlier period, it shall disclose that fact.
- 173 An entity shall apply this Standard retrospectively, in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*, except that:
- (a) an entity need not adjust the carrying amount of assets outside the scope of this Standard for changes in employee benefit costs that were included in the carrying amount before the date of initial application. The date of initial application is the beginning of the earliest prior period presented in the first financial statements in which the entity adopts this Standard.
  - (b) in financial statements for periods beginning before 1 January 2014, an entity need not present comparative information for the disclosures required by paragraph 145 about the sensitivity of the defined benefit obligation.
- 174 IFRS 13, issued in May 2011, amended the definition of fair value in paragraph 8 and amended paragraph 113. An entity shall apply those amendments when it applies IFRS 13.
- 175 *Defined Benefit Plans: Employee Contributions* (Amendments to IAS 19), issued in November 2013, amended paragraphs 93–94. An entity shall apply those amendments for annual periods beginning on or after 1 July 2014 retrospectively in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*. Earlier application is permitted. If an entity applies those amendments for an earlier period, it shall disclose that fact.
- 176 *Annual Improvements to IFRSs 2012–2014 Cycle*, issued in September 2014, amended paragraph 83 and added paragraph 177. An entity shall apply that amendment for annual periods beginning on or after 1 January 2016. Earlier application is permitted. If an entity applies that amendment for an earlier period it shall disclose that fact.
- 177 An entity shall apply the amendment in paragraph 176 from the beginning of the earliest comparative period presented in the first financial statements in which the entity applies the amendment. Any initial adjustment arising from the application of the amendment shall be recognised in retained earnings at the beginning of that period.



Appendix A  
Application Guidance

*This appendix is an integral part of the IFRS. It describes the application of paragraphs 92–93 and has the same authority as the other parts of the IFRS.*

A1        The accounting requirements for contributions from employees or third parties are illustrated in the diagram below.



(1) This dotted arrow means that an entity is permitted to choose either accounting.

## **Appendix B**

### **Amendments to other IFRSs**

*This appendix sets out amendments to other IFRSs that are a consequence of the Board amending IAS 19 in June 2011. An entity shall apply these amendments when it applies IAS 19 as amended. Amended paragraphs are shown with new text underlined and deleted text struck through.*

\* \* \* \* \*

*The amendments contained in this appendix when this Standard was amended in 2011 have been incorporated into the relevant IFRSs published in this volume.*

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Final Pronouncement  
July 2016

IPSAS®

*International Public Sector Accounting Standard®*

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## IPSAS 39, *Employee Benefits*

IPSASB

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IPSAS relate to the general purpose financial statements (financial statements) and are authoritative. RPGs are pronouncements that provide guidance on good practice in preparing general purpose financial reports (GPFRs) that are not financial statements. Unlike IPSAS RPGs do not establish requirements. Currently all pronouncements relating to GPFRs that are not financial statements are RPGs. RPGs do not provide guidance on the level of assurance (if any) to which information should be subjected.

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# IPSAS 39—EMPLOYEE BENEFITS

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## Objective

1. The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognize:
  - (a) A liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
  - (b) An expense when the entity consumes the economic benefits or service potential arising from service provided by an employee in exchange for employee benefits.

## Scope

2. **This Standard shall be applied by an employer in accounting for all employee benefits, except share-based transactions (see the relevant international or national accounting standard dealing with share-based transactions).**
3. This Standard does not deal with reporting by employee retirement benefit plans (see the relevant international or national accounting standard dealing with employee retirement benefit plans). This Standard does not deal with benefits provided by composite social security programs that are not consideration in exchange for service rendered by employees or past employees of public sector entities.
4. The employee benefits to which this Standard applies include those provided:
  - (a) Under formal plans or other formal agreements between an entity and individual employees, groups of employees, or their representatives;
  - (b) Under legislative requirements, or through industry arrangements, whereby entities are required to contribute to national, state, industry, or other multi-employer plans, or where entities are required to contribute to the composite social security program; or
  - (c) By those informal practices that give rise to a constructive obligation. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.
5. Employee Benefits include:
  - (a) Short-term employee benefits, such as the following, if expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related services:
    - (i) Wages, salaries and social security contributions;
    - (ii) Paid annual leave and paid sick leave;
    - (iii) Profit-sharing and bonuses; and
    - (iv) Non-monetary benefits (such as medical care, housing, cars and free or subsidized goods or services) for current employees;
  - (b) Post-employment benefits, such as the following:
    - (i) Retirement benefits (e.g., pensions and lump sum payments on retirement); and

- (ii) Other post-employment benefits, such as post-employment life insurance and post-employment medical care;
  - (c) Other long-term employee benefits, such as the following:
    - (i) Long-term paid absences such as long-service leave or sabbatical leave;
    - (ii) Jubilee or other long-service benefits; and
    - (iii) Long-term disability benefits; and
  - (d) Termination benefits.
6. Employee benefits include benefits provided either to employees or to their dependants, and may be settled by payments (or the provision of goods or services) made either directly to the employees, to their spouses, children, or other dependants, or to others, such as insurance companies.
7. An employee may provide services to an entity on a full-time, part-time, permanent, casual, or temporary basis. For the purpose of this Standard, employees include key management personnel as defined in IPSAS 20, *Related Party Disclosures*.

## Definitions

8. The following terms are used in this Standard with the meanings specified:

### Definitions of employee benefits

**Employee benefits** are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

**Short-term employee benefits** are employee benefits (other than termination benefits) that are due to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service.

**Post-employment benefits** are employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

**Other long-term employee benefits** are all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits.

**Termination benefits** are employee benefits provided in exchange for the termination of an employee's employment as a result of either:

- (a) An entity's decision to terminate an employee's employment before the normal retirement date; or
- (b) An employee's decision to accept an offer of benefits in exchange for the termination of employment.

### Definitions relating to classification of plans

**Post-employment benefit plans** are formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

**Defined contribution plans** are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or

constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Defined benefit plans are post-employment benefit plans other than defined contribution plans.

Multi-employer plans are defined contribution plans (other than state plans) or defined benefit plans (other than state plans) that:

- (a) Pool the assets contributed by various entities that are not under common control; and
- (b) Use those assets to provide benefits to employees of more than one entity, on the basis that contribution and benefit levels are determined without regard to the identity of the entity that employs the employees.

State plans are plans established by legislation that operate as if they are multi-employer plans for all entities in economic categories laid down in legislation.

### **Definitions relating to the net defined benefit liability (asset)**

The net defined benefit liability (asset) is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling.

The deficit or surplus is:

- (a) The present value of the defined benefit obligation less
- (b) The fair value of plan assets (if any).

The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The present value of a defined benefit obligation is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

Plan assets comprise:

- (a) Assets held by a long-term employee benefit fund; and
- (b) Qualifying insurance policies.

Assets held by a long-term employee benefit fund are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- (a) Are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and
- (b) Are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity, unless either:
  - (i) The remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or

- (ii) The assets are returned to the reporting entity to reimburse it for employee benefits already paid.

A qualifying insurance policy is an insurance policy\* issued by an insurer that is not a related party (as defined in IPSAS 20) of the reporting entity, if the proceeds of the policy:

- (a) Can be used only to pay or fund employee benefits under a defined benefit plan; and
- (b) Are not available to the reporting entity's own creditors (even in bankruptcy) and cannot be paid to the reporting entity, unless either:
  - (i) The proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or
  - (ii) The proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

### Definitions relating to defined benefit cost

Service cost comprises:

- (a) Current service cost, which is the increase in the present value of the defined benefit obligation resulting from employee service in the current period;
- (b) Past service cost, which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and
- (c) Any gain or loss on settlement.

Net interest on the net defined benefit liability (asset) is the change during the period in the net defined benefit liability (asset) that arises from the passage of time.

Remeasurements of the net defined benefit liability (asset) comprise:

- (a) Actuarial gains and losses;
- (b) The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- (c) Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Actuarial gains and losses are changes in the present value of the defined benefit obligation resulting from:

- (a) Experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and
- (b) The effects of changes in actuarial assumptions.

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\* A qualifying insurance policy is not necessarily an insurance contract (see the relevant international or national standard dealing with insurance contracts).

The **return on plan assets** is interest, dividends or similar distributions and other revenue derived from the plan assets, together with realized and unrealized gains or losses on the plan assets, less:

- (a) Any costs of managing the plan assets; and
- (b) Any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the present value of the defined benefit obligation.

A **settlement** is a transaction that eliminates all further legal or constructive obligations for part or all of the benefits provided under a defined benefit plan, other than a payment of benefits to, or on behalf of, employees that is set out in the terms of the plan and included in the actuarial assumptions.

## Short-Term Employee Benefits

9. Short-term employee benefits include items such as the following, if expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related services:
  - (a) Wages, salaries, and social security contributions;
  - (b) Paid annual leave and paid sick leave;
  - (c) Profit-sharing and bonuses; and
  - (d) Non-monetary benefits (such as medical care, housing, cars, and free or subsidized goods or services) for current employees.
10. An entity need not reclassify a short-term employee benefit if the entity's expectations of the timing of settlement change temporarily. However, if the characteristics of the benefit change (such as a change from a non-accumulating benefit to an accumulating benefit) or if a change in expectations of the timing of settlement is not temporary, then the entity considers whether the benefit still meets the definition of short-term employee benefits.

## Recognition and measurement

### *All Short-Term Employee Benefits*

11. **When an employee has rendered service to an entity during an accounting period, the entity shall recognize the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service:**
  - (a) **As a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, an entity shall recognize that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.**
  - (b) **As an expense, unless another Standard requires or permits the inclusion of the benefits in the cost of an asset (see, for example, IPSAS 12, *Inventories*, and IPSAS 17, *Property, Plant, and Equipment*).**
12. Paragraphs 13, 16, and 19 explain how an entity shall apply paragraph 11 to short-term employee benefits in the form of paid absences and profit-sharing and bonus plans.

*Short-Term Paid Absences*

13. **An entity shall recognize the expected cost of short-term employee benefits in the form of paid absences under paragraph 11 as follows:**
  - (a) **In the case of accumulating paid absences, when the employees render service that increases their entitlement to future paid absences; and**
  - (b) **In the case of non-accumulating paid absences, when the absences occur.**
14. An entity may pay employees for absence for various reasons, including holidays, sickness and short-term disability, maternity or paternity, jury service, and military service. Entitlement to paid absences falls into two categories:
  - (a) Accumulating; and
  - (b) Non-accumulating.
15. Accumulating paid absences are those that are carried forward and can be used in future periods if the current period's entitlement is not used in full. Accumulating paid absences may be either vesting (in other words, employees are entitled to a cash payment for unused entitlement on leaving the entity) or nonvesting (when employees are not entitled to a cash payment for unused entitlement on leaving). An obligation arises as employees render service that increases their entitlement to future paid absences. The obligation exists, and is recognized, even if the paid absences are non-vesting, although the possibility that employees may leave before they use an accumulated non-vesting entitlement affects the measurement of that obligation.
16. **An entity shall measure the expected cost of accumulating paid absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.**
17. The method specified in the previous paragraph measures the obligation at the amount of the additional payments that are expected to arise solely from the fact that the benefit accumulates. In many cases, an entity may not need to make detailed computations to estimate that there is no material obligation for unused paid absences. For example, a sick leave obligation is likely to be material only if there is a formal or informal understanding that unused paid sick leave may be taken as paid annual leave.
18. Non-accumulating paid absences do not carry forward; they lapse if the current period's entitlement is not used in full and do not entitle employees to a cash payment for unused entitlement on leaving the entity. This is commonly the case for sick pay (to the extent that unused past entitlement does not increase future entitlement), maternity or paternity leave, and paid absences for jury service or military service. An entity recognizes no liability or expense until the time of the absence, because employee service does not increase the amount of the benefit.

*Profit-Sharing and Bonus Plans*

19. **An entity shall recognize the expected cost of profit-sharing and bonus payments under paragraph 11 when, and only when:**
  - (a) **The entity has a present legal or constructive obligation to make such payments as a result of past events; and**

**(b) A reliable estimate of the obligation can be made.**

**A present obligation exists when, and only when, the entity has no realistic alternative but to make the payments.**

20. In the public sector, some entities have bonus plans that are related to service delivery objectives or aspects of financial performance. Under such plans, employees receive specified amounts, dependent on an assessment of their contribution to the achievement of the objectives of the entity or a segment of the entity. In some cases, such plans may be for groups of employees, such as when performance is evaluated for all or some employees in a particular segment, rather than on an individual basis. Because of the objectives of public sector entities, profit-sharing plans are far less common in the public sector than for profit-oriented entities. However, they are likely to be an aspect of employee remuneration in segments of public sector entities that operate on a commercial basis. Some public sector entities may not operate profit-sharing schemes, but may evaluate performance against financially based measures such as the generation of revenue streams and the achievement of budgetary targets. Some bonus plans may entail payments to all employees who rendered employment services in a reporting period, even though they may have left the entity before the end of the reporting period. However, under other bonus plans, employees receive payments only if they remain with the entity for a specified period, for example, a requirement that employees render services for the whole of the reporting period. Such plans create a constructive obligation as employees render service that increases the amount to be paid if they remain in service until the end of the specified period. The measurement of such constructive obligations reflects the possibility that some employees may leave without receiving profit-sharing payments. Paragraph 22 provides further conditions that are to be satisfied before an entity can recognize the expected cost of performance-related payments, bonus payments, and profit-sharing payments.
21. An entity may have no legal obligation to pay a bonus. Nevertheless, in some cases, an entity has a practice of paying bonuses. In such cases, the entity has a constructive obligation because the entity has no realistic alternative but to pay the bonus. The measurement of the constructive obligation reflects the possibility that some employees may leave without receiving a bonus.
22. An entity can make a reliable estimate of its legal or constructive obligation under a performance-related payment scheme, bonus plan, or profit-sharing scheme when, and only when:
  - (a) The formal terms of the plan contain a formula for determining the amount of the benefit;
  - (b) The entity determines the amounts to be paid before the financial statements are authorized for issue; or
  - (c) Past practice gives clear evidence of the amount of the entity's constructive obligation.
23. An obligation under profit-sharing plans and bonus plans results from employee service and not from a transaction with the entity's owners. Therefore, an entity recognizes the cost of profit-sharing and bonus plans not as a distribution of profit but as an expense.
24. If profit-sharing and bonus payments are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service, those payments are other long-term employee benefits (see paragraphs 155–161).



**Disclosure**

25. Although this Standard does not require specific disclosures about short-term employee benefits, other Standards may require disclosures. For example, IPSAS 20 requires disclosures of the aggregate remuneration of key management personnel and IPSAS 1 requires the disclosure of information about employee benefits expense.

**Post-employment Benefits—Distinction between Defined Contribution Plans and Defined Benefit Plans**

26. Post-employment benefits include items such as the following:

- (a) Retirement benefits (e.g. pensions and lump sum payments on retirement); and
- (b) Other post-employment benefits, such as post-employment life insurance, and post-employment medical care.

Arrangements whereby an entity provides post-employment benefits are post-employment benefit plans. An entity applies this Standard to all such arrangements, whether or not they involve the establishment of a separate entity, such as a pension scheme, superannuation scheme, or retirement benefit scheme, to receive contributions and to pay benefits.

27. Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan, as derived from its principal terms and conditions.
28. Under defined contribution plans the entity's legal or constructive obligation is limited to the amount that it agrees to contribute to the fund. Thus, the amount of the post-employment benefits received by the employee is determined by the amount of contributions paid by an entity (and perhaps also the employee) to a post-employment benefit plan or to an insurance company, together with investment returns arising from the contributions. In consequence, actuarial risk (that benefits will be less than expected) and investment risk (that assets invested will be insufficient to meet expected benefits) fall, in substance, on the employee.
29. Examples of cases where an entity's obligation is not limited to the amount that it agrees to contribute to the fund are when the entity has a legal or constructive obligation through:
- (a) A plan benefit formula that is not linked solely to the amount of contributions and requires the entity to provide further contributions if assets are insufficient to meet the benefits in the plan benefit formula;
  - (b) A guarantee, either indirectly through a plan or directly, of a specified return on contributions; or
  - (c) Those informal practices that give rise to a constructive obligation. For example, a constructive obligation may arise where an entity has a history of increasing benefits for former employees to keep pace with inflation, even where there is no legal obligation to do so.
30. Under defined benefit plans:
- (a) The entity's obligation is to provide the agreed benefits to current and former employees; and

- (b) Actuarial risk (that benefits will cost more than expected) and investment risk fall, in substance, on the entity. If actuarial or investment experience are worse than expected, the entity's obligation may be increased.
31. Paragraphs 32–51 explain the distinction between defined contribution plans and defined benefit plans in the context of multi-employer plans, defined benefit plans that share risks between entities under common control, state plans, and insured benefits.

### **Multi-Employer Plans**

32. **An entity shall classify a multi-employer plan as a defined contribution plan or a defined benefit plan under the terms of the plan (including any constructive obligation that goes beyond the formal terms).**
33. **If an entity participates in a multi-employer defined benefit plan, unless paragraph 34 applies, it shall:**
- (a) **Account for its proportionate share of the defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan; and**
  - (b) **Disclose the information required by paragraphs 137–150 (excluding paragraph 150(d)).**
34. **When sufficient information is not available to use defined benefit accounting for a multi-employer defined benefit plan, an entity shall:**
- (a) **Account for the plan in accordance with paragraphs 53 and 54 as if it were a defined contribution plan; and**
  - (b) **Disclose the information required by paragraph 150.**
35. One example of a multi-employer defined benefit plan is one where:
- (a) The plan is financed on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the benefits falling due in the same period; and future benefits earned during the current period will be paid out of future contributions; and
  - (b) Employees' benefits are determined by the length of their service and the participating entities have no realistic means of withdrawing from the plan without paying a contribution for the benefits earned by employees up to the date of withdrawal. Such a plan creates actuarial risk for the entity: if the ultimate cost of benefits already earned at the end of the reporting period is more than expected, the entity will have to either increase its contributions or persuade employees to accept a reduction in benefits. Therefore, such a plan is a defined benefit plan.
36. Where sufficient information is available about a multi-employer plan defined benefit plan, an entity accounts for its proportionate share of the defined benefit obligation, plan assets, and post-employment benefit cost associated with the plan in the same way as for any other defined benefit plan. However, an entity may not be able to identify its share of the underlying financial position and performance of the plan with sufficient reliability for accounting purposes. This may occur if:

- (a) The plan exposes the participating entities to actuarial risks associated with the current and former employees of other entities, with the result that there is no consistent and reliable basis for allocating the obligation, plan assets, and cost to individual entities participating in the plan; or
- (b) The entity does not have access to sufficient information about the plan that satisfies the requirements of this Standard.

In those cases, an entity accounts for the plan as if it were a defined contribution plan, and discloses the additional information required by paragraph 150.

- 37. There may be a contractual agreement between the multi-employer plan and its participants that determines how the surplus in the plan will be distributed to the participants (or the deficit funded). A participant in a multi-employer plan with such an agreement that accounts for the plan as a defined contribution plan in accordance with paragraph 34 shall recognize the asset or liability that arises from the contractual agreement, and the resulting revenue or expense in surplus or deficit.
- 38. Multi-employer plans are distinct from group administration plans. A group administration plan is merely an aggregation of single employer plans combined to allow participating employers to pool their assets for investment purposes and reduce investment management and administration costs, but the claims of different employers are segregated for the sole benefit of their own employees. Group administration plans pose no particular accounting problems because information is readily available to treat them in the same way as any other single employer plan and because such plans do not expose the participating entities to actuarial risks associated with the current and former employees of other entities. The definitions in this Standard require an entity to classify a group administration plan as a defined contribution plan or a defined benefit plan in accordance with the terms of the plan (including any constructive obligation that goes beyond the formal terms).
- 39. **In determining when to recognize, and how to measure, a liability relating to the wind-up of a multi-employer defined benefit plan, or the entity's withdrawal from a multi-employer defined benefit plan, an entity shall apply IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*.**

#### **Defined Benefit Plans that Share Risks between Entities under Common Control**

- 40. Defined benefit plans that share risks between various entities under common control, for example, controlling and controlled entities, are not multi-employer plans.
- 41. An entity participating in such a plan obtains information about the plan as a whole, measured in accordance with this Standard on the basis of assumptions that apply to the plan as a whole. If there is a contractual agreement, binding arrangement, or stated policy for charging the net defined benefit cost for the plan as a whole measured in accordance with this Standard to individual entities within the economic entity, the entity shall, in its separate or individual financial statements, recognize the net defined benefit cost so charged. If there is no such agreement, arrangement, or policy, the net defined benefit cost shall be recognized in the separate or individual financial statements of the entity that is legally the sponsoring employer for the plan. The other entities shall, in their separate or individual financial statements, recognize a cost equal to their contribution payable for the period.

42. There are cases in the public sector where a controlling entity and one or more controlled entities participate in a defined benefit plan. Unless there is a contractual agreement, binding arrangement, or stated policy, as specified in paragraph 41, the controlled entity accounts on a defined contribution basis and the controlling entity accounts on a defined benefit basis in its consolidated financial statements. The controlled entity also discloses that it accounts on a defined contribution basis in its separate financial statements. A controlled entity that accounts on a defined contribution basis also provides details of the controlling entity, and states that, in the controlling entity's consolidated financial statements, accounting is on a defined benefit basis. The controlled entity also makes the disclosures required in paragraph 151.
43. **Participation in such a plan is a related party transaction for each individual entity. An entity shall therefore, in its separate or individual financial statements, disclose the information required by paragraph 151.**

### State Plans

44. **An entity shall account for a state plan in the same way as for a multi-employer plan (see paragraphs 32 and 39).**
45. State plans are established by legislation to cover all entities (or all entities in a particular category, for example, a specific industry) and are operated by national, state, or local government or by another body (for example, an agency created specifically for this purpose). This Standard deals only with employee benefits of the entity, and does not address accounting for any obligations under state plans related to employees and past employees of entities that are not controlled by the reporting entity. While governments may establish state plans and provide benefits to employees of private sector entities and/or self-employed individuals, obligations arising in respect of such plans are not addressed in this Standard. Some plans established by an entity provide both compulsory benefits, as a substitute for benefits that would otherwise be covered under a state plan, and additional voluntary benefits. Such plans are not state plans.
46. Many state plans are funded on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the required benefits falling due in the same period; future benefits earned during the current period will be paid out of future contributions. Entities covered by state plans account for those plans as either defined contribution or defined benefit plans. The accounting treatment depends upon whether the entity has a legal or constructive obligation to pay future benefits. If an entity's only obligation is to pay the contributions as they fall due, and the entity has no obligation to pay future benefits, it accounts for that state plan as a defined contribution plan.
47. A state plan may be classified as a defined contribution plan by a controlled entity. However, it is a rebuttable presumption that the state plan will be characterized as a defined benefit plan by the controlling entity. Where that presumption is rebutted the state plan is accounted for as a defined contribution plan.

