



Federal Accounting Standards Advisory Board

August 4, 2005

TO: Members of FASAB

FROM: Richard Fontenrose, Assistant Director

THROUGH: Wendy Comes, Executive Director

SUBJECT: Social Insurance – Tab H

NOTE: FASAB staff prepares memos and other materials to facilitate discussion of issues at Board meetings. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.

The plan for the August meeting regarding social insurance called for presenting (1) improved draft language for a basis for conclusions, including language regarding conditions being substantially met; and (2) initial discussion of measurement and display alternatives, with emphasis on what is currently available from the Social Security Administration. We have decided to postpone another draft of the basis for conclusions for the social insurance standard while definitional issues continue to be discussed within the context of the elements project. Therefore this memorandum addresses measurement and display.

Summary

The draft liability definition requires a present obligation and explains that, in order to have a present obligation, an obligating event must occur. A majority of the Board has tentatively decided that the obligating event for Social Security Old-age and Survivors Insurance (OASI) and Disability Insurance (DI) and Medicare Hospital Insurance (HI) occurs when participants meet the 40-quarters of work in covered employment (or equivalent) condition and thereby become eligible for future benefits; and, that the obligating event for Medicare Supplemental Medical Insurance (SMI) occurs when participants elect to enroll in the program.

With the definition met, the next question is whether recognition is appropriate. The Board tentatively decided in June that there should be two recognition criteria: (1) meeting the liability definition and (2) measurability. If the definition for social insurance programs has been met, then recognition presumably becomes a question of measurability and what to measure. Measurability presumably includes the issue of probability.

Social Insurance Measurement and Display

Regarding what to measure, recent work at the Financial Accounting Standards Board (FASB) has focused on the “fair value”¹ attribute for the private sector. FASB concludes that if a price for an asset or liability or an essentially similar asset or liability can be observed in the marketplace, there is no need to use present values. However, if observed prices are unavailable, present value measurements are often the best alternative.

Since the liability definition is met for OASDI and HI when participants meet the 40-quarters of work in covered employment (or equivalent) condition and for SMI when participants elect to enroll in the program, cost, if measurable, should begin to be recognized at that point and the liability will be the cumulative total of such cost.

The staff is also recommending that SMI cost follow insurance accounting principles. Federal insurance and guarantee programs are required to recognize as an expense all claims incurred during the period, including, when appropriate, those not yet reported and contingencies that meet the criteria for recognition.

The staff is recommending that OASDI and HI cost for accrual accounting include the following components:

1. The present value² (or actuarial present value) of future outflows attributable to obligating events occurring in the reporting period.
2. + interest on the obligation
3. ± actuarial gains and losses
4. + prior service cost

SMI cost would have a present value component and other similar components.

The staff discusses the Financial Accounting Standards Board’s current efforts regarding “fair value” and how present value techniques are employed there when market prices are not available.

Present value estimates of future cash flow require many assumptions and are inherently uncertain. The staff discusses the many Social Security and Medicare assumptions used in the Social Security and Medicare Trustees’ Annual Reports and elsewhere, and some of alternatives for illustrating uncertainty.

The memorandum also addresses the questions of financial statement amounts and display, including possible note disclosure and supplemental information. The memorandum concludes with a discussion of possible objectives for the accrual reporting that can be expanded upon in a basis for conclusions.

The staff discusses the issues and alternatives and presents the following 10 questions along with recommendations for each:

¹ SFAC 7 defines “fair value” as the amount at which a liability (or asset) could be incurred (or bought) or settled (sold) in a current transaction between willing parties, that is, other than in a forced or liquidation sale. (SFAC 7, Glossary of Terms)

² Present value: the value of future cash flows discounted to the present at a certain interest rate (such as the reporting entity’s cost of capital), assuming compound interest. *FASAB Consolidated Glossary*

