



Federal Accounting Standards Advisory Board

***Reporting the Gains and Losses from
Changes in Assumptions and Selecting
Discount Rates and Valuation Dates***

Statement of Federal Financial Accounting Standards

Exposure Draft

Written comments are requested by November 30, 2007

August 3, 2007

THE FEDERAL ACCOUNTING STANDARDS ADVISORY BOARD

The Federal Accounting Standards Advisory Board (FASAB or "the Board") was established by the Secretary of the Treasury, the Director of the Office of Management and Budget (OMB), and the Comptroller General in October 1990. It is responsible for promulgating accounting standards for the United States Government. These standards are recognized as generally accepted accounting principles (GAAP) for the Federal Government.

An accounting standard is typically formulated initially as a proposal after considering the financial and budgetary information needs of citizens (including the news media, state and local legislators, analysts from private firms, academe, and elsewhere), Congress, Federal executives, Federal program managers, and other users of Federal financial information. The proposed standard is published in an Exposure Draft for public comment. In some cases, a discussion memorandum, invitation to comment, or preliminary views document may be published before an exposure draft is published on a specific topic. A public hearing is sometimes held to receive oral comments in addition to written comments. The Board considers comments and decides whether to adopt the proposed standard, with or without modification. After review by the three officials who sponsor FASAB, the Board publishes adopted standards in a Statement of Federal Financial Accounting Standards. The Board follows a similar process for Interpretations and also for Statements of Federal Financial Accounting Concepts, which guide the Board in developing accounting standards and formulating the framework for Federal accounting and reporting.

Additional background information is available from the FASAB or its website:

- *"Memorandum of Understanding among the General Accounting Office, the Department of the Treasury, and the Office of Management and Budget, on Federal Government Accounting Standards and a Federal Accounting Standards Advisory Board"*
- *"Mission Statement: Federal Accounting Standards Advisory Board"*

Exposure drafts, Statements of Federal Accounting Standards and Concepts, Interpretations, FASAB newsletters, and other items of interest are posted on FASAB's website, at www.fasab.gov.

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August 3, 2007

TO: ALL WHO USE, PREPARE, AND AUDIT FEDERAL FINANCIAL INFORMATION

The Federal Accounting Standards Advisory Board (FASAB or the Board) is requesting comments on the exposure draft of a proposed Statement of Federal Financial Accounting Standards entitled *Reporting Gains and Losses from Changes in Assumptions and Selecting Discount Rates and Valuation Dates*. Specific questions for your consideration appear on page 3 but you are welcome to comment on any aspect of this proposal. Your response would be more helpful to the Board if you explain the reasons for your position, whether you favor the proposal or not; and any alternative you propose. Responses are requested by November 30, 2007.

All comments received by the FASAB are considered public information. Those comments may be posted to the FASAB's website and will be included in the project's public record.

We have experienced delays in mail delivery due to increased screening procedures. Therefore, please provide your comments in electronic form. Responses in electronic form should be sent by e-mail to comesw@fasab.gov. If you are unable to provide electronic delivery, we urge you to fax the comments to (202) 512-7366. Please follow up by mailing your comments to:

Wendy M. Comes, Executive Director
Federal Accounting Standards Advisory Board
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The Board's rules of procedure provide that it may hold one or more public hearing on any exposure draft. No hearing has yet been scheduled for this exposure draft. Notice of the date and location of any public hearing on this document will be published in the Federal Register and in the FASAB newsletter.

Tom Allen
Chairman

Executive Summary

What is the Board proposing?

This proposed statement provides standards for displaying the gains and losses from changes in assumptions as a discrete item on the statement of net cost, for certain note disclosures, and for selecting discount rates and valuation dates for present value measurements of expense and liability amounts.

Why is the Board making this proposal?

Displaying gains and losses from changes in assumptions as discrete line items on the statement of net cost will enhance the usefulness of the information provided on the statement of net cost. Separate display will highlight the effects of changes in assumptions, which can be significant. Expenses assigned to programs will be distinguished from the gains and losses from changes in assumptions. The user will be better able to understand the operating performance of the entity as well as the role of gains and losses from changes in assumptions.

In addition to the display issue, there has been uncertainty in practice regarding which U.S. Treasury rates should be used for discount rates for present value measurements of expense and liability amounts. Current guidance can be interpreted in various ways.

Also, guidance for selecting the valuation date for such programs is in need of codification.

How does this proposal improve Federal financial reporting?

A separate display of gains and losses from changes in assumptions on the statement of net cost would allow users of financial statements to see the effect of gains and losses from changes in assumptions. Also, the required note disclosure of the component's costs will provide detailed information about such costs for analysis. This proposed statement also would provide needed guidance for selecting discount rates and valuation dates.

How does this proposal contribute to meeting Federal financial reporting objectives?

The revised standard will result in more transparent and useful information prepared in a more consistent manner that will improve the ability of readers to assess operating performance and stewardship.

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Questions for Respondents

The FASAB encourages you to become familiar with all proposals in the Statement before responding to the questions in this section. In addition to the questions below, the Board also would welcome your comments on other aspects of the proposed Statement.

The Board believes that this proposal would improve Federal financial reporting and contribute to meeting the Federal financial reporting objectives. The Board has considered the perceived costs associated with this proposal. In responding, please consider the expected benefits and perceived costs and communicate any concerns that you may have in regard to implementing this proposal.

Because the proposals may be modified before a final Statement is issued, it is important that you comment on proposals that you favor as well as any that you do not favor. Comments that include the reasons for your views will be especially appreciated.

The questions in this section are available in a Word file for your use at www.fasab.gov/exposure.html. Your responses to the Request for Comments questions should be sent by e-mail to comesw@fasab.gov. If you are unable to respond electronically, please fax your responses to (202) 512-7366 and follow up by mailing your responses to:

*Wendy M. Comes, Executive Director
Federal Accounting Standards Advisory Board
Mailstop 6K17V
441 G Street, NW, Suite 6814
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All responses are requested by November 30, 2007.

Questions for Respondents

Display and Disclosure

Q1. This statement proposes to display gains and losses from changes in assumptions, including the discount rate assumptions, as a discrete item on the statement of net cost. See paragraphs 19-26 in the standard, paragraphs A1-A10 in the basis for conclusions, and the illustration in Appendix B, "Pro Forma Statement of Net Cost Displaying Separate Line Item for Gains and Losses Due to Changes in Assumptions," for more information regarding display and disclosure.

1.1 Do you believe that the display will be informative?

1.2 Do you believe the standard provides satisfactory guidance as to what should be displayed as gains or losses from changes in assumptions?

Please provide your rationale in as much detail as possible.

Q2. The statement also proposes that the components of the expense associated with long-term liabilities be disclosed in notes to the financial statements. See paragraphs 22 and 26 in the standard, paragraph A9 in the basis for conclusions, and the

Questions for Respondents

illustration in Appendix C, “Pro Forma Note Disclosure of Liabilities and Expense,” for more information regarding display and disclosure.

Do you believe that disclosure of the components of expense is informative? Please provide your rationale in as much detail as possible.

Selecting the Discount Rate Assumption

Q3. This statement proposes that the preparer provide the 10-, 20- and 30-year market rate for Treasury securities in the notes to the financial statements as a benchmark comparison with the discount rate used by the entity. See paragraph 24 for the note disclosure standard and paragraph A10 in the basis for conclusions for the rationale for the disclosure of market rates.

Do you believe that disclosure of market rates as described above is informative? Please provide your rationale in as much detail as possible.

Q4. The statement addresses long-term assumptions that have a material effect on the reporting, for example, those used for measuring expense and liabilities associated with pensions, other retirement benefits, and post-employment benefits. The statement excludes short-term assumptions of which it provides specific examples (see paragraph 20.A), and defines “long-term assumptions” as those involving projections of 5 years or more (see paragraph 15) and, accordingly, short-term assumptions as those involving projections of fewer than 5 years.

4.1 Do you believe that the 5-year division between short- and long-term assumptions is appropriate?

4.2 Do you believe the exclusion of short-term assumptions in the measurement of expense and liability amounts from the display requirement is appropriate?

4.3 Are “short-term assumptions” clearly delineated?

4.4 Should other short-term assumptions be listed as examples?

Please provide your rationale in as much detail as possible.