### Insured Benefits

48. **An entity may pay insurance premiums to fund a post-employment benefit plan. The entity shall treat such a plan as a defined contribution plan unless the entity will have (either directly, or indirectly through the plan) a legal or constructive obligation either:**

- a) **To pay the employee benefits directly when they fall due; or**
- b) **To pay further amounts if the insurer does not pay all future employee benefits relating to employee service in the current and prior periods.**

**If the entity retains such a legal or constructive obligation, the entity shall treat the plan as a defined benefit plan.**

49. The benefits insured by an insurance policy need not have a direct or automatic relationship with the entity's obligation for employee benefits. Post-employment benefit plans involving insurance policies are subject to the same distinction between accounting and funding as other funded plans.
50. Where an entity funds a post-employment benefit obligation by contributing to an insurance policy under which the entity (either directly, indirectly through the plan, through the mechanism for setting future premiums, or through a related party relationship with the insurer) retains a legal or constructive obligation, the payment of the premiums does not amount to a defined contribution arrangement. It follows that the entity:
- (a) Accounts for a qualifying insurance policy as a plan asset (see paragraph 8); and
  - (b) Recognizes other insurance policies as reimbursement rights (if the policies satisfy the criteria in paragraph 118).
51. Where an insurance policy is in the name of a specified plan participant or a group of plan participants, and the entity does not have any legal or constructive obligation to cover any loss on the policy, the entity has no obligation to pay benefits to the employees, and the insurer has sole responsibility for paying the benefits. The payment of fixed premiums under such contracts is, in substance, the settlement of the employee benefit obligation, rather than an investment to meet the obligation. Consequently, the entity no longer has an asset or a liability. Therefore, an entity treats such payments as contributions to a defined contribution plan.

## **Post-employment Benefits—Defined Contribution Plans**

52. Accounting for defined contribution plans is straightforward because the reporting entity's obligation for each period is determined by the amounts to be contributed for that period. Consequently, no actuarial assumptions are required to measure the obligation or the expense, and there is no possibility of any actuarial gain or loss. Moreover, the obligations are measured on an undiscounted basis, except where they are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service.

## **Recognition and Measurement**

53. **When an employee has rendered service to an entity during a period, the entity shall recognize the contribution payable to a defined contribution plan in exchange for that service:**
- (a) **As a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, an entity shall recognize that excess as an asset**

(prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and

- (b) **As an expense, unless another Standard requires or permits the inclusion of the contribution in the cost of an asset (see, for example, IPSAS 12 and IPSAS 17).**

- 54. **When contributions to a defined contribution plan are not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service, they shall be discounted using the discount rate specified in paragraph 85.**

## **Disclosure**

- 55. **An entity shall disclose the amount recognized as an expense for defined contribution plans.**
- 56. Where required by IPSAS 20, an entity discloses information about contributions to defined contribution plans for key management personnel.

## **Post-employment Benefits—Defined Benefit Plans**

- 57. Accounting for defined benefit plans is complex, because actuarial assumptions are required to measure the obligation and the expense, and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis, because they may be settled many years after the employees render the related service.

## **Recognition and Measurement**

- 58. Defined benefit plans may be unfunded, or they may be wholly or partly funded by contributions by an entity, and sometimes its employees, into an entity, or fund, that is legally separate from the reporting entity and from which the employee benefits are paid. The payment of funded benefits when they fall due depends not only on the financial position and the investment performance of the fund but also on an entity's ability, and willingness, to make good any shortfall in the fund's assets. Therefore, the entity is, in substance, underwriting the actuarial and investment risks associated with the plan. Consequently, the expense recognized for a defined benefit plan is not necessarily the amount of the contribution due for the period.
- 59. Accounting by an entity for defined benefit plans involves the following steps:
  - (a) Determining the deficit or surplus. This involves:
    - (i) Using an actuarial technique, the projected unit credit method, to make a reliable estimate of the ultimate cost to the entity of the benefit that employees have earned in return for their service in the current and prior periods (see paragraphs 69–71). This requires an entity to determine how much benefit is attributable to the current and prior periods (see paragraphs 72–76), and to make estimates (actuarial assumptions) about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries and medical costs) that will affect the cost of the benefit (see paragraphs 77–100);
    - (ii) Discounting that benefit in order to determine the present value of the defined benefit obligation and the current service cost (see paragraphs 69–71 and 85–88);

- (iii) Deducting the fair value of any plan assets (see paragraphs 115–117) from the present value of the defined benefit obligation;
- (b) Determining the amount of the net defined benefit liability (asset) as the amount of the deficit or surplus determined in (a), adjusted for any effect of limiting a net defined benefit asset to the asset ceiling (see paragraph 66).
- (c) Determining amounts to be recognized in surplus or deficit:
  - (i) Current service cost (see paragraphs 72–76).
  - (ii) Any past service cost and gain or loss on settlement (see paragraphs 101–114).
  - (iii) Net interest on the net defined benefit liability (asset) (see paragraphs 125–128).
- (d) Determining the remeasurements of the net defined benefit liability (asset), to be recognized in net assets/equity, comprising:
  - (i) Actuarial gains and losses (see paragraphs 130 and 131);
  - (ii) Return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 132); and
  - (iii) Any change in the effect of the asset ceiling (see paragraph 66), excluding amounts included in net interest on the net defined benefit liability (asset).

Where an entity has more than one defined benefit plan, the entity applies these procedures for each material plan separately.

60. **An entity shall determine the net defined benefit liability (asset) with sufficient regularity that the amounts recognized in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.**
61. This Standard encourages, but does not require, an entity to involve a qualified actuary in the measurement of all material post-employment benefit obligations. For practical reasons, an entity may request a qualified actuary to carry out a detailed valuation of the obligation before the end of the reporting period. Nevertheless, the results of that valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the end of the reporting period.
62. In some cases, estimates, averages, and computational short cuts may provide a reliable approximation of the detailed computations illustrated in this Standard.

#### **Accounting for the Constructive Obligation**

63. **An entity shall account not only for its legal obligation under the formal terms of a defined benefit plan, but also for any constructive obligation that arises from the entity's informal practices. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.**
64. The formal terms of a defined benefit plan may permit an entity to terminate its obligation under the plan. Nevertheless, it is usually difficult for an entity to terminate its obligation under a plan (without payment) if employees are to be retained. Therefore, in the absence of evidence to



the contrary, accounting for post-employment benefits assumes that an entity that is currently promising such benefits will continue to do so over the remaining working lives of employees.

### Statement of Financial Position

65. **An entity shall recognize the net defined benefit liability (asset) in the statement of financial position.**
66. **When an entity has a surplus in a defined benefit plan, it shall measure the net defined benefit asset at the lower of:**
- (a) **The surplus in the defined benefit plan; and**
  - (b) **The asset ceiling, determined using the discount rate specified in paragraph 85.**
67. A net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen. An entity recognizes a net defined benefit asset in such cases because:
- (a) The entity controls a resource, which is the ability to use the surplus to generate future benefits;
  - (b) That control is a result of past events (contributions paid by the entity and service rendered by the employee); and
  - (c) Future economic benefits are available to the entity in the form of a reduction in future contributions or a cash refund, either directly to the entity or indirectly to another plan in deficit. The asset ceiling is the present value of those future benefits.

### Recognition and Measurement—Present Value of Defined Benefit Obligations and Current Service Cost

68. The ultimate cost of a defined benefit plan may be influenced by many variables, such as final salaries, employee turnover and mortality, employee contributions and medical cost trends. The ultimate cost of the plan is uncertain and this uncertainty is likely to persist over a long period of time. In order to measure the present value of the post-employment benefit obligations and the related current service cost, it is necessary:
- (a) To apply an actuarial valuation method (see paragraphs 69–71);
  - (b) To attribute benefit to periods of service (see paragraphs 72–76); and
  - (c) To make actuarial assumptions (see paragraphs 77–100).

#### *Actuarial Valuation Method*

69. **An entity shall use the projected unit credit method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost.**
70. The projected unit credit method (sometimes known as the accrued benefit method prorated on service or as the benefit/years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement (see paragraphs 72–76), and measures each unit separately to build up the final obligation (see paragraphs 77–100).



71. An entity discounts the whole of a post-employment benefit obligation, even if part of the obligation is expected to be settled before twelve months after the reporting period.

*Attributing Benefit to Periods of Service*

72. **In determining the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost, an entity shall attribute benefit to periods of service under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity shall attribute benefit on a straight-line basis from:**
- (a) **The date when service by the employee first leads to benefits under the plan (whether or not the benefits are conditional on further service) until**
  - (b) **The date when further service by the employee will lead to no material amount of further benefits under the plan, other than from further salary increases.**
73. The projected unit credit method requires an entity to attribute benefit to the current period (in order to determine current service cost) and the current and prior periods (in order to determine the present value of defined benefit obligations). An entity attributes benefit to periods in which the obligation to provide post-employment benefits arises. That obligation arises as employees render services in return for post-employment benefits that an entity expects to pay in future reporting periods. Actuarial techniques allow an entity to measure that obligation with sufficient reliability to justify recognition of a liability.
74. Employee service gives rise to an obligation under a defined benefit plan even if the benefits are conditional on future employment (in other words they are not vested). Employee service before the vesting date gives rise to a constructive obligation because, at the end of each successive reporting period, the amount of future service that an employee will have to render before becoming entitled to the benefit is reduced. In measuring its defined benefit obligation, an entity considers the probability that some employees may not satisfy any vesting requirements. Similarly, although some post-employment benefits, for example, post-employment medical benefits, become payable only if a specified event occurs when an employee is no longer employed, an obligation is created when the employee renders service that will provide entitlement to the benefit if the specified event occurs. The probability that the specified event will occur affects the measurement of the obligation, but does not determine whether the obligation exists.
75. The obligation increases until the date when further service by the employee will lead to no material amount of further benefits. Therefore, all benefit is attributed to periods ending on or before that date. Benefit is attributed to individual accounting periods under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity attributes benefit on a straight-line basis until the date when further service by the employee will lead to no material amount of further benefits. That is because the employee's service throughout the entire period will ultimately lead to benefit at that higher level.
76. Where the amount of a benefit is a constant proportion of final salary for each year of service, future salary increases will affect the amount required to settle the obligation that exists for service before the end of the reporting period, but do not create an additional obligation. Therefore:

- (a) For the purpose of paragraph 72(b), salary increases do not lead to further benefits, even though the amount of the benefits is dependent on final salary; and
- (b) The amount of benefit attributed to each period is a constant proportion of the salary to which the benefit is linked.

### *Actuarial Assumptions*

77. **Actuarial assumptions shall be unbiased and mutually compatible.**
78. Actuarial assumptions are an entity's best estimates of the variables that will determine the ultimate cost of providing post-employment benefits. Actuarial assumptions comprise:
- (a) Demographic assumptions about the future characteristics of current and former employees (and their dependants) who are eligible for benefits. Demographic assumptions deal with matters such as:
    - (i) Mortality (see paragraphs 83 and 84);
    - (ii) Rates of employee turnover, disability, and early retirement;
    - (iii) The proportion of plan members with dependants who will be eligible for benefits;
    - (iv) The proportion of plan members who will select each form of payment option available under the plan terms; and
    - (v) Claim rates under medical plans.
  - (b) Financial assumptions, dealing with items such as:
    - (i) The discount rate (see paragraphs 85–88);
    - (ii) Benefit levels, excluding any cost of the benefits to be met by employees, and future salary (see paragraphs 89–97);
    - (iii) In the case of medical benefits, future medical costs, including claim handling costs (i.e., the costs that will be incurred in processing and resolving claims, including legal and adjuster's fees) (see paragraphs 98–100); and
    - (iv) Taxes payable by the plan on contributions relating to service before the end of the reporting period or on benefits resulting from that service.
79. Actuarial assumptions are unbiased if they are neither imprudent nor excessively conservative.
80. Actuarial assumptions are mutually compatible if they reflect the economic relationships between factors such as inflation, rates of salary increase, and discount rates. For example, all assumptions that depend on a particular inflation level (such as assumptions about interest rates and salary and benefit increases) in any given future period assume the same inflation level in that period.
81. An entity determines the discount rate and other financial assumptions in nominal (stated) terms, unless estimates in real (inflation-adjusted) terms are more reliable, for example, in a hyperinflationary economy (see IPSAS 10, *Financial Reporting in Hyperinflationary Economies*), or where the benefit is index-linked, and there is a deep market in index-linked bonds of the same currency and term.

82. **Financial assumptions shall be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.**

*Actuarial Assumptions: Mortality*

83. **An entity shall determine its mortality assumptions by reference to its best estimate of the mortality of plan members both during and after employment.**
84. In order to estimate the ultimate cost of the benefit an entity takes into consideration expected changes in mortality, for example by modifying standard mortality tables with estimates of mortality improvements.

*Actuarial Assumptions—Discount Rate*

85. **The rate used to discount post-employment benefit obligations (both funded and unfunded) shall reflect the time value of money. The currency and term of the financial instrument selected to reflect the time value of money shall be consistent with the currency and estimated term of the post-employment benefit obligations.**
86. One actuarial assumption that has a material effect is the discount rate. The discount rate reflects the time value of money but not the actuarial or investment risk. Furthermore, the discount rate does not reflect the entity-specific credit risk borne by the entity's creditors, nor does it reflect the risk that future experience may differ from actuarial assumptions.
87. The discount rate reflects the estimated timing of benefit payments. In practice, an entity often achieves this by applying a single weighted average discount rate that reflects the estimated timing and amount of benefit payments, and the currency in which the benefits are to be paid.
88. An entity makes a judgment whether the discount rate that reflects the time value of money is best approximated by reference to market yields at the end of the reporting period on government bonds, high quality corporate bonds, or by another financial instrument. In some jurisdictions, market yields at the end of the reporting period on government bonds will provide the best approximation of the time value of money. However, there may be jurisdictions in which this is not the case, for example, jurisdictions where there is no deep market in government bonds, or in which market yields at the end of the reporting period on government bonds do not reflect the time value of money. In such cases, the reporting entity determines the rate by another method, such as by reference to market yields on high quality corporate bonds. There may also be circumstances where there is no deep market in government bonds or high quality corporate bonds with a sufficiently long maturity to match the estimated maturity of all the benefit payments. In such circumstances, an entity uses current market rates of the appropriate term to discount shorter term payments, and estimates the discount rate for longer maturities by extrapolating current market rates along the yield curve. The total present value of a defined benefit obligation is unlikely to be particularly sensitive to the discount rate applied to the portion of benefits that is payable beyond the final maturity of the available financial instrument, such as government bonds or corporate bonds.

*Actuarial Assumptions—Salaries, Benefits and Medical Costs*

89. **An entity shall measure its defined benefit obligations on a basis that reflects:**
- (a) **The benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the end of the reporting period;**

- (b) **Any estimated future salary increases that affect the benefits payable;**
  - (c) **The effect of any limit on the employer's share of the cost of the future benefits;**
  - (d) **Contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and**
  - (e) **Estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:**
    - (i) **Those changes were enacted before the end of the reporting period; or**
    - (ii) **Historical data, or other reliable evidence, indicate that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.**
90. Actuarial assumptions reflect future benefit changes that are set out in the formal terms of a plan (or a constructive obligation that goes beyond those terms) at the end of the reporting period. This is the case if, for example:
- (a) The entity has a history of increasing benefits, for example, to mitigate the effects of inflation, and there is no indication that this practice will change in the future;
  - (b) The entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants (see paragraph 110(c)); or
  - (c) Benefits vary in response to a performance target or other criteria. For example, the terms of the plan may state that it will pay reduced benefits or require additional contributions from employees if the plan assets are insufficient. The measurement of the obligation reflects the best estimate of the effect of the performance target or other criteria.
91. Actuarial assumptions do not reflect future benefit changes that are not set out in the formal terms of the plan (or a constructive obligation) at the end of the reporting period. Such changes will result in:
- (a) Past service cost, to the extent that they change benefits for service before the change; and
  - (b) Current service cost for periods after the change, to the extent that they change benefits for service after the change.
92. Estimates of future salary increases take account of inflation, seniority, promotion, and other relevant factors, such as supply and demand in the employment market.
93. Some defined benefit plans limit the contributions that an entity is required to pay. The ultimate cost of the benefits takes account of the effect of a limit on contributions. The effect of a limit on contributions is determined over the shorter of:
- (a) The estimated life of the entity; and
  - (b) The estimated life of the plan.
94. Some defined benefit plans require employees or third parties to contribute to the cost of the plan. Contributions by employees reduce the cost of the benefits to the entity. An entity considers whether third-party contributions reduce the cost of the benefits to the entity, or are

a reimbursement right as described in paragraph 118. Contributions by employees or third parties are either set out in the formal terms of the plan (or arise from a constructive obligation that goes beyond those terms), or are discretionary. Discretionary contributions by employees or third parties reduce service cost upon payment of these contributions to the plan.

95. Contributions from employees or third parties set out in the formal terms of the plan either reduce service cost (if they are linked to service), or affect remeasurements of the net defined benefit liability (asset) (if they are not linked to service). An example of contributions that are not linked to service is when the contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses. If contributions from employees or third parties are linked to service, those contributions reduce the service cost as follows:
- (a) If the amount of the contributions is dependent on the number of years of service, an entity shall attribute the contributions to periods of service using the same attribution method required by paragraph 72 for the gross benefit (ie either using the plan's contribution formula or on a straight-line basis); or
  - (b) If the amount of the contributions is independent of the number of years of service, the entity is permitted to recognize such contributions as a reduction of the service cost in the period in which the related service is rendered. Examples of contributions that are independent of the number of years of service include those that are a fixed percentage of the employee's salary, a fixed amount throughout the service period or dependent on the employee's age.

Paragraph AG13 provides related application guidance.

96. For contributions from employees or third parties that are attributed to periods of service in accordance with paragraph 95(a), changes in the contributions result in:
- (a) Current and past service cost (if those changes are not set out in the formal terms of a plan and do not arise from a constructive obligation); or
  - (b) Actuarial gains and losses (if those changes are set out in the formal terms of a plan, or arise from a constructive obligation).
97. Some post-employment benefits are linked to variables such as the level of benefit entitlements from social security pensions or state medical care. The measurement of such benefits reflects the best estimate of such variables, based on historical data and other reliable evidence.
98. **Assumptions about medical costs shall take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.**
99. Measurement of post-employment medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. An entity estimates future medical costs on the basis of historical data about the entity's own experience, supplemented where necessary by historical data from other entities, insurance companies, medical providers, or other sources. Estimates of future medical costs consider the effect of technological advances, changes in health care utilization or delivery patterns, and changes in the health status of plan participants.
100. The level and frequency of claims is particularly sensitive to the age, health status, and gender of employees (and their dependants), and may be sensitive to other factors such as

geographical location. Therefore, historical data are adjusted to the extent that the demographic mix of the population differs from that of the population used as a basis for the data. It is also adjusted where there is reliable evidence that historical trends will not continue.

#### **Past service cost and gains and losses on settlement**

101. **Before determining past service cost, or a gain or loss on settlement, an entity shall remeasure the net defined benefit liability (asset) using the current fair value of plan assets and current actuarial assumptions (including current market interest rates and other current market prices) reflecting the benefits offered under the plan before the plan amendment, curtailment or settlement.**
102. An entity need not distinguish between past service cost resulting from a plan amendment, past service cost resulting from a curtailment and a gain or loss on settlement if these transactions occur together. In some cases, a plan amendment occurs before a settlement, such as when an entity changes the benefits under the plan and settles the amended benefits later. In those cases an entity recognizes past service cost before any gain or loss on settlement.
103. A settlement occurs together with a plan amendment and curtailment if a plan is terminated with the result that the obligation is settled and the plan ceases to exist. However, the termination of a plan is not a settlement if the plan is replaced by a new plan that offers benefits that are, in substance, the same.

#### *Past Service Cost*

104. Past service cost is the change in the present value of the defined benefit obligation resulting from a plan amendment or curtailment.
105. **An entity shall recognize past service cost as an expense at the earlier of the following dates:**
- (a) **When the plan amendment or curtailment occurs; and**
  - (b) **When the entity recognizes related restructuring costs (see IPSAS 19) or termination benefits (see paragraph 168).**
106. A plan amendment occurs when an entity introduces, or withdraws, a defined benefit plan or changes the benefits payable under an existing defined benefit plan.
107. A curtailment occurs when an entity significantly reduces the number of employees covered by a plan. A curtailment may arise from an isolated event, such as the closing of a plant, discontinuance of an operation or termination or suspension of a plan.
108. Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when benefits are withdrawn or changed so that the present value of the defined benefit obligation decreases).
109. Where an entity reduces benefits payable under an existing defined benefit plan and, at the same time, increases other benefits payable under the plan for the same employees, the entity treats the change as a single net change.
110. Past service cost excludes:

- (a) The effect of differences between actual and previously assumed salary increases on the obligation to pay benefits for service in prior years (there is no past service cost because actuarial assumptions allow for projected salaries);
- (b) Underestimates and overestimates of discretionary pension increases when an entity has a constructive obligation to grant such increases (there is no past service cost because actuarial assumptions allow for such increases);
- (c) Estimates of benefit improvements that result from actuarial gains or from the return on plan assets that have been recognized in the financial statements if the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants, even if the benefit increase has not yet been formally awarded (there is no past service cost because the resulting increase in the obligation is an actuarial loss, see paragraph 90); and
- (d) The increase in vested benefits (i.e., benefits that are not conditional on future employment, see paragraph 74) when, in the absence of new or improved benefits, employees complete vesting requirements (there is no past service cost because the entity recognized the estimated cost of benefits as current service cost as the service was rendered).

*Gains and losses on settlement*

111. The gain or loss on a settlement is the difference between:
- (a) The present value of the defined benefit obligation being settled, as determined on the date of settlement; and
  - (b) The settlement price, including any plan assets transferred and any payments made directly by the entity in connection with the settlement.
112. **An entity shall recognize a gain or loss on the settlement of a defined benefit plan when the settlement occurs.**
113. A settlement occurs when an entity enters into a transaction that eliminates all further legal or constructive obligation for part or all of the benefits provided under a defined benefit plan (other than a payment of benefits to, or on behalf of, employees in accordance with the terms of the plan and included in the actuarial assumptions). For example, a one-off transfer of significant employer obligations under the plan to an insurance company through the purchase of an insurance policy is a settlement; a lump sum cash payment, under the terms of the plan, to plan participants in exchange for their rights to receive specified post-employment benefits is not.
114. In some cases, an entity acquires an insurance policy to fund some or all of the employee benefits relating to employee service in the current and prior periods. The acquisition of such a policy is not a settlement if the entity retains a legal or constructive obligation (see paragraph 48) to pay further amounts if the insurer does not pay the employee benefits specified in the insurance policy. Paragraphs 118–121 deal with the recognition and measurement of reimbursement rights under insurance policies that are not plan assets.



**Recognition and Measurement—Plan Assets***Fair Value of Plan Assets*

115. The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the deficit or surplus.
116. Plan assets exclude unpaid contributions due from the reporting entity to the fund, as well as any non-transferable financial instruments issued by the entity and held by the fund. Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, for example, trade and other payables and liabilities resulting from derivative financial instruments.
117. Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the related obligations (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

*Reimbursements*

118. **When, and only when, it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, an entity shall:**
- (a) **Recognize its right to reimbursement as a separate asset. The entity shall measure the asset at fair value.**
  - (b) **Disaggregate and recognize changes in the fair value of its right to reimbursement in the same way as for changes in the fair value of plan assets (see paragraphs 126 and 128). The components of defined benefit cost recognized in accordance with paragraph 122 may be recognized net of amounts relating to changes in the carrying amount of the right to reimbursement.**
119. Sometimes, an entity is able to look to another party, such as an insurer, to pay part or all of the expenditure required to settle a defined benefit obligation. Qualifying insurance policies, as defined in paragraph 8, are plan assets. An entity accounts for qualifying insurance policies in the same way as for all other plan assets, and paragraph 118 is not relevant (see paragraphs 48–51 and 117).
120. When an insurance policy held by an entity is not a qualifying insurance policy, that insurance policy is not a plan asset. Paragraph 118 is relevant to such cases: the entity recognizes its right to reimbursement under the insurance policy as a separate asset, rather than as a deduction in determining the defined benefit deficit or surplus. Paragraph 142(b) requires the entity to disclose a brief description of the link between the reimbursement right and the related obligation.
121. If the right to reimbursement arises under an insurance policy or a legally binding agreement that exactly matches the amount and timing of some or all of the benefits payable under a defined benefit plan, the fair value of the reimbursement right is deemed to be the present value of the related obligation (subject to any reduction required if the reimbursement is not recoverable in full).



