State of Minnesota \ LEGISLATIVE COMMISSION ON PENSIONS AND RETIREMENT

TO: Members of the Legislative Commission on Pensions and Retirement

FROM: Lawrence A. Martin, Executive Director

RE: Minnesota Public Pension Plan Definition of the Actuarial Value of Assets and Its Consistency with the GASB Statements 25 and 27 Exposure Drafts

DATE: October 25, 2011

Introduction

During the October 19-20, 2011, meeting of the Legislative Commission on Pensions and Retirement, Senator Ted Daley asked about the consistency of the definition of the actuarial value of assets for statewide and major local Minnesota defined benefit retirement plan actuarial reporting with the exposure drafts for amendments to Statements 25 and 27 by the Government Accounting Standards Board (GASB).

This memorandum represents the Commission staff research on the topic, based on the Government Accounting Standards Board (GASB) exposure drafts issued June 27, 2011, and based on Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (f).

Definition of Actuarial Value of Assets

For Minnesota statewide and major local defined benefit retirement plan actuarial reporting purposes, Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (f), specifies a five-year long adjustment to the most recent market value of retirement fund assets that is intended to smooth the volatility in values which would otherwise be experienced if only market values were used.

The statutory definition, added in 2000 (Laws 2000, Ch. 461, Art. 1, Sec. 3), based on the recommendation of the actuarial consulting firm retained by the Legislative Commission on Pensions and Retirement, Milliman, modifies the current market value of retirement fund assets by reducing that amount by a portion of the difference between the actual net change in the market value over the course of the prior four years and the change in the value if the assets increased at the percentage post-retirement interest rate assumption applicable to that year, with the greatest portion of the difference not recognized occurring in the experience from the most recent one-year period (80%) and scaling down evenly to the one-year period occurring four years previous (20%). The following sets forth the determination of the actuarial valuation of assets under Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (f), as of June 30, 2010, June 30, 2009, June 30, 2008, and June 30, 2007, for the General State Employees Retirement Plan of the Minnesota State Retirement System (MSRS-General) [1]:

Actuarial Asset Value (Dollars in Thousands)			June 30, 2010
1. Market value of assets available for benefits			$ 7,692,531
2. Determination of average balance			
a. Total assets available at July 1, 2009			6,897,118
b. Total assets available at June 30, 2010			7,692,531
c. Net investment income for fiscal year ending June 30, 2010			1,040,873
d. Average balance *[a. + b. – c.] / 2*			6,774,388
3. Expected return *[8.5% x 2.d.]*			575,823
4. Actual return			1,040,873
5. Current year asset gain/(loss) *[4. – 3.]*			465,050
6. Unrecognized asset returns*			
	Original Amount	**% Not Recognized**	
a. Year ended June 30, 2010	$ 465,050	80%	$ 372,040
b. Year ended June 30, 2009	(2,397,363)	60%	(1,438,417)
c. Year ended June 30, 2008	(747,984)	40%	(299,194)
d. Year ended June 30, 2007	488,554	20%	97,711
e. Total unrecognized return			$ (1,267,860)
7. Actuarial value at June 30, 2010 *(1. – 6.e.)*			**$ 8,960,391**

**Prior to the year ending June 30, 2009, unrecognized asset returns do not include MPRIF gains or losses.*

[1] *Source: Actuarial Valuation Reports*

Actuarial Asset Value (Dollars in Thousands)			June 30, 2009
1. Market value of assets available for benefits			$ 6,897,118
2. Determination of average balance			
a. Total assets available at July 1, 2008			8,803,140
b. Total assets available at June 30, 2009			6,897,118
c. Net investment income for fiscal year ending June 30, 2009			(1,659,570)
d. Average balance *[a. + b. – c.] / 2*			8,679,914
3. Expected return *[8.5% x 2.d.]*			737,793
4. Actual return			(1,659,570)
5. Current year asset gain/(loss) *[4. – 3.]*			(2,397,363)
6. Unrecognized asset returns*			
	Original Amount	**% Not Recognized**	
a. Year ended June 30, 2009	$ (2,397,363)	80%	$ (1,917,890)
b. Year ended June 30, 2008	(747,984)	60%	(448,791)
c. Year ended June 30, 2007	488,554	40%	195,422
d. Year ended June 30, 2006	189,878	20%	37,976
e. Total unrecognized return			$ (2,133,283)
7. Actuarial value at June 30, 2009 *(1. – 6.e.)*			**$ 9,030,401**