Q5. This statement proposes a standard for selecting the discount rates for present value measurements of expense and liability amounts. The standard provides that the discount rate should be the interest rate(s) on **marketable Treasury securities** of similar maturities to the cash flows of the payments for which the estimate is being made. The discount rate(s) should reflect average historical rates on marketable Treasury securities rather than the current market rate(s). See paragraphs 27-28 in the standard and paragraphs A11-A35 and especially A28 in the basis for conclusions.

5.1 Do you believe average historical Treasury rates are appropriate discount rates for measuring long-term liabilities in the federal government, rather than current market rates?

5.2 How would you interpret the word “historical” in the phrase “average historical Treasury rates,” for example, a 1-year average? 5-year average? 20-year average?

5.3 The proposed standard incorporates prior FASAB guidance regarding selecting economic assumptions. It invokes Actuarial Standards of Practice and does not affect the explicit SFFAS 5 requirement for consistency among assumptions. See ED paragraphs 33, which contains revisions to relevant SFFAS 5 paragraphs. Some observers advocate expanding the scope of the standard to provide for selecting all economic assumptions because they are concerned about consistency between the discount rate and other economic assumptions employed. Do you believe that the guidance in the revised SFFAS 5 paragraphs (as shown in paragraph 33 of this exposure draft) is sufficiently specific regarding the necessity for the discount rate to be consistent with other economic assumptions?

Please provide your rationale in as much detail as possible.

Selecting the Valuation Date

Q6. This statement proposes a standard for selecting the valuation date for present valuations for long-term liabilities. See paragraphs 30-32 in the standard and paragraphs A36-A44 in the basis for conclusions.

Do you believe the valuation date approach is appropriate? Please provide your rationale in as much detail as possible.

Reasonable Estimate vs. Best Estimate

Q7. This statement involves estimates that reflect the preparer’s judgment about the outcome of events based on past experience and expectations about the future. Estimates are to reflect what is reasonable to assume under the circumstances rather than the preparer’s “best estimate” or other phraseology. The preparer may use his or her own assumptions about future cash flows. However, the entity should explain why it is inappropriate to use assumptions generally used in the federal government, as evidenced by independent sources, if the assumption the entity used is different. See paragraph 32 in the standard and paragraphs A43-A44 in the basis for conclusions.

Do you believe the approach regarding “reasonable estimate” rather than “best estimate” assumptions in paragraph 31 is appropriate? Please provide your rationale in as much detail as possible.

Questions for Respondents

Benefits and Costs

Q8.The Board believes that this proposal would improve Federal financial reporting and contribute to meeting the Federal financial reporting objectives. The Board has considered the perceived costs associated with this proposal.

Please consider the expected benefits and perceived costs and communicate any concerns that you may have in regard to implementing this proposal in whole or in part. Please provide your rationale as much detail as possible.

Introduction

Purpose

1. This standard requires the following:
 - A. gains and losses from changes in assumptions displayed on the statement of net cost separately from other costs and exchange revenue. This display will distinguish or provide more transparent information regarding the underlying costs associated with certain liabilities.
 - B. components of the expense associated with long-term liabilities disclosed in notes to the financial statements. Such disclosure will provide useful information for analytical purposes. The information will be comparable across agencies and between post-employment and retirement programs.
2. This standard also provides guidance for selecting:
 - A. the discount rates used in present value measurements of expense and liability amounts. There is currently uncertainty in practice regarding the discount rates in some situations.
 - B. the valuation date for certain present valuations associated with long-term liabilities, which will establish a consistent method for such measurements.

Background

Reporting Gains and Losses from Changes in Assumptions

3. During its discussions on long-term obligations the Board addressed the need to highlight gains and losses from changes in assumptions in Federal financial reports. The largest amounts on the statement of net cost for the Financial Report of the United States Government (FR)¹ and for the certain component entities can result from gains and losses from changes in assumptions. The Board is now requiring that such gains and losses be reported as a discrete line item on the statement of net cost.

Selecting the Discount Rates

4. Statement of Federal Financial Accounting Standards (SFFAS) 5 provides standards for several types of liabilities, some of which require present value valuations. Federal accounting standards requiring present valuations usually specify U. S. Treasury borrowing rates as the discount rates, although the terminology used differs.
5. With respect to the selection of assumptions, including the discount rate assumption, SFFAS 5 emphasizes expected long-term future trends rather than recent past

¹ See Appendix D containing Note 11, "Federal Employee and Veterans Benefits Payable," from the FY 2006 FR.

experience. For the discount rate, SFFAS 5 requires either the entity's long-term investment yield on assets, if the benefit plan is being funded, or other **long-term assumptions**² such as Treasury borrowing rates for securities of similar maturity to the period over which the payments are to be made.³

6. Some entities have interpreted the SFFAS 5 standard with respect to **other post-employment benefits** (OPEB) to require the use of single-day Treasury rates for the discount rates. Single-day rates render liability projections susceptible to more volatility than, for example, rates based on long-term expectations or historical experience.
7. Liabilities for post-employment and retirement benefits and other long-term Government obligations can be very large. The combination of the magnitude of these liabilities and volatility of the projections has resulted in large variations in annual cost from year to year that reduce the usefulness of reported operating results.
8. When they require long-term Federal Government borrowing rates or Treasury borrowing rates for discounting, FASAB standards do not specify a precise method for selecting those rates. There are a number of options for the discount rate.
9. This statement provides guidance with respect to selecting discount rates for present value measurements of expense and long-term liability amounts.

Selecting the Valuation Date

10. This statement provides guidance regarding selecting valuation dates for present valuations. Few FASAB standards currently address the valuation date per se.
11. In Interpretation 3, *Measurement Date for Pension and Retirement Health Care Liabilities* (August 1997), the Board addressed the valuation date issue with respect to measuring Federal civilian and military employee pensions and retirement health care liabilities in general purpose financial reports prepared pursuant to SFFAS 5. Interpretation 3 requires that pension and retirement health care liabilities in general purpose Federal financial reports prepared pursuant to SFFAS 5 be measured as of the end of the reporting period. However, a full actuarial valuation as of the end of the reporting period is not required. The Interpretation allows the measurement to be based on an actuarial valuation performed as of an earlier date during the fiscal year, including the beginning-of-year, adjusted or "rolled forward" for the effects of changes during the year in major factors such as pay raises and cost of living adjustments.
12. In this statement the Board is extending the Interpretation 3 approach to expense and liability measurement for long-term liabilities, including OPEB.
13. This statement would be effective for fiscal years beginning after September 30, 2008.

² Terms in the Glossary are shown in **boldface** the first time they appear in this document.

³ SFFAS 5, pars. 66, 83, and 95.

Proposed Accounting Standard

Proposed Accounting Standard

Scope

14. This statement applies to liabilities that employ long-term assumptions, unless FASAB standards specifically provide otherwise. The long-term estimates on which the Board is focusing frequently employ discounted present value and therefore a discount rate assumption. However, the entity is required to display the effect of changes in long-term assumptions even if discounted present value is not employed. The following are examples of some of the activities within the scope of the standard:
- A. Federal civilian and military employee pensions, other retirement benefits (ORB), and other post-employment benefits (OPEB), including veterans' compensation;⁴
 - B. Environmental clean-up obligations;
 - C. Guarantees other than loan guarantees, e.g., pension guarantees;
 - D. Insurance obligations; and
 - E. Contingent liabilities for which the confirming event is 5 years or more in the future.
15. For the purpose of this statement, assumptions are considered **long-term assumptions** if the underlying event about which the assumption is made will not occur for five years or more. If the event is one of a series of events, for example, environmental clean-up payments, the entire series should be considered the event and, thus, projected payments may commence within one year but would be required to extend at least five years. Otherwise, assumptions would be considered short-term.
16. The statement does not apply to certain long-term liabilities or allowances on losses where the FASAB has specifically provided standards. Thus, the statement does not apply to areas addressed in SFFAS 2, *Accounting for Direct Loans and Loan Guarantees*, SFFAS 18, *Amendments to Accounting Standards for Direct Loans and Loan Guarantees (Amends SFFAS 2)*, and SFFAS 19, *Technical Amendments to Accounting Standards for Direct Loans and Loan Guarantees (Amends SFFAS 2)*.
17. In addition, except for the change in terminology to characterize the preparer's long-term estimates from "best estimate" to "reasonable estimate," the statement does not apply to social insurance programs for which the FASAB has specifically provided standards in SFFAS 17, *Accounting for Social Insurance*. The preparation and display of the expense and liability, related disclosures, and the statement of social insurance follows the standards promulgated in SFFASs 17, 25,⁵ and 26.⁶

⁴ The pension program for veterans of the Department of Veterans' Affairs (DVA) is not accounted for as a "Federal employee pension plan" under SFFAS 5 and the obligation therefore is not recorded as a liability due to differences between its eligibility conditions and those of Federal employee pensions. The veterans' pension obligation is currently measured internally by the DVA in a manner consistent with the DVA's compensation program.