**Components of defined benefit cost**

122. **An entity shall recognize the components of defined benefit cost, except to the extent that another IPSAS requires or permits their inclusion in the cost of an asset, as follows:**
- (a) **Service cost (see paragraphs 68–114) in surplus or deficit;**
  - (b) **Net interest on the net defined benefit liability (asset) (see paragraphs 125–128) in surplus or deficit; and**
  - (c) **Remeasurements of the net defined benefit liability (asset) (see paragraphs 129–132) in net assets/equity.**
123. Other IPSASs require the inclusion of some employee benefit costs within the cost of assets, such as inventories and property, plant and equipment (see IPSAS 12 and IPSAS 17). Any post-employment benefit costs included in the cost of such assets include the appropriate proportion of the components listed in paragraph 122.
124. **Remeasurements of the net defined benefit liability (asset) recognized in net assets/equity shall not be reclassified to surplus or deficit in a subsequent period. However, the entity may transfer those amounts recognized in net assets/equity within net assets/equity.**

*Net interest on the net defined benefit liability (asset)*

125. **Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the discount rate specified in paragraph 85, both as determined at the start of the reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payments.**
126. Net interest on the net defined benefit liability (asset) can be viewed as comprising interest revenue on plan assets, interest cost on the defined benefit obligation and interest on the effect of the asset ceiling mentioned in paragraph 66.
127. Interest revenue on plan assets is a component of the return on plan assets, and is determined by multiplying the fair value of the plan assets by the discount rate specified in paragraph 85, both as determined at the start of the reporting period, taking account of any changes in the plan assets held during the period as a result of contributions and benefit payments. The difference between the interest revenue on plan assets and the return on plan assets is included in the remeasurement of the net defined benefit liability (asset).
128. Interest on the effect of the asset ceiling is part of the total change in the effect of the asset ceiling, and is determined by multiplying the effect of the asset ceiling by the discount rate specified in paragraph 85, both as determined at the start of the reporting period. The difference between that amount and the total change in the effect of the asset ceiling is included in the remeasurement of the net defined benefit liability (asset).

*Remeasurements of the net defined benefit liability (asset)*

129. Remeasurements of the net defined benefit liability (asset) comprise:
- (a) Actuarial gains and losses (see paragraphs 130 and 131);

- (b) The return on plan assets (see paragraph 132), excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 127); and
  - (c) Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 128).
130. Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligation because of changes in actuarial assumptions and experience adjustments. Causes of actuarial gains and losses include, for example:
- (a) Unexpectedly high or low rates of employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs;
  - (b) The effect of changes to assumptions concerning benefit payment options;
  - (c) The effect of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs; and
  - (d) The effect of changes in the discount rate.
131. Actuarial gains and losses do not include changes in the present value of the defined benefit obligation because of the introduction, amendment, curtailment or settlement of the defined benefit plan, or changes to the benefits payable under the defined benefit plan. Such changes result in past service cost or gains or losses on settlement.
132. In determining the return on plan assets, an entity deducts the costs of managing the plan assets and any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the defined benefit obligation (paragraph 78). Other administration costs are not deducted from the return on plan assets.

## Presentation

### Offset

133. **An entity shall offset an asset relating to one plan against a liability relating to another plan when, and only when, the entity:**
- (a) Has a legally enforceable right to use a surplus in one plan to settle obligations under the other plan; and
  - (b) Intends either to settle the obligations on a net basis, or to realize the surplus in one plan and settle its obligation under the other plan simultaneously.
134. The offsetting criteria are similar to those established for financial instruments in IPSAS 28, *Financial Instruments: Presentation*.

### Current/Non-Current Distinction

135. Some entities distinguish current assets and liabilities from non-current assets and liabilities. This Standard does not specify whether an entity should distinguish current and non-current portions of assets and liabilities arising from post-employment benefits.

*Components of defined benefit cost*

136. Paragraph 122 requires an entity to recognize service cost and net interest on the net defined benefit liability (asset) in surplus or deficit. This Standard does not specify how an entity should present service cost and net interest on the net defined benefit liability (asset). An entity presents those components in accordance with IPSAS 1.

**Disclosure**

137. **An entity shall disclose information that:**
- (a) **Explains the characteristics of its defined benefit plans and risks associated with them (see paragraph 141);**
  - (b) **Identifies and explains the amounts in its financial statements arising from its defined benefit plans (see paragraphs 142–146); and**
  - (c) **Describes how its defined benefit plans may affect the amount, timing and uncertainty of the entity’s future cash flows (see paragraphs 147–149).**
138. To meet the objectives in paragraph 137, an entity shall consider all the following:
- (a) The level of detail necessary to satisfy the disclosure requirements;
  - (b) How much emphasis to place on each of the various requirements;
  - (c) How much aggregation or disaggregation to undertake; and
  - (d) Whether users of financial statements need additional information to evaluate the quantitative information disclosed.
139. If the disclosures provided in accordance with the requirements in this Standard and other IPSASs are insufficient to meet the objectives in paragraph 137, an entity shall disclose additional information necessary to meet those objectives. For example, an entity may present an analysis of the present value of the defined benefit obligation that distinguishes the nature, characteristics and risks of the obligation. Such a disclosure could distinguish:
- (a) Between amounts owing to active members, deferred members, and pensioners.
  - (b) Between vested benefits and accrued but not vested benefits.
  - (c) Between conditional benefits, amounts attributable to future salary increases and other benefits.
140. An entity shall assess whether all or some disclosures should be disaggregated to distinguish plans or groups of plans with materially different risks. For example, an entity may disaggregate disclosure about plans showing one or more of the following features:
- (a) Different geographical locations.
  - (b) Different characteristics such as flat salary pension plans, final salary pension plans or post-employment medical plans.
  - (c) Different regulatory environments.
  - (d) Different reporting segments.
  - (e) Different funding arrangements (e.g. wholly unfunded, wholly or partly funded).

*Characteristics of defined benefit plans and risks associated with them*

141. An entity shall disclose:

- (a) Information about the characteristics of its defined benefit plans, including:
  - (i) The nature of the benefits provided by the plan (e.g. final salary defined benefit plan or contribution-based plan with guarantee).
  - (ii) A description of the regulatory framework in which the plan operates, for example the level of any minimum funding requirements, and any effect of the regulatory framework on the plan, such as the asset ceiling (see paragraph 66).
  - (iii) A description of any other entity's responsibilities for the governance of the plan, for example responsibilities of trustees or of management of the plan.
- (b) A description of the risks to which the plan exposes the entity, focused on any unusual, entity-specific or plan-specific risks, and of any significant concentrations of risk. For example, if plan assets are invested primarily in one class of investments, e.g. property, the plan may expose the entity to a concentration of property market risk.
- (c) A description of any plan amendments, curtailments and settlements.
- (d) The basis on which the discount rate has been determined.

*Explanation of amounts in the financial statements*

142. An entity shall provide a reconciliation from the opening balance to the closing balance for each of the following, if applicable:

- (a) The net defined benefit liability (asset), showing separate reconciliations for:
  - (i) Plan assets.
  - (ii) The present value of the defined benefit obligation.
  - (iii) The effect of the asset ceiling.
- (b) Any reimbursement rights. An entity shall also describe the relationship between any reimbursement right and the related obligation.

143. Each reconciliation listed in paragraph 142 shall show each of the following, if applicable:

- (a) Current service cost.
- (b) Interest revenue or expense.
- (c) Remeasurements of the net defined benefit liability (asset), showing separately:
  - (i) The return on plan assets, excluding amounts included in interest in (b).
  - (ii) Actuarial gains and losses arising from changes in demographic assumptions (see paragraph 78(a)).
  - (iii) Actuarial gains and losses arising from changes in financial assumptions (see paragraph 78(b)).
  - (iv) Changes in the effect of limiting a net defined benefit asset to the asset ceiling, excluding amounts included in interest in (b). An entity shall also disclose how it determined the maximum economic benefit available, i.e. whether those benefits

would be in the form of refunds, reductions in future contributions or a combination of both.

- (d) Past service cost and gains and losses arising from settlements. As permitted by paragraph 102, past service cost and gains and losses arising from settlements need not be distinguished if they occur together.
- (e) The effect of changes in foreign exchange rates.
- (f) Contributions to the plan, showing separately those by the employer and by plan participants.
- (g) Payments from the plan, showing separately the amount paid in respect of any settlements.
- (h) The effects of public sector combinations and disposals.

144. An entity shall disaggregate the fair value of the plan assets into classes that distinguish the nature and risks of those assets, subdividing each class of plan asset into those that have a quoted market price in an active market and those that do not. For example, and considering the level of disclosure discussed in paragraph 138, an entity could distinguish between:

- (a) Cash and cash equivalents;
- (b) Equity instruments (segregated by industry type, company size, geography etc.);
- (c) Debt instruments (segregated by type of issuer, credit quality, geography etc.);
- (d) Real estate (segregated by geography etc.);
- (e) Derivatives (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, credit contracts, longevity swaps etc.);
- (f) Investment funds (segregated by type of fund);
- (g) Asset-backed securities; and
- (h) Structured debt.

145. An entity shall disclose the fair value of the entity's own transferable financial instruments held as plan assets, and the fair value of plan assets that are property occupied by, or other assets used by, the entity.

146. An entity shall disclose the significant actuarial assumptions used to determine the present value of the defined benefit obligation (see paragraph 86). Such disclosure shall be in absolute terms (e.g. as an absolute percentage, and not just as a margin between different percentages and other variables). When an entity provides disclosures in total for a grouping of plans, it shall provide such disclosures in the form of weighted averages or relatively narrow ranges.

*Amount, timing and uncertainty of future cash flows*

147. An entity shall disclose:

- (a) A sensitivity analysis for each significant actuarial assumption (as disclosed under paragraph 146) as of the end of the reporting period, showing how the defined benefit

obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date.

- (b) The methods and assumptions used in preparing the sensitivity analyses required by (a) and the limitations of those methods.
  - (c) Changes from the previous period in the methods and assumptions used in preparing the sensitivity analyses, and the reasons for such changes.
148. An entity shall disclose a description of any asset-liability matching strategies used by the plan or the entity, including the use of annuities and other techniques, such as longevity swaps, to manage risk.
149. To provide an indication of the effect of the defined benefit plan on the entity's future cash flows, an entity shall disclose:
- (a) A description of any funding arrangements and funding policy that affect future contributions.
  - (b) The expected contributions to the plan for the next reporting period.
  - (c) Information about the maturity profile of the defined benefit obligation. This will include the weighted average duration of the defined benefit obligation and may include other information about the distribution of the timing of benefit payments, such as a maturity analysis of the benefit payments.

#### *Multi-employer plans*

150. If an entity participates in a multi-employer defined benefit plan, it shall disclose:
- (a) A description of the funding arrangements, including the method used to determine the entity's rate of contributions and any minimum funding requirements.
  - (b) A description of the extent to which the entity can be liable to the plan for other entities' obligations under the terms and conditions of the multi-employer plan.
  - (c) A description of any agreed allocation of a deficit or surplus on:
    - (i) Wind-up of the plan; or
    - (ii) The entity's withdrawal from the plan.
  - (d) If the entity accounts for that plan as if it were a defined contribution plan in accordance with paragraph 34, it shall disclose the following, in addition to the information required by (a)–(c) and instead of the information required by paragraphs 141–149:
    - (i) The fact that the plan is a defined benefit plan.
    - (ii) The reason why sufficient information is not available to enable the entity to account for the plan as a defined benefit plan.
    - (iii) The expected contributions to the plan for the next reporting period.
    - (iv) Information about any deficit or surplus in the plan that may affect the amount of future contributions, including the basis used to determine that deficit or surplus and the implications, if any, for the entity.

- (v) An indication of the level of participation of the entity in the plan compared with other participating entities. Examples of measures that might provide such an indication include the entity's proportion of the total contributions to the plan or the entity's proportion of the total number of active members, retired members, and former members entitled to benefits, if that information is available.

*Defined benefit plans that share risks between entities under common control*

151. If an entity participates in a defined benefit plan that shares risks between entities under common control, it shall disclose:
- (a) The contractual agreement or stated policy for charging the net defined benefit cost or the fact that there is no such policy.
  - (b) The policy for determining the contribution to be paid by the entity.
  - (c) If the entity accounts for an allocation of the net defined benefit cost as noted in paragraph 41, all the information about the plan as a whole required by paragraphs 137–149.
  - (d) If the entity accounts for the contribution payable for the period as noted in paragraph 41, the information about the plan as a whole required by paragraphs 137–139, 141, 144–146 and 149(a) and (b).
152. The information required by paragraph 151(c) and (d) can be disclosed by cross-reference to disclosures in another group entity's financial statements if:
- (a) That group entity's financial statements separately identify and disclose the information required about the plan; and
  - (b) That group entity's financial statements are available to users of the financial statements on the same terms as the financial statements of the entity and at the same time as, or earlier than, the financial statements of the entity.

*Disclosure requirements in other IPSASs*

153. Where required by IPSAS 20, an entity discloses information about:
- (a) Related party transactions with post-employment benefit plans; and
  - (b) Post-employment benefits for key management personnel.
154. Where required by IPSAS 19, an entity discloses information about contingent liabilities arising from post-employment benefit obligations.

## **Other Long-Term Employee Benefits**

155. Other long-term employee benefits include items such as the following, if not expected to be settled wholly before twelve months after the end of the reporting period in which the employees render the related service:
- (a) Long-term paid absences such as long service or sabbatical leave;
  - (b) Jubilee or other long service benefits;
  - (c) Long-term disability benefits;

- (d) Profit sharing and bonuses;
  - (e) Deferred remuneration; and
  - (f) Compensation payable by the entity until an individual enters new employment.
156. The measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. For this reason, this Standard requires a simplified method of accounting for other long-term employee benefits. Unlike the accounting required for post-employment benefits, this method does not recognize remeasurements in net assets/equity.
157. This Standard includes a rebuttable presumption that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for in accordance with paragraphs 57–154.

### Recognition and Measurement

158. **In recognizing and measuring the surplus or deficit in another long-term employee benefit plan, an entity shall apply paragraphs 58–100 and 115–117. An entity shall apply paragraphs 118–121 in recognizing and measuring any reimbursement right.**
159. **For other long-term employee benefits, an entity shall recognize the net total of the following amounts in surplus or deficit, except to the extent that another IPSAS requires or permits their inclusion in the cost of an asset:**
- (a) **Service cost (see paragraphs 68–114);**
  - (b) **Net interest on the net defined benefit liability (asset) (see paragraphs 125–128); and**
  - (c) **Remeasurements of the net defined benefit liability (asset) (see paragraphs 129–132).**
160. One form of other long-term employee benefit is long-term disability benefit. If the level of benefit depends on the length of service, an obligation arises when the service is rendered. Measurement of that obligation reflects the probability that payment will be required, and the length of time for which payment is expected to be made. If the level of benefit is the same for any disabled employee regardless of years of service, the expected cost of those benefits is recognized when an event occurs that causes a long-term disability.

### Disclosure

161. Although this Standard does not require specific disclosures about other long-term employee benefits, other IPSASs may require disclosures. For example, IPSAS 20 requires disclosures about employee benefits for key management personnel. IPSAS 1 requires disclosure of employee benefits expense.

### Termination Benefits

162. This Standard deals with termination benefits separately from other employee benefits, because the event that gives rise to an obligation is the termination of employment rather than employee service. Termination benefits result from either an entity's decision to terminate the



employment or an employee's decision to accept an entity's offer of benefits in exchange for termination of employment.

163. Termination benefits do not include employee benefits resulting from termination of employment at the request of the employee without an entity's offer, or as a result of mandatory retirement requirements, because those benefits are post-employment benefits. Some entities provide a lower level of benefit for termination of employment at the request of the employee (in substance, a post-employment benefit) than for termination of employment at the request of the entity. The difference between the benefit provided for termination of employment at the request of the employee and a higher benefit provided at the request of the entity is a termination benefit.
164. The form of the employee benefit does not determine whether it is in exchange provided for service or in exchange for termination of the employee's employment. Termination benefits are typically lump sum payments, but sometimes also include:
  - (a) Enhancement of post-employment benefits, either indirectly through an employee benefit plan or directly.
  - (b) Salary until the end of a specified notice period if the employee renders no further service that provides economic benefits to the entity.
165. Indicators that an employee benefit is provided in exchange for services include the following:
  - (a) The benefit is conditional on future service being provided (including benefits that increase if further service is provided).
  - (b) The benefit is provided in accordance with the terms of an employee benefit plan.
166. Some termination benefits are provided in accordance with the terms of an existing employee benefit plan. For example, they may be specified by statute, employment contract or union agreement, or may be implied as a result of the employer's past practice of providing similar benefits. As another example, if an entity makes an offer of benefits available for more than a short period, or there is more than a short period between the offer and the expected date of actual termination, the entity considers whether it has established a new employee benefit plan and hence whether the benefits offered under that plan are termination benefits or post-employment benefits. Employee benefits provided in accordance with the terms of an employee benefit plan are termination benefits if they both result from an entity's decision to terminate an employee's employment and are not conditional on future service being provided.
167. Some employee benefits are provided regardless of the reason for the employee's departure. The payment of such benefits is certain (subject to any vesting or minimum service requirements) but the timing of their payment is uncertain. Although such benefits are described in some jurisdictions as termination indemnities or termination gratuities, they are post-employment benefits rather than termination benefits, and an entity accounts for them as post-employment benefits.

## Recognition

168. **An entity shall recognize a liability and expense for termination benefits at the earlier of the following dates:**
  - (a) **When the entity can no longer withdraw the offer of those benefits; and**

- (b) **When the entity recognizes costs for a restructuring that is within the scope of IPSAS 19 and involves the payment of termination benefits.**

169. For termination benefits payable as a result of an employee's decision to accept an offer of benefits in exchange for the termination of employment, the time when an entity can no longer withdraw the offer of termination benefits is the earlier of:
- (a) When the employee accepts the offer; and
  - (b) When a restriction (e.g. a legal, regulatory or contractual requirement or other restriction) on the entity's ability to withdraw the offer takes effect. This would be when the offer is made, if the restriction existed at the time of the offer.
170. For termination benefits payable as a result of an entity's decision to terminate an employee's employment, the entity can no longer withdraw the offer when the entity has communicated to the affected employees a plan of termination meeting all of the following criteria:
- (a) Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made.
  - (b) The plan identifies the number of employees whose employment is to be terminated, their job classifications or functions and their locations (but the plan need not identify each individual employee) and the expected completion date.
  - (c) The plan establishes the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.
171. When an entity recognizes termination benefits, the entity may also have to account for a plan amendment or a curtailment of other employee benefits (see paragraph 105).

## Measurement

172. **An entity shall measure termination benefits on initial recognition, and shall measure and recognize subsequent changes, in accordance with the nature of the employee benefit, provided that if the termination benefits are an enhancement to post-employment benefits, the entity shall apply the requirements for post-employment benefits. Otherwise:**
- (a) **If the termination benefits are expected to be settled wholly before twelve months after the end of the reporting period in which the termination benefit is recognized, the entity shall apply the requirements for short-term employee benefits.**
  - (b) **If the termination benefits are not expected to be settled wholly before twelve months after the end of the reporting period, the entity shall apply the requirements for other long-term employee benefits.**
173. Because termination benefits are not provided in exchange for service, paragraphs 72–76 relating to the attribution of the benefit to periods of service are not relevant.

## Disclosure

174. Although this Standard does not require specific disclosures about termination benefits, other IPSASs may require disclosures. For example, IPSAS 20 requires disclosures about employee

benefits for key management personnel. IPSAS 1 requires disclosure of employee benefits expense.

### **Transitional Provisions**

175. **An entity shall apply this Standard retrospectively, in accordance with IPSAS 3 *Accounting Policies, Changes in Accounting Estimates and Errors*, except that:**
- (a) **An entity need not adjust the carrying amount of assets outside the scope of this Standard for changes in employee benefit costs that were included in the carrying amount before the date of initial application. The date of initial application is the beginning of the earliest prior period presented in the first financial statements in which the entity adopts this Standard.**
  - (b) **In financial statements for periods beginning before January 1, 2018, an entity need not present comparative information for the disclosures required by paragraph 141 about the sensitivity of the defined benefit obligation.**

### **Effective Date**

176. **An entity shall apply this Standard for annual financial statements covering periods beginning on or after January 1, 2018. Earlier adoption is encouraged. If an entity applies this Standard for a period beginning before January 1, 2018, it shall disclose that fact.**
177. When an entity adopts the accrual basis IPSASs of accounting as defined in IPSAS 33, *First-time Adoption of Accrual Basis International Public Sector Accounting Standards (IPSASs)* for financial reporting purposes subsequent to this effective date, this Standard applies to the entity's annual financial statements covering periods beginning on or after the date of adoption of IPSASs.

### **Withdrawal and Replacement of IPSAS 25 (2008)**

178. This Standard supersedes IPSAS 25 (2008). IPSAS 25 remains applicable until IPSAS 39 is applied or becomes effective, whichever is earlier.

## Application Guidance

*This Appendix is an integral part of IPSAS 39.*

### Example Illustrating Paragraph 20: Accounting for Performance-Related Bonus Plan

- AG1. A performance-related bonus plan requires a government printing unit to pay a specified proportion of its surplus for the year to employees who meet predetermined performance targets and serve throughout the year, i.e., are in post on both the first and last day of the reporting period. If no employees leave during the year, the total bonus payments for the year will be 3% of actual surplus. The entity determines that staff turnover will reduce the payments to 2.5% of actual surplus.

*The entity recognizes a liability and an expense of 2.5% of actual surplus.*

### Example Illustrating Paragraph 37: Accounting for a Multi-Employer Plan

- AG2. Along with similar entities in State X, Local Government Unit A participates in a multi-employer defined benefit plan. Because the plan exposes the participating entities to actuarial risks associated with the current and former employees of other local government units participating in the plan, there is no consistent and reliable basis for allocating the obligation, plan assets, and cost to individual local government units participating in the plan. Local Government Unit A therefore accounts for the plan as if it were a defined contribution plan. A funding valuation, which is not drawn up on the basis of assumptions compatible with the requirements of this Standard, shows a deficit of CU480 million<sup>(a)</sup> in the plan. The plan has agreed, under a binding arrangement, a schedule of contributions with the participating employers in the plan that will eliminate the deficit over the next five years. Local Government Unit A's total contributions under the contract are CU40 million.