**Prior to the year ending June 30, 2009, unrecognized asset returns do not include MPRIF gains or losses.*

Actuarial Asset Value (Dollars in Thousands)			June 30, 2008
1. Market value of assets available for benefits			$ 8,803,140
2. Determination of average balance			
a. Non-MPRIF assets available at July 1, 2007			5,810,018
b. Non-MPRIF assets available at June 30, 2008 (before MPRIF mortality adjustment)			5,363,338
c. Net investment income for fiscal year ending June 30, 2008			(261,982)
d. Average balance *[a. + b. – c.] / 2*			5,717,669
3. Expected return *[8.5% x 2.d.]*			486,002
4. Actual return			(291,982)
5. Current year asset gain/(loss) *[4. – 3.]*			(747,984)
6. Unrecognized asset returns			
	Original Amount	**% Not Recognized**	
a. Year ended June 30, 2008	$ (747,894)	80%	$ (598,387)
b. Year ended June 30, 2007	488,554	60%	293,133
c. Year ended June 30, 2006	189,878	40%	75,951
d. Year ended June 30, 2005	94,937	20%	18,987
e. Total unrecognized return			$ (210,316)
7. Actuarial value at June 30, 2008 *(1. – 6.e.)*			**$ 9,013,456**

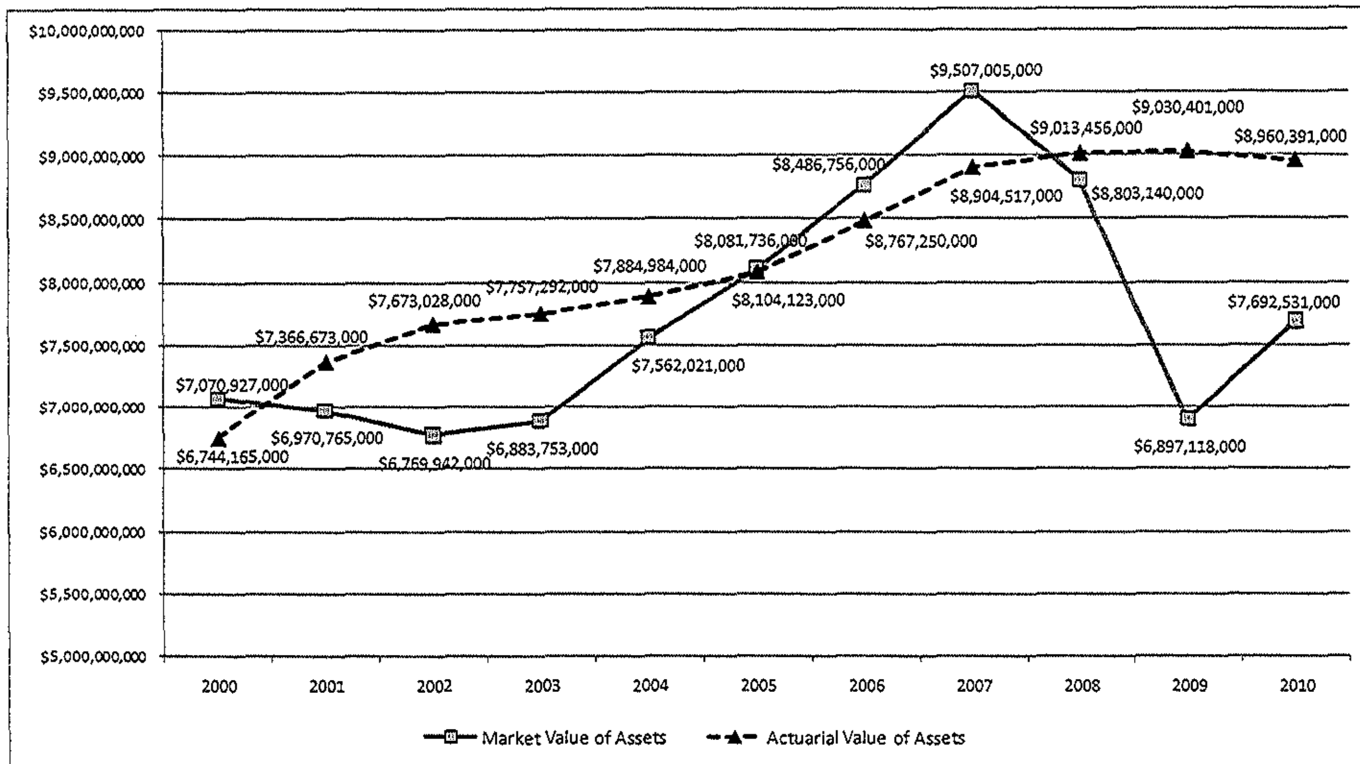
			June 30, 2007
	Non-MPRIF Assets	**MPRIF Reserve**	**Market Value**
E. Assets available at end of year (EOY)	$5,810,018,077	$3,696,897,050	$ 9,507,005,127
F. Determination of current year unrecognized asset return (UAR)			
1. Average Balance:			
(a) Non-MPRIF assets available at BOY: (A)			$ 5,077,806,966
(b) Non-MPRIF assets available at EOY*: (E) – (D.2)			5,814,835,286
(c) Average balance: [(F.1.a) + (F.1.b) – (B.5.d) – (B.6)] / 2			4,989,970,236
2. Expected Return: 8.50% x (F.1.c)			424,147,470
3. Actual return (B.5.d) + (B.6)			912,701,779
4. Current year UAR: (F.3) – (F.2)			$ 488,554,309