⁵ *Reclassification of Stewardship Responsibilities and Eliminating the Current Services Assessments*, July 17, 2003.

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18. The statement applies to information provided in general purpose Federal financial reports. It does not affect statutory or other special-purpose reports.

Display

Component Entities

19. Component entities should display gains and losses from changes in long-term assumptions used to measure liabilities as a separate line item or line items on the statement of net costs. See the pro forma illustration in Appendix B.
20. The display requirement in paragraph 19 does not apply to changes in the following assumptions:
- A. assumptions that are short-term in nature, for example, those used to estimate receivables, payables, and inventory and related property; and
 - B. assumptions used in direct loan and loan guarantee programs or other activities for which the FASAB has provided specific display, discount rate, or valuation date standards.
21. Selecting the long-term assumptions for which gains and losses from changes are to be displayed individually on the statement of net cost requires judgment. The preparer should consider quantitative and qualitative criteria. Acceptable criteria include but are not limited to quantitative factors such as the percentage of the reporting entity's cost that resulted from changes in assumptions; and qualitative factors including whether the gains or losses from changes in an assumption should be of interest to decision-makers and other users.
22. Component entities should disclose in notes to the financial statements the following reconciliation of beginning and ending liabilities:

⁶ *Presentation of Significant Assumptions for the Statement of Social Insurance: Amending SFFAS 25, November 1, 2004.*

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Beginning liability balance	\$X,XXX
Expense:	
Service cost*	XX
Interest on the liability balance	XX
Actuarial (gain)/loss:	
From experience	XX
From assumption changes	XX
Prior service costs	X
Other	(X)
Total expense	XXX
Less amounts paid	(XX)
Ending liability balance	\$X,XXX

23. This reconciliation must provide all material components of expense consistent with the components identified above, if applicable. Additional sub-components may be presented. The line item for **actuarial gains and losses** should be broken out into the sub-components "from experience" and "from assumptions changes." Separate columns should be presented for each liability line item that contains a balance subject to reporting under this standard, e.g., a contingent liability balance within the line item "other liabilities." Similarly, significant programs or types of activities (e.g., pensions, retirement health care, and OPEB) should be presented individually in a separate column along with an "all other" column, if applicable, and a "total" column for each line item. Selecting programs or activities to be presented individually requires judgment. The preparer should consider both quantitative and qualitative criteria. Acceptable criteria include but are not limited to: quantitative factors such as the percentage of the reporting entity's liabilities; and qualitative factors such as whether the components of a

* See the glossary for this standard's definition of "service cost." The term "service cost" is used in paragraph 22 (and in Appendix C) for illustration only. The term "service cost" is often associated with benefit programs, e.g., pension and other retirement benefits, because service to the employer performed during the period increases the liability. Note, however, that "service cost" as defined in the glossary could apply to non-benefit programs that incur long-term liabilities. For this standard, "service cost" is defined as the "actuarial present value of the future cash outflows for which a reporting entity becomes obligated during the reporting period." This is the same as the glossary definition of "annual cost increment." In short, the entity would not be required to use "service cost" as a descriptor for the line item that contains the annual cost increment.

Moreover, some liabilities are measured using nominal values rather than present values, e.g., environmental liabilities pursuant to SFFAS 6, *Accounting for Property, Plant, and Equipment*. The illustration in paragraph 22 (and Appendix C) includes a line item entitled "interest on the liability balance." Such a line item would be appropriate in instances where present valuation is employed for the liability estimate. However, if present valuation is not used, no interest on the obligation is recognized and there would be no need for such a line item. In such instances, the line items for the note disclosure would include, for example, the nominal value of the annual cost increment, the actuarial gains and losses attributable to changes in assumptions (other than the discount rate) employed in the estimate, and possibly other line items.

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liability are of concern to beneficiaries, or whether the information provided in the note disclosure would be of interest to decision-makers and other users.

24. Component entities should disclose current market rates as of the reporting date for Treasury securities with 10-, 20-, and 30-year maturities, if available, for comparison with the average historical rate the entity is using for the discount rate.

Governmentwide Entity

25. The Governmentwide entity should display gains and losses from changes in assumptions as a separate line item or line items on the statement of net cost after a subtotal for all other costs and before total cost. See the pro forma illustration in Appendix B.
26. The Governmentwide entity should disclose in the notes to the financial statements a reconciliation consistent with paragraph 22 above for long-term liabilities. At a minimum, reconciliations for liabilities classified as civilian, military, and veterans OPEB must be presented. See Appendix C for an example.

Selecting Discount Rates

27. Discount rates for present value measurements of long-term liabilities should be interest rates on **marketable Treasury securities** of similar maturities to the cash flows of the payments for which the estimate is being made, unless the discount rate is specifically provided in other FASAB standards. The discount rates should be matched with the expected timing of the associated expected cash outflow. Thus, each year for which payments are projected should have a separate discount rate associated with it. However, a single average discount rate may be used for all projected future payments if the result is not materially different than the multiple-rate result.
28. The discount rates should reflect average historical rates on marketable Treasury securities rather than give undue weight to recent past experience with such rates. Historical experience should be the basis for expectations about future trends in marketable Treasury securities. The preparer will need to exercise judgment when developing the discount rate.
29. For cash flows that are projected to occur in future years for which Treasury securities are not available or that extend beyond the maturities for which Treasury securities are available, e.g., beyond the 30-year security, the preparer should incorporate in the assumed discount rate expected re-financing rates extrapolated from historical Treasury borrowing rates.

Selecting Valuation Date

30. Estimates of liability and expense in general purpose Federal financial reports should be measured as of the end of the fiscal year (or other reporting period if applicable). Measurements based on an actuarial valuation may be performed as of an earlier date during the fiscal year, including the beginning of the year, with adjustments for the

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effects of changes during the year in major factors such as the pay raise and cost of living adjustment. This measurement is required to be performed following the end of the period reported, but a full actuarial valuation as of the end of the reporting period is not required.

31. The valuation date utilized by the entity should be consistently followed from year to year.
32. Measurements should reflect the entity's assumptions about the major factors that would be reflected in a full actuarial valuation, such as the actual pay raise, the actual cost of living adjustment, and material known changes in the number of participants covered (enrollment) that cause a change in the liability. The entity's estimates will reflect its judgment about the outcome of events based on past experience and expectations about the future. Estimates should reflect what is reasonable to assume under the circumstances. The entity's own assumptions about future cash flows may be used. However, the entity should review assumptions used generally in the Federal Government as evidenced by independent sources, for example, those used by the Federal Bureau of Economic Analysis for the National Income and Product Accounts and, if its assumptions do not reflect such data, explain why it is inappropriate to do so.

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Effect on Prior Standards

33. This statement provides additional requirements for display, disclosure, discount rates, and valuation dates and replaces “best estimate” with “reasonable estimate” for Federal long-term liabilities, including Federal civilian and military employee pensions, ORB, and OPEB in SFFAS 5. Interpretation 3 is rescinded.

