SECTION PS 3250
retirement benefits

PURPOSE AND SCOPE

.001 This Section establishes standards on how to account for and report obligations for employee retirement benefits in government financial statements. Other employee future benefits are specifically dealt with in POST-EMPLOYMENT BENEFITS, COMPENSATED ABSENCES AND TERMINATION BENEFITS, Section PS 3255.

.002 In this Section, terms that appear in **bold type** are defined in the glossary of terms.

.003 Obligations for **retirement benefits** result from a promise by a government to provide these benefits to employees because of retirement in return for their services. Pensions and other retirement benefits, such as extended health care and life insurance benefits, are a form of compensation offered for services rendered and accrue over the years employees render those services. The fundamental accounting task is to determine the amount of the obligation for retirement benefits to attribute to each period of employee service. Determining such amounts involves not only accounting for past transactions and events; it also requires forecasts of future events, such as inflation, investment returns, medical costs and employee turnover and mortality.

.004 If employees and/or retirees are covered by more than one **retirement benefit plan**, then a government needs to determine its obligation separately for each plan.

.005 The standards in this Section are based on the accounting framework recommended in FINANCIAL STATEMENT OBJECTIVES, Section PS 1100, and FINANCIAL STATEMENT PRESENTATION, Section PS 1201. That framework emphasizes the need to account for all liabilities incurred by a government to help legislators, taxpayers, investors and other users of **financial statements** assess: a government's future cash requirements from taxes and other revenues; its ability to meet financial obligations, both short-term and long-term; and its ability to maintain current services and finance new programs. Such assessments are essential when making financial decisions in government and when evaluating those decisions.

.006 Accounting for all of the retirement benefits incurred by governments is particularly important because many of those governments have accumulated significant liabilities. Many governments have chosen not to set aside funds to meet retirement benefit payments when they become due. Where those liabilities have not been recorded, financial statements do not adequately provide all of the information needed by users to help them assess a government's financial position and results of operations. It is important that financial statements account for a government's liabilities for all retirement benefits to show clearly the extent to which these obligations are to be paid from cash to be raised from future tax and other revenue sources.

.007 The basis for determining obligations for retirement benefits set out in this Section is also appropriate for determining a government's contractual obligations arising from guarantees or commitments to employee retirement benefit plans of other public sector organizations that are not part of the government reporting entity. Such obligations exist, for example, when a provincial government agrees to guarantee defined retirement benefits for employees of local school boards, agrees to guarantee a minimum rate of return on retirement benefit fund assets, or agrees to provide a significant portion of the funds required by a plan sponsor. A careful reading and evaluation of such agreements is necessary to determine the substance of the obligation and whether a **liability**, **contractual obligation** or **contingency** exists that would be reported in a government's financial statements.

The objectives of funding and accounting

.008 Determining whether a retirement benefit plan should be funded and the amount to be funded each period is a financial management matter. The funding objective is to determine an acceptable policy for financing the estimated ultimate cost of a benefit plan. An **actuarial valuation for funding purposes** is performed to calculate the contributions required to secure the benefits promised.

.009 The accounting objective is to measure and report the obligation for employee retirement benefits and to attribute the costs of those benefits to the periods in which the related services are rendered. To meet that objective, a method is needed to determine the amount of the obligation for retirement benefits outstanding, which represents the liability at the financial statement date, and the value of the benefits employees earned during the period, which represents the expense of that period. Accordingly, it is necessary to develop accounting estimates of liabilities for retirement benefits and expenses using an **actuarial cost method** and **actuarial assumptions** that ensure essential information required for fair presentation of financial condition and results of operations can be reported in government financial statements.

.010 Because the objectives of determining the most appropriate funding policy are not necessarily the same as those of determining the most appropriate accounting method, the liability for accounting purposes may not be the same as the amount due but not yet funded at the financial statement date according to the funding plan. In addition, the retirement benefit expense of the period for accounting purposes may not be the same as the contribution computed in the period for funding purposes.

Defined benefit and defined contribution plans

.011 Two types of benefit plans are addressed in this Section — **defined benefit plans** and **defined contribution plans**. A defined benefit plan is one that specifies either the benefits to be received by employees after retirement or the method for determining those benefits. Generally, the amount and value of the benefits to be paid depend on a number of factors and events. These include how long the employee and any survivors live, how many years of service the employee renders, and the employee's compensation and retirement age. When a government provides benefits under a defined benefit plan, it is at risk with respect to the amount of the benefit that each employee will receive (actuarial risk) and with respect to the investment returns on any assets set aside to pay for the cost of these benefits (investment risk).

.012 When a government provides benefits under a defined contribution plan, it does not assume the actuarial and investment risks inherent in a defined benefit plan. A defined contribution plan (or money purchase plan) is one in which a government's contributions in respect of services rendered by employees are specified. The government is required by the plan to make a specific fixed contribution each period. If that contribution is made, no additional government contributions are required now or in the future for the related service. The employees are at risk. This is generally because the amount of the benefit that will be payable to an employee is dependent upon the funds accumulated for each employee's account and the investment earnings on the accumulated funds.

.013 Because benefit plans are often complex, careful analysis and professional judgment are needed to determine whether the substance of a particular plan makes it a defined benefit or a defined contribution plan.

.014 In some circumstances, a benefit plan may include both defined benefit and defined contribution promises. The plan, for example, may guarantee a basic defined retirement benefit and state that additional benefits, such as inflation protection, will be provided on a defined contribution basis. In such circumstances, a government would determine its obligation for the defined benefit component of the plan as a defined benefit plan and the defined contribution component of the plan as a defined contribution plan. Once the type(s) of promise is identified, the accounting and reporting principles in this Section would be followed accordingly.

DEFINED BENEFIT PENSION PLANS

Liability and expense

.015 Obligations for retirement benefits result from a promise by a government to provide retirement benefits to employees because of retirement in return for their services. The obligations arise as employees render services. Therefore, as employees render services, the value of the retirement benefits attributed to those services would be recorded as a liability and expense as are other forms of current compensation.

.016 *The statement of financial position should report the retirement benefit liability and the statement of operations should report the expenses for retirement benefits on the basis of the value of the benefits attributed to employee service to the financial statement date.* [SEPT. 2001]

.017 The components of the **retirement benefit liability** are:

(a) **accrued benefit obligation** including the effects of plan amendments, settlements and curtailments;

(b) **plan assets**, if any; and

(c) unamortized **actuarial gains and losses**.

.018 The cost of retirement benefits promised during the period is comprised of the **retirement benefits expense**, and the **retirement benefits interest expense**.

.019 The components of the retirement benefits expense are:

(a) **current period benefit cost**;

(b) cost of plan amendments incurred during the period;

(c) net actuarial gains or losses recognized in the determination of the cost of a plan amendment in accordance with paragraphs PS 3250.068 and PS 3250.071;

(d) gains and losses arising from plan settlements and curtailments incurred during the period;

(e) amortization of actuarial gains and losses;

(f) the amount recognized as a result of a temporary deviation from the plan, determined in accordance with paragraph PS 3250.073;

(g) the change in a valuation allowance against the carrying amount of an **accrued benefit asset**, determined in accordance with paragraph PS 3250.050; less

(h) employee contributions made during the period.

.020 The retirement benefits interest expense is the net of:

(a) the interest cost on the accrued benefit obligation determined by applying the discount rate determined at the beginning of the period in accordance with paragraph PS 3250.044 to the average value of the accrued benefit obligation for the period; and

(b) the expected return on plan assets for a defined benefit plan, determined by applying the assumed rate of return on plan assets to the average market-related value of assets for the period.

.021 The retirement benefits expense and the retirement benefits interest expense would be disclosed separately in the notes to the financial statements. A separate disclosure is needed to ensure that the amount reported as the retirement benefit expense is not affected by the purely financial decision of a government to fund or not fund the plan.

Actuarial cost methods

.022 Accounting for retirement benefits on the basis of employee services reflects the fact that there is no obligation for an employee when hired and that an obligation for retirement benefits exists as the employee renders service. The accounting task is to determine how to attribute the cost of the total retirement benefits promised to each period of employee service.

.023 For defined benefit plans, there are two main groups of actuarial cost methods. They are **level cost methods** and **accrued benefit methods**. Under the level cost methods, retirement benefit expenses are computed in such a manner as to produce a total current period benefit cost that remains constant, either in absolute dollars or as a percentage of salary, throughout an employee's service life. However, level cost methods are not recommended for accounting purposes because they do not reflect the cost of benefits earned by employees to the financial statement date.

.024 Under the accrued benefit methods, a distinct unit of retirement benefit is associated with each year of employee service rendered to the financial statement date. The actuarial present value of that unit of benefit is computed separately for the period during which it accrued. These methods are recommended because they reflect more directly the cost of retirement benefits earned by employees to the financial statement date.