**Before adjustment for MPRIF Mortality Gain/(Loss).*

1. Market value of assets available for benefits			$ 9,507,005,127
2. Calculation of unrecognized return			
	Original Amount	**% Not Recognized**	
(a) Year ended June 30, 2007	$ 488,554,309	80%	$ 390,843,447
(b) Year ended June 30, 2006	189,877,852	60%	113,926,711
(c) Year ended June 30, 2005	94,936,702	40%	37,974,681
(d) Year ended June 30, 2004	298,717,581	20%	59,743,516
(e) Total unrecognized return			$ 602,488,355
3. Actuarial value of assets ("Current Assets"): (1) – (2.e)			$ 8,904,516,772
4. Actuarial value as percent of market value			93.7%

As the four examples above indicate, when the market value of assets are increasing (e.g., 6/30/2007), the actuarial value of assets definition depresses the recognition of the up-market trend, and when the market value of assets are decreasing (e.g., 6/30/2008, 6/30/2009, and 6/30/2010), the actuarial value of assets definition depresses the recognition of the down-market trend.

The following graphs the trend lines for MSRS-General for the market value of assets and the actuarial value of assets:



While covering two recessions and one bubble over an 11-year period may not represent the optimal period to test whether or not the procedure produces the appropriate level of smoothing, the graph of the comparative values does indicate less volatility for the actuarial value of assets than for the market value of assets.

<u>GASB Statements 25 and 27 Amendments Exposure Drafts Limitations on the Actuarial Value of Assets</u>

The Government Accounting Standards Board (GASB), one of two standards-setting boards operated by the Financial Accounting Foundation, was established to set governmental accounting standards in 1984 to parallel the Financial Accounting Standards Board, established in 1973, in setting private sector accounting standards.

GASB issued its accounting standards for defined benefit retirement plans (Statement 25) and for accounting for pensions by state and local governmental employers (Statement 27) in November 1994. On June 27, 2011, GASB issued exposure drafts for amendments to GASB Statement No. 25 and GASB Statement 27.

The GASB Statement 27 amendments exposure draft, in paragraph 28.a.(2), in paragraph 59.b.(2), and in paragraphs 232-241 (copies attached), limits differences between projected earnings on plan investments and actual earnings on plan investments should be recognized using a systematic and rational method over a closed five-year period, beginning in the period in which the difference occurred. Although obscured by the choice of language used, the provisions of the GASB Statement 27 amendments exposure draft, applicable to reporting about pensions by governmental employers, appear to limit the period over which a pension plan asset smoothing method may be used to five years and to require that the period must be closed. The exposure draft does not appear to impose any substantive limit or requirement on the asset smoothing mechanism beyond a closed five-year period.

Minnesota Statutes 2010, Section 356.215, Subdivision 1, Paragraph (f), clearly utilizes a closed period for retirement plan asset smoothing and the smoothing period does not exceed five years.

As a consequence, there does not appear to be any demonstrable need to amend Minnesota Statutes, Section 356.215, Subdivision 1, Paragraph (f), in response to the GASB Statements 25 and 27 amendments exposure drafts.

<u>Conclusion</u>

It is the considered determination of the Commission staff that the GASB Statement 27 amendment exposure draft does not require any modification in Minnesota Statutes 2010, Section 356.215, Subdivision 1, Paragraph (f). Other observers or interested parties may have reached a different conclusion and their contributions should be solicited.

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NO. 34-E | JUNE 27, 2011

Governmental Accounting Standards Series

EXPOSURE DRAFT

Proposed Statement of the Governmental Accounting Standards Board

Accounting and Financial Reporting for Pensions

an amendment of GASB Statement No. 27

This Exposure Draft of a proposed Statement of Governmental Accounting Standards is issued by the Board for public comment. Written comments should be addressed to:

Director of Research and Technical Activities
Project No. 34-E

Comment Deadline: September 30, 2011

Governmental Accounting Standards Board
of the Financial Accounting Foundation

Actuarial Standards of Practice issued by the Actuarial Standards Board of the American Academy of Actuaries.

Projections of Benefit Payments

Projections of benefit payments to employees would be based on the then-existing benefit terms and legal agreements and would incorporate projected salary increases (if the pension formula is based on compensation levels) and service credits (if the pension formula is based on periods of service), as well as projected automatic cost-of-living-adjustments (COLAs) and other automatic postemployment benefit changes. Projections also would include ad hoc COLAs and other ad hoc postemployment benefit changes, if they are considered to be substantively automatic.