*The entity recognizes a liability for the contributions adjusted for the time value of money and an equal expense in surplus or deficit.*

*(a) In this Standard monetary amounts are denominated in "currency units (CU)".*

### Example Illustrating Paragraph 70: Projected Unit Credit Method

- AG3. A lump sum benefit is payable on termination of service and equal to 1% of final salary for each year of service. The salary in year 1 is CU10,000 and is assumed to increase at 7% (compound) each year. The discount rate used is 10% per annum. The following table shows how the obligation builds up for an employee who is expected to leave at the end of year five, assuming that there are no changes in actuarial assumptions. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave the entity at an earlier or later date.

| Year                                | 1          | 2          | 3          | 4          | 5          |
|-------------------------------------|------------|------------|------------|------------|------------|
| <i>Benefit attributed to:</i>       |            |            |            |            |            |
| – prior years                       | 0          | 131        | 262        | 393        | 524        |
| – current year (1% of final salary) | <u>131</u> | <u>131</u> | <u>131</u> | <u>131</u> | <u>131</u> |
| – current and prior years           | <u>131</u> | <u>262</u> | <u>393</u> | <u>524</u> | <u>655</u> |
| Year                                | 1          | 2          | 3          | 4          | 5          |
| Opening obligation                  | –          | 89         | 196        | 324        | 476        |
| Interest at 10%                     | –          | 9          | 20         | 33         | 48         |
| Current service cost                | <u>89</u>  | <u>98</u>  | <u>108</u> | <u>119</u> | <u>131</u> |
| Closing obligation                  | <u>89</u>  | <u>196</u> | <u>324</u> | <u>476</u> | <u>655</u> |

Note:

1. The opening obligation is the present value of benefit attributed to prior years.
2. The current service cost is the present value of benefit attributed to the current year.
3. The closing obligation is the present value of benefit attributed to current and prior years.

### Examples Illustrating Paragraph 73: Attributing Benefit to Years of Service

- AG4. A defined benefit plan provides a lump sum benefit of CU100 payable on retirement for each year of service.

*A benefit of CU100 is attributed to each year. The current service cost is the present value of CU100. The present value of the defined benefit obligation is the present value of CU100, multiplied by the number of years of service up to the end of the reporting period.*

*If the benefit is payable immediately when the employee leaves the entity, the current service cost and the present value of the defined benefit obligation reflect the date at which the employee is expected to leave. Thus, because of the effect of discounting, they are less than the amounts that would be determined if the employee left at the end of the reporting period.*

- AG5. A plan provides a monthly pension of 0.2% of final salary for each year of service. The pension is payable from the age of 65.

*Benefit equal to the present value, at the expected retirement date, of a monthly pension of 0.2% of the estimated final salary payable from the expected retirement date until the expected date of death is attributed to each year of service. The current service cost is the present value of that benefit. The present value of the defined benefit obligation is the present value of monthly pension payments of 0.2% of final salary, multiplied by the number of years of service up to the end of the reporting period. The current service cost and the present value of the defined benefit obligation are discounted, because pension payments begin at the age of 65.*

### Examples Illustrating Paragraph 74: Vesting and Non-Vesting Benefits

- AG6. A plan pays a benefit of CU100 for each year of service. The benefits vest after 10 years of service.

*A benefit of CU100 is attributed to each year. In each of the first 10 years, the current service cost and the present value of the obligation reflect the probability that the employee may not complete 10 years of service.*

- AG7. A plan pays a benefit of CU100 for each year of service, excluding service before the age of 25. The benefits vest immediately.

*No benefit is attributed to service before the age of 25 because service before that date does not lead to benefits (conditional or unconditional). A benefit of CU100 is attributed to each subsequent year.*

### **Examples Illustrating Paragraph 75: Attributing Benefits to Accounting Periods**

- AG8. A plan pays a lump sum benefit of CU1,000 that vests after 10 years of service. The plan provides no further benefit for subsequent service.

*A benefit of CU100 (CU1,000 divided by 10) is attributed to each of the first 10 years. The current service cost in each of the first 10 years reflects the probability that the employee may not complete 10 years of service. No benefit is attributed to subsequent years.*

- AG9. A plan pays a lump sum retirement benefit of CU2,000 to all employees who are still employed at the age of 55 after 20 years of service, or who are still employed at the age of 65, regardless of their length of service.

*For employees who join before the age of 35, service first leads to benefits under the plan at the age of 35 (an employee could leave at the age of 30 and return at the age of 33, with no effect on the amount or timing of benefits). Those benefits are conditional on further service. Also, service beyond the age of 55 will lead to no material amount of further benefits. For these employees, the entity attributes benefit of CU100 (CU2,000 divided by 20) to each year from the age of 35 to the age of 55.*

*For employees who join between the ages of 35 and 45, service beyond twenty years will lead to no material amount of further benefits. For these employees, the entity attributes benefit of 100 (CU2,000 divided by 20) to each of the first 20 years.*

*For an employee who joins at the age of 55, service beyond 10 years will lead to no material amount of further benefits. For this employee, the entity attributes benefit of CU200 (CU2,000 divided by 10) to each of the first 10 years.*

*For all employees, the current service cost and the present value of the obligation reflect the probability that the employee may not complete the necessary period of service.*

- AG10. A post-employment medical plan reimburses 40% of an employee's post-employment medical costs if the employee leaves after more than 10 and less than 20 years of service, and 50% of those costs if the employee leaves after 20 or more years of service.

*Under the plan's benefit formula, the entity attributes 4% of the present value of the expected medical costs (40% divided by 10) to each of the first ten years and 1% (10% divided by 10) to each of the second 10 years. The current service cost in each year reflects the probability that the employee may not complete the necessary period of service to earn part or all of the benefits. For employees expected to leave within 10 years, no benefit is attributed.*

- AG11. A post-employment medical plan reimburses 10% of an employee's post-employment medical costs if the employee leaves after more than 10 and less than 20 years of service, and 50% of those costs if the employee leaves after 20 or more years of service.

*Service in later years will lead to a materially higher level of benefit than in earlier years. Therefore, for employees expected to leave after 20 or more years, the entity attributes benefit on a straight-line basis under paragraph 73. Service beyond 20 years will lead to no material amount of further benefits. Therefore, the benefit attributed to each of the first 20 years is 2.5% of the present value of the expected medical costs (50% divided by 20).*

*For employees expected to leave between 10 and 20 years, the benefit attributed to each of the first 10 years is 1% of the present value of the expected medical costs. For these employees, no benefit is attributed to service between the end of the 10<sup>th</sup> year and the estimated date of leaving.*

*For employees expected to leave within 10 years, no benefit is attributed.*

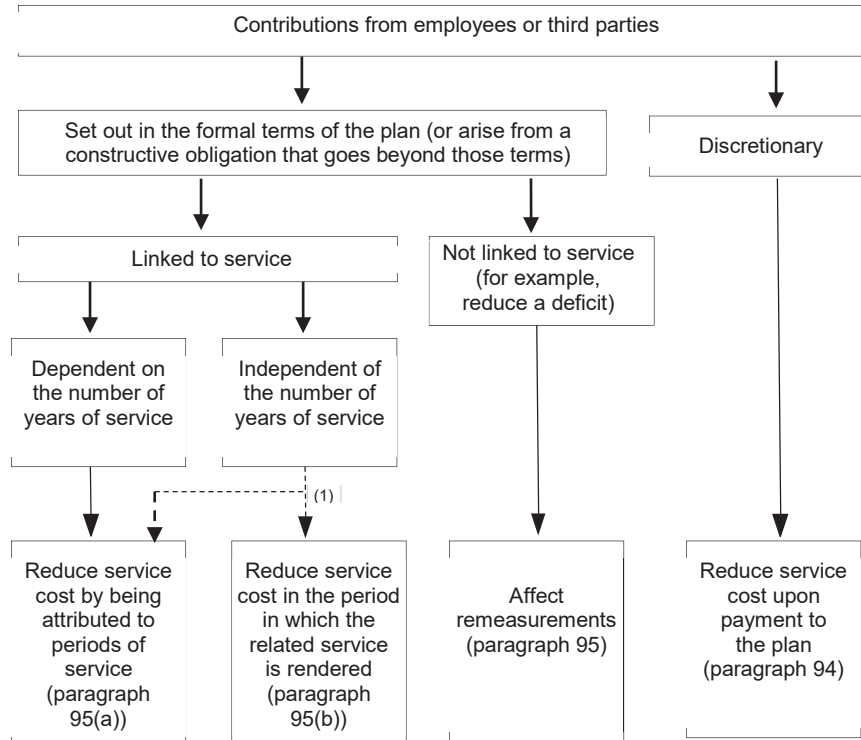
#### Example Illustrating Paragraph 76: Attributing Benefits to Accounting Periods

- AG12. Employees are entitled to a benefit of 3% of final salary for each year of service before the age of 55.

*Benefit of 3% of estimated final salary is attributed to each year up to the age of 55. This is the date when further service by the employee will lead to no material amount of further benefits under the plan. No benefit is attributed to service after that age.*

#### Example Illustrating Paragraphs 94 and 95: Contributions from employees or third parties

- AG13. The accounting requirements for contributions from employees or third parties are illustrated in the diagram below.



(1) This dotted arrow means that an entity is permitted to choose either accounting



**Example Illustrating Paragraphs 162-173: Termination Benefits****AG14.      *Background***

As a result of a recent acquisition, an entity plans to close a factory in 10 months and, at that time, terminate the employment of all of the remaining employees at the factory. Because the entity needs the expertise of the employees at the factory to complete some contracts, it announces a plan of termination as follows.

Each employee who stays and renders service until the closure of the factory will receive on the termination date a cash payment of CU30,000. Employees leaving before closure of the factory will receive CU10,000.

There are 120 employees at the factory. At the time of announcing the plan, the entity expects 20 of them to leave before closure. Therefore, the total expected cash outflows under the plan are CU3,200,000 (i.e.,  $20 \times \text{CU}10,000 + 100 \times \text{CU}30,000$ ). As required by paragraph 163, the entity accounts for benefits provided for termination of employment as termination benefits and accounts for benefits provided for services as short-term employee benefits.

*Termination benefits*

The benefit provided for termination of employment is CU10,000. This is the amount that an entity would have to pay for terminating the employment regardless of whether the employees stay and render service until closure of the factory or they leave before closure. Even though the employees can leave before closure, the termination of all employees' employment is a result of the entity's decision to close the factory and terminate their employment (i.e., all employees will leave employment when the factory closes). Therefore the entity recognizes a liability of CU1,200,000 (i.e.,  $120 \times \text{CU}10,000$ ) for the termination benefits provided in accordance with the employee benefit plan at the earlier of when the plan of termination is announced and when the entity recognizes the restructuring costs associated with the closure of the factory.

*Benefits provided for service*

The incremental benefits that employees will receive if they provide services for the full ten-month period are for services provided over that period. The entity accounts for them as short-term employee benefits because the entity expects to settle them before twelve months after the end of the reporting period. In this example, discounting is not required, so an expense of CU200,000 (i.e.,  $\text{CU}2,000,000 \div 10$ ) is recognized in each month during the service period of 10 months, with a corresponding increase in the carrying amount of the liability.



## Amendments to Other IPSASs

### IPSAS 1, *Presentation of Financial Statements*

Paragraph 116 is amended. New text is underlined and deleted text is struck through.

116. The choice between the function of expense method and the nature of expense method depends on historical and regulatory factors and the nature of the entity. Both methods provide an indication of those costs that might vary, directly or indirectly, with the outputs of the entity. Because each method of presentation has its merits for different types of entities, this Standard requires management to select the most relevant and reliable presentation. However, because information on the nature of expenses is useful in predicting future cash flows, additional disclosure is required when the function of expense classification is used. In paragraph 115, employee benefits has the same meaning as in IPSAS ~~25~~ 39, *Employee Benefits*.

### IPSAS 17, *Property, Plant, and Equipment*

Paragraph 31 is amended. New text is underlined and deleted text is struck through.

31. Examples of directly attributable costs are:
- (a) Costs of employee benefits (as defined in IPSAS ~~25~~ 39, *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant, and equipment;
  - ...

### IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*

Paragraph 14 is amended. New text is underlined and deleted text is struck through.

14. This Standard does not apply to provisions for income taxes or income tax equivalents (guidance on accounting for income taxes is found in IAS 12, *Income Taxes*.) Nor does it apply to provisions arising from employee benefits (guidance on accounting for employee benefits is found in IPSAS ~~25~~ 39, *Employee Benefits*.)

### IPSAS 20, *Related Party Disclosures*

Paragraph 38 is amended. New text is underlined and deleted text is struck through.

38. Requirements on the measurement of employee benefits are found in IPSAS ~~25~~ 39, *Employee Benefits*. When non-monetary remuneration that is able to be reliably measured has been included in the aggregate amount of remuneration of key management personnel disclosed for the period, disclosure would also be made in the notes to the financial statements of the basis of measurement of the non-monetary remuneration.

### IPSAS 21, *Impairment of Non-Cash-Generating Assets*

Paragraph 43 is amended. New text is underlined and deleted text is struck through.

43. Costs of disposal, other than those that have been recognized as liabilities, are deducted in determining fair value less costs to sell. Examples of such costs are legal costs, stamp duty

and similar transaction taxes, costs of removing the asset, and direct incremental costs to bring an asset into condition for its sale. However, termination benefits (as defined in IPSAS ~~25~~ 39, *Employee Benefits*.) and costs associated with reducing or reorganizing a business following the disposal of an asset, are not direct incremental costs to dispose of the asset.

### **IPSAS 26, *Impairment of Cash-Generating Assets***

Paragraph 2 is amended. New text is underlined and deleted text is struck through.

2. **An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this Standard in accounting for the impairment of cash-generating assets, except for:**
  - (a) ...
  - (g) **Assets arising from employee benefits (see IPSAS ~~25~~ 39, *Employee Benefits*);**

### **IPSAS 28, *Financial Instruments: Presentation***

Paragraph 3 is amended. New text is underlined and deleted text is struck through.

3. **An entity that prepares and presents financial statements under the accrual basis of accounting shall apply this Standard to all types of financial instruments except:**
  - (a) ...
  - (b) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (c) ...

### **IPSAS 29, *Financial Instruments: Recognition and Measurement***

Paragraphs 2 and BC19 are amended. New text is underlined and deleted text is struck through.

2. **This Standard shall be applied by all entities to all types of financial instruments, except:**
  - (a) ...
  - (c) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (d) ...

### **Basis for Conclusions**

- BC19. There may be cases where an active market exists for financial guarantee contracts equivalent to or similar to that issued. In such cases a fair value should be estimated through observation of that active market. Where no active market exists, the IPSASB considered whether an entity should be required to move immediately to an approach based on IPSAS 19. The IPSASB noted that many valuation techniques are highly complex and, as noted in paragraphs AG107 and AG108 may give rise to a range of outcomes. It is arguable that the cost of developing such techniques exceeds the benefits to users of the information provided. An approach based on IPSAS 19 may provide a more reliable and understandable measure of an issuer's risk exposure as a result of entering into a financial guarantee contract. The IPSASB also acknowledged that where an entity does not recognize a liability in accordance with IPSAS 19, the entity makes the disclosures required for contingent liabilities in IPSAS 19 unless an outflow of resources is remote. The information provided to users on risk exposure related to financial

guarantees provided at nil or nominal consideration also includes the credit risk disclosures in IPSAS 30, *Financial Instruments: Disclosures*. Conversely, the IPSASB acknowledged that there are current IPSASs that require the use of experts, such as actuaries, to develop valuation techniques that are inherently complex, such as IPSAS ~~25~~ 39, *Employee Benefits*. On balance the IPSASB concluded that, in the absence of an active market, entities should be permitted to use a valuation technique that does not rely on an observable market where they are satisfied that such a technique provides a reliable and understandable method of determining a fair value for a financial guarantee contract entered into by an issuer by means of a non-exchange transaction. This is particularly the case for non-standard guarantees where there is limited data available on defaults and credit risk.

### **IPSAS 30, *Financial Instruments: Disclosures***

Paragraph 3 is amended. New text is underlined and deleted text is struck through.

3. **This Standard shall be applied by all entities to all types of financial instruments, except:**
  - (a) ...
  - (b) **Employers' rights and obligations under employee benefit plans, to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (d) ...

### **IPSAS 31, *Intangible Assets***

Paragraphs 6, 35 and 64 are amended. New text is underlined and deleted text is struck through.

6. If another IPSAS prescribes the accounting for a specific type of intangible asset, an entity applies that IPSAS instead of this Standard. For example, this Standard does not apply to:
  - (a) ...
  - (c) Assets arising from employee benefits (see IPSAS ~~25~~ 39, *Employee Benefits*);
  - (d) ...
35. Examples of directly attributable costs are:
  - (a) Costs of employee benefits (as defined in IPSAS ~~25~~ 39) arising directly from bringing the asset to its working condition;
  - (b) ...
64. The cost of an internally generated intangible asset comprises all directly attributable costs necessary to create, produce, and prepare the asset to be capable of operating in the manner intended by management. Examples of directly attributable costs are:
  - (a) ...
  - (b) Costs of employee benefits (as defined in IPSAS ~~25~~ 39) arising from the generation of the intangible asset;

### **IPSAS 33, *First-Time Adoption of Accrual Basis IPSASs***

Paragraphs 106, 107 and BC60 are deleted. Paragraphs 36, 102, 104, 105, BC59, BC109, IG50, IG59, IG60, IG61, IG62, IG91, the headings above paragraph 101, BC59 and BC109 and the table in appendix are amended. New text is underlined and deleted text is struck through.

36. **Where a first-time adopter has not recognized assets and/or liabilities under its previous basis of accounting, it is not required to recognize and/or measure the following assets and/or liabilities for reporting periods beginning on a date within three years following the date of adoption of IPSASs:**

- (a) ...
- (d) **Defined benefit plans and other long-term employee benefits (see IPSAS 25 39, *Employee Benefits*);**
- (e) ...

**IPSAS 25 39, *Employee Benefits***

101. ...

*Defined Benefit Plans and Other Long-Term Employee Benefits*

102. **On the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional exemption, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), a first-time adopter shall determine its initial liability for defined benefit plans and other long-term employee benefits at that date as:**

- (a) **The present value of the obligation at the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), by using the Projected Unit Credit Method; and**
- (b) **Minus the fair value, at the date of adoption of IPSASs, or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier) of plan assets (if any) out of which the obligations are to be settled directly; and**
- ~~(c) Minus any past service cost that shall be recognized in later periods as an expense on a straight-line basis over the average period until the benefits become vested.~~

103. ...

104. The effect of the change in the accounting policy to IPSAS 25 39 includes any ~~actuarial gains and losses~~ remeasurements that arose, if any, in earlier periods, ~~even if they fall outside the corridor specified in IPSAS 25~~. Under its previous basis of accounting, a first-time adopter may not have recognized and/or measured any liability, in which case the increase in the liability will represent the full amount of the liability minus the fair value, at the date of adoption of IPSASs or where a first-time adopter takes advantage of the three year transitional relief period, the date on which the exemption expires, or when the relevant liabilities are recognized and/or measured in the financial statements (whichever is earlier), of any plan assets in accordance with paragraph 102(b) ~~and any past service cost to be recognized in later periods in accordance with paragraph 102(c)~~. This increased liability is recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured.

105. **A first-time adopter shall recognize not ~~separate the cumulative actuarial gains and losses from the inception of the defined benefit plan(s), until the date of adoption of IPSASs into a recognized and unrecognized portion.~~ All cumulative actuarial gains and losses remeasurements shall be recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured.**
- ~~106. A first-time adopter is not permitted to separate cumulative actuarial gains and losses into recognized and unrecognized portions on adoption of IPSAS 25. All cumulative actuarial gains and losses shall be recognized in opening accumulated surplus or deficit in the period in which the items are recognized and/or measured. This requirement does however not preclude a first-time adopter electing to recognize only parts of its actuarial gains and losses in accordance with paragraphs 105–107 of IPSAS 25 in subsequent reporting periods.~~
- ~~107. A first-time adopter shall disclose information on experience adjustments in accordance with paragraph 141(p) of IPSAS 25 prospectively on the date of adoption of IPSASs.~~

### Basis for Conclusions

#### IPSAS 25 39, *Employee Benefits*

- BC59. The IPSASB acknowledged that the recognition and/or measurement of specific liabilities in IPSAS 25 39, will be challenging for many public sector entities as new systems may be required and/or existing systems may need to be upgraded. The IPSASB therefore agreed that a first-time adopter should be given a three year relief period for the recognition and/or measurement of assets and liabilities related to defined benefit plans and other long-term employee benefits. To avoid a skewed statement of financial position, the IPSASB further agreed that any plan assets should be recognized and/or measured at the same time as the liabilities. All other employee benefits should be recognized and/or measured on the date of adoption of IPSASs.
- ~~BC60. The IPSASB further noted that full retrospective application of IPSAS 25 would require a first-time adopter to determine actuarial gains or losses for each year since the inception of the plan in order to determine the net cumulative unrecognized gains or losses at the date of adoption of IPSASs. It was concluded that this would be costly and would not benefit users. A first-time adopter is therefore not required to separate cumulative actuarial gains and losses into recognized and unrecognized portions. All cumulative actuarial gains and losses should be recognized in opening accumulated surplus or deficit.~~

#### IPSAS 25 39, *Employee Benefits*

- BC109. The IPSASB also agreed that, where a first-time adopter takes advantage of the exemptions that provide relief for the recognition and/or measurement of liabilities, it should provide information about amounts for the current and previous four annual periods of the present value of the defined benefit obligation, the fair value of the plan assets, and the surplus or deficit in the plan and adjustments as required by IPSAS 25 39 prospectively.

### Implementation Guidance

- IG50. To illustrate: Entity A's first transitional IPSAS financial statements are for the period ending December 31, 20X5 with the first-time adopter electing to present comparative information. In terms of its previous basis of accounting the following transactions and events are noted in entity A's financial statements for December 31, 20X3 and 20X4:

(a) ...

### Application of Requirements

In preparing its opening statement of financial position at January 1, 20X4 and in its comparative statement of financial position at December 31, 20X4, entity A:

(a) ...

(b) Makes estimates (in the form of actuarial assumptions) necessary to account for the pension plan in accordance with IPSAS ~~25~~ 39, *Employee Benefits*. Entity A's actuarial assumptions at January 1, 20X4 and December 31, 20X4 do not reflect conditions that arose after those dates. For example, entity A's:

(i) ...

### IPSAS ~~25~~ 39, Employee Benefits

IG59. At the date of adoption of IPSASs, a first-time adopter applies IPSAS ~~25~~ 39 in measuring defined benefits plans and other long-term employee benefits, and recognizes all cumulative actuarial gains or losses from the inception of the plan until the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemption that provides a three year transitional relief period from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), ~~even if its accounting policy in accordance with IPSAS 25 will involve leaving some later actuarial gains and losses unrecognized (see paragraph 105 of IPSAS 33).~~

IG60. A first-time adopter's actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), are consistent with actuarial assumptions made at the end of its comparative period (if the first-time adopter elects to present comparative information in accordance with paragraph 78 of IPSAS 33) in accordance with its previous basis of accounting (after adjustments to reflect any difference in accounting policies), unless there is objective evidence that those assumptions were in error (paragraph 23 of the IPSAS 33). Any later revisions to those assumptions are an actuarial gain or loss of the period in which the first-time adopter makes the revisions.

IG61. A first-time adopter may need to make actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), that were not necessary in accordance with its basis of accounting. Such actuarial assumptions do not reflect conditions that arose after the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier). In

particular, discount rates and the fair value of plan assets at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the liabilities are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), reflect market conditions at that date. Similarly, the first-time adopter's actuarial assumptions at the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier), about future employee turnover rates do not reflect a significant increase in estimated employee turnover rates as a result of a curtailment of the pension plan that occurred after the date of adoption of IPSASs, or where the first-time adopter takes advantage of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier) (paragraph 23 of IPSAS 33).