Social Insurance Measurement and Display

1. What attribute should be measured for social insurance? Staff recommends present value.
2. Should OASDI and Medicare liabilities include projected amounts in excess of the current statutory limit? The staff recommends including the full cost and full liability to the participants.
3. What assumptions should be used in projecting cash flow? The staff recommends a general requirement as in SFFAS 5 with a reference to actuarial standards of practice.
4. How should uncertainty be illustrated? In addition to the recommendations regarding display, disclosure and RSI, the staff recommends exploring the use of “expected present value” as an alternative to present value based on the “best estimate.”
5. What should be recognized as social insurance expense or “cost”? The staff recommends four components.
6. What should be recognized as the social insurance liability? The staff recommends that liability be the accumulated cost.
7. What should be displayed for social insurance on the statement of net cost, balance sheet, and other statements? The Social Insurance project staff recommends a total amount for cost on the statement of net cost and liability on the balance sheet representing all components of accrued cost and liability. The totals could be disaggregated by, for example, age cohort, and/or by degree of uncertainty, and/or by “service cost” plus interest on the liability and actuarial gains and losses.
8. What should be disclosed about social insurance in the notes? The staff recommends ... to be determined.
9. What should be done with RR Retirement, Unemployment Insurance, and Black Lung Benefits? Staff recommends the following:
 - a. Railroad Retirement – analogize to OASDI and SMI.
 - b. Unemployment Insurance – continue to apply SFFAS 17
 - c. Black Lung Benefits – continue to apply SFFAS 17
10. What is the reporting objective for social insurance? The staff recommends that the objective should be to report the costs incurred in during the reporting period based on obligating events in that period.

Social Insurance Measurement and Display

1	Table of Contents	
2	I. Measuring Social Insurance Cost and Liability	6
3	A. Cost Components.....	8
4	1. Present Value of Future Outflows from Past Events	8
5	Question #1 – What attribute should be measured for social insurance?.....	13
6	Question #2 – Should OASDI and Medicare liabilities include projected	
7	amounts in excess of the current statutory limit?	16
8	Question #3 – What assumptions should be used in projecting cash flow? ..	20
9	Question #4 – How should uncertainty be illustrated?	24
10	2. Interest on the Obligation	24
11	3. Actuarial Gains and Losses	25
12	4. Prior Service Cost	25
13	Question #5 – What should be recognized as social insurance “expense” or	
14	“cost”?	26
15	B. Liability	26
16	Question #6 – What should be recognized as the social insurance liability? ..	29
17	II. Display	29
18	A. Cost Display Alternatives	29
19	B. Liability Display Alternatives.....	30
20	Question #7 – What should be displayed for social insurance on the	
21	statement of net cost, balance sheet, and other statements?	31
22	III. Disclosure	31
23	Question #8 – What should be disclosed about social insurance in the notes?	
24	34
25	IV. RR Retirement, Unemployment Insurance, Black Lung Benefits.....	34
26	Question #9 – What should be done with RR Retirement, Unemployment	
27	Insurance, and Black Lung Benefits?	34
28	V. The Objective of the Measurement: What is being communicated?	35
29	Question #10 – What is the reporting objective for social insurance?	40
30	Appendix 1 – Present Value, from FASB Fair Value Measurement ED	41
31	Appendix 2 – Current Reporting: Selected Social Security 2004 Financial Statements	
32	50
33	Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial	
34	Statements.....	55
35	Appendix 4 – Current Reporting: Selected United States Government 2004 Financial	
36	Statements.....	61
37	Appendix 5 – Current Reporting: Social Security Trustees’ Annual Report, Table of	
38	Contents.....	66
39	Appendix 6 – Current Reporting: Selected Pension Benefit Guarantee Corporation	
40	2004 Financial Statements	68
41	Appendix 7 – Pro Forma Statement of Social Insurance	72
42	Appendix 8 – Beneficiary Projections	75

Social Insurance Measurement and Display

Recognition and Measurement Based on the New Obligating Event

The draft liability definition requires a present obligation and explains that, in order to have a present obligation, an obligating event must occur. A majority of the Board has tentatively decided that the obligating event for Social Security Old-age and Survivors Insurance (OASI) and Disability Insurance (DI) and Medicare Hospital Insurance (HI) occurs when participants meet the 40-quarters of work in covered employment (or equivalent) condition and thereby become eligible for future benefits; and, that the obligating event for Supplemental Medical Insurance (SMI) occurs when participants elect to enroll in the program.

With the definitional hurdle cleared the next question is whether recognition is appropriate. The Board tentatively decided in June that there should be two recognition criteria: (1) meeting the liability definition and (2) measurability. If the definition for social insurance programs has been met, then recognition presumably becomes a question of measurability. Measurability presumably includes the issue of probability.