Discount Rate

Projected benefit payments would be discounted to their present value using the single rate that would reflect (1) a long-term expected rate of return on plan investments to the extent that plan net position is projected to be sufficient to pay pensions and the net position projected to remain after each benefit payment can be invested long-term and (2) a tax-exempt, high-quality municipal bond index rate to the extent that the conditions in (1) are not met.

Attribution Method

The attribution of the actuarial present value of benefit payments would be accomplished using the entry age normal actuarial cost method as a level percentage of pay. The actuarial present value would be attributed for each employee individually, from the period when the employee first accrues pensions through the period when the employee retires.

Measurement of Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The pension expense and deferred outflows of resources and deferred inflows of resources related to pensions that would be recognized in the financial statements of an employer whose employees are provided with defined benefit pensions through a qualified trust would result from changes in the net pension liability—that is, changes in the employer's total pension liability and the pension plan's net position.

Changes in the total pension liability relating to current-period service cost, interest on the total pension liability, and benefit changes would be included in pension expense immediately. With regard to the effects on the total pension liability of changes of economic and demographic assumptions and of differences between expected and actual experience, the portion related to inactive employees would be included in pension expense immediately. The portion related to active employees would be recognized as deferred outflows of resources or deferred inflows of resources related to pensions and included in pension expense in a systematic and rational manner over a closed period that

is representative of the expected remaining service lives of active employees, beginning with the current period.

Changes in plan net position resulting from projected earnings on the plan's investments would be included in pension expense immediately. The effect of differences between the projected earnings and actual experience would be recognized as deferred outflows of resources or deferred inflows of resources related to pensions and included in pension expense in a systematic and rational manner over a closed period of five years, beginning with the current period.

All other changes would be included in pension expense in the period in which they occur.

Financial Statements Prepared Using the Current Financial Resources Measurement Focus and Modified Accrual Basis of Accounting

In financial statements prepared using the current financial resources measurement focus and modified accrual basis of accounting, a net pension liability would be recognized to the extent the liability is normally expected to be liquidated with expendable available financial resources. Pension expenditures would be recognized equal to the total of amounts contributed to the pension plan and amounts normally expected to be liquidated with expendable available financial resources.

Notes to Financial Statements of Single and Agent Employers

The notes to financial statements of single and agent employers whose employees are provided with pensions through a qualified trust would provide descriptive information, such as the types of benefits provided and the composition of the employees covered by the benefit terms. Single and agent employers also would disclose the following:

- For the current year, changes in the net pension liability
- Significant assumptions used to calculate the total pension liability, including assumptions used in calculating the discount rate
- The date of the underlying actuarial valuation, information about changes of assumptions and benefit terms, the basis for determining employer contributions to the plan, and information about the purchase of allocated insurance contracts, if any
- The individual components of the current-period pension expense
- Explanations of the changes in the deferred outflows of resources and deferred inflows of resources related to pensions during the current period.

Attribution of the Actuarial Present Value of Projected Benefit Payments to Periods

26. The **entry age normal actuarial cost method** should be used to attribute the actuarial present value of projected benefit payments of each employee to periods in accordance with the following:

a. Attribution should be made on an individual employee-by-employee basis.
b. Each employee's service costs should be level as a percentage of that employee's projected pay. For purposes of this calculation, if an employee does not have projected pay, the projected inflation rate should be used in place of the projected salary increase rate.
c. The beginning of the attribution period should be the first period in which the employee's service accrues pensions under the benefit terms, notwithstanding vesting or other similar provisions.
d. The service costs of all pensions should be attributed through all assumed exit ages, through retirement.
e. Each employee's service costs should be determined based on the same benefit provisions reflected in that employee's actuarial present value of benefit payments.

Plan Net Position

27. Plan net position should be measured as of the end of each employer's reporting period, using the same valuation methods that are used by the defined benefit pension plan for purposes of preparing its statement of net position.

Deferred outflows of resources and deferred inflows of resources related to pensions and pension expense

28. Changes in the employer's net pension liability should be included in measures of deferred outflows of resources and deferred inflows of resources related to pensions and pension expense as follows:

a. Changes in the total pension liability:
   (1) Service cost attributed to the current period under the requirements of paragraph 26 should be included in current-period pension expense.
   (2) Interest on the total pension liability should be included in current-period pension expense. Interest should be calculated using the discount rate used in calculating the beginning total pension liability (as identified in paragraph 25).
   (3) The effects of a change of benefit terms on the total pension liability should be included in pension expense in the period of the change.
   (4) The effects of differences between expected and actual experience with regard to economic or demographic factors (differences between expected and actual experience) and the effects of changes of assumptions about future economic or demographic factors (changes of assumptions) should be recognized as follows:
      (a) To the extent that the effects relate to the total pension liabilities of inactive (including retired) employees, the effects should be included in pension expense in the period of the change.