IG62. In many cases, a first-time adopter's transitional IPSAS financial statements or its first IPSAS financial statements will reflect measurements of employee benefit obligations at three dates (where a first-time adopter elects to present comparative information in accordance with paragraph 78 of IPSAS 33): the end of the first reporting period, the date of the comparative statement of financial position (where the first-time adopter elects to present comparative information) and the date of adoption of IPSASs, or where the first-time adopter takes advantages of the exemptions that provide relief from the recognition of defined benefit plans and other long-term employee benefits, the date on which the exemptions expire or when the defined benefits plans and other long-term employee benefits are recognized and/or measured in accordance with IPSAS ~~25~~ 39 (whichever is earlier). IPSAS ~~25~~ 39 encourages the first-time adopter to involve a qualified actuary in the measurement of all material post-employment benefit obligations. To minimize costs, a first-time adopter may request a qualified actuary to carry out a detailed actuarial valuation at one or two of these dates and roll the valuation(s) forward or back to the other date(s). Any such roll forward or roll back reflects any material transactions and other material events (including changes in market prices and interest rates) between those dates (paragraph ~~68~~ 61 of IPSAS ~~25~~ 39).

IG91. The diagram below summarizes the transitional exemptions and provisions included in other accrual basis IPSASs



...

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**IPSAS 35, *Consolidated Financial Statements***

Paragraph 6 is amended. New text is underlined and deleted text is struck through.

6. This Standard does not apply to post-employment benefit plans or other long-term employee benefit plans to which IPSAS ~~25~~ 39, *Employee Benefits* applies.

**IPSAS 38, *Disclosure of Interests in Other Entities***

Paragraph 4 is amended. New text is underlined and deleted text is struck through.

4. **This Standard does not apply to:**
  - (a) **Post-employment benefit plans or other long-term employee benefit plans to which IPSAS ~~25~~ 39, *Employee Benefits* applies.**
  - (b) ...

## Basis for Conclusions

*This Basis for Conclusions accompanies, but is not part of, IPSAS 39.*

### Objective

- BC1. IPSAS 25 (2008), *Employee Benefits*, was drawn primarily from International Accounting Standard (IAS) 19 (2004), *Employee Benefits*, issued by the International Accounting Standards Board (IASB). The IASB made a number of amendments to IAS 19 in the 2011-2015 period.
- BC2. In order to update IPSAS 25, the IPSASB approved a limited scope review of IPSAS 25 to converge with the revised IAS 19. The IPSASB decided not to reopen the public sector specific requirements in IPSAS 25, except for the section on Composite Social Security Programs (see paragraphs BC5 and BC6 below).
- BC3. In January 2016, the IPSASB issued Exposure Draft (ED) 59, *Amendments to IPSAS 25, Employee Benefits*. ED 59 proposed amendments to maintain convergence with IAS 19. The proposed amendments made a large number of changes to the text of IPSAS 25. A number of respondents expressed reservations that the scale of these changes impaired the understandability of IPSAS 25. The IPSASB therefore decided to issue a new IPSAS 39, *Employee Benefits*, rather than a revised IPSAS 25, in order to help preparers.
- BC4. This Basis for Conclusions summarizes the IPSASB's considerations in reaching the conclusions in IPSAS 39, *Employee Benefits*. With the exception of Composite Social Security Programs, the Basis for Conclusions only considers those areas where IPSAS 39 departs from the main requirements of IAS 19 (amended in 2011 onwards), or where the IPSASB considered such departures.

### Composite Social Security Programs

- BC5. ED 59 indicated that the IPSASB was considering the deletion of the section on Composite Social Security Programs, because the IPSASB was not aware that it had been applied in any jurisdiction. The IPSASB specifically asked for comments on this issue.
- BC6. No respondent to ED 59 identified a jurisdiction where entities applied these requirements. The majority of respondents supported the deletion of the section on Composite Social Security Programs. As the IPSASB did not identify a new and compelling reason to retain the section, the IPSASB decided not to include it in IPSAS 39.

### State Plans

- BC7. This Standard retains the requirement in IAS 19 that an entity accounts for a state plan in the same way as for a multi-employer plan. The IPSASB concluded that it should provide further commentary to clarify the approach to accounting for state plans by public sector entities as in IPSAS 25. Paragraph 47 provides a rebuttable presumption that the state plan will be characterized as a defined benefit plan by the controlling entity. Only where that presumption is rebutted is the state plan accounted for as a defined contribution plan.

### Defined Benefit Plans with Participating Entities under Common Control

- BC8. In the public sector, there are likely to be many cases where entities under common control participate in defined benefit plans. IAS 19 includes commentary on defined benefit plans that

share risks between entities under common control. The IPSASB considered that the requirements in IAS 19 are appropriate in the public sector. The IPSASB also considered it appropriate to emphasize that, unless there is a contractual agreement, binding arrangement, or stated policy for charging the net defined benefit cost for the plan as a whole to an individual entity, it is inappropriate for controlled entities to account on a defined benefit basis as in IPSAS 25. In such cases, the controlling entity should account for such plans on a defined benefit basis in its consolidated financial statements. Controlled entities (a) account on a defined contribution basis, (b) identify the controlling entity, and (c) disclose that the controlling entity is accounting on a defined benefit basis in its consolidated financial statements. This is reflected in paragraph 42. Controlled entities also make the disclosures specified in paragraph 151.

### *Discount Rates*

- BC9. IAS 19 requires adoption of a discount rate based on the market yields at the end of the reporting period on high quality corporate bonds. The IPSASB decided that the discount rate should reflect the time value of money, and considered that entities should be left to determine the rate that best achieves that objective in the same way as in IPSAS 25. The IPSASB considered that the time value of money may be best reflected by reference to market yields on government bonds, high quality corporate bonds, or any other financial instrument. The discount rate used is not intended to incorporate the risk associated with defined benefit obligations or entity-specific credit risk. There is an additional disclosure requirement at paragraph 141(d) informing users of the basis on which the discount rate has been determined.
- BC10. The IPSASB considered whether it should provide guidance to assist entities operating in jurisdictions where there is neither a deep market in government bonds nor a deep market in high quality corporate bonds to determine a discount rate that reflects the time value of money. The IPSASB acknowledges that determination of an appropriate discount rate is likely to be a difficult issue for entities operating in such jurisdictions, and that such entities may be in the process of migrating, or have recently migrated, to the accrual basis of accounting. However, the IPSASB concluded that this is not an issue that applies only in the public sector, and that there is an insufficiently clear public sector-specific reason to provide such guidance.

### *Other Long-Term Employee Benefits: Long-Term Disability Benefits*

- BC11. IAS 19 lists long-term disability benefits as an example of an “other long-term employee benefit.” IAS 19 states that “the measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits.” In the public sector, disability benefits related to certain areas of service provision, such as the military, may be financially highly significant, and related actuarial gains or losses volatile.
- BC12. Therefore, IPSAS 39 retains the rebuttable presumption included in IPSAS 25 that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for using the same requirements as for post-employment benefits.

*Other Long-Term Employee Benefits: Compensation Payable by the Reporting Entity until an Individual Enters New Employment*

- BC13. Although it does not consider it likely that such circumstances are widespread, the IPSASB acknowledged that there may be cases where a reporting entity is contractually bound to make compensation payments separate from a termination benefit to a past employee until he/she enters new employment. The list of other long-term benefits in paragraph 155 was therefore amended to include such circumstances, as in IPSAS 25.

*Remeasurements*

- BC14. IAS 19 (amended in 2011) recognizes remeasurements of the net defined liability (asset) in other comprehensive income rather than in profit or loss. The IPSASB noted that *The Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* does not acknowledge “other comprehensive income”, and that “other comprehensive income” is not a defined term in IPSAS 1, *Presentation of Financial Statements*. The IPSASB considered that recognizing remeasurements in net assets/equity would have the same accounting outcome as IAS 19 in not impacting surplus or deficit with components of defined benefit cost that have different predictive values. Therefore, the IPSASB decided to recognize remeasurements in net assets/equity rather than surplus or deficit.
- BC15. The IPSASB noted that paragraph 45 of IPSAS 1 requires an entity to present each material class of similar items separately in the financial statements. Items of a dissimilar nature or function are presented separately, unless they are immaterial. Therefore, the IPSASB considered that a separate presentation of remeasurements of post-employment benefits may be required in the statement of changes in net assets/equity, if it is material.

*Requirements of Government Finance Statistics Reporting Guidelines*

- BC16. The IPSASB considered the requirements of Government Finance Statistics (GFS) reporting guidelines on the classification, presentation, recognition, measurement and disclosure of employee benefits and identified some differences with both the revised IAS 19 and with IPSAS 39.
- BC17. GFS reporting guidelines do not apply the net interest approach, but rather recognize the proceeds of fund assets and interest on fund liabilities according to the economic nature of these revenues and expenses. GFS then attributes the property income and the increase in the liability for benefit entitlements due to the passage of time through an entry in “property expense for investment income disbursements”. In IPSAS 39 equivalent entries are presented in surplus or deficit.
- BC18. For autonomous funds recognized outside the employer’s accounts, GFS recognizes a claim of the pension fund on the pension manager for deficits of the pension fund in specific circumstances. In these cases, GFS does not require the recognition of an interest expense in the employers’ accounts due to the passage of time in recognizing that claim.
- BC19. In GFS, the plan assets are generally measured on the same basis as other assets, which is normally market value. Therefore, unlike IPSAS 39, no additional calculation to include the discount rate in the plan assets as a whole is necessary to estimate present value. However, in GFS some assets are not measured at market value. This may give rise to different

valuations between IPSAS 39 and GFS (for example: loans are measured at nominal value in GFS and usually at amortized cost in IPSAS).

- BC20. In GFS, any changes in the volume or value of assets that do not result from transactions are recorded in the Statement of Other Economic Flows, which includes the effect of the passage of time. In GFS, the pension fund only records actual revenue from transactions such as interest, dividends and rents in the Statement of Operations.
- BC21. GFS does not disaggregate employee benefits into short-term and long-term employee benefits and does not require specific disclosures on employee benefits, except for the supplementary table on pension schemes in social insurance specified in the System of National Accounts 2008.
- BC22. The IPSASB concluded that these differences are due to the different objectives and presentational frameworks of IPSAS and GFS. They do not constitute public sector specific reasons that warrant departure from IAS 19.

### Comparison with IAS 19

IPSAS 39 is drawn primarily from IAS 19 (issued in 2011, including amendments up to December 31, 2015). The main differences between IPSAS 39 and IAS 19 are as follows:

- IPSAS 39 contains additional guidance on public sector bonus plans.
- For discounting post-employment obligations, IAS 19 requires entities to apply a discount rate based on yields on high quality corporate bonds consistent with the currency and estimated term of the post-employment benefit obligations. The requirement in IPSAS 39 is that entities apply a rate that reflects the time value of money. IPSAS 39 also contains a requirement that entities disclose the basis on which the discount rate has been determined.
- IPSAS 39 includes a rebuttable presumption that long-term disability payments are not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. Where this presumption is rebutted, the entity considers whether some or all long-term disability payments should be accounted for in the same way as for post-employment benefits. IAS 19 does not include such a rebuttable presumption.
- IPSAS 39 recognizes remeasurements of the net defined benefit liability (asset) in net assets/equity. IAS 19 recognizes them in other comprehensive income.
- IPSAS 39 uses different terminology, in certain instances, from IAS 19. The most significant examples are the use of the terms “revenue”, “controlling” and “controlled entities”. The equivalent terms in IAS 19 are “income”, “parent” and “subsidiaries”.

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**IAS Standard 19**

## Employee Benefits

In April 2001 the International Accounting Standards Board (the Board) adopted IAS 19 *Employee Benefits*, which had originally been issued by the International Accounting Standards Committee in February 1998. IAS 19 *Employee Benefits* replaced IAS 19 *Accounting for Retirement Benefits in the Financial Statements of Employers* (issued in January 1983). IAS 19 was further amended in 1993 and renamed as IAS 19 *Retirement Benefit Costs*.

The Board amended the accounting for multi-employer plans and group plans in December 2004. In June 2011 the Board revised IAS 19; this included eliminating an option that allowed an entity to defer the recognition of changes in net defined benefit liability and amending some of the disclosure requirements for defined benefit plans and multi-employer plans.

In November 2013 IAS 19 was amended by *Defined Benefit Plans: Employee Contributions* (Amendments to IAS 19). The amendments simplified the requirements for contributions from employees or third parties to a defined benefit plan, when those contributions are applied to a simple contributory plan that is linked to service.

Other Standards have made minor consequential amendments to IAS 19, including *Annual Improvements to IFRSs 2012–2014 Cycle* (issued September 2014).

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APPROVAL BY THE BOARD OF *ACTUARIAL GAINS AND LOSSES, GROUP PLANS AND DISCLOSURES* (AMENDMENT TO IAS 19) ISSUED IN DECEMBER 2004

APPROVAL BY THE BOARD OF IAS 19 ISSUED IN JUNE 2011

APPROVAL BY THE BOARD OF *DEFINED BENEFIT PLANS: EMPLOYEE CONTRIBUTIONS* (AMENDMENTS TO IAS 19) ISSUED IN NOVEMBER 2013

BASIS FOR CONCLUSIONS

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TABLE OF CONCORDANCE

## IAS 19

International Accounting Standard 19 *Employee Benefits* (IAS 19) is set out in paragraphs 1–177 and Appendices A–B. All the paragraphs have equal authority but retain the IASC format of the Standard when it was adopted by the IASB. IAS 19 should be read in the context of its objective and the Basis for Conclusions, the *Preface to International Financial Reporting Standards* and the *Conceptual Framework for Financial Reporting*. IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

## Introduction

- IN1 IAS 19 *Employee Benefits* prescribes the accounting and disclosure by employers for employee benefits. The Standard does not deal with reporting by employee benefit plans (see IAS 26 *Accounting and Reporting by Retirement Benefit Plans*).
- IN2 The Standard identifies four categories of employee benefits:
- (a) short-term employee benefits, such as the following (if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services): wages, salaries and social security contributions, paid annual leave and paid sick leave, profit-sharing and bonuses and non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees;
  - (b) post-employment benefits such as retirement benefits (eg pensions and lump sum payments on retirement), post-employment life insurance and post-employment medical care;
  - (c) other long-term employee benefits, such as long-service leave or sabbatical leave, jubilee or other long-service benefits, long-term disability benefits; and
  - (d) termination benefits.
- IN3 The Standard requires an entity to recognise short-term employee benefits when an employee has rendered service in exchange for those benefits.
- IN4 Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans. The Standard gives specific guidance on the classification of multi-employer plans, state plans and plans with insured benefits.
- IN5 Under defined contribution plans, an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods. The Standard requires an entity to recognise contributions to a defined contribution plan when an employee has rendered service in exchange for those contributions.
- IN6 All other post-employment benefit plans are defined benefit plans. Defined benefit plans may be unfunded, or they may be wholly or partly funded. The Standard requires an entity:
- (a) to account not only for its legal obligation, but also for any constructive obligation that arises from the entity's practices.
  - (b) to determine the present value of defined benefit obligations and the fair value of any plan assets with sufficient regularity that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.

- (c) to use the projected unit credit method to measure its obligations and costs.
- (d) to attribute benefit to periods of service under the plan's benefit formula, unless an employee's service in later years will lead to a materially higher level of benefit than in earlier years.
- (e) to use unbiased and mutually compatible actuarial assumptions about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries, changes in medical costs and particular changes in state benefits). Financial assumptions should be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.
- (f) to determine the discount rate by reference to market yields at the end of the reporting period on high quality corporate bonds (or, for currencies in which there is no deep market in such high quality corporate bonds, government bonds denominated in that currency) of a currency and term consistent with the currency and term of the post-employment benefit obligations.
- (g) to deduct the fair value of any plan assets from the carrying amount of the obligation in order to determine the net defined benefit liability (asset). Some reimbursement rights that do not qualify as plan assets are treated in the same way as plan assets, except that they are presented as a separate asset, rather than as a deduction from the obligation.
- (h) to limit the carrying amount of a net defined benefit asset so that it does not exceed the economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.
- (i) to recognise all changes in the net defined benefit liability (asset) when they occur, as follows:
  - (i) service cost and net interest in profit or loss; and
  - (ii) remeasurements in other comprehensive income.

IN7 Employee benefits other than short-term employee benefits, post-employment benefits and termination benefits are other long-term employee benefits. For other long-term employee benefits, the Standard requires the same recognition and measurement as for post-employment benefits but all changes in the carrying amount of liabilities for other long-term employment benefits are recognised in profit or loss. The Standard does not require specific disclosures about other long-term employee benefits.

IN8 Termination benefits are employee benefits payable as a result of either an entity's decision to terminate an employee's employment before the normal retirement date or an employee's decision to accept an offer of benefits in exchange for the termination of employment. An entity is required to recognise termination benefits at the earlier of when the entity can no longer withdraw an offer of those benefits and when it recognises any related restructuring costs.

## International Accounting Standard 19

### *Employee Benefits*

#### Objective

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- 1 The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognise:
- (a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
  - (b) an expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

#### Scope

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- 2 **This Standard shall be applied by an employer in accounting for all employee benefits, except those to which IFRS 2 Share-based Payment applies.**
- 3 This Standard does not deal with reporting by employee benefit plans (see IAS 26 *Accounting and Reporting by Retirement Benefit Plans*).
- 4 The employee benefits to which this Standard applies include those provided:
- (a) under formal plans or other formal agreements between an entity and individual employees, groups of employees or their representatives;
  - (b) under legislative requirements, or through industry arrangements, whereby entities are required to contribute to national, state, industry or other multi-employer plans; or
  - (c) by those informal practices that give rise to a constructive obligation. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.
- 5 Employee benefits include:
- (a) short-term employee benefits, such as the following, if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services:
    - (i) wages, salaries and social security contributions;
    - (ii) paid annual leave and paid sick leave;
    - (iii) profit-sharing and bonuses; and
    - (iv) non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees;
  - (b) post-employment benefits, such as the following:



- (i) retirement benefits (eg pensions and lump sum payments on retirement); and
    - (ii) other post-employment benefits, such as post-employment life insurance and post-employment medical care;
  - (c) other long-term employee benefits, such as the following:
    - (i) long-term paid absences such as long-service leave or sabbatical leave;
    - (ii) jubilee or other long-service benefits; and
    - (iii) long-term disability benefits; and
  - (d) termination benefits.
- 6 Employee benefits include benefits provided either to employees or to their dependants or beneficiaries and may be settled by payments (or the provision of goods or services) made either directly to the employees, to their spouses, children or other dependants or to others, such as insurance companies.
- 7 An employee may provide services to an entity on a full-time, part-time, permanent, casual or temporary basis. For the purpose of this Standard, employees include directors and other management personnel.

## Definitions

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- 8 The following terms are used in this Standard with the meanings specified:

### Definitions of employee benefits

**Employee benefits** are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

**Short-term employee benefits** are employee benefits (other than termination benefits) that are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

**Post-employment benefits** are employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

**Other long-term employee benefits** are all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits.

**Termination benefits** are employee benefits provided in exchange for the termination of an employee's employment as a result of either:

- (a) an entity's decision to terminate an employee's employment before the normal retirement date; or
- (b) an employee's decision to accept an offer of benefits in exchange for the termination of employment.

### Definitions relating to classification of plans

*Post-employment benefit plans* are formal or informal arrangements under which an entity provides post-employment benefits for one or more employees.

*Defined contribution plans* are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

*Defined benefit plans* are post-employment benefit plans other than defined contribution plans.

*Multi-employer plans* are defined contribution plans (other than state plans) or defined benefit plans (other than state plans) that:

- (a) pool the assets contributed by various entities that are not under common control; and
- (b) use those assets to provide benefits to employees of more than one entity, on the basis that contribution and benefit levels are determined without regard to the identity of the entity that employs the employees.

### Definitions relating to the net defined benefit liability (asset)

The *net defined benefit liability* (asset) is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling.

The deficit or surplus is:

- (a) the present value of the defined benefit obligation less
- (b) the fair value of plan assets (if any).

The *asset ceiling* is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The *present value of a defined benefit obligation* is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

*Plan assets* comprise:

- (a) assets held by a long-term employee benefit fund; and
- (b) qualifying insurance policies.

*Assets held by a long-term employee benefit fund* are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- (a) are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and
- (b) are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity, unless either:
  - (i) the remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or
  - (ii) the assets are returned to the reporting entity to reimburse it for employee benefits already paid.

A *qualifying insurance policy* is an insurance policy<sup>1</sup> issued by an insurer that is not a related party (as defined in IAS 24 *Related Party Disclosures*) of the reporting entity, if the proceeds of the policy:

- (a) can be used only to pay or fund employee benefits under a defined benefit plan; and
- (b) are not available to the reporting entity's own creditors (even in bankruptcy) and cannot be paid to the reporting entity, unless either:
  - (i) the proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or
  - (ii) the proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

*Fair value* is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (See IFRS 13 *Fair Value Measurement*.)

### Definitions relating to defined benefit cost

*Service cost* comprises:

- (a) *current service cost*, which is the increase in the present value of the defined benefit obligation resulting from employee service in the current period;
- (b) *past service cost*, which is the change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by a plan); and
- (c) any gain or loss on settlement.

<sup>1</sup> A qualifying insurance policy is not necessarily an insurance contract, as defined in IFRS 4 *Insurance Contracts*.

**Net interest on the net defined benefit liability (asset)** is the change during the period in the net defined benefit liability (asset) that arises from the passage of time.

**Remeasurements of the net defined benefit liability (asset)** comprise:

- (a) actuarial gains and losses;
- (b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- (c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

**Actuarial gains and losses** are changes in the present value of the defined benefit obligation resulting from:

- (a) experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred); and
- (b) the effects of changes in actuarial assumptions.

**The return on plan assets** is interest, dividends and other income derived from the plan assets, together with realised and unrealised gains or losses on the plan assets, less:

- (a) any costs of managing plan assets; and
- (b) any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the present value of the defined benefit obligation.

**A settlement** is a transaction that eliminates all further legal or constructive obligations for part or all of the benefits provided under a defined benefit plan, other than a payment of benefits to, or on behalf of, employees that is set out in the terms of the plan and included in the actuarial assumptions.

## Short-term employee benefits

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- 9 Short-term employee benefits include items such as the following, if expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services:
- (a) wages, salaries and social security contributions;
  - (b) paid annual leave and paid sick leave;
  - (c) profit-sharing and bonuses; and
  - (d) non-monetary benefits (such as medical care, housing, cars and free or subsidised goods or services) for current employees.
- 10 An entity need not reclassify a short-term employee benefit if the entity's expectations of the timing of settlement change temporarily. However, if the characteristics of the benefit change (such as a change from a non-accumulating benefit to an accumulating benefit) or if a change in expectations of the timing

of settlement is not temporary, then the entity considers whether the benefit still meets the definition of short-term employee benefits.

## **Recognition and measurement**

### **All short-term employee benefits**

- 11** When an employee has rendered service to an entity during an accounting period, the entity shall recognise the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service:
- (a) as a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, an entity shall recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.
  - (b) as an expense, unless another IFRS requires or permits the inclusion of the benefits in the cost of an asset (see, for example, IAS 2 *Inventories* and IAS 16 *Property, Plant and Equipment*).
- 12** Paragraphs 13, 16 and 19 explain how an entity shall apply paragraph 11 to short-term employee benefits in the form of paid absences and profit-sharing and bonus plans.