SFFAS 5

34. This statement also affects current standards for selecting discount rates. SFFAS 5, *Accounting for Federal Liabilities*, is amended as follows:

65. Assumptions—*For financial reports prepared for the three primary federal plans (CSRS, FERS, and MRS), ~~the best available~~ actuarial estimates of assumptions should be used to calculate the pension expense and liability. The selection of all actuarial assumptions should be guided by Actuarial Standards of Practice No. 4, Measuring Pension Obligations, as revised from time to time by the Actuarial Standards Board. Accordingly, actuarial assumptions should be on the basis of the actual experience of the covered group, to the extent that credible experience data are available, but should emphasize expected long term future trends rather than give undue weight to recent past experience. Although emphasis should be given to the combined effect of all assumptions, the reasonableness of each actuarial assumption should be considered independently on the basis of its own merits and its consistency with each other assumption. [footnote omitted]*

66. *In addition to complying with the guidance in the preceding paragraph, the discount rate assumption for present value measurements of long-term liabilities should be the interest rate on marketable Treasury securities of similar maturities to the cash flows of the payments for which the estimate is being made. The discount rates should be matched with the expected timing of the associated expected cash outflow. Thus, each year for which payments are projected should have a separate discount rate associated with it. However, a single average discount rate may be used for all projected future payments if the result is not materially different than the multiple-rate result. ~~the interest rate assumption should be based on an estimated long-term investment yield for the plan, giving consideration to the nature and the mix of current and expected plan investments and the basis used to determine the actuarial value of assets; or if the plan is not being funded, other long-term assumptions (for example, the long-term Federal government borrowing rate).~~ The underlying inflation rate and the other economic assumptions should be consistent. ~~The rate used to discount the pension obligation should be equal to the long-term expected return on plan assets.~~ The discount rates should reflect average historical rates on marketable Treasury securities rather than give undue weight to recent past experience with such rates. Historical experience should be the basis for expectations about future trends in marketable Treasury securities. The preparer will need to exercise judgment when developing the discount rate. For cash flows that are projected to occur in future years for which*

Treasury securities are not available or that extend beyond the maturities for which Treasury securities are available, e.g., beyond the 30-year security, the preparer should incorporate in the assumed discount rate expected re-financing rates extrapolated from historical Treasury borrowing rates.

83. **Assumptions**—Amounts calculated for financial reports prepared for ORB plans should reflect (1) general actuarial and economic assumptions that are consistent with those used for **Federal employee pensions** and (2) a **long-term health care cost trend assumption** that is consistent with Medicare projections or other authoritative sources appropriate for the population covered by the plan. **The discount rate assumption for present value measurements of long-term liabilities should be the interest rate on marketable Treasury securities of similar maturities to the cash flows of the payments for which the estimate is being made. The discount rates should be matched with the expected timing of the associated expected cash outflow. Thus, each year for which payments are projected should have a separate discount rate associated with it. However, a single average discount rate may be used for all projected future payments if the result is not materially different than the multiple-rate result** ~~be equal to the long-term expected return on plan assets if the plan is being funded or on other long-term assumptions (for example, the long-term Federal government borrowing rate) for unfunded plans.~~ **The discount rates should reflect average historical rates on marketable Treasury securities rather than give undue weight to recent past experience with such rates. Historical experience should be the basis for expectations about future trends in marketable Treasury securities. The preparer will need to exercise judgment when developing the discount rate. For cash flows that are projected to occur in future years for which Treasury securities are not available or that extend beyond the maturities for which Treasury securities are available, e.g., beyond the 30-year security, the preparer should incorporate in the assumed discount rate expected re-financing rates extrapolated from historical Treasury borrowing rates.** The administrative entity should disclose the assumptions used.

95. The employer entity should recognize an expense and a liability for OPEB when a future outflow or other sacrifice of resources is probable and measurable on the basis of events occurring on or before the reporting date. For example, a reduction in force may require an employer entity to make severance payments, unemployment reimbursements, or other payments in future periods. Similarly, an injury on the job may require the employer entity to make short- or long-term reimbursements to the Federal workers' compensation program. A long-term OPEB liability should be measured at the present value of future payments. This will require the employer entities to estimate the amount and timing of future payments, and to discount the future outflow using the **interest rate on marketable Treasury borrowing rate** ~~for securities of similar maturities to the period over which the payments are to be made.~~ **The discount rate assumption for present value measurements of long-term liabilities**

should be the interest rate on marketable Treasury securities of similar maturities to the cash flows of the payments for which the estimate is being made. The discount rates should be matched with the expected timing of the associated expected cash outflow. Thus, each year for which payments are projected should have a separate discount rate associated with it. However, a single average discount rate may be used for all projected future payments if the result is not materially different than the multiple-rate result. The discount rates should reflect average historical rates on marketable Treasury securities rather than give undue weight to recent past experience with such rates. Historical experience should be the basis for expectations about future trends in marketable Treasury securities. The preparer will need to exercise judgment when developing the discount rate. For cash flows that are projected to occur in future years for which Treasury securities are not available or that extend beyond the maturities for which Treasury securities are available, e.g., beyond the 30-year security, the preparer should incorporate in the assumed discount rate expected re-financing rates extrapolated from historical Treasury borrowing rates.

157. Second, assumptions ought to be consistent across federal employee retirement systems. Assumptions need not be identical because the conditions facing each plan may objectively differ, but they should be rationally related (thus, the standard calls for financial reports to be prepared on the basis of ~~the best available~~ **reasonable** estimates for actuarial assumptions). Also, the standard allows the smaller plans to use the assumptions provided by any of the three primary plans or to use their own assumptions if they explain how and why they are different from one of the major plans.

SFFAS 7

35. This statement also affects current standards that use the term “best estimate.” SFFAS 7, *Accounting for Revenue and Other Financing Sources ...*, is amended as follows:

67.1 *Entities that collect taxes and duties should provide the following supplementary information relating to their potential revenue and custodial responsibilities:*

67.1 *The estimated realizable value, as of the end of the reporting period, of compliance assessments and, if reasonably estimable, preassessment work in process. The amounts furnished should represent management’s ~~best~~ estimate of additional revenues **reasonably expected** likely to be collected from compliance assessments and from pre-assessment work in process, appropriately qualified as to their reliability. A range of amounts may be provided for pre-assessment work in process if estimable. The change in the total(s) of compliance assessments and of pre-assessment work in process during the reporting period also should be provided.*

Proposed Accounting Standard

67.2 If reasonably estimable, other claims for refunds that are not yet accrued but are likely to be paid when administrative actions are completed. If estimated, unasserted claims for refunds should be provided separately from claims filed and may be expressed as a range of amounts. The amounts furnished should represent management's ~~best~~ **reasonable** estimates, appropriately qualified as to their reliability. The change in the total of these amounts during the reporting period also should be provided.

SFFAS 17

36. Paragraphs 24-27 and 32-33 of SFFAS 17 provide the standard for required supplementary information (sub-paragraph 27(3) and 32(3) were re-classified as basic information by SFFAS 26, *Presentation of Significant Assumptions for the Statement of Social Insurance: Amending SFFAS 25*). Paragraph 25 of SFFAS 17 is changed as follows:

25. The projections and estimates used should be based on the entity's ~~best~~ **reasonable** estimates of demographic and economic assumptions, taking each factor individually and incorporating future changes mandated by current law. Significant assumptions should be disclosed.

37. Paragraph 27(2) of SFFAS 17 requires the ratio of contributors to beneficiaries as supplementary information. Paragraph 27(2) is changed as follows:

27(2) Ratio of Contributors to Beneficiaries - With respect to the OASDI and HI programs, the ratio of the number of contributors to the number of beneficiaries (commonly called the "dependency ratio") during the same projection period as for cashflow projections (e.g., 75 years), using the program managers' ~~best~~ estimate. At a minimum, the ratio should be reported for the beginning and end of the projection period. [footnote omitted]

38. Paragraph 27(4)(a) of SFFAS 17 requires sensitivity analysis as supplementary information. The phrase "best estimate cost" before the word "assumptions" is changed as follows:

27(4)(a) For all programs except UI illustrate the sensitivity of the projections and present values required by paragraphs 27(1) and 27(3) to changes in the most significant individual assumptions. For example, using the entity's "~~best estimate~~" **reasonable** cost assumptions as a baseline, show the effect of varying several significant assumptions

Effective Date

39. This statement is effective for fiscal years beginning after September 30, 2008.

The provisions of this statement need not be applied to immaterial items.

Appendix A: Basis for Conclusions

This appendix discusses factors considered significant by Board members in reaching the conclusions in this Statement. It includes the reasons for accepting certain approaches and rejecting others. Individual members gave greater weight to some factors than to others. The standards enunciated in this statement---not the material in this appendix---should govern the accounting for specific transactions, events or conditions.