(b) To the extent that the effects relate to the total pension liabilities of active employees, the effects should be recognized as deferred outflows of resources or deferred inflows of resources, with a portion included in pension expense beginning in the period in which the change occurred. Recognition in pension expense should be accomplished using a systematic and rational method over a **closed period** that is representative of employees' expected remaining service lives as of the beginning of the period in which the change occurred. For this purpose, the length of the period should be an average expected remaining service life of the active employees with which the change is associated, with weighting to approximate the aggregate result that would be obtained if such changes in each active employee's total pension liability were recognized separately over that employee's expected remaining service life.

(5) All other changes in the total pension liability should be included in pension expense in the period of the change.

b. Changes in plan net position:

(1) Projected earnings on plan investments should be included in pension expense in the period in which the earnings are projected to occur.

(2) Differences between projected and actual earnings on plan investments should be recognized as deferred outflows of resources or deferred inflows of resources, with a portion included in pension expense. Recognition in pension expense should be accomplished using a systematic and rational method over a closed five-year period, beginning in the period in which the difference occurred.

(3) All other changes in plan net position should be included in pension expense in the period of the change.

Recognition of the net pension liability and pension expenditures in financial statements prepared using the current financial resources measurement focus and modified accrual basis of accounting

29. In financial statements prepared using the current financial resources measurement focus and modified accrual basis of accounting, a net pension liability should be recognized to the extent the liability is normally expected to be liquidated with expendable available financial resources. Pension expenditures should be recognized equal to the total of (a) amounts contributed to the pension plan and (b) amounts normally expected to be liquidated with expendable available financial resources.

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55. For each future period, if the amount of plan net position is projected to be sufficient to make the benefit payments that are projected to occur in that period and assets are expected to be invested using a long-term investment strategy, the present value of benefit payments projected to occur in that period should be determined using the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of pensions. The long-term expected rate of return should be based on the nature and mix of current and expected pension plan investments. The municipal bond index rate discussed in paragraph 53 should be used to calculate the present value of all other benefit payments, including those projected to occur in periods in which assets sufficient to make the projected benefit payments are projected to be available in the pension plan but those assets are expected only to be held for a short time such that there would be little or no opportunity to invest them using a long-term investment strategy.

56. The single rate of return that, when applied to all projected benefit payments, results in a present value of projected benefit payments equal to the total of the present values determined under paragraph 55 is the discount rate for purposes of this Statement.

Attribution of the actuarial present value of projected benefit payments to periods

57. The entry age normal actuarial cost method should be used to attribute the actuarial present value of projected benefit payments of each employee to periods in accordance with the following:

a. Attribution should be made on an individual employee-by-employee basis.
b. Each employee's service costs should be level as a percentage of that employee's projected pay. For purposes of this calculation, if an employee does not have projected pay, the projected inflation rate should be used in place of the projected salary increase rate.
c. The beginning of the attribution period should be the first period in which the employee's service accrues pensions under the benefit terms, notwithstanding vesting or other similar provisions.
d. The service costs of all pensions should be attributed through all assumed exit ages, through retirement.
e. Each employee's service costs should be determined based on the same benefit provisions reflected in that employee's actuarial present value of benefit payments.

Plan Net Position

58. Plan net position should be measured as of the end of each employer's reporting period, using the same valuation methods that are used by the defined benefit pension plan for purposes of preparing its statement of net position.

Collective deferred outflows of resources and collective deferred inflows of resources related to pensions and collective pension expense

59. Changes in the collective net pension liability should be included in measures of collective deferred outflows of resources and collective deferred inflows of resources related to pensions and collective pension expense as follows:

a. Changes in the collective total pension liability:
   (1) Service cost attributed to the current period under the requirements of paragraph 57 should be included in current-period collective pension expense.
   (2) Interest on the collective total pension liability should be included in current-period collective pension expense. Interest should be calculated using the discount rate used in calculating the beginning collective total pension liability (as identified in paragraph 56).
   (3) The effects of a change of benefit terms on the collective total pension liability should be included in collective pension expense in the period of the change.
   (4) The effects of differences between expected and actual experience and the effects of changes of assumptions should be recognized as follows:
      (a) To the extent that the effects relate to the total pension liabilities of inactive (including retired) employees, the effects should be included in collective pension expense in the period of the change.
      (b) To the extent that the effects relate to the total pension liabilities of active employees, the effects should be recognized as deferred outflows of resources or deferred inflows of resources, with a portion included in collective pension expense beginning in the period in which the change occurred. Recognition in collective pension expense should be accomplished using a systematic and rational method over a closed period that is representative of employees' expected remaining service lives as of the beginning of the period in which the change occurred. For this purpose, the length of the period should be an average expected remaining service life of the active employees with which the change is associated, with weighting to approximate the aggregate result that would be obtained if such changes in each active employee's total pension liability were recognized separately over that employee's expected remaining service life.
   (5) All other changes in the collective total pension liability should be included in collective pension expense in the period of the change.

b. Changes in plan net position:
   (1) Projected earnings on plan investments should be included in collective pension expense in the period in which the earnings are projected to occur.
   (2) Differences between projected and actual earnings on plan investments should be recognized as collective deferred outflows of resources or collective deferred inflows of resources, with a portion included in collective pension expense. Recognition in collective pension expense should be accomplished using a systematic and rational method over a closed five-year period, beginning in the period in which the difference occurred.
   (3) All other changes in plan net position should be included in collective pension expense in the period of the change.