Recognition might not be reduced to a question of measurability in all cases. The Financial Accounting Standards Board (FASB) notes that although recognition and measurement are related, the criteria that govern recognition and measurement need not be the same. For example, in SFAS 121, *Accounting for Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*,³ FASB uses a recognition criteria based on undiscounted cash flows and a measurement convention based on fair value.

For FAS 121 FASB considered the alternative recognition criteria for asset impairment identified and discussed in its related Discussion Memorandum (Impairment DM) and used in practice: economic impairment, permanent impairment, and probability impairment. Economic impairment calls for loss recognition whenever the carrying amount of an asset exceeds the asset's fair value. It requires continuous evaluation for impairment similar to the ongoing lower-of-cost-or-market measurement of inventory.

Some respondents to the Impairment DM objected to a measurement trigger for recognition of an impairment loss. They favored using either the permanence or probability criterion to avoid writing-down assets due solely to measurements that reflect only temporary market fluctuations.

The permanence criterion calls for loss recognition when the carrying amount of an asset permanently exceeds the asset's fair value. Respondents to the Impairment DM were split regarding the permanency requirement. Some saw it as a necessarily high hurdle for recognition while others saw it as too restrictive and virtually impossible for management to apply.

The probability criterion calls for loss recognition based on a FAS 5, *Accounting for Contingencies*, approach that would recognize an impairment loss when recovery of the carrying amount of an asset was not probable. Some Impairment DM respondents preferred this test to other recognition alternatives because it is already required by

³ March 1995.

Social Insurance Measurement and Display

FAS 5. Most Impairment DM respondents supported the probability criterion because, in their view, it best provides for management judgment.

FASB presented “a practical approach” to implementing a probability criterion at the public hearing on the Impairment DM. It used the sum of expected future cash flows (undiscounted and without interest) to determine impairment. If the sum is less than the carrying amount the asset is impaired and recognition is triggered. Then, the amount of the loss is measured using fair value, i.e., market prices or, if they are not available, present value. The FASB adopted this approach for FAS 121 believing it is consistent with the definition of impairment, i.e., the inability to fully recover the carrying amount of an asset.

FAS 121 requires that a recoverability test only if there is reason to believe it is impaired as evidenced by events or changes in circumstances. When an asset fails the recoverability test FASB believes that a new cost basis is appropriate because the entity’s decision to continue the asset in use even though impaired is equivalent to a new capital investment evaluation and justifies a new fair value basis.

The FASB decided that the FAS 121 guidance should be general. It noted that judgments, estimates, and projections would be required for measuring impaired assets; and that precise information about the relevant attributes seldom is available. Also, FAS 121 allows either “best estimate” cash flow projections or expected cash flow projections to measure the impairment loss (more on these below). It noted the separate on-going FASB project on present-value-based measurements in accounting and concluded that it would be more useful to permit entities to use cash flow techniques that were currently available and to allow for the use of new techniques that may be developed in the future rather than to prescribe more specific techniques in FAS 121.

I. Measuring Social Insurance Cost and Liability

What Attribute to Measure

The FASB is focusing on the “fair value” attribute for the private sector. On June 23, 2004, the Board issued an Exposure Draft of a proposed Statement, *Fair Value Measurements* (FVM ED). The comment period ended on September 7, 2004.

The FASB’s valuation objective is to select the valuation technique or combination of valuation techniques that best approximate what an exchange price would be in the circumstances.⁴ A final Statement is expected in the fourth quarter of 2005. It will focus on “how” to measure fair value, not “what” to measure at fair value. The FASB plans to separately consider what to measure at fair value on a project-by-project basis.

The proposed FASB Statement would clarify and incorporate the guidance in Concepts Statement 7 for using present value⁵ techniques to estimate fair value, thereby elevating that guidance to Level A of generally accepted accounting principles (GAAP). That guidance would apply under all pronouncements in which

⁴ See FVM ED par. 2.

⁵ See Appendix 1 – “Present Value, from FASB FVM ED” for a description of present value.

Social Insurance Measurement and Display

1 present value is used to estimate fair value, including APB Opinion No. 21, *Interest*
2 *on Receivables and Payables*.

3 In its redeliberations of the FVM ED FASB revised the fair value definition to refer
4 to "an estimate of the price that could be received for an asset or paid to settle a
5 liability in a current transaction between marketplace participants that are both able
6 and willing to transact in the reference market for the asset or liability" to more
7 clearly convey its exit price objective. In order to estimate price, fair value
8 estimates emphasize market inputs such as quoted prices, interest rates, and
9 credit risk. The FVM ED discusses relevant markets for obtaining prices and what
10 to do if such information is not available.