.025 *An accrued benefit method should be used to attribute the cost of retirement benefits to the periods of employee service.* [SEPT. 2001]

.026 For certain **flat benefit retirement plans**, benefits vary only with periods of service rendered. For those plans, future salary and wage changes do not enter into the determination of the cost of retirement benefits earned to the financial statement date. For other defined benefit plans, such as **final pay retirement plans**, future salary and wage changes need to be incorporated into the cost of retirement benefits earned to the financial statement date because the benefit promise is based on future salary and wage levels. To estimate those levels, forecasts are needed of future inflation rates and of future salary increases. Similarly, for retirement medical plans, forecasts are needed of medical inflation rates.

.027 Accounting for the effect of future salary and wage changes ensures consistency when determining the present value of the cost of the retirement benefits earned to the financial statement date, i.e., the accrued benefit obligation. Because the discount rate used to determine that obligation includes an inflation component, for consistency the amount of the retirement benefits to be discounted must also include an inflation component. If only the discount rate used to determine the obligation includes an inflation component, then the accrued benefit obligation and expense would be understated significantly.

.028 One accrued benefit method that incorporates the effect of future salary and wage changes and attributes the value of retirement benefits to the years of employee service is the **projected benefit method prorated on services**. Under this method, generally an equal portion of the total estimated benefit, with salary projection for final pay plans and projection of medical inflation for retirement medical plans, is attributed to each year of service. The actuarial present value of the accrued retirement benefits is derived after the benefits are attributed to the years of service up to the financial statement date.

.029 *The projected benefit method prorated on services should be used to attribute the cost of retirement benefits to the periods of employee service.* [SEPT. 2001]

.030 When a retirement plan provides benefits that accrue in a non-uniform manner, the projected benefit method prorated on services may need to be adjusted to reflect the manner in which retirement benefits are earned by employees. For example, a pension plan formula may state that the pension benefit accrues at one percent of salary for the first 15 years and at two percent of salary for the final 20 years. In this circumstance, the prorating of the total estimated benefit to each accounting period would be adjusted to reflect the rates at which pension benefits are earned in that 35-year period.

.031 In some retirement plans, benefits promised in a contractual agreement or in legislation include inflation protection for current and future retirees and for former employees who have **vested** retirement benefits. For those plans, it is necessary to incorporate the impact of inflation protection in the determination of the cost of retirement benefits earned to the financial statement date.

.032 In other retirement plans, regular benefit increases for inflation protection may be provided even when such protection is not promised in a contractual agreement or in legislation. For those plans, careful analysis and professional judgment are needed to determine the substance of a government's obligation. If a regular pattern of benefit increases can be established over a reasonable period, it may be appropriate to incorporate the cost of such inflation protection in the cost of retirement benefits earned to the financial statement date and reported as an accrued benefit obligation.

Asset valuation

.033 The periodic valuation of plan assets is important because, to determine its retirement benefit liability and expense, a government needs to value the assets set aside for the purpose of meeting benefit payments.

.034 Most government plans require contributions from the employees as well as from the sponsoring government. Some governments place those contributions in a separate fund, which invests them in marketable assets. Those contributions and earnings are used to meet benefit payments to current and future retirees.

.035 When determining a government's retirement benefit liability and expense, plan assets would be valued at market-related values. Under this method, plan assets are recorded at market value or they are adjusted to market value over a period not to exceed five years. Values adjusted to market closely approximate current economic value in a manner that can minimize short-term fluctuations. Market-related values would be used because they are objective and verifiable. Once a basis of valuation is chosen it would be applied consistently.

.036 For some assets, such as real estate investments or non-marketable securities, market values are not readily available. For such assets, a method that approximates market can be used. For example, independent appraisals could be obtained, market values of similar properties could be reviewed, or future expected cash flows discounted at a market rate could be determined.

.037 *For a defined benefit plan, plan assets should be valued at market-related values.* [SEPT. 2001]

.038 In some cases governments issue non-marketable securities to their benefit funds on the condition that those securities are held in the fund to maturity. Market-related values for these assets may not be readily determinable. In such cases, non-marketable securities can be valued at cost.

Measurement date

.039 For a defined benefit plan, the plan assets and the accrued benefit obligation would usually be measured at the date of the financial statements. As a practical matter, an earlier date may be used provided the government adopts this practice consistently from year to year and as long as no significant change relevant to the valuation of the plan occurs between the valuation date and the financial statement date.

Actuarial assumptions

.040 Accounting for retirement benefit obligations of defined benefit plans requires forecasts of future events, such as inflation rates, investment returns, interest rates, wage and salary increases, medical inflation and employee turnover and mortality. Such forecasts form the basis of actuarial assumptions.

.041 Each key actuarial assumption would be based on the government's best estimate of those future events that have an effect on the accrued benefit obligation. The assumptions would take into account the expected long-term experience of the plan and the short-term forecast. Such an approach ensures that the reported accrued benefit obligation and expense recognize the long-term nature of retirement benefit promises as well as the experience of the plan expected in the short term. Assumptions about the long-term future, however, are not to be unduly influenced by the experience expected in the short term. At each actuarial valuation, assumptions need to be reassessed; they would be revised if expectations about the future change. All assumptions are based on the presumption that the plan will continue in effect in the absence of evidence to the contrary.

.042 *Actuarial assumptions should be based on the government's best estimates of expected long-term experience and short-term forecasts.* [SEPT. 2001]

.043 One commonly used approach that meets this standard is the use of streamed rate assumptions. Under the streamed rate approach, the short-term forecast of fund asset earnings, for example, would reflect the rates of return that assets currently held in the fund will earn until their maturity. As those assets mature, assumptions about their expected earnings on reinvestment would move to the expected long-term rate. Similarly, there would be streamed rate assumptions for salary increases.

.044 The actuarial assumptions underlying the valuation of the retirement benefit liability and expense would be internally consistent. For example, when a government determines its discount rates by reference to its plan asset earnings, the assumptions used to determine the short-term forecast incorporated in the discount rates would be consistent with the short-term forecast of rates of return on assets currently held in the fund. When a government determines its discount rates by reference to its cost of borrowing, the assumptions used to determine the short-term forecast incorporated in the discount rates would be consistent with the specific rates of interest and the periods committed to by the government on the amounts borrowed.

.045 *Actuarial assumptions should be internally consistent.* [SEPT. 2001]

.046 Internally consistent assumptions about future inflation rates are particularly important because of the significant impact those rates have on the reported accrued benefit obligation and related expenses. The same assumptions about future inflation need to be used when forecasting future rates of return on fund assets, future costs of borrowing and future salary and wage increases, and when determining the appropriate discount rates. In addition, methods of developing actuarial assumptions need to be consistent over time.

.047 Measurement of the cost of future medical benefits requires assumptions about the level and frequency of future claims and the cost of meeting those claims. The level and frequency of claims are particularly sensitive to the age of employees (and their beneficiaries) and may be sensitive to other factors, such as gender and geographical location. A government estimates future medical costs on the basis of historical data about its own experience, supplemented when necessary by historical data from other entities, insurance enterprises, medical providers or other sources. Historical data is adjusted to reflect any differences in demographic mix of the population or when there is reliable evidence that historical trends will not continue.

.048 Certain medical claims may be covered by governmental programs under existing law or by other providers of health care benefits. Benefit coverage by governmental programs is assumed to continue as provided by the present law and by other providers pursuant to their present plans.

.049 When making assumptions about future events, a government would obtain expert assistance from internal or external sources. One source of expert assistance is the **actuary** carrying out the actuarial computations. Periodic assessments are needed to ensure that the assumptions continue to be relevant.

Limit on the carrying amount of an accrued benefit asset

.050 *An accrued benefit asset should be presented on a government's statement of financial position net of any valuation allowance. When a defined benefit plan gives rise to an accrued benefit asset, a government should recognize a valuation allowance for any excess of the adjusted benefit asset over the expected future benefit. A change in valuation allowance should be recognized in the statement of operations for the period in which the change occurs.* [SEPT. 2001]

.051 A government with a defined benefit plan may have an accrued benefit asset for accounting purposes. An accrued benefit asset arises when the government's total contributions to the plan, including interest earned thereon, are greater than the retirement benefit expense recognized since the start of the plan. Contributions reflect the funding objectives of the plan. The benefit expense reflects the accounting objectives and may differ for a number of reasons, including the fact that actuarial gains and losses are deferred and amortized in future periods.

.052 A government may benefit from an accrued benefit asset either by withdrawing surplus assets or by taking a contribution holiday or receiving a refund of contributions. The accrued benefit asset may become impaired when there is a plan surplus for accounting purposes that the government is not entitled to benefit from fully. For example, there may be a regulatory moratorium on pension surplus withdrawals or uncertainties as to a government's legal right to use a plan's accounting surplus.

.053 To determine the extent to which an accrued benefit asset may be impaired, the government first determines the **adjusted benefit asset**. The adjusted benefit asset is the accrued benefit asset less net unamortized actuarial losses (determined on a basis using market value of assets).

.054 The adjusted benefit asset is then compared to the **expected future benefit**. When the expected future benefit exceeds the adjusted benefit asset, the accrued benefit asset is not impaired and, accordingly, no valuation allowance is required. The chart included as Appendix A to this Section is intended to set out the relationship between the various defined terms.