Accounting for a change in proportion

60. The net effect of a change in the proportion used to calculate the employer's share of the collective net pension liability and collective deferred outflows of resources and collective deferred inflows of resources related to pensions is the aggregate difference

ultimate (or replacement) entry age normal. In this approach, if a change in benefit terms results in different benefit levels for future employees than those that are provided to current employees—for example, a new tier of benefits is created for future hires—the future service costs of all employees are determined based on the benefit terms in place for new hires. In this way, services costs for employees that were hired prior to the benefit change would not be determined based on the terms of the exchange under which they continue to provide services. Rather, the measures will be based on the terms of the exchanges between the employer and other employees—the new hires. The Board believes that all calculations related to an individual employee should consider the unique circumstances of each employee with regard to the benefit structure. Therefore, the Board concluded that the use of the ultimate entry age normal approach should not be permitted for financial reporting purposes.

210. The Board also considered an approach, sometimes referred to as replacement life entry age normal, which, subsequent to a benefit change that alters the benefit terms associated with all future periods of employee service, determines future service costs based on the forward-looking benefit structure. Although individually based, this approach calculates an employee's future service cost assuming a different benefit structure than that used to determine the actuarial present value of projected benefit payments. The Board believes that for accounting and financial reporting purposes, future service cost and the present value of projected benefit payments, which serves as the basis for the calculation of the total pension liability for an employee, should reflect the same projected benefit payments. Therefore, the Board concluded that the use of the replacement life entry age normal approach should not be permitted for financial reporting purposes.

211. In addition, the Board considered an approach referred to as funding-to-decrement entry age normal in which the actuarial present value of projected benefit payments for different types of benefits is attributed over different periods of employee service depending on expectations about the individual decrement that initiates the benefit payment(s). The Board believes that the traditional approach to entry age normal, which ends the attribution for all benefits with the expected dates of exit, regardless of the reason for exit, is more consistent with the view, discussed above, that each period of expected service of an employee has the same relationship (as a level percentage of the employee's pay) to that employee's present value of projected benefits. Therefore, the Board concluded that the use of the funding-to-decrement entry age normal approach should not be permitted for financial reporting purposes.

Plan net position

212. This Statement requires that for purposes of calculating the employer's net pension liability, plan net position be measured in the same manner as it is in the plan's statement of changes in plan net position. Some respondents to the Preliminary Views, although not asked specifically about measurement of plan net position for this purpose, expressed concern about the potential volatility of the fair value of investments and the impact that reflecting this volatility in the measurement of the employer's net pension liability would have on the employer's reported liability, as well as on pension expense. These

respondents suggested that the measurement incorporate techniques designed to mitigate volatility, for example, reflecting appreciation or depreciation in the fair value of plan assets over a defined number of periods.

213. With regard to the suggestion made by some respondents to use a smoothed market value instead of fair value, the Board concluded that this approach to measuring plan net position for purposes of determining the employer's net pension liability would not faithfully represent what the measure of plan net position is intended to represent in that context—that is, the amount of plan net position that, thereby, reduces the incremental sacrifice of the employer's resources to satisfy the total pension liability as of the end of the employer's reporting period. In addition, the Board believes that the use of a smoothed market value of plan investments would result in inconsistent financial reporting of the same plan net position in financial reports of employers and pension plans. Further, the Board notes that concerns related to potential volatility in investment earnings also are related to recognition of expense, and those concerns are more appropriately considered within that context. Issues considered with regard to expense recognition for changes in the plan net position are discussed in paragraphs 232–242, below.

Recognition of Changes in the Employer's Net Pension Liability

214. The employer's net pension liability consists of two components—the total pension liability and the amount of plan net position. The transactions and events that affect the measurement of each of these components are independent, and the Board evaluated them separately for purposes of establishing requirements for expense recognition.

Changes in the total pension liability arising from service cost and interest on the total pension liability

215. In the Preliminary Views, the Board proposed that changes in the employer's net pension liability arising from the amount of projected benefits attributed to a period of employee service (service cost) and interest on the total pension liability be recognized as pension expense in the periods in which they are incurred. Respondents to the Preliminary Views did not disagree that these two components of change in the employer's total pension liability should be recognized in the current period. Consistent with the Board's belief that the annual employment exchange should be viewed in the context of an ongoing employer–employee relationship spanning an employee's career, this Statement requires that service cost and interest cost be reported as part of pension expense in the period in which they are incurred.