11 The FVM ED incorporates the general principle that all valuation techniques used
12 to estimate fair value should maximize market inputs that represent the
13 assumptions and data that marketplace participants would use in their estimates of
14 fair value.⁶ The FVM ED asserted that an entity should use as many market inputs
15 as are available and about which there is a consensus in order to replicate an
16 exchange (settlement) price for the asset (or liability) being measured.

17 The FVM ED had stated that, in general, the more market inputs the more reliable
18 the estimate. However, the FASB subsequently acknowledged that the emphasis
19 on market inputs would not necessarily improve reliability of the estimates.
20 However, it would improve consistency and comparability of those estimates.

21 The FASB FVM ED states that present value may be used to estimate fair value.⁷
22 In its redeliberations regarding the FVM ED, the FASB acknowledged, as it did in
23 the FVM ED itself, that in the absence of observable markets and/or market inputs,
24 the use of entity inputs to otherwise derive a "hypothetical" market price requires
25 more estimation and assumptions.

26 To some FASB members a hypothetical market price raised practical concerns
27 about the relevance and reliability of the estimates. However, the FASB affirmed
28 the hypothetical construct, noting that for valuation purposes, a hypothetical
29 construct is often used to derive a market price. In Concepts Statement 7
30 (paragraph 28), the Board similarly concluded that, "The use of an entity's own
31 assumptions about future cash flows is compatible with an estimate of fair value,
32 as long as there are no contrary data indicating that marketplace participants
33 would use different assumptions. If such data exist, the entity must adjust its
34 assumptions to incorporate that market information." The Board decided to retain
35 that hypothetical construct within the fair value hierarchy and consider issues of
36 relevance and reliability as it relates to the selection of possible measurement
37 attributes in its conceptual framework project.

38 Thus, to reiterate, FASB concluded that if a price for an asset or liability or an
39 essentially similar asset or liability can be observed in the marketplace, there is no

⁶ FVM ED, par. 9.

⁷ FASB FVM ED Appendix A, par. A1.

Social Insurance Measurement and Display

need to use present values.⁸ However, if observed prices are unavailable, present value measurements are often the best alternative.⁹

In the absence of observable transaction prices, accounting measurements should attempt to capture the elements that taken together would comprise a market price if one existed, that is, fair value.

A. Cost Components

Since the liability definition is met for OASDI and HI when participants meet the 40-quarters of work in covered employment (or equivalent) condition and for SMI when participants elect to enroll in the program, cost, if measurable, should begin to be recognized at that point and the liability will be the cumulative total of such cost.¹⁰

Social insurance cost for accrual accounting would include the following components:

1. The present value (or actuarial present value) of future outflows attributable to obligating events occurring in the reporting period. This cost is labeled “service cost” or “normal cost” in pension accounting.
2. + interest on the obligation
3. ± actuarial gains and losses
4. + prior service cost

The following paragraphs discuss each of these components.

1. Present Value of Future Outflows from Past Events

A present value measurement captures, to the extent possible, the economic differences between sets of future cash flows,¹¹ which would include the following elements:

- a. an estimate of future cash flows or a series thereof,
- b. expectation about possible variations in the cash flow,

⁸ SFAC 7, pars. 17 and 68.

⁹ SFAC 7, par. 68.

¹⁰ Staff will use the terms “cost” and “expense” synonymously in this paper. However, the term “expense” may be more precise since “cost” has a broader meaning than “expense.” Citing SFFAS 1 and 4 the FASAB *Consolidated Glossary* defines “cost” as the monetary value of resources used or sacrificed or liabilities incurred to achieve an objective, such as to acquire or produce a good or to perform an activity or service. Depending on the nature of the transaction, cost may be charged to operations immediately, i.e., recognized as an expense or the period, or to an asset account for recognition as an expense of subsequent periods. It is noted that in most contexts within SFFAS 7 “cost” is used synonymously with expense. The *Glossary* defines “expense” as “outflows or other using up of assets or incurrence of liabilities (or a combination of both) during a period from providing goods, rendering services, or carrying out other activities related to an entity’s programs and mission, the benefits from which do not extend beyond the present operating period.”

¹¹ See SFAC No 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, February 2000.