.055 The objective of the standard in paragraph PS 3250.050 is to limit a government's accrued benefit asset to the amount it can realize in the future. The expected future benefit is a calculated amount representing the benefit a government expects to realize from a plan surplus. An expected future benefit includes any withdrawable surplus or reduction in future contributions.

.056 A government determines its expected future benefit as the sum of:

(a) the present value of its expected future accruals for service for the current number of active employees, less the present value of required employee contributions and minimum contributions the government is required to make regardless of any surplus; and

(b) the amount of the plan surplus that can be withdrawn in accordance with the existing plan and any applicable laws and regulations.

.057 A government's expected future accruals for service for the current number of active employees are determined on a basis consistent with that used to determine its accrued benefit obligation. These expected future accruals for service, less required employee contributions and minimum contributions the government is required to make regardless of any surplus, are then discounted back to the current period to determine the present value. The interest rate used to calculate this present value is the expected rate of return on plan assets used to determine the benefit expense in the period.

.058 When administration expenses are paid by the plan and included in the normal cost calculation, a best estimate of the future administration expense is included in the expected future accruals for service. When administration expenses are paid by the plan and not included in the normal cost calculation, the rate of return on plan assets is adjusted to reflect the deduction of the administrative expenses.

.059 A key factor in determining a government's expected future benefit from a defined benefit plan with a plan surplus for accounting purposes is the ability of the government to withdraw assets from the plan. The expected future benefit includes amounts to which a government has a legally enforceable right of withdrawal. It excludes any withdrawable plan surplus a government is currently required, or intends, to allocate to employees. A government may not anticipate obtaining a legally enforceable right to withdraw a portion of a plan surplus to which it is not currently entitled, whether on the basis of precedent or otherwise. Accordingly, when withdrawal of plan surplus requires the approval of employees or an appropriate regulatory authority or a court of law, a government excludes any amount subject to this restriction from its expected future benefit until such approval has been obtained. A change in the allocation of surplus between a government and its employees is incorporated into the calculation of the expected future benefit only when it has been agreed to and, when required, approved by the appropriate regulatory authorities.

Actuarial gains and losses

.060 The periodic actuarial valuation of a government's obligation for retirement benefits will usually determine that adjustments are required due to experience different from that assumed or to changes in actuarial assumptions. Adjustments are needed when the actual experience of the benefit plan is different than that expected. Adjustments due to changes in actuarial assumptions are needed when a government believes revised assumptions are necessary to reflect a relatively permanent change in expected experience or to reflect new information. Adjustments are inevitable because the actuarial valuation requires ongoing forecasts of uncertain future events.

.061 Actuarial gains and losses would be amortized over a reasonable future period because of their tentative nature and because further adjustments will likely be required in the future. A reasonable future period is the **expected average remaining service life of the related employee group**. Amortization may commence in the period following the determination of the adjustment. Actuarial gains and losses would be determined on a market value basis or a basis adjusted to market value, consistent with paragraph PS 3250.035.

.062 *Except in the circumstances in paragraph* PS 3250.068*,* PS 3250.071 *and* PS 3250.078*, actuarial gains and losses should be amortized to the liability or asset and the related expense in a systematic and rational manner over the expected average remaining service life of the related employee group.* [SEPT. 2001]

Prior period service costs arising from plan amendments

.063 A plan amendment occurs when a benefit plan is changed or initiated. In such circumstances, retroactive credit may be given to employees for services rendered previously and, as a result, **prior period service costs** are incurred. For example, if the benefit formula is changed from one percent to two percent of final pay per year of service, the extra one percent may be credited to employees for years of service prior to the change.

.064 Plan amendments include the inception of a new plan that grants retroactive credit for past service, an increase in benefits related to past service for active employees, or an increase in benefits for former employees already retired.

.065 The cost of plan amendments related to prior period employee services would be accounted for as an expense in the period of the plan amendment. This method is recommended because it ensures that, when a government provides retroactive credit to employees for past services, legislators, taxpayers and investors are provided a full accounting of the cost of that decision in the period the decision is made. Such an accounting ensures that the effect of that decision, as it relates to the cost of prior period services, is recognized as an expense in the period a liability is incurred. It also provides information needed to

assess the extent to which future revenues are required by a government to pay for past transactions because all retirement benefit liabilities are accounted for in the financial statements.

.066 *The cost of plan amendments related to prior period employee services should be accounted for in the period of the plan amendment.* [SEPT. 2001]

.067 While all plan amendments related to prior period employee services are accounted for in the period of the plan amendment, the existence of the plan amendment may affect the recognition of actuarial gains, as described in paragraph PS 3250.068.

.068 *In the period of a plan amendment related to prior period employee services that results in an increase in the accrued benefit obligation, if net unamortized actuarial gains exist, these should be recognized immediately, to a maximum of the prior period service cost, and offset against the prior period service cost in the statement of operations, with separate disclosure in the notes.* [SEPT. 2001]

.069 When a government makes a plan amendment related to prior period employee services and has net unamortized actuarial gains, it would recognize these net unamortized actuarial gains immediately in the statement of operations, to a maximum of the prior period service cost. Recognition would be applied first to the oldest net unamortized actuarial gains within a plan. These actuarial gains would be deducted from the prior period service cost in the statement of operations. The notes to the financial statements would disclose this information.

.070 A plan amendment may decrease, rather than increase, a government's accrued benefit obligation. A decrease in the accrued benefit obligation would be accounted for immediately in the period of the plan amendment. The existence of the plan amendment may affect the recognition of actuarial losses as described in paragraph PS 3250.071.

.071 *In the period of a plan amendment related to prior period employee services that results in a decrease in the accrued benefit obligation, if net unamortized actuarial losses exist, these should be recognized immediately, to a maximum of the decrease in the accrued benefit obligation. The net amount would be recognized in the statement of operations, with separate disclosure in the notes.* [SEPT. 2001]

.072 In the period of a plan amendment that decreases the accrued benefit obligation any net unamortized actuarial losses would be recognized immediately to a maximum of the decrease in the accrued benefit obligation. Recognition would be applied first to the oldest unamortized net actuarial losses within a plan.

Temporary deviation from the benefit plan

.073 A government may decide to deviate temporarily from the provisions of a benefit plan to increase or decrease the government's share of the benefit costs incurred in the current period or past periods. For example, a government may grant an employee contribution holiday as a temporary deviation from the normal terms of the benefit plan. A government would look to the substance of the temporary deviation to determine the most appropriate accounting.

Plan settlements and curtailments

.074 A **plan settlement** and a partial plan settlement consist of the discharge, in whole or in part, of a government's obligation existing under a retirement benefit plan. They are irrevocable events by which a government or a plan is relieved of the primary obligation to pay all or some of the benefits promised and is relieved of significant risks in relation to the obligation or the assets used to make settlement. When a full plan settlement occurs, a future actuarial valuation is not required because the government no longer has an obligation related to that plan. Because the cost of discharging the obligation may differ from the related liability recognized previously, a gain or loss may arise.

.075 A **plan curtailment** is an event that reduces significantly the expected years of future service of present employees or eliminates, for a significant number of employees, the accrual of defined benefits for some or all of their future services. Plan curtailments include termination of a significant number of employees earlier than expected which may involve eliminating a government organization or program; they also include suspension of a plan so that a significant number of employees do not earn additional defined benefits for future services. When a plan curtailment occurs, future actuarial valuations are required because, even though the government's future obligations have been reduced, the government continues to have an obligation related to that plan.

.076 Generally, the act of settling or curtailing a retirement plan will result in a gain or loss because the actual cost of the settlement or curtailment will differ from the obligation recorded previously. Gains and losses determined upon a plan settlement or curtailment would be accounted for in the statement of operations in the period of the settlement or curtailment. This approach is recommended for plan settlements because the amount of the liability is known, it relates to services previously provided and it has been settled. Similarly, if a government settles only a part of a retirement plan obligation, the related gains and losses would be recognized immediately. This approach is also recommended for plan curtailments because the retirement benefit obligation is known with greater certainty, it relates to past employee services and the employees might no longer work for the government. For plan curtailments, the portion of the total gains and losses that would be accounted for would relate to the employees affected by the curtailment.

.077 In some circumstances, there will be unamortized actuarial gains and losses incurred prior to the plan settlement or curtailment. The net unamortized balances related to the obligation settled or to the employees affected by the curtailment would be recognized in the period of settlement or curtailment, and is included as part of the gain or loss arising on settlement or curtailment.

.078 *Gains and losses determined upon a plan settlement or curtailment should be accounted for in the period of the settlement or curtailment.* [SEPT. 2001]

Joint defined benefit plans

.079 Governments may participate jointly in defined benefit plans where the government shares the risks and rewards jointly with plan participants, represented by a sponsor or sponsors. **Joint defined benefit plans** are governed by a formal agreement between the sponsors, which establishes that the sponsors have shared control over the plan. A governing board is generally appointed by the joint sponsors with equal representation and a mutually agreed-upon chair.