Display

- A1. During its recent consideration of long-term obligations the Board discussed how financial statement display might be modified to show the fluctuations in cost caused by changes in assumptions. The largest amounts on the operating statement for the Financial Report of the United States Government (FR) and on the statement of net cost for some component entities often result from gains and losses from changes in assumptions. Note 11⁷ to the FY 2006 FR disclosed that the expense for military employee pension benefits was \$112.2 billion. Of this amount \$20.1 billion was for changes in assumptions, and \$6.1 billion was from differences between actual experience and what was assumed. And even more dramatically, Note 11 in the FR for FY 2005 disclosed that of the \$123 billion expense for post-retirement healthcare benefit for military personnel, \$53 billion is attributed to changes in assumptions and \$5 billion was from differences between actual experience and what was assumed.
- A2. The Board decided to develop a general standard because many programs are affected by changes in long-term assumptions. Such programs involve long-term liability and cost estimates the dollar amounts of which are very large relative to other financial statement items. The long-term estimates on which the Board is focusing frequently employ discounted present value and therefore a discount rate assumption. However, the entity is required to display the effect of changes in long-term assumptions even if discounted present value is not employed
- A3. In its pension standard for the private sector, Statement of Financial Accounting Standards (SFAS) 87, *Employers' Accounting for Pensions*, and its standard for other postretirement benefits standard, FAS 106, *Employers Accounting for Postretirement Benefits*, the Financial Accounting Standards Board (FASB) did not require recognition of **actuarial gains and losses** as components of net pension cost of the period in which they arise. The FASB reasoned that such costs may reflect refinements in estimates as well as real changes in economic values and that some gains in one period may be offset by losses in another or vice versa. Thus, the current FASB standard requires such costs to be amortized over the future service of those employees active at the date of the amendment that are expected to receive benefits under the plan. The resulting "smoothing" effect of such amortization has been controversial. The FASB has recently added a pension project to its agenda to re-consider this approach.

⁷ See Appendix C for Note 11.

Appendix A: Basis for Conclusions

- A4. In September 2006, the FASB published a new standard on pensions and postretirement benefits, FAS 158, entitled *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 132R*, as Phase I of the pension project. The FASB noted that delayed recognition of actuarial gains and losses is often the principal reason why the over- or under-funded status of postretirement benefit plans were not recognized in the sponsoring employer's statement of financial position. FAS 158 requires actuarial gains and losses that have not been recognized as a component of net periodic benefit cost to be recognized as increases or decreases in other comprehensive income and adjusted as they are subsequently recognized as a component of net periodic benefit cost based on the amortization and recognition requirements of Statements 87 and 106.
- A5. The FASAB concluded in SFFAS 5, *Accounting for Liabilities of the Federal Government*, that actuarial gains and losses, including those from changes in assumptions, are expenses that should be recognized immediately, without amortization. Thus, SFFAS 5 requires recognition of such gains and losses as a component of expense in the period in which they arise. The FASAB continues to believe that nothing is gained by delaying recognition of a cost and a liability or by reducing volatility and "smoothing" operating results.
- A6. This statement requires that gains or losses from changes in assumptions, if any, should be presented as discrete line items not assigned to programs on the statement of net cost. The Board believes that this disaggregation will enhance the usefulness of the information provided on the statement of net cost. Separate display will highlight the effects of changes in assumptions, which can be significant. Expenses assigned to programs will be distinguished from the gains and losses from changes in assumptions. The user will be better able to understand the operating performance of the entity as well as the role of gains and losses from changes in assumptions.
- A7. The Board believes that the discrete display of such gains and losses will enhance users' understanding of liabilities and periodic expense. Users, including entity managers, will understand more about how liabilities and expense are measured; about the uncertainty of the measurement of individual liabilities; and about what causes changes in liabilities. Managers will benefit from having information about the volatility of assumptions in long-term programs. Extreme volatility might indicate the assumptions chosen and/or the assumption-selection process needs re-evaluation. Volatility may affect the entity's funding requests and long-term planning. It will at least raise a flag for further investigation.
- A8. The statement provides certain exceptions to the display requirement. Assumptions used to estimate receivables, payables, inventory and related property and other short-term assumptions are excepted because they will be proved or disproved within a relatively short period of time. Also, those assumptions used for direct loans and loan guarantees are excepted because the FASAB has already provided accounting procedures.

Note Disclosures

- A9. The display standard requires certain note disclosures. First, the components of expense associated with long-term liabilities are to be disclosed. The Treasury Department and other users advocate a disclosure that will allow increased comparability between Federal civilian and military employee and veteran benefits programs. The Board believes that disclosing the components of expense will provide information about the Government's annual accrued costs and about increases and decreases in the associated liability that will be useful for decision-making. The Treasury Department prepares the FR and must explain any wide swings in long-term liabilities. For some time Treasury has sought to improve the disclosure for Federal employee and veteran benefits payable and currently discloses the information shown in Appendix D. The desire for more transparency in this regard is not only the goal of the Treasury Department but also apparent in comments from other FR users, most notably the Federal Reserve. Most of the information required in this statement is already presented in the FR but some data is missing. The Board seeks to fill these gaps with this proposed standard.
- A10. The second note disclosure requirement is for market rates for Treasury securities with 10-, 20-, and 30-year maturities, if available. The Board believes that market rates will be a useful benchmark for comparison with the discount rate(s) the entity is using. The discount rate affects expense and liability amounts and a comparison with market rates will provide useful context. The Board considered but decided not to require the note disclosure to include the entity's analysis of the effect on expense and liability amounts of using current market rates. The burden of such a requirement on preparers was deemed to outweigh the benefits of the information provided. However, the note disclosure would allow interested parties to begin such an analysis.

Selecting Discount Rates

- A11. The Board became aware of an issue affecting preparers with respect to the selection of discount rates for present value measurements of expense and liability amounts. A preparer noted that, with respect to OPEB accounting, SFFAS 5 requires that the liability be estimated using as the discount rate the U. S. Treasury borrowing rate for securities of similar maturity to the period over which the payments are to be made.⁸ The preparer asked whether the discount rates should be based on a single day's interest rates or whether there are other alternates acceptable, such as an average of interest rates over a period of time. The preparer currently uses one-day Treasury "spot" rates consistent with the expected timing of future cash flows relating to the program, believing that that is what the Board intended by the OPEB standard in SFFAS 5, paragraph 95. As a result, its future liabilities projection is susceptible to more volatility than alternative discounting measures. The preparer has been criticized for extreme volatility in its liabilities projection and has suggested that alternatives to single-day Treasury borrowing rates could mitigate volatility.

⁸ SFFAS 5, par. 95.

Appendix A: Basis for Conclusions

- A12. Several current FASAB standards require present valuations and discounting, including Federal civilian and military employee pensions, ORB, OPEB, and veterans' compensation. Federal activities that incur long-term liabilities typically involve similar types of demographic and economic assumptions.
- A13. The FASAB standard for Federal civilian and military employee pensions and ORB includes general guidance with respect to assumptions.⁹ These standards state that Federal pension plans should be guided by Actuarial Standards of Practice (ASOP), e.g., ASOP 4, *Measuring Pension Obligations*, and ASOP 27, *Selection of Assumptions for Measuring Pension Obligations*, as revised from time to time by the Actuarial Standards Board (ASB). The ASB is a board associated with the American Academy of Actuaries that sets professional standards of actuarial practice in the United States. The Board referenced ASB standards because it considers them accepted actuarial practice.
- A14. Consistent with ASOPs, SFFAS 5, paragraph 65 requires actuarial assumptions to be based on the actual experience of the covered group and to emphasize expected long-range future trends rather than give undue weight to recent past experience. Although emphasis should be given to the combined effect of all assumptions, the standard requires that the reasonableness of each actuarial assumption should be considered independently on the basis of its own merits and its consistency with each other assumption.
- A15. With respect to discount rates for pensions and ORB accounting, SFFAS 5 requires the interest rate used for discounting to be based on
- an estimated long-term investment yield for the plan, giving consideration to the nature and the mix of current and expected plan investments and the basis used to determine the actuarial value of assets; or if the plan is not being funded, other long-term assumptions (for example, the long-term federal government borrowing rate). ...¹⁰
- A16. The FASAB standard for OPEB differs somewhat from that for pensions and ORB. For OPEB, SFFAS 5 requires employer entities to estimate the amount and timing of future payments and to discount the future cash flows using the Treasury borrowing rate for securities of similar maturity to the period over which the payments are to be made.¹¹ This difference is attributable to the fact that, unlike most Federal civilian and military employee pensions and ORB plans, the Federal employee OPEB plans generally are not funded and thus the long-term yield on investments was not thought to be relevant. For plans that are not funded the standards have been essentially the same: the objective is an expected long-term rate that reflects the Government's expected borrowing costs.
- A17. The Board concluded in SFFAS 5 that the discount rate for pensions and ORB, which are funded, should reflect the long-term expected return on plan assets. The Board explained that the expected long-term rate reduces volatility, reflects the actual

⁹ See SFFAS 5, pars. 65 and 83, respectively, for pensions and ORB.