Social Insurance Measurement and Display

- c. the time value of money represented by a risk-free rate of interest,
- d. the cost of uncertainty inherent in the asset or liability, and
- e. other factors such as illiquidity and market imperfections.¹²

Existing accounting conventions differ in the extent to which they incorporate these five elements. The FASB concludes that “fair value” captures all five but other approaches do not. The use of an entity’s own assumptions about future cash flows is compatible with an estimate of fair value as long as there are no contrary data indicating that marketplace participants would use different assumptions.¹³

The initial step in present valuation is to project nominal dollar cash flows based on the benefit plan, e.g., average of high indexed wages in covered employment over 35 years and assumptions about demographics, economics, and program-specifics. The terms of the plan that define the benefits a participant will receive provide the most relevant and reliable indication of how cost and present obligations are incurred. The plan’s benefit formula indicates the agreement between the parties and accounting has generally looked to the agreement as a basis for recording the transaction.

Exclude Future Costs

Accrued costs and liabilities for OASDI and HI would exclude costs attributable to obligating events occurring in the future. Costs are recognized only when obligating events occur. Unlike future costs, accrued costs presumably cannot be avoided. Conversely, future costs are more amenable to changes in policy.¹⁴ Future events cannot be considered unless there is a past event, even if they are virtually certain to occur.¹⁵ Thus, the projection of nominal dollars cash outflows would be based on work in covered employment up to and including the measurement date.

Exclude Future Revenue

The staff assumes that revenue to be earned or demanded in the future, like costs incurred in the future, would not be included in an accrual accounting measure for OASDI and HI. Assets representing cumulative surplus revenue would be recognized on the balance sheet and measured according to SFFAS 1, *Accounting for Selected Assets and Liabilities*, which provides the standards for investments in Treasury securities and fund balance with Treasury.

For SMI, the staff is recommending insurance accounting (see below) which for long-duration contract generally includes a provision for premium deficiency, i.e., present value of estimated future policy benefits to be paid to or on behalf

¹² SFAC 7, par. 23.

¹³ SFAC 7, par. 38.

¹⁴ See Holtz-Eakin, Douglas, *The Pension Guaranty Corporation: Financial Condition, Potential Risks, and Policy Options*, Testimony before the Committee on the Budget United States Senate, June 15, 2005 (*Pension Guaranty Corporation*).

¹⁵ See Johnson, Todd L., *Future Events, A Conceptual Study of Their Significance for Recognition and Measurement*, FASB Financial Accounting Series No. 140-A, August 1994.

Social Insurance Measurement and Display

of policyholders less the present value of estimated future net premiums to be collected from policyholders.

Insurance Accounting

SMI is like other federal insurance and guarantee programs that provide protection against specified risks. Many of these programs were established to assume risks that private sector entities are unable or unwilling to assume or to subsidize the provision of insurance to achieve social objectives. Program participants pay fees or premiums for specific services. Many of these programs receive appropriations to pay excess claims and/or have authority to borrow from the Treasury.¹⁶

For accounting purposes, private sector insurance and guarantee contracts are customarily divided into two types. The first type provides insurance protection for a fixed period. The insurer may cancel the coverage or adjust the provisions of coverage at the end of any coverage period, for example, by adjusting the amount of premiums charged or changing the conditions under which coverage is provided. SFFAS 5 explains that most property insurance and health insurance offered by private insurers is of this type.¹⁷

The second type of insurance or guarantee contract is one in which the insurer cannot cancel the insurance or the insured is guaranteed the ability to renew it. The insurer must provide coverage for an extended period until the insured event occurs or can no longer occur, or when the insured party allows the policy to lapse, e.g., whole and guaranteed renewable term life insurance, annuities, and title insurance.

For federal insurance and guarantee programs, there often is no explicit contract. For example, there is no explicit contract regarding Pension Benefit Guaranty Corporation (PBGC). Moreover, the PBGC itself has no power to set premiums or to change the terms of coverage, though it may recommend changes to the Congress.

Federal insurance programs also differ from private insurance in that they are not subject to the same market forces (e.g., competition for business and for capital) and regulatory requirements (e.g., for capitalization) that apply to privately owned insurers. In particular, federal insurance, unlike private insurance, is not extended with the intent of earning a profit. Some programs operate deliberately at a loss, as when disabled veterans are offered life insurance at premiums set for healthy participants. Other programs offer insurance covering catastrophic or systemic risks, where large losses can occur all at once, as in war-risk or deposit insurance. At most, federal insurance programs are expected just to meet anticipated costs, leaving them vulnerable to unfavorable surprises.