### **Short-term paid absences**

- 13** An entity shall recognise the expected cost of short-term employee benefits in the form of paid absences under paragraph 11 as follows:
- (a) in the case of accumulating paid absences, when the employees render service that increases their entitlement to future paid absences.
  - (b) in the case of non-accumulating paid absences, when the absences occur.
- 14** An entity may pay employees for absence for various reasons including holidays, sickness and short-term disability, maternity or paternity, jury service and military service. Entitlement to paid absences falls into two categories:
- (a) accumulating; and
  - (b) non-accumulating.
- 15** Accumulating paid absences are those that are carried forward and can be used in future periods if the current period's entitlement is not used in full. Accumulating paid absences may be either vesting (in other words, employees are entitled to a cash payment for unused entitlement on leaving the entity) or non-vesting (when employees are not entitled to a cash payment for unused entitlement on leaving). An obligation arises as employees render service that increases their entitlement to future paid absences. The obligation exists, and is recognised, even if the paid absences are non-vesting, although the possibility that employees may leave before they use an accumulated non-vesting entitlement affects the measurement of that obligation.

**16 An entity shall measure the expected cost of accumulating paid absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.**

17 The method specified in the previous paragraph measures the obligation at the amount of the additional payments that are expected to arise solely from the fact that the benefit accumulates. In many cases, an entity may not need to make detailed computations to estimate that there is no material obligation for unused paid absences. For example, a sick leave obligation is likely to be material only if there is a formal or informal understanding that unused paid sick leave may be taken as paid annual leave.

**Example illustrating paragraphs 16 and 17**

An entity has 100 employees, who are each entitled to five working days of paid sick leave for each year. Unused sick leave may be carried forward for one calendar year. Sick leave is taken first out of the current year's entitlement and then out of any balance brought forward from the previous year (a LIFO basis). At 31 December 20X1 the average unused entitlement is two days per employee. The entity expects, on the basis of experience that is expected to continue, that 92 employees will take no more than five days of paid sick leave in 20X2 and that the remaining eight employees will take an average of six and a half days each.

*The entity expects that it will pay an additional twelve days of sick pay as a result of the unused entitlement that has accumulated at 31 December 20X1 (one and a half days each, for eight employees). Therefore, the entity recognises a liability equal to twelve days of sick pay.*

18 Non-accumulating paid absences do not carry forward: they lapse if the current period's entitlement is not used in full and do not entitle employees to a cash payment for unused entitlement on leaving the entity. This is commonly the case for sick pay (to the extent that unused past entitlement does not increase future entitlement), maternity or paternity leave and paid absences for jury service or military service. An entity recognises no liability or expense until the time of the absence, because employee service does not increase the amount of the benefit.

**Profit-sharing and bonus plans**

**19 An entity shall recognise the expected cost of profit-sharing and bonus payments under paragraph 11 when, and only when:**

- (a) the entity has a present legal or constructive obligation to make such payments as a result of past events; and**
- (b) a reliable estimate of the obligation can be made.**

**A present obligation exists when, and only when, the entity has no realistic alternative but to make the payments.**

20 Under some profit-sharing plans, employees receive a share of the profit only if they remain with the entity for a specified period. Such plans create a

constructive obligation as employees render service that increases the amount to be paid if they remain in service until the end of the specified period. The measurement of such constructive obligations reflects the possibility that some employees may leave without receiving profit-sharing payments.

|                                          |
|------------------------------------------|
| <b>Example illustrating paragraph 20</b> |
|------------------------------------------|

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>A profit-sharing plan requires an entity to pay a specified proportion of its profit for the year to employees who serve throughout the year. If no employees leave during the year, the total profit-sharing payments for the year will be 3 per cent of profit. The entity estimates that staff turnover will reduce the payments to 2.5 per cent of profit.</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                           |
|-------------------------------------------------------------------------------------------|
| <p><i>The entity recognises a liability and an expense of 2.5 per cent of profit.</i></p> |
|-------------------------------------------------------------------------------------------|

- 21 An entity may have no legal obligation to pay a bonus. Nevertheless, in some cases, an entity has a practice of paying bonuses. In such cases, the entity has a constructive obligation because the entity has no realistic alternative but to pay the bonus. The measurement of the constructive obligation reflects the possibility that some employees may leave without receiving a bonus.
- 22 An entity can make a reliable estimate of its legal or constructive obligation under a profit-sharing or bonus plan when, and only when:
- (a) the formal terms of the plan contain a formula for determining the amount of the benefit;
  - (b) the entity determines the amounts to be paid before the financial statements are authorised for issue; or
  - (c) past practice gives clear evidence of the amount of the entity's constructive obligation.
- 23 An obligation under profit-sharing and bonus plans results from employee service and not from a transaction with the entity's owners. Therefore, an entity recognises the cost of profit-sharing and bonus plans not as a distribution of profit but as an expense.
- 24 If profit-sharing and bonus payments are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service, those payments are other long-term employee benefits (see paragraphs 153–158).

### Disclosure

- 25 Although this Standard does not require specific disclosures about short-term employee benefits, other IFRSs may require disclosures. For example, IAS 24 requires disclosures about employee benefits for key management personnel. IAS 1 *Presentation of Financial Statements* requires disclosure of employee benefits expense.

### Post-employment benefits: distinction between defined contribution plans and defined benefit plans

- 26 Post-employment benefits include items such as the following:

- (a) retirement benefits (eg pensions and lump sum payments on retirement); and
- (b) other post-employment benefits, such as post-employment life insurance and post-employment medical care.

Arrangements whereby an entity provides post-employment benefits are post-employment benefit plans. An entity applies this Standard to all such arrangements whether or not they involve the establishment of a separate entity to receive contributions and to pay benefits.

27 Post-employment benefit plans are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions.

28 Under defined contribution plans the entity's legal or constructive obligation is limited to the amount that it agrees to contribute to the fund. Thus, the amount of the post-employment benefits received by the employee is determined by the amount of contributions paid by an entity (and perhaps also the employee) to a post-employment benefit plan or to an insurance company, together with investment returns arising from the contributions. In consequence, actuarial risk (that benefits will be less than expected) and investment risk (that assets invested will be insufficient to meet expected benefits) fall, in substance, on the employee.

29 Examples of cases where an entity's obligation is not limited to the amount that it agrees to contribute to the fund are when the entity has a legal or constructive obligation through:

- (a) a plan benefit formula that is not linked solely to the amount of contributions and requires the entity to provide further contributions if assets are insufficient to meet the benefits in the plan benefit formula;
- (b) a guarantee, either indirectly through a plan or directly, of a specified return on contributions; or
- (c) those informal practices that give rise to a constructive obligation. For example, a constructive obligation may arise where an entity has a history of increasing benefits for former employees to keep pace with inflation even where there is no legal obligation to do so.

30 Under defined benefit plans:

- (a) the entity's obligation is to provide the agreed benefits to current and former employees; and
- (b) actuarial risk (that benefits will cost more than expected) and investment risk fall, in substance, on the entity. If actuarial or investment experience are worse than expected, the entity's obligation may be increased.

31 Paragraphs 32–49 explain the distinction between defined contribution plans and defined benefit plans in the context of multi-employer plans, defined benefit plans that share risks between entities under common control, state plans and insured benefits.



### **Multi-employer plans**

- 32 **An entity shall classify a multi-employer plan as a defined contribution plan or a defined benefit plan under the terms of the plan (including any constructive obligation that goes beyond the formal terms).**
- 33 **If an entity participates in a multi-employer defined benefit plan, unless paragraph 34 applies, it shall:**
- (a) **account for its proportionate share of the defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan; and**
  - (b) **disclose the information required by paragraphs 135-148 (excluding paragraph 148(d)).**
- 34 **When sufficient information is not available to use defined benefit accounting for a multi-employer defined benefit plan, an entity shall:**
- (a) **account for the plan in accordance with paragraphs 51 and 52 as if it were a defined contribution plan; and**
  - (b) **disclose the information required by paragraph 148.**
- 35 One example of a multi-employer defined benefit plan is one where:
- (a) the plan is financed on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the benefits falling due in the same period; and future benefits earned during the current period will be paid out of future contributions; and
  - (b) employees' benefits are determined by the length of their service and the participating entities have no realistic means of withdrawing from the plan without paying a contribution for the benefits earned by employees up to the date of withdrawal. Such a plan creates actuarial risk for the entity: if the ultimate cost of benefits already earned at the end of the reporting period is more than expected, the entity will have either to increase its contributions or to persuade employees to accept a reduction in benefits. Therefore, such a plan is a defined benefit plan.
- 36 Where sufficient information is available about a multi-employer defined benefit plan, an entity accounts for its proportionate share of the defined benefit obligation, plan assets and post-employment cost associated with the plan in the same way as for any other defined benefit plan. However, an entity may not be able to identify its share of the underlying financial position and performance of the plan with sufficient reliability for accounting purposes. This may occur if:
- (a) the plan exposes the participating entities to actuarial risks associated with the current and former employees of other entities, with the result that there is no consistent and reliable basis for allocating the obligation, plan assets and cost to individual entities participating in the plan; or
  - (b) the entity does not have access to sufficient information about the plan to satisfy the requirements of this Standard.
- In those cases, an entity accounts for the plan as if it were a defined contribution plan and discloses the information required by paragraph 148.

- 37 There may be a contractual agreement between the multi-employer plan and its participants that determines how the surplus in the plan will be distributed to the participants (or the deficit funded). A participant in a multi-employer plan with such an agreement that accounts for the plan as a defined contribution plan in accordance with paragraph 34 shall recognise the asset or liability that arises from the contractual agreement and the resulting income or expense in profit or loss.

**Example illustrating paragraph 37**

An entity participates in a multi-employer defined benefit plan that does not prepare plan valuations on an IAS 19 basis. It therefore accounts for the plan as if it were a defined contribution plan. A non-IAS 19 funding valuation shows a deficit of CU100 million<sup>(a)</sup> in the plan. The plan has agreed under contract a schedule of contributions with the participating employers in the plan that will eliminate the deficit over the next five years. The entity's total contributions under the contract are CU8 million.

*The entity recognises a liability for the contributions adjusted for the time value of money and an equal expense in profit or loss.*

(a) In this Standard monetary amounts are denominated in 'currency units (CU)'.

- 38 Multi-employer plans are distinct from group administration plans. A group administration plan is merely an aggregation of single employer plans combined to allow participating employers to pool their assets for investment purposes and reduce investment management and administration costs, but the claims of different employers are segregated for the sole benefit of their own employees. Group administration plans pose no particular accounting problems because information is readily available to treat them in the same way as any other single employer plan and because such plans do not expose the participating entities to actuarial risks associated with the current and former employees of other entities. The definitions in this Standard require an entity to classify a group administration plan as a defined contribution plan or a defined benefit plan in accordance with the terms of the plan (including any constructive obligation that goes beyond the formal terms).

- 39 **In determining when to recognise, and how to measure, a liability relating to the wind-up of a multi-employer defined benefit plan, or the entity's withdrawal from a multi-employer defined benefit plan, an entity shall apply IAS 37 Provisions, Contingent Liabilities and Contingent Assets.**

**Defined benefit plans that share risks between entities under common control**

- 40 Defined benefit plans that share risks between entities under common control, for example, a parent and its subsidiaries, are not multi-employer plans.
- 41 An entity participating in such a plan shall obtain information about the plan as a whole measured in accordance with this Standard on the basis of assumptions that apply to the plan as a whole. If there is a contractual agreement or stated policy for charging to individual group entities the net defined benefit cost for

the plan as a whole measured in accordance with this Standard, the entity shall, in its separate or individual financial statements, recognise the net defined benefit cost so charged. If there is no such agreement or policy, the net defined benefit cost shall be recognised in the separate or individual financial statements of the group entity that is legally the sponsoring employer for the plan. The other group entities shall, in their separate or individual financial statements, recognise a cost equal to their contribution payable for the period.

- 42 Participation in such a plan is a related party transaction for each individual group entity. An entity shall therefore, in its separate or individual financial statements, disclose the information required by paragraph 149.

### State plans

- 43 **An entity shall account for a state plan in the same way as for a multi-employer plan (see paragraphs 32–39).**

- 44 State plans are established by legislation to cover all entities (or all entities in a particular category, for example, a specific industry) and are operated by national or local government or by another body (for example, an autonomous agency created specifically for this purpose) that is not subject to control or influence by the reporting entity. Some plans established by an entity provide both compulsory benefits, as a substitute for benefits that would otherwise be covered under a state plan, and additional voluntary benefits. Such plans are not state plans.

- 45 State plans are characterised as defined benefit or defined contribution, depending on the entity's obligation under the plan. Many state plans are funded on a pay-as-you-go basis: contributions are set at a level that is expected to be sufficient to pay the required benefits falling due in the same period; future benefits earned during the current period will be paid out of future contributions. Nevertheless, in most state plans the entity has no legal or constructive obligation to pay those future benefits: its only obligation is to pay the contributions as they fall due and if the entity ceases to employ members of the state plan, it will have no obligation to pay the benefits earned by its own employees in previous years. For this reason, state plans are normally defined contribution plans. However, when a state plan is a defined benefit plan an entity applies paragraphs 32–39.

### Insured benefits

- 46 **An entity may pay insurance premiums to fund a post-employment benefit plan. The entity shall treat such a plan as a defined contribution plan unless the entity will have (either directly, or indirectly through the plan) a legal or constructive obligation either:**

- (a) to pay the employee benefits directly when they fall due; or
- (b) to pay further amounts if the insurer does not pay all future employee benefits relating to employee service in the current and prior periods.

**If the entity retains such a legal or constructive obligation, the entity shall treat the plan as a defined benefit plan.**

- 47 The benefits insured by an insurance policy need not have a direct or automatic relationship with the entity's obligation for employee benefits. Post-employment benefit plans involving insurance policies are subject to the same distinction between accounting and funding as other funded plans.
- 48 Where an entity funds a post-employment benefit obligation by contributing to an insurance policy under which the entity (either directly, indirectly through the plan, through the mechanism for setting future premiums or through a related party relationship with the insurer) retains a legal or constructive obligation, the payment of the premiums does not amount to a defined contribution arrangement. It follows that the entity:
- (a) accounts for a qualifying insurance policy as a plan asset (see paragraph 8); and
  - (b) recognises other insurance policies as reimbursement rights (if the policies satisfy the criterion in paragraph 116).
- 49 Where an insurance policy is in the name of a specified plan participant or a group of plan participants and the entity does not have any legal or constructive obligation to cover any loss on the policy, the entity has no obligation to pay benefits to the employees and the insurer has sole responsibility for paying the benefits. The payment of fixed premiums under such contracts is, in substance, the settlement of the employee benefit obligation, rather than an investment to meet the obligation. Consequently, the entity no longer has an asset or a liability. Therefore, an entity treats such payments as contributions to a defined contribution plan.

### Post-employment benefits: defined contribution plans

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- 50 Accounting for defined contribution plans is straightforward because the reporting entity's obligation for each period is determined by the amounts to be contributed for that period. Consequently, no actuarial assumptions are required to measure the obligation or the expense and there is no possibility of any actuarial gain or loss. Moreover, the obligations are measured on an undiscounted basis, except where they are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

### Recognition and measurement

- 51 **When an employee has rendered service to an entity during a period, the entity shall recognise the contribution payable to a defined contribution plan in exchange for that service:**
- (a) **as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, an entity shall recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.**

- (b) as an expense, unless another IFRS requires or permits the inclusion of the contribution in the cost of an asset (see, for example, IAS 2 and IAS 16).

52 When contributions to a defined contribution plan are not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service, they shall be discounted using the discount rate specified in paragraph 83.

### Disclosure

53 An entity shall disclose the amount recognised as an expense for defined contribution plans.

54 Where required by IAS 24 an entity discloses information about contributions to defined contribution plans for key management personnel.

## Post-employment benefits: defined benefit plans

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55 Accounting for defined benefit plans is complex because actuarial assumptions are required to measure the obligation and the expense and there is a possibility of actuarial gains and losses. Moreover, the obligations are measured on a discounted basis because they may be settled many years after the employees render the related service.

### Recognition and measurement

56 Defined benefit plans may be unfunded, or they may be wholly or partly funded by contributions by an entity, and sometimes its employees, into an entity, or fund, that is legally separate from the reporting entity and from which the employee benefits are paid. The payment of funded benefits when they fall due depends not only on the financial position and the investment performance of the fund but also on an entity's ability, and willingness, to make good any shortfall in the fund's assets. Therefore, the entity is, in substance, underwriting the actuarial and investment risks associated with the plan. Consequently, the expense recognised for a defined benefit plan is not necessarily the amount of the contribution due for the period.

57 Accounting by an entity for defined benefit plans involves the following steps:

- (a) determining the deficit or surplus. This involves:
  - (i) using an actuarial technique, the projected unit credit method, to make a reliable estimate of the ultimate cost to the entity of the benefit that employees have earned in return for their service in the current and prior periods (see paragraphs 67–69). This requires an entity to determine how much benefit is attributable to the current and prior periods (see paragraphs 70–74) and to make estimates (actuarial assumptions) about demographic variables (such as employee turnover and mortality) and financial variables (such as future increases in salaries and medical costs) that will affect the cost of the benefit (see paragraphs 75–98).

- (ii) discounting that benefit in order to determine the present value of the defined benefit obligation and the current service cost (see paragraphs 67–69 and 83–86).
  - (iii) deducting the fair value of any plan assets (see paragraphs 113–115) from the present value of the defined benefit obligation.
- (b) determining the amount of the net defined benefit liability (asset) as the amount of the deficit or surplus determined in (a), adjusted for any effect of limiting a net defined benefit asset to the asset ceiling (see paragraph 64).
- (c) determining amounts to be recognised in profit or loss:
  - (i) current service cost (see paragraphs 70–74).
  - (ii) any past service cost and gain or loss on settlement (see paragraphs 99–112).
  - (iii) net interest on the net defined benefit liability (asset) (see paragraphs 123–126).
- (d) determining the remeasurements of the net defined benefit liability (asset), to be recognised in other comprehensive income, comprising:
  - (i) actuarial gains and losses (see paragraphs 128 and 129);
  - (ii) return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 130); and
  - (iii) any change in the effect of the asset ceiling (see paragraph 64), excluding amounts included in net interest on the net defined benefit liability (asset).

Where an entity has more than one defined benefit plan, the entity applies these procedures for each material plan separately.

**58      An entity shall determine the net defined benefit liability (asset) with sufficient regularity that the amounts recognised in the financial statements do not differ materially from the amounts that would be determined at the end of the reporting period.**

59      This Standard encourages, but does not require, an entity to involve a qualified actuary in the measurement of all material post-employment benefit obligations. For practical reasons, an entity may request a qualified actuary to carry out a detailed valuation of the obligation before the end of the reporting period. Nevertheless, the results of that valuation are updated for any material transactions and other material changes in circumstances (including changes in market prices and interest rates) up to the end of the reporting period.

60      In some cases, estimates, averages and computational short cuts may provide a reliable approximation of the detailed computations illustrated in this Standard.

### **Accounting for the constructive obligation**

**61** An entity shall account not only for its legal obligation under the formal terms of a defined benefit plan, but also for any constructive obligation that arises from the entity's informal practices. Informal practices give rise to a constructive obligation where the entity has no realistic alternative but to pay employee benefits. An example of a constructive obligation is where a change in the entity's informal practices would cause unacceptable damage to its relationship with employees.

**62** The formal terms of a defined benefit plan may permit an entity to terminate its obligation under the plan. Nevertheless, it is usually difficult for an entity to terminate its obligation under a plan (without payment) if employees are to be retained. Therefore, in the absence of evidence to the contrary, accounting for post-employment benefits assumes that an entity that is currently promising such benefits will continue to do so over the remaining working lives of employees.

### **Statement of financial position**

**63** An entity shall recognise the net defined benefit liability (asset) in the statement of financial position.

**64** When an entity has a surplus in a defined benefit plan, it shall measure the net defined benefit asset at the lower of:

- (a) the surplus in the defined benefit plan; and
- (b) the asset ceiling, determined using the discount rate specified in paragraph 83.

**65** A net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen. An entity recognises a net defined benefit asset in such cases because:

- (a) the entity controls a resource, which is the ability to use the surplus to generate future benefits;
- (b) that control is a result of past events (contributions paid by the entity and service rendered by the employee); and
- (c) future economic benefits are available to the entity in the form of a reduction in future contributions or a cash refund, either directly to the entity or indirectly to another plan in deficit. The asset ceiling is the present value of those future benefits.

### **Recognition and measurement: present value of defined benefit obligations and current service cost**

**66** The ultimate cost of a defined benefit plan may be influenced by many variables, such as final salaries, employee turnover and mortality, employee contributions and medical cost trends. The ultimate cost of the plan is uncertain and this uncertainty is likely to persist over a long period of time. In order to measure the present value of the post-employment benefit obligations and the related current service cost, it is necessary:

- (a) to apply an actuarial valuation method (see paragraphs 67–69);
- (b) to attribute benefit to periods of service (see paragraphs 70–74); and
- (c) to make actuarial assumptions (see paragraphs 75–98).

### Actuarial valuation method

**67 An entity shall use the projected unit credit method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost.**

**68** The projected unit credit method (sometimes known as the accrued benefit method pro-rated on service or as the benefit/years of service method) sees each period of service as giving rise to an additional unit of benefit entitlement (see paragraphs 70–74) and measures each unit separately to build up the final obligation (see paragraphs 75–98).

#### Example illustrating paragraph 68

A lump sum benefit is payable on termination of service and equal to 1 per cent of final salary for each year of service. The salary in year 1 is CU10,000 and is assumed to increase at 7 per cent (compound) each year. The discount rate used is 10 per cent per year. The following table shows how the obligation builds up for an employee who is expected to leave at the end of year 5, assuming that there are no changes in actuarial assumptions. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave the entity at an earlier or later date.

| <i>Year</i>                                            | <i>1</i>   | <i>2</i>   | <i>3</i>   | <i>4</i>   | <i>5</i>   |
|--------------------------------------------------------|------------|------------|------------|------------|------------|
|                                                        | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  | <i>CU</i>  |
| <i>Benefit attributed to:</i>                          |            |            |            |            |            |
| – <i>prior years</i>                                   | <i>0</i>   | <i>131</i> | <i>262</i> | <i>393</i> | <i>524</i> |
| – <i>current year</i><br>( <i>1% of final salary</i> ) | <i>131</i> | <i>131</i> | <i>131</i> | <i>131</i> | <i>131</i> |
| – <i>current and prior years</i>                       | <i>131</i> | <i>262</i> | <i>393</i> | <i>524</i> | <i>655</i> |
| <i>Opening obligation</i>                              | <i>–</i>   | <i>89</i>  | <i>196</i> | <i>324</i> | <i>476</i> |
| <i>Interest at 10%</i>                                 | <i>–</i>   | <i>9</i>   | <i>20</i>  | <i>33</i>  | <i>48</i>  |
| <i>Current service cost</i>                            | <i>89</i>  | <i>98</i>  | <i>108</i> | <i>119</i> | <i>131</i> |
| <i>Closing obligation</i>                              | <i>89</i>  | <i>196</i> | <i>324</i> | <i>476</i> | <i>655</i> |

continued...



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| Example illustrating paragraph 68                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Note:</i></p> <ol style="list-style-type: none"> <li>1 <i>The opening obligation is the present value of the benefit attributed to prior years.</i></li> <li>2 <i>The current service cost is the present value of the benefit attributed to the current year.</i></li> <li>3 <i>The closing obligation is the present value of the benefit attributed to current and prior years.</i></li> </ol> |

- 69 An entity discounts the whole of a post-employment benefit obligation, even if part of the obligation is expected to be settled before twelve months after the reporting period.