Other changes in the total pension liability

216. This Statement requires that changes in the employer's total pension liability arising from changes of benefit terms be included in pension expense in the period of the change. It also requires that changes in the total pension liability resulting from (a) differences between expected and actual experience with regard to economic and demographic factors (differences between expected and actual experience) and (b) changes of assumptions regarding the expected future behavior of economic and demographic factors (changes of

sufficient. This approach allows practitioners to explore alternative methods that are more cost effective than applying the requirement on an individual basis and to apply professional judgment appropriate to their specific circumstances. This Statement also provides flexibility regarding the pattern of expense recognition (for example, use of a straight-line recognition approach or recognition as a level percentage of payroll) within whatever period of time is used. That is, no specific pattern is required.

231. This Statement does, however, exclude the use of an open-period method for recognizing in expense the changes in the total pension liability. Open-period methods recognize a fixed percentage of the original change over time and never fully recognize the change in expense. The Board believes that this approach is inconsistent with the overriding view that the cost of pensions should be recognized during the career-long period that an employee provides services.

Changes in plan net position

Changes in plan net position arising from investment experience

232. This Statement requires that changes in plan net position arising from investment experience be recognized as two separate components—(a) the projected earnings on plan investments is required to be included in (reduce) pension expense in each period and (b) differences between projected earnings and actual earnings is required to be recognized as a deferred outflow of resources or a deferred inflow of resources and included in pension expense over a closed, five-year period beginning in the period of the difference.

233. This approach to recognizing investment experience reflects the long-term earnings horizon with which pension investments are made. Earnings on investments can fluctuate significantly from period to period. However, the Board believes that differences between projected and actual investment experience generally will offset over time. That is, in any one period, actual earnings may be different from projected earnings; however, over time, earnings in excess of projections will be offset by earnings shortfalls in future periods, and vice versa. The Board believes that recognizing in pension expense investment earnings experience that is expected to be offset by future investment experience and, therefore, never realized, significantly reduces the usefulness of the measures of cost of services, of which pension expense is a component. Therefore, for differences between projected earnings and actual earnings, incorporation of those changes into pension expense over time provides an opportunity for short-term fluctuations to be offset and dampens the volatility of pension expense that would otherwise occur as a result of such fluctuations.

234. In the Preliminary Views, the Board proposed a different approach for differences between projected earnings and actual earnings on plan investments. That document included a proposed requirement that those differences be reported as deferred outflows of resources or deferred inflows of resources and that the cumulative balance of those net deferred outflows of resources or deferred inflows of resources not exceed 15 percent (plus or minus) of the fair value of plan investments. Any amount of the cumulative balance outside of the 15-percent corridor would have been recognized in pension expense

immediately. That proposed approach reflected the Board's view that if cumulative differences between projected and actual investment experience become too large as a percentage of plan investments, reversal of such differences may not occur until periods relatively far in the future and that differences that are not likely to be offset within a reasonable timeframe should be included in pension expense.

Respondents Views about the Proposal in the Preliminary Views

235. Some respondents to the Preliminary Views did not believe that any portion of actual investment experience should be deferred. Rather, these respondents believe that accounting and financial reporting should reflect "actual" results and that changes in the fair value of investments are results that should be reported in the period in which they occur. Other respondents disagreed with the Board's proposal because they disagree with the concept underlying the proposal—that past experience will be offset by future experience.

236. Some respondents to the Preliminary Views disagreed with the Board's proposal because they believe that it would produce erratic volatility in pension expense. These respondents were concerned that for periods in which cumulative differences between projected and actual investment experience remained under 15 percent of the fair value of plan investments, there would be no volatility in pension expense related to investment experience. However, in periods when the cumulative differences between projected and actual investment experience reached and exceeded 15 percent of the fair value of plan investments, pension expense would be subject to the effects of the short-term volatility in financial markets. These respondents also were concerned that volatility in pension expense would be inconsistent with funding and budgeting policies, would be inconsistent with their view of interperiod equity (that accounting should create a level pattern of expense among periods), or could provide information that would produce inappropriate decisions. These respondents recommended that a method that recognizes differences between projected and actual investment experience over a number of periods would produce less erratic results.

237. Some respondents disagreed that the proposal in the Preliminary Views would produce the intended results because of the application of the 15-percent limit to the cumulative difference between projected and actual investment experience. That is, the Board intended the approach to permit differences between projected and actual results to offset, without allowing the cumulative differences to grow too large. Respondents noted that when the cumulative balance of differences approaches 15 percent, subsequent differences will not be offset through the deferral account. For example, if the cumulative deferral balance is a deferred outflow of resources (that is, actual investment experience has been lower than projected experience), in subsequent periods investment experience that is lower than projected experience would be recognized in pension expense because it would cause the cumulative deferral balance to exceed 15 percent of the fair value of plan investments, but investment experience that is better than actual experience would be deferred.