SFFAS 5 notes that, for this reason, the issue in accounting for federal insurance and guarantee programs is when to recognize net expected losses,

¹⁶ This paragraph and the next several essentially paraphrase SFFAS 5, pars. 97-104.

¹⁷ SFFAS 5, par. 98.

Social Insurance Measurement and Display

and it notes federal credit programs. The federal government extends credit on terms and conditions designed to subsidize particular borrowers or encourage particular activities for social policy reasons. As soon as a federal direct loan or loan guarantee is obligated, the federal government is committed to bear whatever loss, through defaults or interest subsidies, is inherent in the terms and the conditions under which the credit is extended. The government is likewise committed when federal insurance is extended to additional policyholders, either for an additional fixed period, or to cover additional amounts of assets.

SFFAS 5 requires all federal insurance and guarantee programs (except social insurance and loan guarantee programs) to recognize a liability for unpaid claims incurred resulting from insured events that have occurred as of the reporting date. Federal insurance and guarantee programs are required to recognize as an expense all claims incurred during the period, including, when appropriate, those not yet reported and contingencies that meet the criteria for recognition. Life insurance programs should recognize a liability for future policy benefits (a liability to current policyholders that relates to insured events, such as death or disability) in addition to the liability for unpaid claims incurred.¹⁸

SFFAS 5 applies the contingent liability standard [pars. 35-46] as a recognition and/or measurement criterion. The liability definition may be met when the insurance is extended, but the cost and liability are not to be recognized until insured events occur and the future outflow is probable.

Traditional long-duration contracts¹⁹

SFAS 60, *Accounting and Reporting by Insurance Enterprises*,²⁰ states premiums from traditional long-duration contracts should be recognized as revenue when due from policyholders. The liability for future policy benefits, defined as the “present value of estimated future policy benefits to be paid to or on behalf of policyholders less the present value of estimated future net premiums to be collected from policyholders,” is accrued when the premium revenue is recognized (par. 10).

The liability representing unpaid claim costs for insurance contracts (other than title insurance) is accrued when the insured event occurs. The liability for unpaid claim costs for title insurance contracts is accrued when title insurance premiums are recognized as revenue (SFAS 60, par. 17).

Limited-payment contracts (benefits period extends beyond premiums period)

Liability recognition is consistent with traditional long-duration contracts. The only difference relates to revenue recognition. Any amount of gross premium in

¹⁸ SFFAS 5, par. 104.

¹⁹ The following description of FASB's current accounting standard regarding long-duration insurance contracts is based on the work of Nicholas Dorsey, our FASAB summer intern.

²⁰ June 1982.

Social Insurance Measurement and Display

excess of net premium should be deferred and recognized over the period that services are actually provided (SFAS 97, par. 42).

Investment contracts (not subject to mortality or morbidity risk)

SFAS 97 states investment contracts do not incorporate significant insurance risk. Payments received must be reported as liabilities and accounted for in a manner consistent with interest-bearing or other financial instruments (par. 15).

Universal life insurance contracts (terms are not fixed or guaranteed)

SFAS 97 requires the use of the retrospective deposit method to account for universal life-type contracts. The retrospective deposit method establishes the liability for policy benefits at "an amount determined by the account or contract balance that accrues to the benefit of the policyholder" (par. 53). According to FASB, the balance that accrues represents the minimum measure of a liability consistent with the definition of a liability in SFAC 6.

Measurement issues

General issues

Traditional long-duration contracts and limited-payment contracts

The present value calculations are based on estimates of expected investment yields, mortality, morbidity, terminations, and expenses (FAS 60, par. 10). The liability measurement should also consider assumptions related to guaranteed contract benefits (i.e. coupons, annual endowments, and conversion privileges).

The unpaid claims liability should be based on the estimated ultimate cost of settling the claims, using past experience adjusted for current trends or other relevant factors (par. 18). The estimated realizable value of salvage or other recoveries on unsettled claims should be deducted from the liability for unpaid claims.