#### **Attributing benefit to periods of service**

- 70 **In determining the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost, an entity shall attribute benefit to periods of service under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity shall attribute benefit on a straight-line basis from:**
- (a) **the date when service by the employee first leads to benefits under the plan (whether or not the benefits are conditional on further service) until**
  - (b) **the date when further service by the employee will lead to no material amount of further benefits under the plan, other than from further salary increases.**
- 71 The projected unit credit method requires an entity to attribute benefit to the current period (in order to determine current service cost) and the current and prior periods (in order to determine the present value of defined benefit obligations). An entity attributes benefit to periods in which the obligation to provide post-employment benefits arises. That obligation arises as employees render services in return for post-employment benefits that an entity expects to pay in future reporting periods. Actuarial techniques allow an entity to measure that obligation with sufficient reliability to justify recognition of a liability.

**Examples illustrating paragraph 71**

- 1 A defined benefit plan provides a lump sum benefit of CU100 payable on retirement for each year of service.  
  
*A benefit of CU100 is attributed to each year. The current service cost is the present value of CU100. The present value of the defined benefit obligation is the present value of CU100, multiplied by the number of years of service up to the end of the reporting period.*  
  
*If the benefit is payable immediately when the employee leaves the entity, the current service cost and the present value of the defined benefit obligation reflect the date at which the employee is expected to leave. Thus, because of the effect of discounting, they are less than the amounts that would be determined if the employee left at the end of the reporting period.*
- 2 A plan provides a monthly pension of 0.2 per cent of final salary for each year of service. The pension is payable from the age of 65.  
  
*Benefit equal to the present value, at the expected retirement date, of a monthly pension of 0.2 per cent of the estimated final salary payable from the expected retirement date until the expected date of death is attributed to each year of service. The current service cost is the present value of that benefit. The present value of the defined benefit obligation is the present value of monthly pension payments of 0.2 per cent of final salary, multiplied by the number of years of service up to the end of the reporting period. The current service cost and the present value of the defined benefit obligation are discounted because pension payments begin at the age of 65.*

72 Employee service gives rise to an obligation under a defined benefit plan even if the benefits are conditional on future employment (in other words they are not vested). Employee service before the vesting date gives rise to a constructive obligation because, at the end of each successive reporting period, the amount of future service that an employee will have to render before becoming entitled to the benefit is reduced. In measuring its defined benefit obligation, an entity considers the probability that some employees may not satisfy any vesting requirements. Similarly, although some post-employment benefits, for example, post-employment medical benefits, become payable only if a specified event occurs when an employee is no longer employed, an obligation is created when the employee renders service that will provide entitlement to the benefit if the specified event occurs. The probability that the specified event will occur affects the measurement of the obligation, but does not determine whether the obligation exists.

**Examples illustrating paragraph 72**

- 1 A plan pays a benefit of CU100 for each year of service. The benefits vest after ten years of service.  
*A benefit of CU100 is attributed to each year. In each of the first ten years, the current service cost and the present value of the obligation reflect the probability that the employee may not complete ten years of service.*
- 2 A plan pays a benefit of CU100 for each year of service, excluding service before the age of 25. The benefits vest immediately.  
*No benefit is attributed to service before the age of 25 because service before that date does not lead to benefits (conditional or unconditional). A benefit of CU100 is attributed to each subsequent year.*

- 73 The obligation increases until the date when further service by the employee will lead to no material amount of further benefits. Therefore, all benefit is attributed to periods ending on or before that date. Benefit is attributed to individual accounting periods under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity attributes benefit on a straight-line basis until the date when further service by the employee will lead to no material amount of further benefits. That is because the employee's service throughout the entire period will ultimately lead to benefit at that higher level.

**Examples illustrating paragraph 73**

- 1 A plan pays a lump sum benefit of CU1,000 that vests after ten years of service. The plan provides no further benefit for subsequent service.  
*A benefit of CU100 (CU1,000 divided by ten) is attributed to each of the first ten years.*  
*The current service cost in each of the first ten years reflects the probability that the employee may not complete ten years of service. No benefit is attributed to subsequent years.*

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| Examples illustrating paragraph 73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>2 A plan pays a lump sum retirement benefit of CU2,000 to all employees who are still employed at the age of 55 after twenty years of service, or who are still employed at the age of 65, regardless of their length of service.</p>                                                                                                                                                                                                                                                                                                    |  |
| <p><i>For employees who join before the age of 35, service first leads to benefits under the plan at the age of 35 (an employee could leave at the age of 30 and return at the age of 33, with no effect on the amount or timing of benefits). Those benefits are conditional on further service. Also, service beyond the age of 55 will lead to no material amount of further benefits. For these employees, the entity attributes benefit of CU100 (CU2,000 divided by twenty) to each year from the age of 35 to the age of 55.</i></p> |  |
| <p><i>For employees who join between the ages of 35 and 45, service beyond twenty years will lead to no material amount of further benefits. For these employees, the entity attributes benefit of 100 (2,000 divided by twenty) to each of the first twenty years.</i></p>                                                                                                                                                                                                                                                                 |  |
| <p><i>For an employee who joins at the age of 55, service beyond ten years will lead to no material amount of further benefits. For this employee, the entity attributes benefit of CU200 (CU2,000 divided by ten) to each of the first ten years.</i></p>                                                                                                                                                                                                                                                                                  |  |
| <p><i>For all employees, the current service cost and the present value of the obligation reflect the probability that the employee may not complete the necessary period of service.</i></p>                                                                                                                                                                                                                                                                                                                                               |  |
| <p>3 A post-employment medical plan reimburses 40 per cent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 per cent of those costs if the employee leaves after twenty or more years of service.</p>                                                                                                                                                                                                                                                 |  |
| <p><i>Under the plan's benefit formula, the entity attributes 4 per cent of the present value of the expected medical costs (40 per cent divided by ten) to each of the first ten years and 1 per cent (10 per cent divided by ten) to each of the second ten years. The current service cost in each year reflects the probability that the employee may not complete the necessary period of service to earn part or all of the benefits. For employees expected to leave within ten years, no benefit is attributed.</i></p>             |  |

continued...

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| Examples illustrating paragraph 73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4 A post-employment medical plan reimburses 10 per cent of an employee's post-employment medical costs if the employee leaves after more than ten and less than twenty years of service and 50 per cent of those costs if the employee leaves after twenty or more years of service.</p> <p><i>Service in later years will lead to a materially higher level of benefit than in earlier years. Therefore, for employees expected to leave after twenty or more years, the entity attributes benefit on a straight-line basis under paragraph 71. Service beyond twenty years will lead to no material amount of further benefits. Therefore, the benefit attributed to each of the first twenty years is 2.5 per cent of the present value of the expected medical costs (50 per cent divided by twenty).</i></p> <p><i>For employees expected to leave between ten and twenty years, the benefit attributed to each of the first ten years is 1 per cent of the present value of the expected medical costs.</i></p> <p><i>For these employees, no benefit is attributed to service between the end of the tenth year and the estimated date of leaving.</i></p> <p><i>For employees expected to leave within ten years, no benefit is attributed.</i></p> |

- 74 Where the amount of a benefit is a constant proportion of final salary for each year of service, future salary increases will affect the amount required to settle the obligation that exists for service before the end of the reporting period, but do not create an additional obligation. Therefore:
- (a) for the purpose of paragraph 70(b), salary increases do not lead to further benefits, even though the amount of the benefits is dependent on final salary; and
  - (b) the amount of benefit attributed to each period is a constant proportion of the salary to which the benefit is linked.

| Example illustrating paragraph 74                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Employees are entitled to a benefit of 3 per cent of final salary for each year of service before the age of 55.</p> <p><i>Benefit of 3 per cent of estimated final salary is attributed to each year up to the age of 55. This is the date when further service by the employee will lead to no material amount of further benefits under the plan. No benefit is attributed to service after that age.</i></p> |

### Actuarial assumptions

- 75 **Actuarial assumptions shall be unbiased and mutually compatible.**
- 76 Actuarial assumptions are an entity's best estimates of the variables that will determine the ultimate cost of providing post-employment benefits. Actuarial assumptions comprise:

- (a) demographic assumptions about the future characteristics of current and former employees (and their dependants) who are eligible for benefits. Demographic assumptions deal with matters such as:
  - (i) mortality (see paragraphs 81 and 82);
  - (ii) rates of employee turnover, disability and early retirement;
  - (iii) the proportion of plan members with dependants who will be eligible for benefits;
  - (iv) the proportion of plan members who will select each form of payment option available under the plan terms; and
  - (v) claim rates under medical plans.
- (b) financial assumptions, dealing with items such as:
  - (i) the discount rate (see paragraphs 83–86);
  - (ii) benefit levels, excluding any cost of the benefits to be met by employees, and future salary (see paragraphs 87–95);
  - (iii) in the case of medical benefits, future medical costs, including claim handling costs (ie the costs that will be incurred in processing and resolving claims, including legal and adjuster's fees) (see paragraphs 96–98); and
  - (iv) taxes payable by the plan on contributions relating to service before the reporting date or on benefits resulting from that service.

77 Actuarial assumptions are unbiased if they are neither imprudent nor excessively conservative.

78 Actuarial assumptions are mutually compatible if they reflect the economic relationships between factors such as inflation, rates of salary increase and discount rates. For example, all assumptions that depend on a particular inflation level (such as assumptions about interest rates and salary and benefit increases) in any given future period assume the same inflation level in that period.

79 An entity determines the discount rate and other financial assumptions in nominal (stated) terms, unless estimates in real (inflation-adjusted) terms are more reliable, for example, in a hyperinflationary economy (see IAS 29 *Financial Reporting in Hyperinflationary Economies*), or where the benefit is index-linked and there is a deep market in index-linked bonds of the same currency and term.

**80 Financial assumptions shall be based on market expectations, at the end of the reporting period, for the period over which the obligations are to be settled.**

#### **Actuarial assumptions: mortality**

**81 An entity shall determine its mortality assumptions by reference to its best estimate of the mortality of plan members both during and after employment.**

- 82 In order to estimate the ultimate cost of the benefit an entity takes into consideration expected changes in mortality, for example by modifying standard mortality tables with estimates of mortality improvements.

**Actuarial assumptions: discount rate**

- 83 **The rate used to discount post-employment benefit obligations (both funded and unfunded) shall be determined by reference to market yields at the end of the reporting period on high quality corporate bonds. For currencies for which there is no deep market in such high quality corporate bonds, the market yields (at the end of the reporting period) on government bonds denominated in that currency shall be used. The currency and term of the corporate bonds or government bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations.**

- 84 One actuarial assumption that has a material effect is the discount rate. The discount rate reflects the time value of money but not the actuarial or investment risk. Furthermore, the discount rate does not reflect the entity-specific credit risk borne by the entity's creditors, nor does it reflect the risk that future experience may differ from actuarial assumptions.

- 85 The discount rate reflects the estimated timing of benefit payments. In practice, an entity often achieves this by applying a single weighted average discount rate that reflects the estimated timing and amount of benefit payments and the currency in which the benefits are to be paid.

- 86 In some cases, there may be no deep market in bonds with a sufficiently long maturity to match the estimated maturity of all the benefit payments. In such cases, an entity uses current market rates of the appropriate term to discount shorter-term payments, and estimates the discount rate for longer maturities by extrapolating current market rates along the yield curve. The total present value of a defined benefit obligation is unlikely to be particularly sensitive to the discount rate applied to the portion of benefits that is payable beyond the final maturity of the available corporate or government bonds.

**Actuarial assumptions: salaries, benefits and medical costs**

- 87 **An entity shall measure its defined benefit obligations on a basis that reflects:**

- (a) **the benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the end of the reporting period;**
- (b) **any estimated future salary increases that affect the benefits payable;**
- (c) **the effect of any limit on the employer's share of the cost of the future benefits;**
- (d) **contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and**

- (e) **estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan, if, and only if, either:**
    - (i) **those changes were enacted before the end of the reporting period; or**
    - (ii) **historical data, or other reliable evidence, indicate that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.**
- 88 Actuarial assumptions reflect future benefit changes that are set out in the formal terms of a plan (or a constructive obligation that goes beyond those terms) at the end of the reporting period. This is the case if, for example:
- (a) the entity has a history of increasing benefits, for example, to mitigate the effects of inflation, and there is no indication that this practice will change in the future;
  - (b) the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants (see paragraph 108(c)); or
  - (c) benefits vary in response to a performance target or other criteria. For example, the terms of the plan may state that it will pay reduced benefits or require additional contributions from employees if the plan assets are insufficient. The measurement of the obligation reflects the best estimate of the effect of the performance target or other criteria.
- 89 Actuarial assumptions do not reflect future benefit changes that are not set out in the formal terms of the plan (or a constructive obligation) at the end of the reporting period. Such changes will result in:
- (a) past service cost, to the extent that they change benefits for service before the change; and
  - (b) current service cost for periods after the change, to the extent that they change benefits for service after the change.
- 90 Estimates of future salary increases take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market.
- 91 Some defined benefit plans limit the contributions that an entity is required to pay. The ultimate cost of the benefits takes account of the effect of a limit on contributions. The effect of a limit on contributions is determined over the shorter of:
- (a) the estimated life of the entity; and
  - (b) the estimated life of the plan.
- 92 Some defined benefit plans require employees or third parties to contribute to the cost of the plan. Contributions by employees reduce the cost of the benefits to the entity. An entity considers whether third-party contributions reduce the



cost of the benefits to the entity, or are a reimbursement right as described in paragraph 116. Contributions by employees or third parties are either set out in the formal terms of the plan (or arise from a constructive obligation that goes beyond those terms), or are discretionary. Discretionary contributions by employees or third parties reduce service cost upon payment of these contributions to the plan.

- 93 Contributions from employees or third parties set out in the formal terms of the plan either reduce service cost (if they are linked to service), or affect remeasurements of the net defined benefit liability (asset) (if they are not linked to service). An example of contributions that are not linked to service is when the contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses. If contributions from employees or third parties are linked to service, those contributions reduce the service cost as follows:

- (a) if the amount of the contributions is dependent on the number of years of service, an entity shall attribute the contributions to periods of service using the same attribution method required by paragraph 70 for the gross benefit (ie either using the plan's contribution formula or on a straight-line basis); or
- (b) if the amount of the contributions is independent of the number of years of service, the entity is permitted to recognise such contributions as a reduction of the service cost in the period in which the related service is rendered. Examples of contributions that are independent of the number of years of service include those that are a fixed percentage of the employee's salary, a fixed amount throughout the service period or dependent on the employee's age.

Paragraph A1 provides related application guidance.

- 94 For contributions from employees or third parties that are attributed to periods of service in accordance with paragraph 93(a), changes in the contributions result in:

- (a) current and past service cost (if those changes are not set out in the formal terms of a plan and do not arise from a constructive obligation); or
- (b) actuarial gains and losses (if those changes are set out in the formal terms of a plan, or arise from a constructive obligation).

- 95 Some post-employment benefits are linked to variables such as the level of state retirement benefits or state medical care. The measurement of such benefits reflects the best estimate of such variables, based on historical data and other reliable evidence.

- 96 **Assumptions about medical costs shall take account of estimated future changes in the cost of medical services, resulting from both inflation and specific changes in medical costs.**

- 97 Measurement of post-employment medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. An entity estimates future medical costs on the basis of historical data about the entity's own experience, supplemented where necessary by historical data from

other entities, insurance companies, medical providers or other sources. Estimates of future medical costs consider the effect of technological advances, changes in health care utilisation or delivery patterns and changes in the health status of plan participants.

- 98 The level and frequency of claims is particularly sensitive to the age, health status and sex of employees (and their dependants) and may be sensitive to other factors such as geographical location. Therefore, historical data are adjusted to the extent that the demographic mix of the population differs from that of the population used as a basis for the data. They are also adjusted where there is reliable evidence that historical trends will not continue.

### **Past service cost and gains and losses on settlement**

- 99 **Before determining past service cost, or a gain or loss on settlement, an entity shall remeasure the net defined benefit liability (asset) using the current fair value of plan assets and current actuarial assumptions (including current market interest rates and other current market prices) reflecting the benefits offered under the plan before the plan amendment, curtailment or settlement.**

- 100 An entity need not distinguish between past service cost resulting from a plan amendment, past service cost resulting from a curtailment and a gain or loss on settlement if these transactions occur together. In some cases, a plan amendment occurs before a settlement, such as when an entity changes the benefits under the plan and settles the amended benefits later. In those cases an entity recognises past service cost before any gain or loss on settlement.

- 101 A settlement occurs together with a plan amendment and curtailment if a plan is terminated with the result that the obligation is settled and the plan ceases to exist. However, the termination of a plan is not a settlement if the plan is replaced by a new plan that offers benefits that are, in substance, the same.

### **Past service cost**

- 102 Past service cost is the change in the present value of the defined benefit obligation resulting from a plan amendment or curtailment.

- 103 **An entity shall recognise past service cost as an expense at the earlier of the following dates:**

- (a) **when the plan amendment or curtailment occurs; and**
- (b) **when the entity recognises related restructuring costs (see IAS 37) or termination benefits (see paragraph 165).**

- 104 A plan amendment occurs when an entity introduces, or withdraws, a defined benefit plan or changes the benefits payable under an existing defined benefit plan.

- 105 A curtailment occurs when an entity significantly reduces the number of employees covered by a plan. A curtailment may arise from an isolated event, such as the closing of a plant, discontinuance of an operation or termination or suspension of a plan.

## IAS 19

- 106 Past service cost may be either positive (when benefits are introduced or changed so that the present value of the defined benefit obligation increases) or negative (when benefits are withdrawn or changed so that the present value of the defined benefit obligation decreases).
- 107 Where an entity reduces benefits payable under an existing defined benefit plan and, at the same time, increases other benefits payable under the plan for the same employees, the entity treats the change as a single net change.
- 108 Past service cost excludes:
- (a) the effect of differences between actual and previously assumed salary increases on the obligation to pay benefits for service in prior years (there is no past service cost because actuarial assumptions allow for projected salaries);
  - (b) underestimates and overestimates of discretionary pension increases when an entity has a constructive obligation to grant such increases (there is no past service cost because actuarial assumptions allow for such increases);
  - (c) estimates of benefit improvements that result from actuarial gains or from the return on plan assets that have been recognised in the financial statements if the entity is obliged, by either the formal terms of a plan (or a constructive obligation that goes beyond those terms) or legislation, to use any surplus in the plan for the benefit of plan participants, even if the benefit increase has not yet been formally awarded (there is no past service cost because the resulting increase in the obligation is an actuarial loss, see paragraph 88); and
  - (d) the increase in vested benefits (ie benefits that are not conditional on future employment, see paragraph 72) when, in the absence of new or improved benefits, employees complete vesting requirements (there is no past service cost because the entity recognised the estimated cost of benefits as current service cost as the service was rendered).

### **Gains and losses on settlement**

- 109 The gain or loss on a settlement is the difference between:
- (a) the present value of the defined benefit obligation being settled, as determined on the date of settlement; and
  - (b) the settlement price, including any plan assets transferred and any payments made directly by the entity in connection with the settlement.
- 110 **An entity shall recognise a gain or loss on the settlement of a defined benefit plan when the settlement occurs.**
- 111 A settlement occurs when an entity enters into a transaction that eliminates all further legal or constructive obligation for part or all of the benefits provided under a defined benefit plan (other than a payment of benefits to, or on behalf of, employees in accordance with the terms of the plan and included in the actuarial assumptions). For example, a one-off transfer of significant employer obligations under the plan to an insurance company through the purchase of an

insurance policy is a settlement; a lump sum cash payment, under the terms of the plan, to plan participants in exchange for their rights to receive specified post-employment benefits is not.

- 112 In some cases, an entity acquires an insurance policy to fund some or all of the employee benefits relating to employee service in the current and prior periods. The acquisition of such a policy is not a settlement if the entity retains a legal or constructive obligation (see paragraph 46) to pay further amounts if the insurer does not pay the employee benefits specified in the insurance policy. Paragraphs 116–119 deal with the recognition and measurement of reimbursement rights under insurance policies that are not plan assets.

## Recognition and measurement: plan assets

### Fair value of plan assets

- 113 The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the deficit or surplus.
- 114 Plan assets exclude unpaid contributions due from the reporting entity to the fund, as well as any non-transferable financial instruments issued by the entity and held by the fund. Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, for example, trade and other payables and liabilities resulting from derivative financial instruments.
- 115 Where plan assets include qualifying insurance policies that exactly match the amount and timing of some or all of the benefits payable under the plan, the fair value of those insurance policies is deemed to be the present value of the related obligations (subject to any reduction required if the amounts receivable under the insurance policies are not recoverable in full).

### Reimbursements

- 116 **When, and only when, it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, an entity shall:**
- (a) **recognise its right to reimbursement as a separate asset. The entity shall measure the asset at fair value.**
  - (b) **disaggregate and recognise changes in the fair value of its right to reimbursement in the same way as for changes in the fair value of plan assets (see paragraphs 124 and 125). The components of defined benefit cost recognised in accordance with paragraph 120 may be recognised net of amounts relating to changes in the carrying amount of the right to reimbursement.**
- 117 Sometimes, an entity is able to look to another party, such as an insurer, to pay part or all of the expenditure required to settle a defined benefit obligation. Qualifying insurance policies, as defined in paragraph 8, are plan assets. An entity accounts for qualifying insurance policies in the same way as for all other plan assets and paragraph 116 is not relevant (see paragraphs 46–49 and 115).
- 118 When an insurance policy held by an entity is not a qualifying insurance policy, that insurance policy is not a plan asset. Paragraph 116 is relevant to such cases:

the entity recognises its right to reimbursement under the insurance policy as a separate asset, rather than as a deduction in determining the defined benefit deficit or surplus. Paragraph 140(b) requires the entity to disclose a brief description of the link between the reimbursement right and the related obligation.

- 119 If the right to reimbursement arises under an insurance policy that exactly matches the amount and timing of some or all of the benefits payable under a defined benefit plan, the fair value of the reimbursement right is deemed to be the present value of the related obligation (subject to any reduction required if the reimbursement is not recoverable in full).

### **Components of defined benefit cost**

- 120 **An entity shall recognise the components of defined benefit cost, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset, as follows:**

- (a) **service cost (see paragraphs 66–112) in profit or loss;**
- (b) **net interest on the net defined benefit liability (asset) (see paragraphs 123–126) in profit or loss; and**
- (c) **remeasurements of the net defined benefit liability (asset) (see paragraphs 127–130) in other comprehensive income.**

- 121 Other IFRSs require the inclusion of some employee benefit costs within the cost of assets, such as inventories and property, plant and equipment (see IAS 2 and IAS 16). Any post-employment benefit costs included in the cost of such assets include the appropriate proportion of the components listed in paragraph 120.

- 122 **Remeasurements of the net defined benefit liability (asset) recognised in other comprehensive income shall not be reclassified to profit or loss in a subsequent period. However, the entity may transfer those amounts recognised in other comprehensive income within equity.**

### **Net interest on the net defined benefit liability (asset)**

- 123 **Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payments.**

- 124 Net interest on the net defined benefit liability (asset) can be viewed as comprising interest income on plan assets, interest cost on the defined benefit obligation and interest on the effect of the asset ceiling mentioned in paragraph 64.

- 125 Interest income on plan assets is a component of the return on plan assets, and is determined by multiplying the fair value of the plan assets by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period, taking account of any changes in the plan assets held during the period as a result of contributions and benefit payments. The difference

between the interest income on plan assets and the return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

- 126 Interest on the effect of the asset ceiling is part of the total change in the effect of the asset ceiling, and is determined by multiplying the effect of the asset ceiling by the discount rate specified in paragraph 83, both as determined at the start of the annual reporting period. The difference between that amount and the total change in the effect of the asset ceiling is included in the remeasurement of the net defined benefit liability (asset).