.080 A government would consider the characteristics of the plan to determine whether it meets the definition of a joint defined benefit plan. In a joint defined benefit plan, funding contributions are shared mutually between the government and the plan members. The sponsors have control over decisions related to the administration of the plan and the level of benefits and contributions on an ongoing basis based on the terms of the contractual agreement. The sponsors share, on an equitable basis, the significant risks associated with the benefit plan. Risk would not be considered to be equitably shared in an arrangement where the government and the joint sponsors fund the plan equally but where the government retains the full risk of the accrued benefit obligation. If the government retains the residual risks it is unlikely that the plan meets the definition of a joint defined benefit plan.

.081 *When a government participates in a joint defined benefit plan, the government's risk is limited to its portion of the plan. The government should account for its portion of the plan in accordance with the standards for defined benefit plans.* [SEPT. 2001]

.082 A government may convert an existing defined benefit plan for which it is the sole sponsor to a joint defined benefit plan where the risks and benefits are shared. When converting to a joint plan, a government would consider whether there are any special accounting issues that arise, including whether the predecessor plan has been settled or partially settled and/or curtailed or partially curtailed. In assessing such issues a government would have regard to its specific circumstances and the terms of the joint defined benefit plan.

Disclosure

.083 The notes and schedules integral to the financial statements would disclose the methods and judgments applied in accounting for accrued benefit obligations and expenses. Full disclosure is particularly important for retirement obligations because the measurements depend heavily upon judgments rather than objective evidence.

.084 *Financial statements should disclose:*

(a) a general description of retirement benefit plans, benefit formulae and funding policy, including a description of significant changes to retirement benefit plans during the period;

(b) the accrued benefit obligation at the end of the period, as determined by the actuarial valuation;

(c) the market value of plan assets at the beginning and the end of the period and, if different, the market-related value of plan assets at the beginning and the end of the period;

(d) the amount of retirement benefit liability or accrued benefit asset at the end of the period, indicating separately the amount of any valuation allowance determined in accordance with paragraph PS 3250.050*.*

(e) unamortized actuarial gains and losses and the periods of amortization;

(f) current period benefit cost;

(g) cost of plan amendments incurred during the period;

(h) net actuarial gains or losses recognized in the determination of the cost of plan amendments in accordance with paragraphs PS 3250.068 *and* PS 3250.071*;*

(i) other gains and losses on accrued benefit obligations arising during the period;

(j) other gains and losses on plan assets arising during the period;

(k) gains and losses arising from plan settlements and curtailments incurred during the period;

(l) amortization of actuarial gains and losses reflected in the current year expense;

(m) the amount recognized as a result of a temporary deviation from the plan, determined in accordance with paragraph PS 3250.073*;*

(n) the change in a valuation allowance determined in accordance with paragraph PS 3250.050*;*

(o) the amount of contributions by employees during the period;

(p) the components of the retirement benefits interest expense for the period;

(q) the amount of contributions by the government during the period;

(r) the amount of benefits paid during the period;

(s) the expected return and actual return on plan assets during the period;

(t) assumptions about long-term inflation rates, expected rate of return on plan assets, assumed health care cost trends, rate of compensation increase (for pay-related plans) and discount rate; and

(u) the date of the most recent actuarial valuation performed for accounting purposes. [SEPT. 2001]

.085 Some of this disclosure information may be presented in reconciliations of the beginning and ending balances of the accrued benefit obligation and plan assets for the period, taking into account any unamortized actuarial gains or losses existing at the financial statement date.

.086 A reconciliation of the beginning and ending balances of the accrued benefit obligation would include the items disclosed in accordance with paragraph PS 3250.084(b), (i), (k) and (o)-(r). A reconciliation of the beginning and ending balance of plan assets for the period would include the items disclosed in accordance with paragraph PS 3250.084(c), (f)-(g), (j)-(k), (m), (o)-(p) and (r).

.087 *A government should provide these disclosures separately for plans that provide pension benefits and plans that provide retirement benefits other than pensions.* [SEPT. 2001]

.088 *A government that has aggregated disclosures for its defined benefit pension plans, or for its other defined benefit retirement plans, should provide the disclosures separately for the aggregate of plans with accrued benefit obligations in excess of plan assets.* [SEPT. 2001]

.089 The level of detail disclosed by governments would reflect the highly aggregated nature of financial statements. In deciding the level of detail to disclose, governments would consider the usefulness of the information to the reader in assessing the nature of, and the costs associated with, a government's retirement benefit plans. The level of disclosure would also consider the sensitivity of the information in relation to the government's financial position.

.090 The description of the significant benefit plans and benefit formulae might include the plan surplus or deficit at the end of the period, demographic information about the participants and whether the benefit obligation includes the cost of inflation protection. The description of the funding policy might include the major types of plan assets and the basis of their valuation. The extent to which the fund holds securities of the sponsoring government would normally be disclosed.

.091 Governments are encouraged to provide additional disclosures about the significant actuarial assumptions underlying the reported amount of a government's accrued benefit obligation when the disclosures will enhance the financial statement users' understanding of that amount.

.092 A government may also choose to disclose a forecast of the cash required to pay its retirement benefit obligations in the short term, the medium term and the long term. If provided, such a forecast would include the amounts required in the next five years, and thereafter.

.093 *For joint defined benefit plans, in addition to the disclosures required in paragraphs* PS 3250.084 *government financial statements should disclose:*

(a) the significant accounting policies for joint plans;

(b) a description of the unique nature and terms of any joint plans;

(c) the government's share of the risks and benefits under the plans; and

(d) the total financial status of any joint plans. [SEPT. 2001]

.094 Users of government financial statements need an appreciation of the magnitude of the retirement benefit plans that governments jointly sponsor and the government's responsibility under the terms of any joint plans.

DEFINED CONTRIBUTION PLANS

.095 When a government establishes a defined contribution plan, it does not assume the actuarial and investment risks inherent in a defined benefit plan. The government typically agrees to contribute a certain amount in each period for services rendered by the employees and has no responsibility to make any further contributions. It is the employees who are at risk. This is generally because the amount of the benefit that will be payable to them is entirely dependent upon the amount of funds accumulated for each employee's account and the economic conditions prevailing at the retirement date (see paragraphs PS 3250.011-.014 for a further discussion of defined contribution plans).

Liability and expense

.096 For the most part, defined contribution plans do not present particular accounting problems. If the formula calls for government contributions on a regular predetermined basis and if those contributions have been made, then the expense recorded in the statement of operations is simply the required contribution of the accounting period. If the contributions have not been made as required, the retirement benefit expenses would include interest accrued during the period on any outstanding amounts payable to the fund. The liability for retirement benefits recorded in the statement of financial position would be the difference between the amount the government was required to contribute and the amount that was contributed to the financial statement date, including accumulated interest on any outstanding amounts payable to the fund at the financial statement date.

.097 *For defined contribution plans:*

(a) the liability for retirement benefits should be the difference between the amount a government was required to contribute and the amount that was contributed by the financial statement date including accumulated interest on any outstanding amounts payable to the fund at the financial statement date;

(b) the retirement benefit liability should be accounted for in the statement of financial position;

(c) the expense for retirement benefits should be the amount of required contributions provided for employees' services rendered in the period. Interest accrued during the period on any outstanding amounts payable to the fund should be accounted for as a retirement benefit interest expense; and

(d) the retirement benefit expense and the retirement benefit interest expense should be accounted for in the statement of operations. [SEPT. 2001]

.098 When a defined contribution plan is amended, a government may agree to make contributions in respect of past service. The cost of current and expected future years' contributions related to a past service plan amendment is recognized immediately in the period the decision is made to amend the plan.

.099 *For a defined contribution plan, the cost of current and expected future years' contributions related to a past service plan amendment should be accounted for in the period of the plan amendment.* [SEPT. 2001]

Disclosure

.100 *For defined contribution plans, financial statements should disclose:*

(a) a general description of benefit plans, contribution formulae and funding policy;

(b) the expense recognized for the period; and

(c) a description of significant changes to benefit plans during the period. [SEPT. 2001]

.101 The description of the significant retirement benefit plans and contribution formulae might include demographic information about the participants.

.102 The description of the funding policy might also include: the employee and government contributions during the accounting period; the major types of plan assets, the total amounts and the basis of their valuation; and the extent to which the fund holds securities of the sponsoring government.

.103 The description of significant changes to the plan or to the financing of the plan might also include which employee group(s) is affected and a description of the impact of such changes on current and future retirement benefit liabilities and related expenses.

.104 The level of detail disclosed by governments would reflect the highly aggregated nature of financial statements. In deciding the level of detail to disclose, governments would consider the usefulness of the information to the reader in assessing the nature of, and the costs associated with, a government's retirement benefit plans. The level of disclosure would also consider the sensitivity of the information in relation to the government's financial position.

MULTIEMPLOYER AND MULTIPLE-EMPLOYER BENEFIT PLANS

Multiemployer plans

.105 A **multiemployer plan** is a defined benefit plan to which two or more governments or government organizations contribute, usually pursuant to legislation or one or more collective bargaining agreements. The main distinguishing characteristic of a multiemployer plan is that the contributions by one participating entity are not segregated in a separate account or restricted to provide benefits only to employees of the entity and thus may be used to provide benefits to employees of all participating entities.