Alternative Approaches to Recognition of Investment Experience

238. The Board was persuaded by the respondents' specific comments that the approach to recognition of investment experience that was proposed in the Preliminary Views could produce inconsistent results primarily because of the limitation on the cumulative net deferred outflows of resources or deferred inflows of resources. The Board considered other alternatives including:

a. Immediate recognition of all differences between projected and actual investment experience
b. Deferral of the difference between projected and actual investment experience in the current period with recognition of those differences in pension expense over a specified period of time
c. Deferral of differences between projected and actual investment experience, with amounts of cumulative deferrals limited to a percentage of the fair value of plan investments and with amounts exceeding that percentage recognized in pension expense over a specified period of time
d. Deferral of differences between projected and actual investment experience, with the amount of cumulative deferrals limited to a percentage of the fair value of plan investment different from what was proposed in the Preliminary Views and with amounts exceeding the percentage recognized immediately in pension expense.

239. The Board recognizes that long-term offset of short-term volatility in investment experience is a general, rather than specific, phenomenon. That is, generally, short-term volatility tends to be offset in the long term, but it is not possible to associate a specific instance in which actual investment experience is different from projected investment experience with a specific offsetting period of time. Consequently, the accounting and financial reporting for these differences cannot result in a precise link between offsetting investment experiences.

240. The alternatives considered fall within a spectrum of accounting options that has, at one end, immediate recognition of all differences between projected and actual investment experience and, at the other end, infinite deferral of all differences between projected and actual investment experience. With the immediate recognition approach, the inability to identify specific related offsetting differences in investment experience assumes no association between investment experience in different periods. With the infinite deferral approach, the inability to identify specific related offsetting differences is generalized to assume that over a sufficiently long period of time, all differences between projected and actual investment experience offset.

241. The requirements of this Statement do not reflect either end of the spectrum. Rather, the Board believes that the appropriate approach lies somewhere in between. The Board evaluated each of the potential alternatives using varying expense recognition periods and varying cumulative deferral limits over a 30-year period and considering historical investment returns on a hypothetical portfolio. The greatest concern with the immediate recognition extreme (and alternatives that produce similar results) is that the amount of investment earnings recognized in pension expense varies greatly from period to period

and, in the Board's view, does not appropriately reflect the long-term investment horizon that is common for pension plan investments. The greatest concern with the infinite deferral approach and alternatives that produce similar results is that the deferral balance could represent significant accumulations of investment experience differences that await offset by future investment experience. The Board concluded that deferral of differences between projected and actual investment experience with recognition of those differences in pension expense over a five-year, closed period recognizes general market cycles and results in an appropriate balance between the two approaches.

Changes in plan net position other than those resulting from investment earnings

242. In addition to changes resulting from investment experience, plan net position is affected by other events that impact the pension plan—for example, plan net position will increase as a result of employee contributions and will decrease as a result of benefit payments and administrative expenses. Because these changes have no association with future periods, the Board believes that they properly are reflected in the current-period cost of services. Therefore, this Statement requires that such changes be included in pension expense in the periods in which they occur.

Cost-Sharing Employers

243. The fundamental approach for employer recognition of net pension liabilities and related measures in this Statement is the same for cost-sharing employers as it is for single and agent employers. Pension plans, including cost-sharing pension plans, typically are long-term, relatively stable arrangements in which the participating employers also are long-lived entities. However, in a single-employer or agent multiple-employer plan, each employer bears separately the financial risks associated with its obligation to its employees to provide defined benefit pensions as part of employment exchanges. In addition, in those plans, plan assets (or a separately accounted for interest in assets pooled for investment purposes) are dedicated to payment of pensions to the employees of a specific employer. In contrast, cost-sharing pension plans are characterized by the pooling or sharing of (a) the employers' obligations to their employees to provide pensions as part of employment exchanges and (b) plan assets, so that assets contributed by any employer may be used to pay benefits to the employee of any participating employer. Therefore, the method of measuring the amount of the liability and related measures recognized by a cost-sharing employer that is required by this Statement incorporates features necessary to reflect those differences. This Statement requires a cost-sharing employer to recognize its proportionate share of the collective (total employers) net pension liability, collective deferred outflows of resources and collective deferred inflows of resources related to pensions, and collective pension expense. In addition, accounting requirements are established to address situations specific to the proportionate-share approach.

244. The Board believes that the origin of defined benefit pension obligations is the same without regard to the plan structure used. That is, as is the case with single and agent employers, cost-sharing employers individually incur obligations to provide pensions to their respective employees as part of the total compensation exchanged for their respective employees' services. What is distinctive in a cost-sharing plan, however, is that as a way