### **Remeasurements of the net defined benefit liability (asset)**

- 127 Remeasurements of the net defined benefit liability (asset) comprise:

- (a) actuarial gains and losses (see paragraphs 128 and 129);
- (b) the return on plan assets (see paragraph 130), excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 125); and
- (c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset) (see paragraph 126).

- 128 Actuarial gains and losses result from increases or decreases in the present value of the defined benefit obligation because of changes in actuarial assumptions and experience adjustments. Causes of actuarial gains and losses include, for example:

- (a) unexpectedly high or low rates of employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs;
- (b) the effect of changes to assumptions concerning benefit payment options;
- (c) the effect of changes in estimates of future employee turnover, early retirement or mortality or of increases in salaries, benefits (if the formal or constructive terms of a plan provide for inflationary benefit increases) or medical costs; and
- (d) the effect of changes in the discount rate.

- 129 Actuarial gains and losses do not include changes in the present value of the defined benefit obligation because of the introduction, amendment, curtailment or settlement of the defined benefit plan, or changes to the benefits payable under the defined benefit plan. Such changes result in past service cost or gains or losses on settlement.

- 130 In determining the return on plan assets, an entity deducts the costs of managing the plan assets and any tax payable by the plan itself, other than tax included in the actuarial assumptions used to measure the defined benefit obligation (paragraph 76). Other administration costs are not deducted from the return on plan assets.

## Presentation

### Offset

- 131 **An entity shall offset an asset relating to one plan against a liability relating to another plan when, and only when, the entity:**
- (a) **has a legally enforceable right to use a surplus in one plan to settle obligations under the other plan; and**
  - (b) **intends either to settle the obligations on a net basis, or to realise the surplus in one plan and settle its obligation under the other plan simultaneously.**

132 The offsetting criteria are similar to those established for financial instruments in IAS 32 *Financial Instruments: Presentation*.

### Current/non-current distinction

- 133 Some entities distinguish current assets and liabilities from non-current assets and liabilities. This Standard does not specify whether an entity should distinguish current and non-current portions of assets and liabilities arising from post-employment benefits.

### Components of defined benefit cost

- 134 Paragraph 120 requires an entity to recognise service cost and net interest on the net defined benefit liability (asset) in profit or loss. This Standard does not specify how an entity should present service cost and net interest on the net defined benefit liability (asset). An entity presents those components in accordance with IAS 1.

## Disclosure

- 135 **An entity shall disclose information that:**
- (a) **explains the characteristics of its defined benefit plans and risks associated with them (see paragraph 139);**
  - (b) **identifies and explains the amounts in its financial statements arising from its defined benefit plans (see paragraphs 140–144); and**
  - (c) **describes how its defined benefit plans may affect the amount, timing and uncertainty of the entity's future cash flows (see paragraphs 145–147).**
- 136 To meet the objectives in paragraph 135, an entity shall consider all the following:
- (a) the level of detail necessary to satisfy the disclosure requirements;
  - (b) how much emphasis to place on each of the various requirements;
  - (c) how much aggregation or disaggregation to undertake; and
  - (d) whether users of financial statements need additional information to evaluate the quantitative information disclosed.

- 137 If the disclosures provided in accordance with the requirements in this Standard and other IFRSs are insufficient to meet the objectives in paragraph 135, an entity shall disclose additional information necessary to meet those objectives. For example, an entity may present an analysis of the present value of the defined benefit obligation that distinguishes the nature, characteristics and risks of the obligation. Such a disclosure could distinguish:
- (a) between amounts owing to active members, deferred members, and pensioners.
  - (b) between vested benefits and accrued but not vested benefits.
  - (c) between conditional benefits, amounts attributable to future salary increases and other benefits.
- 138 An entity shall assess whether all or some disclosures should be disaggregated to distinguish plans or groups of plans with materially different risks. For example, an entity may disaggregate disclosure about plans showing one or more of the following features:
- (a) different geographical locations.
  - (b) different characteristics such as flat salary pension plans, final salary pension plans or post-employment medical plans.
  - (c) different regulatory environments.
  - (d) different reporting segments.
  - (e) different funding arrangements (eg wholly unfunded, wholly or partly funded).

**Characteristics of defined benefit plans and risks associated with them**

- 139 An entity shall disclose:
- (a) information about the characteristics of its defined benefit plans, including:
    - (i) the nature of the benefits provided by the plan (eg final salary defined benefit plan or contribution-based plan with guarantee).
    - (ii) a description of the regulatory framework in which the plan operates, for example the level of any minimum funding requirements, and any effect of the regulatory framework on the plan, such as the asset ceiling (see paragraph 64).
    - (iii) a description of any other entity's responsibilities for the governance of the plan, for example responsibilities of trustees or of board members of the plan.
  - (b) a description of the risks to which the plan exposes the entity, focused on any unusual, entity-specific or plan-specific risks, and of any significant concentrations of risk. For example, if plan assets are invested primarily in one class of investments, eg property, the plan may expose the entity to a concentration of property market risk.
  - (c) a description of any plan amendments, curtailments and settlements.



**Explanation of amounts in the financial statements**

- 140 An entity shall provide a reconciliation from the opening balance to the closing balance for each of the following, if applicable:
- (a) the net defined benefit liability (asset), showing separate reconciliations for:
    - (i) plan assets.
    - (ii) the present value of the defined benefit obligation.
    - (iii) the effect of the asset ceiling.
  - (b) any reimbursement rights. An entity shall also describe the relationship between any reimbursement right and the related obligation.
- 141 Each reconciliation listed in paragraph 140 shall show each of the following, if applicable:
- (a) current service cost.
  - (b) interest income or expense.
  - (c) remeasurements of the net defined benefit liability (asset), showing separately:
    - (i) the return on plan assets, excluding amounts included in interest in (b).
    - (ii) actuarial gains and losses arising from changes in demographic assumptions (see paragraph 76(a)).
    - (iii) actuarial gains and losses arising from changes in financial assumptions (see paragraph 76(b)).
    - (iv) changes in the effect of limiting a net defined benefit asset to the asset ceiling, excluding amounts included in interest in (b). An entity shall also disclose how it determined the maximum economic benefit available, ie whether those benefits would be in the form of refunds, reductions in future contributions or a combination of both.
  - (d) past service cost and gains and losses arising from settlements. As permitted by paragraph 100, past service cost and gains and losses arising from settlements need not be distinguished if they occur together.
  - (e) the effect of changes in foreign exchange rates.
  - (f) contributions to the plan, showing separately those by the employer and by plan participants.
  - (g) payments from the plan, showing separately the amount paid in respect of any settlements.
  - (h) the effects of business combinations and disposals.
- 142 An entity shall disaggregate the fair value of the plan assets into classes that distinguish the nature and risks of those assets, subdividing each class of plan asset into those that have a quoted market price in an active market (as defined

in IFRS 13 *Fair Value Measurement*) and those that do not. For example, and considering the level of disclosure discussed in paragraph 136, an entity could distinguish between:

- (a) cash and cash equivalents;
- (b) equity instruments (segregated by industry type, company size, geography etc);
- (c) debt instruments (segregated by type of issuer, credit quality, geography etc);
- (d) real estate (segregated by geography etc);
- (e) derivatives (segregated by type of underlying risk in the contract, for example, interest rate contracts, foreign exchange contracts, equity contracts, credit contracts, longevity swaps etc);
- (f) investment funds (segregated by type of fund);
- (g) asset-backed securities; and
- (h) structured debt.

143 An entity shall disclose the fair value of the entity's own transferable financial instruments held as plan assets, and the fair value of plan assets that are property occupied by, or other assets used by, the entity.

144 An entity shall disclose the significant actuarial assumptions used to determine the present value of the defined benefit obligation (see paragraph 76). Such disclosure shall be in absolute terms (eg as an absolute percentage, and not just as a margin between different percentages and other variables). When an entity provides disclosures in total for a grouping of plans, it shall provide such disclosures in the form of weighted averages or relatively narrow ranges.

#### **Amount, timing and uncertainty of future cash flows**

145 An entity shall disclose:

- (a) a sensitivity analysis for each significant actuarial assumption (as disclosed under paragraph 144) as of the end of the reporting period, showing how the defined benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date.
- (b) the methods and assumptions used in preparing the sensitivity analyses required by (a) and the limitations of those methods.
- (c) changes from the previous period in the methods and assumptions used in preparing the sensitivity analyses, and the reasons for such changes.

146 An entity shall disclose a description of any asset-liability matching strategies used by the plan or the entity, including the use of annuities and other techniques, such as longevity swaps, to manage risk.

147 To provide an indication of the effect of the defined benefit plan on the entity's future cash flows, an entity shall disclose:

- (a) a description of any funding arrangements and funding policy that affect future contributions.
- (b) the expected contributions to the plan for the next annual reporting period.
- (c) information about the maturity profile of the defined benefit obligation. This will include the weighted average duration of the defined benefit obligation and may include other information about the distribution of the timing of benefit payments, such as a maturity analysis of the benefit payments.

### **Multi-employer plans**

148 If an entity participates in a multi-employer defined benefit plan, it shall disclose:

- (a) a description of the funding arrangements, including the method used to determine the entity's rate of contributions and any minimum funding requirements.
- (b) a description of the extent to which the entity can be liable to the plan for other entities' obligations under the terms and conditions of the multi-employer plan.
- (c) a description of any agreed allocation of a deficit or surplus on:
  - (i) wind-up of the plan; or
  - (ii) the entity's withdrawal from the plan.
- (d) if the entity accounts for that plan as if it were a defined contribution plan in accordance with paragraph 34, it shall disclose the following, in addition to the information required by (a)–(c) and instead of the information required by paragraphs 139–147:
  - (i) the fact that the plan is a defined benefit plan.
  - (ii) the reason why sufficient information is not available to enable the entity to account for the plan as a defined benefit plan.
  - (iii) the expected contributions to the plan for the next annual reporting period.
  - (iv) information about any deficit or surplus in the plan that may affect the amount of future contributions, including the basis used to determine that deficit or surplus and the implications, if any, for the entity.
  - (v) an indication of the level of participation of the entity in the plan compared with other participating entities. Examples of measures that might provide such an indication include the entity's proportion of the total contributions to the plan or the entity's proportion of the total number of active members, retired members, and former members entitled to benefits, if that information is available.

### **Defined benefit plans that share risks between entities under common control**

- 149 If an entity participates in a defined benefit plan that shares risks between entities under common control, it shall disclose:
- (a) the contractual agreement or stated policy for charging the net defined benefit cost or the fact that there is no such policy.
  - (b) the policy for determining the contribution to be paid by the entity.
  - (c) if the entity accounts for an allocation of the net defined benefit cost as noted in paragraph 41, all the information about the plan as a whole required by paragraphs 135–147.
  - (d) if the entity accounts for the contribution payable for the period as noted in paragraph 41, the information about the plan as a whole required by paragraphs 135–137, 139, 142–144 and 147(a) and (b).
- 150 The information required by paragraph 149(c) and (d) can be disclosed by cross-reference to disclosures in another group entity's financial statements if:
- (a) that group entity's financial statements separately identify and disclose the information required about the plan; and
  - (b) that group entity's financial statements are available to users of the financial statements on the same terms as the financial statements of the entity and at the same time as, or earlier than, the financial statements of the entity.

### **Disclosure requirements in other IFRSs**

- 151 Where required by IAS 24 an entity discloses information about:
- (a) related party transactions with post-employment benefit plans; and
  - (b) post-employment benefits for key management personnel.
- 152 Where required by IAS 37 an entity discloses information about contingent liabilities arising from post-employment benefit obligations.

### **Other long-term employee benefits**

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- 153 Other long-term employee benefits include items such as the following, if not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service:
- (a) long-term paid absences such as long-service or sabbatical leave;
  - (b) jubilee or other long-service benefits;
  - (c) long-term disability benefits;
  - (d) profit-sharing and bonuses; and
  - (e) deferred remuneration.
- 154 The measurement of other long-term employee benefits is not usually subject to the same degree of uncertainty as the measurement of post-employment benefits. For this reason, this Standard requires a simplified method of

accounting for other long-term employee benefits. Unlike the accounting required for post-employment benefits, this method does not recognise remeasurements in other comprehensive income.

### **Recognition and measurement**

**155 In recognising and measuring the surplus or deficit in an other long-term employee benefit plan, an entity shall apply paragraphs 56–98 and 113–115. An entity shall apply paragraphs 116–119 in recognising and measuring any reimbursement right.**

**156 For other long-term employee benefits, an entity shall recognise the net total of the following amounts in profit or loss, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset:**

- (a) service cost (see paragraphs 66–112);**
- (b) net interest on the net defined benefit liability (asset) (see paragraphs 123–126); and**
- (c) remeasurements of the net defined benefit liability (asset) (see paragraphs 127–130).**

**157** One form of other long-term employee benefit is long-term disability benefit. If the level of benefit depends on the length of service, an obligation arises when the service is rendered. Measurement of that obligation reflects the probability that payment will be required and the length of time for which payment is expected to be made. If the level of benefit is the same for any disabled employee regardless of years of service, the expected cost of those benefits is recognised when an event occurs that causes a long-term disability.

### **Disclosure**

**158** Although this Standard does not require specific disclosures about other long-term employee benefits, other IFRSs may require disclosures. For example, IAS 24 requires disclosures about employee benefits for key management personnel. IAS 1 requires disclosure of employee benefits expense.

### **Termination benefits**

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**159** This Standard deals with termination benefits separately from other employee benefits because the event that gives rise to an obligation is the termination of employment rather than employee service. Termination benefits result from either an entity's decision to terminate the employment or an employee's decision to accept an entity's offer of benefits in exchange for termination of employment.

**160** Termination benefits do not include employee benefits resulting from termination of employment at the request of the employee without an entity's offer, or as a result of mandatory retirement requirements, because those benefits are post-employment benefits. Some entities provide a lower level of benefit for termination of employment at the request of the employee (in substance, a post-employment benefit) than for termination of employment at the request of the entity. The difference between the benefit provided for

termination of employment at the request of the employee and a higher benefit provided at the request of the entity is a termination benefit.

161 The form of the employee benefit does not determine whether it is provided in exchange for service or in exchange for termination of the employee's employment. Termination benefits are typically lump sum payments, but sometimes also include:

- (a) enhancement of post-employment benefits, either indirectly through an employee benefit plan or directly.
- (b) salary until the end of a specified notice period if the employee renders no further service that provides economic benefits to the entity.

162 Indicators that an employee benefit is provided in exchange for services include the following:

- (a) the benefit is conditional on future service being provided (including benefits that increase if further service is provided).
- (b) the benefit is provided in accordance with the terms of an employee benefit plan.

163 Some termination benefits are provided in accordance with the terms of an existing employee benefit plan. For example, they may be specified by statute, employment contract or union agreement, or may be implied as a result of the employer's past practice of providing similar benefits. As another example, if an entity makes an offer of benefits available for more than a short period, or there is more than a short period between the offer and the expected date of actual termination, the entity considers whether it has established a new employee benefit plan and hence whether the benefits offered under that plan are termination benefits or post-employment benefits. Employee benefits provided in accordance with the terms of an employee benefit plan are termination benefits if they both result from an entity's decision to terminate an employee's employment and are not conditional on future service being provided.

164 Some employee benefits are provided regardless of the reason for the employee's departure. The payment of such benefits is certain (subject to any vesting or minimum service requirements) but the timing of their payment is uncertain. Although such benefits are described in some jurisdictions as termination indemnities or termination gratuities, they are post-employment benefits rather than termination benefits, and an entity accounts for them as post-employment benefits.

## Recognition

165 **An entity shall recognise a liability and expense for termination benefits at the earlier of the following dates:**

- (a) **when the entity can no longer withdraw the offer of those benefits; and**
- (b) **when the entity recognises costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits.**

- 166 For termination benefits payable as a result of an employee's decision to accept an offer of benefits in exchange for the termination of employment, the time when an entity can no longer withdraw the offer of termination benefits is the earlier of:
- (a) when the employee accepts the offer; and
  - (b) when a restriction (eg a legal, regulatory or contractual requirement or other restriction) on the entity's ability to withdraw the offer takes effect. This would be when the offer is made, if the restriction existed at the time of the offer.
- 167 For termination benefits payable as a result of an entity's decision to terminate an employee's employment, the entity can no longer withdraw the offer when the entity has communicated to the affected employees a plan of termination meeting all of the following criteria:
- (a) Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made.
  - (b) The plan identifies the number of employees whose employment is to be terminated, their job classifications or functions and their locations (but the plan need not identify each individual employee) and the expected completion date.
  - (c) The plan establishes the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.
- 168 When an entity recognises termination benefits, the entity may also have to account for a plan amendment or a curtailment of other employee benefits (see paragraph 103).

### Measurement

- 169 **An entity shall measure termination benefits on initial recognition, and shall measure and recognise subsequent changes, in accordance with the nature of the employee benefit, provided that if the termination benefits are an enhancement to post-employment benefits, the entity shall apply the requirements for post-employment benefits. Otherwise:**
- (a) **if the termination benefits are expected to be settled wholly before twelve months after the end of the annual reporting period in which the termination benefit is recognised, the entity shall apply the requirements for short-term employee benefits.**
  - (b) **if the termination benefits are not expected to be settled wholly before twelve months after the end of the annual reporting period, the entity shall apply the requirements for other long-term employee benefits.**
- 170 Because termination benefits are not provided in exchange for service, paragraphs 70–74 relating to the attribution of the benefit to periods of service are not relevant.

**Example illustrating paragraphs 159–170***Background*

As a result of a recent acquisition, an entity plans to close a factory in ten months and, at that time, terminate the employment of all of the remaining employees at the factory. Because the entity needs the expertise of the employees at the factory to complete some contracts, it announces a plan of termination as follows.

Each employee who stays and renders service until the closure of the factory will receive on the termination date a cash payment of CU30,000. Employees leaving before closure of the factory will receive CU10,000.

There are 120 employees at the factory. At the time of announcing the plan, the entity expects 20 of them to leave before closure. Therefore, the total expected cash outflows under the plan are CU3,200,000 (ie  $20 \times \text{CU}10,000 + 100 \times \text{CU}30,000$ ). As required by paragraph 160, the entity accounts for benefits provided in exchange for termination of employment as termination benefits and accounts for benefits provided in exchange for services as short-term employee benefits.

*Termination benefits*

The benefit provided in exchange for termination of employment is CU10,000. This is the amount that an entity would have to pay for terminating the employment regardless of whether the employees stay and render service until closure of the factory or they leave before closure. Even though the employees can leave before closure, the termination of all employees' employment is a result of the entity's decision to close the factory and terminate their employment (ie all employees will leave employment when the factory closes). Therefore the entity recognises a liability of CU1,200,000 (ie  $120 \times \text{CU}10,000$ ) for the termination benefits provided in accordance with the employee benefit plan at the earlier of when the plan of termination is announced and when the entity recognises the restructuring costs associated with the closure of the factory.

*Benefits provided in exchange for service*

The incremental benefits that employees will receive if they provide services for the full ten-month period are in exchange for services provided over that period. The entity accounts for them as short-term employee benefits because the entity expects to settle them before twelve months after the end of the annual reporting period. In this example, discounting is not required, so an expense of CU200,000 (ie  $\text{CU}2,000,000 \div 10$ ) is recognised in each month during the service period of ten months, with a corresponding increase in the carrying amount of the liability.

**Disclosure**

171

Although this Standard does not require specific disclosures about termination benefits, other IFRSs may require disclosures. For example, IAS 24 requires



disclosures about employee benefits for key management personnel. IAS 1 requires disclosure of employee benefits expense.

### Transition and effective date

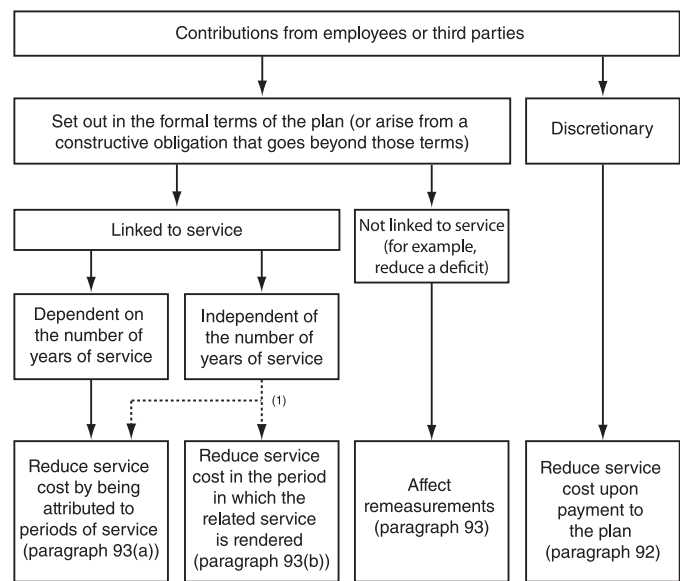
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- 172 An entity shall apply this Standard for annual periods beginning on or after 1 January 2013. Earlier application is permitted. If an entity applies this Standard for an earlier period, it shall disclose that fact.
- 173 An entity shall apply this Standard retrospectively, in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*, except that:
- (a) an entity need not adjust the carrying amount of assets outside the scope of this Standard for changes in employee benefit costs that were included in the carrying amount before the date of initial application. The date of initial application is the beginning of the earliest prior period presented in the first financial statements in which the entity adopts this Standard.
  - (b) in financial statements for periods beginning before 1 January 2014, an entity need not present comparative information for the disclosures required by paragraph 145 about the sensitivity of the defined benefit obligation.
- 174 IFRS 13, issued in May 2011, amended the definition of fair value in paragraph 8 and amended paragraph 113. An entity shall apply those amendments when it applies IFRS 13.
- 175 *Defined Benefit Plans: Employee Contributions* (Amendments to IAS 19), issued in November 2013, amended paragraphs 93–94. An entity shall apply those amendments for annual periods beginning on or after 1 July 2014 retrospectively in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*. Earlier application is permitted. If an entity applies those amendments for an earlier period, it shall disclose that fact.
- 176 *Annual Improvements to IFRSs 2012–2014 Cycle*, issued in September 2014, amended paragraph 83 and added paragraph 177. An entity shall apply that amendment for annual periods beginning on or after 1 January 2016. Earlier application is permitted. If an entity applies that amendment for an earlier period it shall disclose that fact.
- 177 An entity shall apply the amendment in paragraph 176 from the beginning of the earliest comparative period presented in the first financial statements in which the entity applies the amendment. Any initial adjustment arising from the application of the amendment shall be recognised in retained earnings at the beginning of that period.

Appendix A  
Application Guidance

This appendix is an integral part of the IFRS. It describes the application of paragraphs 92–93 and has the same authority as the other parts of the IFRS.

A1        The accounting requirements for contributions from employees or third parties are illustrated in the diagram below.



(1) This dotted arrow means that an entity is permitted to choose either accounting.

## **Appendix B**

### **Amendments to other IFRSs**

*This appendix sets out amendments to other IFRSs that are a consequence of the Board amending IAS 19 in June 2011. An entity shall apply these amendments when it applies IAS 19 as amended. Amended paragraphs are shown with new text underlined and deleted text struck through.*

\* \* \* \* \*

*The amendments contained in this appendix when this Standard was amended in 2011 have been incorporated into the relevant IFRSs published in this volume.*