.106 The federal and most provincial governments sponsor defined benefit plans in which many public sector organizations participate. Many local governments participate in such multiemployer plans. When benefits are provided to employees through a multiemployer plan, the amount for which an individual government is obligated under the plan may not be quantified. Generally, a contribution rate is established for each period to ensure that the plan assets are adequate to cover the plan's future benefit payments.

.107 When a government sponsors a defined benefit multiemployer retirement benefit plan, it has the responsibility to ensure that the defined benefits promised to employees are met. In that circumstance the sponsoring government is at risk for future experience gains or losses and would account for its related obligation for the entire multiemployer plan as a defined benefit plan.

.108 *When a government sponsors a defined benefit multiemployer retirement plan, the government should follow the standards for defined benefit plans in accounting for its obligation for the plan.* [SEPT. 2001]

.109 Although a multiemployer plan may have the characteristics of a defined benefit plan, sufficient information to follow the standards for defined benefit plans is normally not available for each participating employer other than the sponsoring government. For this reason, a multiemployer plan is accounted for by each participating government following the standards for defined contribution plans.

.110 *When benefits are provided to employees through a multiemployer retirement benefit plan, each entity participating in the plan, other than the sponsoring government, should follow the standards for defined contribution plans.* [SEPT. 2001]

.111 *The government should disclose any available information about any surplus or deficit in a multiemployer plan, the basis used to determine the surplus or deficit and the implications, if any, for the government.* [SEPT. 2001]

Multiple-employer plans

.112 A **multiple-employer plan** is a defined benefit plan maintained by more than one entity that is not a multiemployer plan. In contrast to multiemployer plans, a multiple-employer plan maintains separate accounts for each entity so that contributions provide benefits only for employees of the contributing entity. In addition, multiple-employer plans are intended to allow participating entities, commonly in the same industry, to pool their plan assets for investment purposes and to reduce the cost of plan administration. Multiple-employer plans may have features that allow participating entities to have different benefit formulae, with the entity's contributions to the plan based on the benefit formula selected by the entity.

.113 When benefits are provided to employees through a defined benefit multiple-employer plan, each government in the plan follows the standards on defined benefit plans and bases its accounting for plan assets on its proportionate interest in the assets of the multiple-employer plan.

.114 *When benefits are provided to employees through a defined benefit multiple-employer retirement plan, each entity in the plan should follow the standards for defined benefit plans.* [SEPT. 2001]

TRANSITIONAL PROVISIONS

.115 When implementing this Section, governments may have an initial unrecorded liability.

.116 The initial unrecorded liability would be accounted for as a change in accounting policy applied retroactively. This method is recommended because it ensures that all liabilities incurred to the financial statement date are accounted for in the statement of financial position. Such an accounting is needed to help users of financial statements assess the impact those liabilities may have on:

(a) a government's future cash requirements from revenues and other sources;

(b) a government's ability to meet its financial obligations, both short-term and long-term; and

(c) a government's ability to maintain the level and quality of its services and to finance new programs.

.117 *This Section should be accounted for as a change in accounting policy applied retroactively.* [SEPT. 2001]

TIMING OF ACTUARIAL VALUATIONS

.118 Most governments do not have full actuarial valuations performed annually because of the magnitude of the information gathering and processing required. **Actuarial valuations for accounting purposes** would generally be done once every three years because of the financial importance of retirement benefit obligations. They would be done as close to the related financial statement date as is practical. In the years between valuations, an extrapolation would be used to compute the expected accrued benefit obligation and related expenses. Each year the government reviews matters such as changes to the plan, the actuarial assumptions, occurrence of settlements and curtailments, changes to the employee group and the rate of return on plan assets, and determines whether such matters necessitate any adjustments to the extrapolations. When the effect of any change is significant, a new valuation may be necessary.

.119 In the period a government implements this Section, it would need to assess whether a new actuarial valuation of its retirement benefit obligations is needed. A new valuation would be needed, for example, if the prior one is not current or is not prepared in accordance with this Section.

GLOSSARY

An **accrued benefit asset** is the amount of any asset recognized on a government's statement of financial position in respect of employee retirement benefits before deducting any valuation allowance that may be required. It is the sum of the government's accumulated cash contributions less the sum of the current and prior years' benefit expenses (before any change in the valuation allowance).

An **accrued benefit obligation** is the value of retirement benefits attributed to services rendered by employees and former employees to the financial statement date.

Actuarial assumptions are made as to the occurrence of a future event that will affect retirement benefit costs and obligations. They include assumptions about such matters as mortality, withdrawal, disability and retirement and about changes in compensation, interest on obligations and investment earnings.

Actuarial cost methods are used to determine the cost of providing retirement benefits and to allocate that cost to specific time periods. The two main families of actuarial valuation methods are:

Accrued benefit methods (also known as unit credit or single premium actuarial cost methods) — Under these methods a distinct unit of retirement benefit is associated with each year of credited service and the actuarial present value of that unit of benefit is separately computed for the period during which it is presumed to have accrued. Salary projection, when appropriate, is required.

Projected benefit method prorated on services — Under this accrued benefit method, generally an equal portion of the total estimated benefit (i.e., with salary projection, when appropriate) is attributed to each year of service. The actuarial present value of the accrued retirement benefits is derived after the benefits are attributed to the years of service up to the date of determination.

Level cost methods — Under these methods the retirement benefit cost assigned to any period is either the same dollar amount or the same percentage of compensation as any other period, and is a portion of the cost of the total prospective benefits of an employee group, either in absolute dollars or as a percentage of salary. (Entry age, attained age and aggregate actuarial cost methods are included in this family of methods.)

Actuarial gains and losses are changes in the value of the accrued benefit obligation and the plan assets resulting from:

(a) experience different from that assumed; or

(b) changes in an actuarial assumption.

An **actuarial valuation for accounting purposes** is an assessment of the financial status of a benefit plan. It consists of the valuation of assets held by the plan and calculation of the actuarial present value of benefits to be paid under the plan. The

valuation provides the information needed to determine the retirement benefit liability and related expenses in accordance with this Section.

An **actuarial valuation for funding purposes** is an assessment of the financial status of a benefit plan. It consists of the valuation of assets held to discharge the benefit liability and calculation of the actuarial present value of benefits to be paid under the plan. The valuation results in a calculation of the required future contributions and a determination of any gains or losses since the last valuation.

An **actuary** is a Fellow of the Canadian Institute of Actuaries.

An **adjusted benefit asset** is an accrued benefit asset less the amount, if any, by which the aggregate of any unamortized actuarial losses exceeds the aggregate of any unamortized actuarial gains.

A **contingency** is the result of an existing condition or situation involving uncertainty that will ultimately be resolved when one or more future events occur or fail to occur. Resolution of the uncertainty may confirm the acquisition of an asset or the reduction of a liability or the loss or impairment of an asset or the incurrence of a liability.

Contractual obligations are obligations of a government to others that will become liabilities when the terms of those contracts or agreements are met.

The **current period benefit cost** is the actuarial present value of benefits attributed to services rendered by employees in the period.

A **defined benefit plan** specifies either the benefits to be received by employees after retirement or the method for determining those benefits. The most commonly used defined benefit plans are:

> **Final pay plan** — Bases benefits on an employee's length of service and compensation over a specified number of years (usually the years of an employee's highest earnings).
>
> **Flat benefit plan** — Provides a specified benefit for each year of service rendered; the benefit earned in each period is usually fixed and determinable under the terms of the plan and the amount of benefits to be received varies only with the years of service rendered.

A **defined contribution plan** is one in which the employer's contributions are fixed, usually as a percentage of compensation, and allocated to specific individuals. The retirement benefit for each employee is the amount that can be provided at retirement based on the accumulated contributions made on that individual's behalf and investment earnings on those contributions.

The **expected average remaining service life (EARSL) of the related employee group** is the total number of years of future services expected to be rendered by that group divided by the number of employees in the group. The calculation of expected future services considers population decrements based on the actuarial assumptions but is not weighted by benefits or compensation.

The **expected future benefit** is a calculated amount representing the benefit a government expects to realize from a plan surplus. An expected future benefit includes any withdrawable surplus or reduction in future contributions. A government determines its expected future benefit as the sum of:

> (a) the present value of its expected future accruals for service for the current number of active employees, less the present value of required employee contributions and minimum contributions the government is required to make regardless of any surplus; and
>
> (b) the amount of the plan surplus that can be withdrawn in accordance with the existing plan and any applicable laws and regulations.

Financial statements are summary financial statements published by a government that report on the financial position and changes in financial position of the government reporting entity. Such statements present aggregated information and serve as a means by which a government demonstrates its accountability for the financial affairs and resources entrusted to it.

A **joint defined benefit plan** is a contractual arrangement between the government and another sponsor or sponsors representing plan participants that has all of the following characteristics:

> (a) the sponsors co-operate toward achieving the significant clearly defined common goal of providing retirement benefits in exchange for services rendered by the employees;
>
> (b) funding contributions are shared mutually between the government and the plan members, represented by the non-government sponsor;
>
> (c) the sponsors share control of decisions related to the administration of the retirement benefit plan and to the level of benefits and contributions on an ongoing basis; and
>
> (d) the significant risks associated with the retirement benefit plan are shared on an equitable basis between the government and the plan members, represented by the non-government sponsor.