¹⁰ SFFAS 5, par. 66.

¹¹ SFFAS 5, par. 95.

Appendix A: Basis for Conclusions

experience and expectations of the primary Federal plans, and is consistent with the assumptions used in the budget.¹²

- A18. The Government Accounting Standards Board (GASB) used a similar approach in Statement 27, *Accounting for Pensions by State and Local Employers*, and Statement 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Discount rates should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments and the basis used to determine the actuarial value of assets.¹³ The GASB believed that that rate is consistent with the long-term nature of governmental pension plans and should be required for governmental accounting for pensions.¹⁴
- A19. Because most state and local governmental OPEB plans currently are not funded and therefore have few or no plan assets, the GASB considered a number of potential approaches to the selection of a discount rate for OPEB benefits for Statement 45. The GASB concluded that, for consistency, the same principle applied in the pension standards should be applied to OPEB. However, GASB decided to state the principle more broadly in Statement 45 and required the use of the expected long-term yield on the investments that are expected to be used to pay benefits as they come due. For a plan that is funded, such investments would be the plan's investments; for a pay-as-you-go plan, the investments would be the employer's investments; for a plan that is partially funded, the investments would be a weighted average of expected plan and employer investments.¹⁵
- A20. The GASB recognized that investment options for an employer's general investments may be more limited than those for a pension or employee benefit trust fund, and that therefore discount rates for unfunded plans generally may be lower. The GASB concluded that in either case the discount rate should reflect the expected yield on the assets expected to be used to finance the payment of benefits, and that pay-as-you-go employers generally could in fact expect to receive less help from asset earnings in financing the total cost of benefits.¹⁶
- A21. Several of the respondents to the GASB ED leading to Statement 45 commented that they believe the proposal to base the selection of a discount rate on the expected long-term rate of return on the assets expected to be available to pay or provide OPEB when due would be problematic in practice. However, the GASB reaffirmed its original decision because its research indicated that actuaries would be able to develop an estimate of a blended discount rate based on the expected long-term rates of return on plan and employer investments.¹⁷

¹² SFFAS 5, par. 159.

¹³ GASB 27, paragraph 10c, and GASB Statement 45, par. 13c.

¹⁴ GASB 27, par. 91.

¹⁵ GASB Statement 45, par. 120.

¹⁶ GASB Statement 45, par. 121.

¹⁷ GASB Statement 45, pars. 122-123.

Appendix A: Basis for Conclusions

A22. The IPSASB's recent exposure draft *Employee Benefits*,¹⁸ would require defined benefit plans to determine the discount rate as follows:

The rate used to discount post-employment benefit obligations (both funded and unfunded) shall be a risk-free rate determined by reference to market yields at the reporting date on government bonds, or, where there is no deep market in government bonds, or where market yields at the reporting date on government bonds do not reflect a risk-free rate, by reference to market yields on high quality corporate bonds. The currency and term of the government bonds or corporate bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations.¹⁹

A23. As previously stated, current FASAB standards provide two approaches for selecting discount rates. The first approach is the expected long-term return on plan assets. The second approach involves unfunded plans where an expected long-term return on plan assets is not available and a Treasury borrowing rate is required. This standard employs one approach for all instances not otherwise expressly provided in FASAB standards: discount rates for present value measurements of long-term liabilities should be the interest rate on marketable Treasury securities of similar maturities to the cash flows of the benefit payment for which the estimate is being made.

A24. The Board believes that discount rates for present value measurements of expense and liability amounts should be rates for marketable Treasury securities because they reflect the Government's borrowing cost with the public. Also, expected long-term rates reduce volatility, reflect the actual experience and expectations of the primary Federal plans, and are consistent with the assumptions used in the budget.

A25. This standard eliminates the plan's investment yield as an option for discount rates for present value measurements of expense and liability amounts. The discount rate assumption for long-term liabilities is used most significantly to calculate the present value of the obligation and the **annual cost increments** of net periodic cost, for example, the service cost component of pension expense. Both of those uses are conceptually independent of a plan's assets, if any. If two employers have made the same benefit promise, the FASAB believes the annual cost increments and the present value of the obligation should be the same even if one expected to earn an annual return of 6 percent on its plan assets and the other had an unfunded plan. However, the plan's portfolio of Treasury securities may be used for discount rates of present value measurements if the result is not materially different than the result using the approach in paragraphs 26-28.

A26. The Board notes that the Pension Protection Act of 2006²⁰ requires fund managers to focus on long-term interest rates instead of their particular asset holdings. The Act requires them to calculate pension liabilities based on current bond rates rather than the expected rate or return from an asset portfolio. Thus, high expected gains from stock

¹⁸ October 2006.

¹⁹ IPSASB ED *Employee Benefits*, par. 90.

²⁰ PL No. 109-280

holdings will no longer be able to help diminish benefit liabilities since they will no longer be part of the calculation.

- A27. The FASAB believes that the objective of discount rates is to reflect **the time value of money**. The time value of money should reflect the single amount that, if invested at the measurement date in risk-free investments with maturities like those of the future benefit payments being measured, would generate the necessary cash flows to pay the benefits when due. Marketable U.S. Treasury securities are deemed risk free because they pose neither uncertainty in timing nor risk of default to the holder. This single amount is the gross liability. It would equal, conceptually, the current market value of a portfolio of Treasury zero coupon bonds whose maturity dates and amounts would be the same as the timing and amount of the expected future benefit payments. In the absence of a portfolio of such zero coupon Treasury securities, however, the Federal preparer will need to incorporate in assumed discount rates the re-financing rates expected to be available on marketable Treasury securities in the future, which should be extrapolated from historical experience.
- A28. With respect to Treasury rates the Board considered average historical rates as well as current market rates as of the reporting date. Some prefer current market rates, arguing that interest rates can move significantly from year to year and the use of interest rates from a prior year (or smoothing this year's rates with those from prior years) can therefore result in significant misstatements about the current value of future cash flows. They argue further that changing interest rate assumptions annually would result in more accurate but also more volatile estimates of liabilities and changes in net cost than the current actuarial practice in the Federal Government of revisiting interest rate assumptions every 3 to 5 years. They argue that the proposed display standard is the best way to deal with volatility, i.e., by reporting on a separate line changes in net cost due to changes in actuarial assumptions.
- A29. The FASAB decided to require average historical rates rather than single-day or market rates on the reporting date. The Board believes that single-day rates would not reflect the long-term orientation of most Federal programs.
- A30. This standard is not intended to change the Board's preference, expressed in SFFAS 5 and elsewhere, for expected long-term future trends rather than giving undue weight to recent past experience. With respect to assumptions in general, FASAB standards have emphasized expected long-term future trends.
- A31. When discussing the discount rate, this standard does not use the term "effectively settle" that is well known from the usage in FAS 87. FAS 87 may have introduced some confusion by stating in paragraph 44 that the "discount rates shall reflect the rates at which the pension benefits could be effectively settled." Some have found the meaning of "effectively settled" to be unclear.
- A32. The FASB changed this terminology in FAS 106. Consistent with FAS 87, the exposure draft on FAS 106 referred to "the interest rates inherent in the amount at which the postretirement benefit obligation could be effectively settled." Many respondents found that notion confusing because postretirement benefit obligations generally cannot be

settled at the reporting date. Because respondents were confused about the meaning of "effectively settle," the FASB decided to not to use that phrase in FAS 106 in order to clarify that the objective of discount rates is to measure the time value of money.²¹ FAS 157, *Fair Value Measurements*,²² employs a similar approach.²³