Universal life insurance contracts (terms are not fixed or guaranteed)

SFAS 97 clearly defines the measurement of the liability for policy benefits as the sum of:

- a. The balance that accrues to the benefit of policyholders at the date of the financial statements
- b. Any amounts that have been assessed to compensate the insurer for services to be performed over future periods
- c. Any amounts previously assessed against policyholders that are refundable on termination of the contract
- d. Any probable loss (premium deficiency) (par. 17) [footnotes omitted]

Social Insurance Measurement and Display

Uncertainty

Liability estimates for traditional long-duration and limited payment contracts employ a variety of assumptions. One such assumption is the risk of adverse deviation, which “allows for possible unfavorable deviations from assumptions, such as estimates of expected investment yields, mortality, morbidity, terminations, and expenses” (FAS 60, Glossary). Provisions for adverse deviation should not be made for universal life-type contracts (SFAS 97, par. 18).

Question #1 – What attribute should be measured for social insurance?

Staff recommends present value.

1. The staff sees no reason why the objective regarding the measurement attribute for social insurance should differ from the FASB’s “fair value.” Or at least that there should be a rebuttable presumption in favor of fair value. Fair value is essentially market value but, FASB notes in Concepts Statement No. 7 that “for some assets and liabilities, management’s estimates may be the only available information. In such cases, the objective is to estimate the price likely to exist in the marketplace, if there were a marketplace.” Market prices, which for liabilities represent a settlement or “layoff” notion, obviously are not applicable to Social Security and Medicare. The nature and magnitude of Social Security and Medicare make these liabilities unique. Considering these unique circumstances, the staff concludes that “fair value” should be the objective for social insurance and that present value is a component of FASB’s fair value hierarchy. Moreover, the present value is required in various FASAB standards that require long-range projections, including SFFAS 5 (for pension, retirement healthcare, insurance, and other liabilities), SFFAS 17, and many others. Also, the Social Security Trustees use present value for the primary measurement in their Annual Report, in conjunction with sensitivity analysis and stochastic modeling (more on the Trustees’ work below).
2. Staff recommends insurance accounting for SMI, which features present value where appropriate, essentially “the present value of estimated future policy benefits to be paid to or on behalf of policyholders less the present value of estimated future net premiums to be collected from policyholders.”

Does the Board agree?

Social Insurance Measurement and Display

Assumptions

Projections of the future financial status of Social Security and Medicare depend on a number of demographic, economic, and program-specific assumptions. The Social Security Trustees develop their assumptions using a well-documented process. The Office of Management and Budget (OMB) and the Administration participate in this process and the assumptions the Trustees select may reflect this input. The CBO uses the demographic assumptions of the Social Security Trustees and its own economic assumptions.²¹

The 2005 Social Security Trustees' Annual Report lists the following assumptions:

Demographic

1. Fertility
2. Mortality
3. Immigration
4. Total population (see Appendix 8 for beneficiary projections)
5. Life expectancy

Economic

1. Productivity
2. Price inflation
3. Average earnings
4. Real-wage differentials
5. Labor force and unemployment
6. GDP
7. Interest rate

CBO notes that assumptions about four economic factors affect the finances of the Social Security system: the growth of average earnings, the interest rate used to compute the interest credited to the trust funds, employment, and inflation. Of those four, earnings growth has the largest impact on Social Security's outlays and revenue.²²

Discount rate

The discount rate is an interest rate that is used in present value calculations to equate amounts that will be received or paid in the future to their present value. In SFFAS 5, par. 66, the FASAB used the following general language in specifying the discount rate for pensions:

66. [T]he interest rate assumption should be based on an estimated long-term investment yield for the plan, giving consideration to the nature and

²¹ Holtz-Eakin, Douglas, *The Role of the Economy in the Outlook for Social Security*, CBO Testimony before the Subcommittee on Social Security, Committee on Ways and Means, US House of Representatives, June 21, 2005 (*The Role of the Economy*), page 4.

²² *The Role of the Economy*, p. 4.

Social Insurance Measurement and Display

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.

Elsewhere in FASAB standards the discount rate is “the average interest rate on marketable Treasury securities of similar maturity to the cash flows ... for which the estimate is being made.”²³

Program-specific

1. Automatically adjusted program amounts
2. Covered employment
3. Taxable payroll and payroll tax revenue
4. Insured population –

[The cost and liability measurement would include those who have worked 40 quarters (or equivalent) in covered employment, including those 62 years old and older, plus those electing SMI.]