The contractual arrangement establishes that the sponsors have shared control over the retirement benefit plan, and ensures that neither party is in a position to control the plan unilaterally. Nevertheless, overall, there must be an equitable relationship between the funding by the government of the retirement benefit plan, the extent of control it is able to exercise over the plan and the risks and benefits that accrue to the government from the plan.

Liabilities are present obligations of a government to others arising from past transactions or events, the settlement of which is expected to result in the future sacrifice of economic benefits.

A **multiemployer plan** is a defined benefit plan to which two or more governments or government organizations contribute, usually pursuant to legislation or one or more collective bargaining agreements. The main distinguishing characteristic of a multiemployer plan is that the contributions by one participating entity are not segregated in a separate account or restricted to provide benefits only to employees of the entity and, thus may be used to provide benefits to employees of all participating entities.

A **multiple-employer plan** is a defined benefit plan maintained by more than one entity that is not a multiemployer plan. In contrast to multiemployer plans, a multiple-employer plan maintains separate accounts for each entity so that contributions provide benefits only for employees of the contributing entity. In addition, multiple-employer plans are intended to allow participating entities, commonly in the same industry, to pool their plan assets for investment purposes and to reduce the cost of plan administration. Multiple-employer plans may have features that allow participating entities to have different benefit formulae, with the entity's contributions to the plan based on the benefit formula selected by the entity.

A **plan asset** is an asset segregated and restricted in a trust or other legal entity separate from the reporting government to provide for retirement benefits under the following conditions:

(a) the assets in the separate entity are to be used only to settle the related accrued benefit obligation, are not available to the government's own creditors, and either cannot be returned to the government or can be returned to the government only if the remaining assets of the trust are sufficient to meet the plan's obligations; and

(b) to the extent that sufficient assets are in the separate entity, the government will have no obligation to pay the related retirement benefits directly.

For purposes of this Section, plan assets do not include amounts held by the government and not yet paid into the trust or other legal entity.

A **plan curtailment** occurs when the expected years of future service to be rendered by the existing employee group are reduced significantly or when benefits will not be earned by employees for some or all future periods.

A **plan settlement** occurs when an employer legally discharges the obligation for accrued retirement benefits either by transferring assets directly to plan participants in exchange for their rights to retirement benefits or by purchasing annuity contracts in which a third party unconditionally undertakes to pay all accrued retirement benefits.

A **prior period service cost** is the increase in the accrued benefit obligation associated with past service benefit improvements.

The **retirement benefit expense** is the cost of the retirement benefits promised during the period in exchange for services rendered during the period.

The **retirement benefit interest expense** is the cost of financing an unfunded retirement benefit obligation during the period.

The **retirement benefit liability** is the amount of any liability recognized on a government's statement of financial position in respect of retirement benefits. It is the sum of the current and prior years' benefits expenses less the government's accumulated cash contributions.

A **retirement benefit plan** is any arrangement (contractual or otherwise) by which a program is established to provide retirement income and other benefits to employees and/or retirees.

Retirement benefits are benefits expected to be provided after retirement to employees and their beneficiaries. These benefits include pension income, health care benefits, life insurance, and other miscellaneous benefits provided to employees after retirement.

Vesting is the recognition of the employees' rights to receive retirement benefits that are no longer conditional on the employees remaining in the service of the employer.

APPENDIX A

Limit on accrued benefit asset

The carrying amount on the statement of financial position would be the accrued benefit asset of $30 less the valuation allowance of $7 for an amount of $23.

APPENDIX B

ILLUSTRATIVE EXAMPLES

The following examples have been prepared by CPA Canada staff to illustrate how the standards in Section PS 3250 might be implemented.

The examples are illustrative only and matters of principle relating to particular situations should be decided in the context of the Section. They are not intended to indicate preferred formats nor to prescribe standardized note disclosure, as variations in format and wording will be necessary to meet the requirements of differing circumstances.

For ease of presentation, selections are made from accounting alternatives permitted by the Section.

Example 1 — Defined benefit pension plan, assuming a separate pension fund is maintained

Example 2 — Defined benefit plan for retirement benefits other than pensions, assuming a separate fund is not maintained

Example 1 — Defined benefit pension plan, assuming a separate pension fund is maintained

The government sponsors contributory defined benefit pension plans for substantially all of its employees and for members of its Legislature. There are three main plans — the Public Service Plan, the Provincial Judges' Plan and the Elected Representatives' Plan. The Public Service and the Provincial Judges' plans provide for pensions equal to 1.5 percent of the average of the five highest years' salary for each year of service to a maximum of 35 years. The Elected Representatives' Plan provides for pensions equal to four percent of the average of five years' session indemnities for each year of service to a maximum of 15 years. The plans do not provide inflation protection. The average age of the 45,000 active employees is 42. There are 5,000 former employees who are entitled to deferred pension benefits and 11,000 retirees now receiving benefits.

Each year employees contribute seven percent of their salary to a separate pension fund and the government contributes an equal amount. While the government and employees are required to contribute equal amounts into the pension fund, the government retains the full risk of the accrued benefit obligation. The pension fund invests monies from the contributions in securities of organizations external to the government reporting entity as well as investing in some non-marketable bonds of the government.

At the beginning of fiscal year 20X1, an actuarial valuation of the government's employee pension obligations was done for accounting purposes using the projected benefit method prorated on services. The liability for pensions recorded in the statement of financial position was $400 million. For purposes of this example it is assumed that there were no unamortized actuarial gains or losses at that time.

Key actuarial assumptions used in the valuation were based on the government's best estimates. Those assumptions involve forecasts of expected future inflation rates, investment returns, wage and salary increases, and employee turnover and mortality. A second actuarial valuation for accounting purposes was performed at the end of fiscal year 20X3. During the second valuation, the actuarial assumptions included in the first one were reviewed and no changes were considered necessary.

During fiscal 20X4, a plan amendment was made to the Public Service Plan increasing the benefits from 1.5 percent to two percent of the average of the five highest years' salary for each year of service to a maximum of 35 years. The plan amendment was effective March 31, 20X4 and relates to both future and past services. The government is responsible for funding the pension liability of $25 million related to past services over the next 12 years. The increase in current period benefit costs due to rendering of service for fiscal 20X5 was $1.5 million.

	April 1, 20X0	March 31, 20X3
Accrued benefit obligation	$1.5 billion	$2.2 billion
Pension fund asset	$1.1 billion	$1.8 billion
Pension liability recorded in the statement of financial position	$ .4 billion	$ .4 billion
Expected average remaining service life of related employee groups (EARSL)		12 years
Plan amendment March 31, 20X4		$25,000
Expected current period benefit cost:		
20X1	$200 million	
20X2	$220 million	
20X3	$240 million	
20X4		$240 million
20X5		$250 million
20X5 related to plan amendment		$1.5 million
20X6		$260 million

Expected rates of return	8%
Expected salary escalations	5%
Expected inflation rates	3%

The following amounts related to other pension experience incurred throughout the period:

($ millions)	20X1	20X2	20X3	20X4
Employee funding contributions	110	115	120	126
Government funding contributions:				
— related to current service	110	115	120	126
Benefit payments to retirees	105	109	115	119

Exhibit I — Interest during the year on the average pension liability outstanding during the year

($ thousands)	20X1	20X2	20X3	20X4
Interest on expected average accrued benefit obligation:				
Accrued benefit obligation — opening balance (a)	1,500,000	1,718,800	1,971,744	2,200,000
Add: Current period benefit cost (b)	100,000	110,000	120,000	120,000
Deduct: Benefit payments (b)	(52,500)	(54,500)	(57,500)	(59,500)
Average accrued benefit obligation	1,547,500	1,774,300	2,034,244	2,260,500
Interest at 8% on average accrued benefit obligation	123,800	141,944	162,740	180,840
Expected earnings on average pension fund assets:				
Pension fund assets — opening balance (a)	1,100,000	1,417,600	1,598,048	1,800,000
Add: Employee and government funding contributions (b)	110,000	115,000	120,000	126,000
Deduct: Benefit payments (b)	(52,500)	(54,500)	(57,500)	(59,500)
Average pension fund assets	1,157,500	1,478,100	1,660,548	1,866,500
Expected earnings on average pension fund assets at 8%	92,600	118,248	132,844	149,320
Total interest during the period on the average pension liability outstanding during the period (c)	31,200	23,696	29,896	31,520

(a) In the period of an actuarial valuation, the opening balance of the accrued benefit obligation is the actuarially determined amounts (opening balances 20X1 and 20X4). In the periods between valuations (20X2 and 20X3), the opening balance is equal to the expected closing balance for the previous year as determined in Exhibit II. The opening balance of pension fund assets is the actual amount reported in the financial records of the fund.

(b) Accrued, or assumed to take place, evenly throughout the year, therefore interest is accrued on one-half of the total.

(c) Interest during the year on average pension liability outstanding during the year = 8% of [(average accrued benefit obligation) – (average pension fund assets)].