- A33. Regarding the method of discounting cash flow in future years, the FASAB believes that discount rates used to measure the present value of the annual cost increments of expense should be selected that are applicable to the various benefit periods in question. The annual cost increments will be more representationally faithful if individual discount rates applicable to various benefit deferral periods are selected. However, a single average discount rate may be used for all projected future payments if the result is not materially different than the multiple-rate result, or for cases in which discount rates have limited influence on current liability estimates.
- A34. This standard provides for the discount rates to be reviewed at each annual reporting date and changed if materially different from the existing rate. However, the Board prefers a stable discount rate that would result from applying historical averages, rather than current market rates. The Board believes that current market rates produce a degree of volatility that is not a faithful representation of the time value of money in long-term Federal programs. The Board also believes that implicit in the notion of stable rates is the fact that the discount rate normally would not change every year. The preparer would change the rate based on a significant change in the historical average Treasury rate, as determined by the preparer, which would reflect long-term expectations rather than the current market rate. Thus, this standard neither requires nor precludes annual changes in the discount rate. Current Office of Personnel Management practice is to maintain a constant discount rate for civilian pensions and other retirement benefits for five years. The Board does not anticipate that this standard would necessarily affect that practice because Treasury borrowing rates normally change very slowly.
- A35. The discount rate standard in this statement does not apply to instances where the FASAB has required or permitted a discount rate to capture risk, i.e., to be other than the risk-free Treasury borrowing rate. However, the standard does apply to all instances where risk-free Treasury borrowing rates are appropriate.

Selecting Valuation Date

- A36. The FASAB has addressed the issue of valuation dates for present valuations in various ways. The sections of SFFAS 5 dealing with pensions, ORB, and OPEB do not mention valuation dates, but the Board did address it Interpretation 3, *Measurement Date for Pension and Retirement Health Care Liabilities* (August 1997). In Interpretation 3 the Board decided that pension and retirement health care liabilities should be measured for general purpose Federal financial reports as of the end of the reporting period, and that such measurement should be based on an actuarial valuation within a year of the end of the reporting period.

²¹ FAS 106, par. 188 and see FAS 106, par. 31.

²² September 2006.

²³ FAS 157, par. B2.c.

- A37. In Interpretation 3 the Board had been asked to endorse use of an actuarial valuation date as of the beginning of the fiscal year, which had been the practice in some of special purpose financial reports on pension plans prepared pursuant to statutory provisions. Some actuaries were concerned that differences between actuarial measurements used in different reports would cause problems and confusion. Some people who supported using a beginning-of-year valuation also were concerned about the potential for disagreements between auditors and preparers if projections or estimates were used instead of a full actuarial valuation. However, other people believed that liability measurements in financial statements prepared pursuant to SFFAS 5 should be as of the end of the reporting period, and that a measurement based on a projection or "roll forward" of a full actuarial valuation would be appropriate if it were not feasible to perform a full actuarial valuation as of year end.
- A38. SFFAS 17, *Accounting for Social Insurance*, does address the valuation date, specifying that it should be as of any time within a year of the reporting date.
- A39. Although it does not explicitly discuss the valuation date, SFFAS 5 implicitly calls for measurement at the reporting date for pensions, ORB, and OPEB liabilities, which are reported as of the balance sheet date.
- A40. FASB's Statements 87 and 106 allowed preparers to use a valuation date for measuring pensions and other postretirement liabilities up to three months earlier than the reporting date. However, FAS 158 published under Phase I of FASB's pension project requires the measurement of plan assets and benefit obligations to be as of the date of the sponsoring employer's statement of financial position. The FASB concluded that this will more accurately reflect the economic status of defined benefit plans and further improve the understandability of the financial statements.²⁴
- A41. In Statement 27 and Statement 45, the GASB did not require the valuation date to be the employer's balance sheet date. Statement 27 requires the expense/expenditure amount to be based on the results of an actuarial valuation performed in accordance with the parameters as of a date not more than 24 months before the beginning of the employer's fiscal year. Statement 45 requires that the actuarial valuation date generally should be the same date each year (or other applicable interval). However, in both instances a new valuation would be required if, since the previous valuation, significant changes occurred that affect the results of the valuation, including significant changes in benefit provisions, the size or composition of the population covered by the plan, or other factors that impact long-term assumptions.
- A42. The Board believes that the approach in Interpretation 3 is preferable. Long-term obligations such as those for pensions, ORB, and OPEB should be measured as of the end of the reporting period based on a full actuarial valuation within a year of the end of the reporting period. Thus, "full actuarial valuations," as that term is used by actuaries, can be performed as of an earlier date during the fiscal year than year end, including a beginning-of-year date, with suitable adjustments for the effects of changes during the year in major factors such as the pay raise and cost of living adjustment. Such

²⁴ FAS 158, par. B16.

adjustments are sometimes referred to as a measurement based on a "projection" or "roll-forward."

- A43. The statement also addresses an issue with respect to the meaning of "best estimate." The statement provides that estimates should be reasonable under the circumstances (see paragraph 31). The notion of "best estimate" has been used in several FASAB standards, for example, in SFFAS 5, paragraph 65, SFFAS 7, *Accounting for Revenue and Other Financing Sources* ..., paragraph 67.1, and in various instances in SFFAS 17. However, preparers and auditors have reported disagreements regarding the meaning of the word "best," which is sometimes defined as "excelling all others." Thus, the Board is proposing to replace the term "best estimate" in FASAB standards with "reasonable estimate."
- A44. Actuarial Standards of Practice (ASOP) provide guidance regarding the meaning of "best estimate." ASOP 10, *Methods and Assumptions for Use in Life Insurance Financial Statements Prepared in Accordance with GAAP*, and ASOP 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. ASOP 27 instruct actuaries to select a specific economic assumption from within his or her "best estimate range" with respect to that assumption, which it defines as "the narrowest range within which the actuary reasonably anticipates that the actual results ... are more likely than not to fall"²⁵ [emphasis added]. ASOP 27 provides, generally, that

"[b]ecause no one knows what the future holds with respect to economic and other contingencies, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes based on past experience and future expectations, and to select assumptions based upon that application of professional judgment. Therefore, an actuary's best-estimate assumption is generally represented by a *range* rather than one specific assumption. The actuary should determine the best-estimate range for each economic assumption, and select a specific point from within that range. In some instances, the actuary may present alternative results by selecting different points within the best-estimate range" [emphasis added].²⁶

The FASAB concludes that ASOP 10 and 27 apply a standard of reasonableness regarding "best estimate," and that that is an appropriate approach. Therefore, paragraph 31 of this proposed standard calls for the preparer's estimate to reflect what is reasonable to assume under the circumstances, rather than the preparer's "best estimate."

²⁵ ASOP 27, Section 2.1.

²⁶ ASOP 27, Section 3.1.

Appendix B: Pro Forma Statement of Net Cost

Appendix B: Pro Forma Statement of Net Cost Displaying Separate Line Item for Gains and Losses Due to Changes in Assumptions

Component Entity:

Pro forma *Statement of Net Cost*

	<i>2005 (millions)</i>
ABC Program	
ABC expenses	\$ 1,000
Less: exchange revenue	<u>50</u>
Net expense before gain/loss from changes in assumptions	950
(Gain)/loss on assumption changes:	
Discount rate assumption	600
Other assumptions	<u>(100)</u>
Net cost	\$1,450

Governmentwide Entity:

*Pro Forma Statements of Net Cost
for the Year Ended September 30, 2006*

	<i>Gross Cost</i>	<i>Earned Revenue</i>	<i>Net Cost</i>
Department of Defense.....	\$ 623	\$ 24	\$ 599
Department of Health & Human Services....	679	51	628
* * *			
All Other entities.....	<u>146</u>	<u>92</u>	<u>54</u>
Cost before gains/losses from changes in assumptions.....	3,060	226	2,834
Less loss (plus gain) from changes in assumptions:			
DoD.....	35	0	35
OPM.....	1	0	1
VA.....	31	0	31
Total cost	\$ 3,128	0	\$ 2,901

Appendix C: Pro Forma Note Disclosure

Appendix C: Pro Forma Note Disclosure of OPEB Liabilities and Expense

	Post Employment Actuarial Liabilities (in billions)			Balance Sheet Total
	Civilian	Military	Veterans	
Beginning balance	1,496.3	1,563.0	924.8	4,062.1
<u>Expense</u>				
Service cost	41.5	33.4	XXX	
Interest on the liability balance	92.4	96.9	XXX	
Assumption changes	0.2	58.5	XXX	
Plan amendments (prior service cost)	-	25.8	XXX	
Actuarial (gain)/loss	1.9	4.6	XXX	
Other	(0.2)		XXX	
Total expense	135.8	219.2	XXX	
Less benefits paid	(67.6)	(52.9)	XXX	
Subtotal of pension and health	1,564.5	1,729.3	XXX	
Ending balance, other benefits	48.5	26.9	-	
Total post employment actuarial liabilities	1,613.0	1,756.2	1,122.6	4,491.8

Note 11. Federal Employee and Veteran Benefits Payable

The Government offers its employees life and health insurance, as well as retirement and other benefits. These benefits, which include actuarial and amounts due and payable to beneficiaries and health care carriers, apply to civilian and military employees.