Exhibit II — Expected closing balance of accrued benefit obligation

($ thousands)	20X1	20X2	20X3	20X4
Accrued benefit obligation — opening balance	1,500,000	1,718,800	1,971,744	2,200,000
Add: Current period benefit cost	200,000	220,000	240,000	240,000
Increase due to plan amendment	—	—	—	25,000
Interest accrued (Exhibit I)	123,800	141,944	162,740	180,840
Deduct: Benefit payments	(105,000)	(109,000)	(115,000)	(119,000)
Expected closing balance	1,718,800	1,971,744	2,259,484	2,526,840

Exhibit III — Expected closing balance of pension fund assets

($ thousands)	20X1	20X2	20X3	20X4
Pension fund assets — opening balance (actual)	1,100,000	1,417,600	1,598,048	1,800,000
Add: Employee and government funding and contributions	220,000	230,000	240,000	252,000
Expected earnings (Exhibit I)	92,600	118,248	132,844	149,320
Deduct: Benefit payments	(105,000)	(109,000)	(115,000)	(119,000)
Expected closing balance	1,307,600	1,656,848	1,855,892	2,082,320

Exhibit IV — Amortization of actuarial gains / losses on accrued benefit obligation (a)

($ thousands)	20X1	20X2	20X3	20X4
Expected closing balance of accrued benefit obligation at March 31 (Exhibit II)	N/A	N/A	2,259,484	N/A
Actual accrued benefit obligation (per the March 31, 20X3 actuarial valuation)			2,200,000	
Actuarial gain			59,484	
EARSL			12 years	
Annual amortization over EARSL			4,957	

(a) A straight-line method is used to amortize actuarial gains and losses over the expected average remaining service life of the related employee groups. Amortization commences in the year following the effective date of the related actuarial valuation.

Exhibit V — Amortization of actuarial gains / losses on pension fund asset earnings

($ thousands)	20X1	20X2	20X3	20X4
Expected closing balance of pension fund assets at March 31 (Exhibit III)	1,307,600	1,656,848	1,855,892	2,082,320
Actual pension fund assets	1,417,600	1,598,048	1,800,000	2,142,320
Actuarial gain (loss)	110,000	(58,800)	(55,892)	60,000
EARSL	12 years	12 years	12 years	12 years
Annual amortization over EARSL	9,167	(4,900)	(4,658)	5,000

Exhibit VI — Unamortized actuarial gains and losses

($ thousands)	20X1	20X2	20X3	20X4
Unamortized actuarial gains and losses — opening balance	—	110,000	42,033	41,358
Actuarial gains (losses) due to:				
— accrued benefit obligation (Exhibit IV)	—	—	59,484	—
— earnings on pension fund assets (Exhibit V)	110,000	(58,800)	(55,892)	60,000
Amortization recorded during the year:				
— accrued benefit obligation (Exhibit IV)	—	—	—	(4,957)
— earnings on pension fund assets (Exhibit V)	—	(9,167)	(4,267)	391
— recognition of net unamortized actuarial gains as an offset to prior period service cost (a)	—	—	—	(25,000)
Unamortized actuarial gains and losses — closing balance	110,000	42,033	41,358	71,792

(a) When the cost of a plan amendment that improves a benefit related to prior service is offset against net actuarial gains, the cost is offset first against the oldest gains. Additionally, it is only offset against gains in the Public Service Plan.

Exhibit VII — Liability recorded in the statement of financial position

($ thousands)	20X1	20X2	20X3	20X4
Accrued benefit obligation — closing balance (a) (Exhibit II)	1,718,800	1,971,744	2,200,000	2,526,840
Deduct: Pension fund assets — closing balance (Exhibit III)	(1,417,600)	(1,598,048)	(1,800,000)	(2,142,320)
Unamortized actuarial gains / losses (Exhibit VI)	110,000	42,033	41,358	71,792
Pension liability	411,200	415,729	441,358	456,312

(a) In the period of an actuarial valuation, this is the actuarially determined amount (closing balance 20X3). In the periods between valuations, this is an expected closing balance.

Exhibit VIII — Expenses recorded in the statement of operations

($ thousands)	20X1	20X2	20X3	20X4
Pension expense:				
Current period benefit cost	200,000	220,000	240,000	240,000
Prior period cost of plan amendment incurred during the year	—	—	—	25,000
Recognition of unamortized net actuarial gains	—	—	—	(25,000)
Amortization of actuarial gains / losses (Exhibit VI)	—	(9,167)	(4,267)	(4,566)
	200,000	210,833	235,733	235,434
Less: Employee contributions	(110,000)	(115,000)	(120,000)	(126,000)
Pension expense	90,000	95,833	115,733	109,434

Pension interest expense:				
Interest during year on the average pension liability outstanding during the year (Exhibit I)	31,200	23,696	29,896	31,520
Total pension-related expenses	121,200	119,529	145,629	140,954

Exhibit IX — Non-cash items recorded in the statement of cash flow

($ thousands)	20X1	20X2	20X3	20X4
Pension liability:				
— beginning of year (Exhibit VII)	400,000	411,200	415,729	441,358
— end of year (Exhibit VII)	411,200	415,729	441,358	456,312
Increase in pension liability	11,200	4,529	25,629	14,954

Financial statement disclosure

Illustrative Note to the Financial Statements

The government sponsors contributory defined benefit pension plans for substantially all of its employees and for members of its Legislature. There are three main plans — the Public Service Plan, the Provincial Judges' Plan and the Elected Representatives' Plan. The plans provide pensions based on length of service and final average earnings. They do not provide for inflation protection. The average age of the 45,000 active employees covered by the plans is 42. There are 5,000 former employees who are entitled to deferred pension benefits. At present, the plans provide benefits for 11,000 retirees; benefit payments were $119 million in 20X4 and $115 million in 20X3.

Employees make contributions equal to seven percent of their salary and the government contributes an equal amount. In 20X4, total contributions for current year's service were $252 million (20X3 — $240 million). Total benefit payments to retirees during the year were $119 million (20X3 — $115 million). A separate pension fund is maintained. Pension fund assets are invested primarily in marketable investments of organizations external to the government reporting entity, with some invested in non-marketable bonds of the government. The pension liability at March 31 includes the following components:

($ thousands)	20X4	20X3
Accrued benefit obligation	2,526,840	2,200,000
Pension fund assets:		
Marketable securities	(1,942,320)	(1,610,000)
Government bonds	(200,000)	(190,000)
	384,520	400,000
Unamortized actuarial gains / losses	71,792	41,358
Pension liability	456,312	441,358

Actuarial valuations for accounting purposes are performed triennially using the projected benefit method prorated on services. The most recent actuarial report was prepared at March 31, 20X3. The accrued benefit obligation shown for 20X4 is based on an extrapolation of that 20X3 valuation. There is a net unamortized actuarial gain to be amortized on a straight-line basis over the expected average remaining service life of the related employee groups (12 years).

The actuarial valuation was based on a number of assumptions about future events, such as inflation rates, interest rates, wage and salary increases and employee turnover and mortality. The assumptions used reflect the government's best estimates. The expected inflation rate is three percent. The discount rate used to determine the accrued benefit obligation is eight percent.

Pension fund assets are valued at market values. The expected rate of return on plan assets is eight percent. The actual return on plan assets was 8.6 percent. Plan assets include government bonds valued at an estimated market value of $200 million (20X3 — $190 million).

The total expenses related to pensions include the following components:

($ thousands)	20X4	20X3
Current period benefit cost	240,000	240,000
Prior period cost of plan amendment	25,000	—
Recognition of net unamortized actuarial gains	(25,000)	—
Amortization of actuarial gains / losses	(4,566)	(4,267)
	235,434	235,733
Less: Employee contributions	(126,000)	(120,000)
Pension expense	109,434	115,733
Interest cost on the average accrued benefit obligation	180,840	162,740
Expected return on average pension plan assets	(149,320)	(132,844)
Pension interest expense	31,520	29,896
Total expenses related to pensions	140,954	145,629

The pension expense is included in the statement of operations as a component of program expenses. The pension interest expense is included in the public debt interest expense.

On March 31, 20X4, a plan amendment was made to the Public Service Plan increasing the rate at which pension benefits accrue. The amendment relates to both future and past service. The benefit accrual of $25 million is based on an actuarial valuation of the increase in the accrued benefit obligation due to past service. The government intends to fund this amount over a 12-year period ($1 million in 20X4).

Statement of Financial Position (excerpts)

As at March 31 ($ thousands)	20X4	20X3
Liabilities		
Accounts payable	x	x
Accrued liabilities	x	x
Borrowings		
Treasury bills	x	x
From other governments	x	x
Bonds payable to pension fund (note)	200,000	190,000
Other	x	x
Pension liability (note)	456,312	441,358
Total liabilities	x	x
Excess of liabilities over financial assets	x	x

Statement of Operations (excerpts)

For the year ended March 31 ($ thousands)		20X4	20X3
Expenses			
Health	(includes pension expense)	x	x
Education ...etc.		x	x

Public debt interest (includes pension interest expense)	x	x
	x	x
	=====	=====

Example 2 — Other retirement benefits plan

The government provides certain retiree health and life insurance benefits to its employees. The plan is unfunded and requires no contribution from employees.

In 20X3 the government adopted accrual accounting for the benefit plan. Prior to that date the government recognized benefit expenses equal to its payments for the actual costs incurred by the retirees and no liability for retirement benefits other than pensions was recorded in the statement of financial position.

At the beginning of fiscal year 20X3, an actuarial valuation of the government's obligations for retirement benefits other than pensions was done for accounting purposes using the projected benefit method prorated on services. Key actuarial assumptions used in the valuation were based on the government's best estimates. Those assumptions involve forecasts of expected future inflation rates, cost of long-term debt, employee mortality and medical costs. A second actuarial valuation for accounting purposes was performed at the end of fiscal year 20X5. During the second valuation, the actuarial assumptions included in the first one were reviewed and no changes were considered necessary.

($ thousands)		April 1, 20X2	March 31, 20X5
Accrued benefit obligation		100,000	150,000
Expected average remaining service life of related employee groups (EARSL)	12 years		
Plan amendment September 30, 20X5			10,000
Expected current period benefit cost:			
20X3		3,500	
20X4		3,800	
20X5		4,000	
20X6			4,000
20X6 related to plan amendment			500
20X7			5,200
20X8			5,400
Expected cost of long-term debt	8%		
Expected salary escalations	5.5%		
Expected medical inflation rates	10%		
Expected inflation rates	5.5%		
Benefit payments to retirees	20X3	2,500	

20X4	2,800	
20X5	2,900	
20X6	3,100	

Exhibit I — Interest during the year on the average liability for retirement benefits other than pensions outstanding during the year

($ thousands)	20X3	20X4	20X5	20X6
Interest on expected average accrued benefit obligation:				
Accrued benefit obligation — opening balance (a)	100,000	109,040	118,803	150,000
Add: Current period benefit cost (b)	1,750	1,900	2,000	2,125
Increase in accrued benefit obligation due to plan amendment (c)	—	—	—	5,000
Deduct: Benefit payments (b)	(1,250)	(1,400)	(1,450)	(1,550)
Average accrued benefit obligation	100,500	109,540	119,353	155,575
Interest at 8% on average accrued benefit obligation (d)	8,040	8,763	9,548	12,446

(a) In the period of an actuarial valuation, the opening balance of the accrued benefit obligation is the actuarially determined amounts (opening balances 20X3 and 20X6). In the periods between valuations (20X4 and 20X5), the opening balance is equal to the expected closing balance for the previous year.

(b) Accrued, or assumed to take place, evenly throughout the year, therefore interest is accrued on one-half of the total.

(c) Since the plan amendment was effective mid-year, interest is earned for one-half of the year on the increase in accrued benefit obligation due to past service = ½ (10,000). Similarly, interest is earned on the increase in the current period benefit cost following the plan amendment. The average current period benefit cost in 20X6 is, therefore, = ½ (4,000) + ¼ (500).

(d) Interest during the year on average liability outstanding during the year = 8% of average accrued benefit obligation.

Exhibit II — Expected closing balance of accrued benefit obligation

($ thousands)	20X3	20X4	20X5	20X6
Accrued benefit obligation — opening balance	100,000	109,040	118,803	150,000
Add: Current period benefit cost	3,500	3,800	4,000	4,500
Increase due to plan amendment	—	—	—	10,000
Interest accrued (Exhibit I)	8,040	8,763	9,548	12,446
Deduct: Benefit payments	(2,500)	(2,800)	(2,900)	(3,100)
Expected closing balance	109,040	118,803	129,451	173,846

Exhibit III — Amortization of actuarial gains / losses on accrued benefit obligation (a)

($ thousands)	20X3	20X4	20X5	20X6
Expected closing balance of accrued benefit obligation at March 31 (Exhibit II)	N/A	N/A	129,451	N/A
Actual accrued benefit obligation (per the March 31, 20X5 actuarial valuation)			150,000	
Actuarial gain (loss)			(20,549)	

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EARSL	12 years
Annual amortization over EARSL	(1,712)

(a) A straight-line method is used to amortize actuarial gains and losses over the expected average remaining service life of the related employee groups. Amortization commences in the year following the effective date of the related actuarial valuation.

Exhibit IV — Unamortized actuarial gains and losses

($ thousands)	20X3	20X4	20X5	20X6
Unamortized actuarial gains and losses — opening balance	N/A	N/A	—	(20,549)
Actuarial gains (losses) due to:				
— accrued benefit obligation (Exhibit III)			(20,549)	—
Amortization recorded during the year:				
— accrued benefit obligation (Exhibit III)			—	1,712
— recognition of net unamortized actuarial gains as an offset to prior period service cost			—	—
			(20,549)	(18,837)
			======	======

Exhibit V — Liability for retirement benefits recorded in the statement of financial position

($ thousands)	20X3	20X4	20X5	20X6
Accrued benefit obligation — closing balance (a) (Exhibit II)	109,040	118,803	150,000	173,846
Unamortized actuarial gains / losses (Exhibit IV)	—	—	(20,549)	(18,837)
Liability for retirement benefits	109,040	118,803	129,451	155,009
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(a) In the period of an actuarial valuation, this is the actuarially determined amount (closing balance 20X5). In the periods between valuations, this is an expected closing balance.

Exhibit VI — Expenses recorded in the statement of operations

($ thousands)	20X3	20X4	20X5	20X6
Retirement benefit expense:				
Current period benefit cost	3,500	3,800	4,000	4,500
Prior period cost of plan amendment incurred during the year	—	—	—	10,000
Recognition of unamortized net actuarial gains	—	—	—	—
Amortization of actuarial gains / losses (Exhibit III)	x	x	x	1,712
Retirement benefit expense	3,500	3,800	4,000	16,212
Retirement benefit interest expense (Exhibit I)	8,040	8,763	9,548	12,446
Total expenses related to retirement benefits	11,540	12,563	13,548	28,658
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Financial statement disclosure

Illustrative Note to the Financial Statements

The government sponsors a defined benefit plan for retirement benefits other than pensions for substantially all of its employees. The plan provides extended health and dental as well as life insurance to employees.

Total benefit payments to retirees during the year were $3.1 million (20X5 — $2.9 million). The plan is unfunded and requires no contribution from employees. The retirement benefit liability at March 31 includes the following components:

($ thousands)	20X6	20X5
Accrued benefit obligation	173,846	150,000
Unamortized actuarial gains / losses	(18,837)	(20,459)
Retirement benefit liability	155,009	129,451

Actuarial valuations for accounting purposes are performed triennially using the projected benefit method prorated on services. The most recent actuarial report was prepared at March 31, 20X5. The accrued benefit obligation shown for 20X6 is based on an extrapolation of that 20X5 valuation. There is a net unamortized actuarial loss to be amortized on a straight-line basis over the expected average remaining service life of the related employee groups (12 years).

The actuarial valuation was based on a number of assumptions about future events, such as inflation rates, interest rates, medical inflation rates, wage and salary increases, and employee turnover and mortality. The assumptions used reflect the government's best estimates. The expected inflation rate is 5.5 percent. The discount rate used to determine the accrued benefit obligation is eight percent.

The total expenses related to retirement benefits other than pensions include the following components:

($ thousands)	20X6	20X5
Current period benefit cost	4,500	4,000
Prior period cost of plan amendment	10,000	—
Amortization of actuarial gains / losses	1,712	—
Retirement benefit expense	16,212	4,000
Retirement benefit interest expense	12,446	9,548
Total expenses related to retirement benefits	28,658	13,548

The retirement benefit expense is included in the statement of operations as a component of program expenses. The retirement benefit interest expense is included in the public debt interest expense.

On September 30, 20X5, a plan amendment was made to the plan increasing the rate at which retirement benefits accrue. The amendment relates to both future and past service. The benefit accrual of $10 million is based on an actuarial valuation of the increase in the accrued benefit obligation due to past service.

Statement of Financial Position (excerpts)

As at March 31 ($ thousands)	20X6	20X5
Liabilities		
Accounts payable	x	x
Accrued liabilities	x	x
Borrowings		
Treasury bills	x	x
From other governments	x	x
Other	x	x
Retirement benefit liability (note)	155,009	129,451
Total liabilities	x	x
Excess of liabilities over financial assets (a)	x	x

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(a) The opening balance of the excess of liabilities over financial assets in 20X3 has been restated to reflect a change in accounting policy for employee retirement benefit obligations applied retroactively. The effect of this restatement is as follows:

($ thousands)	
Excess of liabilities over financial assets — beginning of year:	
As previously reported	x
Adjustments due to change in accounting policy applied retroactively	100,000
As restated	x
Excess of expenses over revenues during the year	x
Excess of liabilities over financial assets — end of year	x

Statement of Operations (excerpts)

For the year ended March 31 ($ thousands)		20X6	20X5
Expenses			
Health	(includes retirement benefit expense)	x	x
Education ...etc.		x	x
Public debt interest (includes retirement benefit interest expense)		x	x
		x	x