The Federal Government administers more than 40 pension plans. OPM administers the largest civilian plan. DOD, meanwhile, administers the largest military plan. Other significant pension plans with more than \$10 billion in accrued benefits payable include those of the Coast Guard and the Foreign Service. The changes in the accrued post-retirement pension and health benefit liability and components of related expense for the years ended September 30, 2006, and 2005, respectively, are presented below.

(In billions of dollars)	Civilian		Military		Total	
	2006	2005	2006	2005	2006	2005
Pension and accrued benefits	1,349.0	1,273.8	967.1	895.4	2,316.1	2,169.2
Post-retirement health and accrued benefits	295.2	290.7	837.2	833.9	1,132.4	1,124.6
Veterans compensation and burial benefits	N/A	N/A	1,153.8	1,122.6	1,153.8	1,122.6
Life insurance and accrued benefits	34.2	32.9	-	-	34.2	32.9
FECA benefits	14.4	14.3	22.2	22.7	36.6	37.0
Liability for other benefits	1.5	1.3	4.4	4.2	5.9	5.5
Total Federal employee and veteran benefits payable	<u>1,694.3</u>	<u>1,613.0</u>	<u>2,984.7</u>	<u>2,878.8</u>	<u>4,679.0</u>	<u>4,491.8</u>

Appendix D: Note 11 from FY 2006 Financial Report of the United States

Change in Pension and Accrued Benefits			
(In billions of dollars)	Civilian	Military	Total
Actuarial accrued pension liability as of September 30, 2005	1,273.8	895.4	2,169.2
Pension Expense:			
Normal costs	26.8	15.6	42.4
Plan amendment changes	-	0.1	0.1
Assumption changes	1.0	35.4	36.4
Interest on liability	78.0	55.0	133.0
Prior (and past) service cost	-	-	-
Actuarial (gains)/losses	29.7	6.1	35.8
Total pension expense	135.5	112.2	247.7
Less benefits paid	60.3	40.5	100.8
Actuarial accrued pension liability as of September 30, 2006	<u>1,349.0</u>	<u>967.1</u>	<u>2,316.1</u>

Significant Long-Term Economic Assumptions Used in Determining Pension Liability and the Related Expense				
(In percentages)	Civilian		Military	
	2006	2005	2006	2005
Rate of interest	6.25%	6.25%	6.00%	6.25%
Rate of inflation	3.50%	3.25%	3.00%	3.00%
Projected salary increases	4.25%	4.00%	3.75%	3.75%

Change in Post-Retirement Health and Accrued Benefits			
(In billions of dollars)	Civilian	Military	Total
Actuarial accrued post-retirement health benefits liability, as of September 30, 2005.....	290.7	833.9	1,124.6
Post-Retirement Health Benefits Expense:			
Normal costs.....	11.2	21.0	32.2
Interest on liability.....	17.1	52.9	70.0
Other actuarial (gains)/losses.....	(12.5)	(53.8)	(66.3)
Total post-retirement health benefits expense	15.8	20.1	35.9
Less claims paid.....	11.3	16.8	28.1
Actuarial accrued post-retirement health benefits liability, as of September 30, 2006.....	295.2	837.2	1,132.4

Significant Long-Term Economic Assumptions Used in Determining Post-Retirement Health Benefits and the Related Expense				
(In percentages)	Civilian		Military	
	2006	2005	2006	2005
Rate of interest.....	6.25%	6.25%	6.25%	6.25%
Rate of health care cost inflation.....	7.00%	7.00%	6.25%	6.25%

Separate boards of actuaries for OPM and DOD determine the actuarial assumptions used in calculating the pension liability and the post-retirement health benefit liability for the civilian and military personnel. Both boards use generally accepted actuarial methodologies. The board for OPM uses a fixed rate of inflation and projected salary increases over all years for both the pension and post-retirement health benefit liabilities. These rates are shown in the tables above. The board for DOD uses a range of rates for the inflation and the projected salary increases, with an ultimate rate for the long term. The board for DOD also uses different health care cost inflation rates for inpatient, outpatient, and prescription drugs. The long-term ultimate rate is shown in the tables above.

The long-term ultimate rate for fiscal year 2006 of 6.25 percent is shown in the tables above. For disclosure and comparison purposes, DOD's estimate of a single equivalent fixed rate of health care cost inflation for fiscal year 2006 is 7.20 percent, which is an approximation of the single equivalent rate that would produce that same actuarial liability as the actual rates used.

Appendix E: Glossary

Actuarial Gains and Losses

A change in the value of a long-term liability (or the benefit plan's assets) resulting from experience different from that assumed or from a change in an actuarial assumption. Past experience is reflected in current costs through actuarial gains and losses.

Annual Cost Increment

The annual cost increment component of expense is the actuarial present value of the future cash outflows for which a reporting entity becomes obligated during the reporting period. See **Service Cost** below for pensions, ORB, and OPEB.

Long-term Assumptions

Assumptions are considered long-term if the underlying event about which the assumption is made will not occur for five years or more. If the event is one of a series of events, for example, environmental clean-up payments, the entire series should be considered the event and, thus, the payment may commence within one year but would be required to extend at least five years. Otherwise, the asset or liability would be classified as short-term.

Marketable Treasury Securities

Debt securities, including Treasury bills, notes, and bonds, that the U.S. Treasury offers to the public and are traded in the marketplace. Their bid and ask prices are quoted on securities exchange markets.

Post-employment Benefits, Other (OPEB)

Forms of benefits provided to former or inactive employees, their beneficiaries, and covered dependents outside pension or **Other Retirement Benefit** plans.

Prior Service Costs

The cost of retroactive benefits granted in a plan amendment.

Retirement Benefits, Other (ORB)

Forms of benefits, other than retirement income, provided by an employer to retirees. Those benefits may be defined in terms of specified benefits, such as health care, tuition assistance, or legal services, which are provided to retirees as the need for those benefits arises, such as certain health care benefits. Or they may be defined in terms of monetary amounts that become payable on the occurrence of a specified event, such as life insurance benefits.

Risk-free Interest Rate

The rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows. See Time Value of Money below.

Service Cost

The service cost component of expense is the actuarial present value of the future cash outflows for which a reporting entity becomes obligated during the reporting period. For pensions, ORB, and OPEB, it represents benefits attributed by the benefit plan formula to work in covered employment or other service rendered by the participant in the period. The service cost is a component of the annual expense and liability of the program and is not affected by the funded status of the plan.

Time Value of Money

The time value of money is represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows (risk-free interest rate). For present value computations denominated in nominal U.S. dollars, the yield curve for U.S. Treasury securities determines the appropriate risk-free interest rate. U.S. Treasury securities are deemed (default) risk free because they pose neither uncertainty in timing nor risk of default to the holder.

Appendix F: List of Abbreviations

Appendix F: List of Abbreviations

ANPV	Actuarial net present value
CFS	Consolidated financial statements
CPI	Consumer Price Index
ED	Exposure draft
FASAB	Federal Accounting Standards Advisory Board
FASB	Financial Accounting Standards Board
GAO	Government Accountability Office
GASB	Government Accounting Standards Board
OMB	Office of Management and Budget
OPEB	Other post-employment benefits
ORB	Other retirement benefits
PV	Preliminary Views
RSI	Required supplementary information
SFAS	Statements of Financial Accounting Standards
SFFAC	Statements of Federal Financial Accounting Concepts
SFFAS	Statements of Federal Financial Accounting Standards

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