5. OASI beneficiaries
6. DI beneficiaries
7. Average benefits
8. Benefit payments
9. Administrative expenses
10. Railroad retirement interchange
11. Benefits to the uninsured
12. Military-service transfers
13. Income from taxation of benefits

For Medicare the healthcare cost trend assumption is critical.

The Effect of Legislative Limits

PBGC is reporting liabilities in excess of what it is able to pay under law based on its current assets and projected revenue.²⁴ Similarly the OASDI and Medicare “trust funds” will not be able to pay full benefits after a known date in the future.

²³ For example, see SFFAS 2, par. 6.

²⁴ See Appendix 6 for selected PBGC 2004 financial statements.

Social Insurance Measurement and Display

1

Question #2 – Should OASDI and Medicare liabilities include projected amounts in excess of the current statutory limit?

The staff recommends including the full cost and full liability to the participants.

The probability that the Government would ignore the shortfall and then default on a large percentage of the benefits is remote.

Does the Board agree?

2

3

4

5

6

Assets

The FASAB pension and ORB standard in SFFAS 5 said:

7

8

9

10

11

68. **Assets** should be reported separately from the pension liability rather than reporting only a net liability. Assets of federal pension plans should be carried at their acquisition cost, adjusted for amortization, if appropriate. For investments in market-based and marketable securities, the market value of the investment should be disclosed. [Footnote omitted]

12

13

14

15

16

17

18

19

20

Social Security and Medicare assets are currently special Treasury securities. Some have advocated other, non-Treasury investments as a way to increase yield. Perhaps the eventual social insurance standard should incorporate that possibility or for other reasons adopt an approach that is different from the SFFAS 5 approach. Additional staff research is necessary regarding asset reporting before a position can be taken.

22

Measurement Date

SFFAS 17 provides:

23

24

25

26

27

25. All projections and estimates required in these standards should be made as of a date (the valuation date) as close to the end of the fiscal year being reported upon ("current year") as possible and no more than one year prior to the end of the current year. This valuation date should be consistently followed from year to year.

Social Insurance Measurement and Display

1
2
3
4
5
6
7
8
9

How are Assumptions Selected?

The Social Security system has a formal process for selecting assumptions. Although the Trustees are not required to use the assumptions developed via this process, rejection of an assumption so developed is rare, although not unknown. An actuarial opinion is required for the Trustees' Report. For example, the opinion accompanying the 2005 annual report is as follows:

STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the techniques and methodology used herein to evaluate the financial and actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are based upon sound principles of actuarial practice and are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting actuarial estimates are, individually and in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the past experience and future expectations for the population, the economy, and the program.



Stephen C. Goss,

*Associate of the Society of Actuaries,
Member of the American Academy of Actuaries,
Chief Actuary, Social Security Administration*

10
11
12
13
14
15

An example of an actuary noting past concern over the intermediate assumptions used by the Medicare Trustees is presented below, from the 2002 Medicare Annual Report of the Trustees:

F. STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the techniques and methodology used herein to evaluate the financial status of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund are based upon sound principles of actuarial practice and are generally accepted within the actuarial profession; and (2) the principal assumptions used and the resulting actuarial estimates are, individually and in the aggregate, reasonable for the purpose of evaluating the financial status of the trust funds, taking into consideration the past experience and future expectations for the population, the economy, and the program.

In past reports, I have expressed a concern that future trust fund financial operations were more likely to prove worse than the intermediate projections than they were to prove better. As a result of the revised demographic assumptions for the 2002 OASDI and Medicare reports, and the growing evidence that the U.S. economy has experienced favorable structural changes in recent years, I believe that the assumptions in this year's reports are adequately centered within the reasonable range of expectation.

The future cost of the Medicare program remains very uncertain. Readers are cautioned not to focus solely on just one set of assumptions but rather to recognize that any result within the range shown can reasonably be expected to occur. As noted in this report, income to the Hospital Insurance trust fund is projected to fall substantially short of expenditures in the long term under a broad range of assumptions. Thus, the need for attention to the HI trust fund's long-range financial imbalance remains apparent.

Richard S. Foster
Fellow, Society of Actuaries
Member, American Academy of Actuaries
Chief Actuary, Centers for Medicare & Medicaid Services

Members of the American Academy of Actuaries are required to follow actuarial standards from the Academy. Standard No. 32, *Social Insurance*, requires, among other things, the following:

Social Insurance Measurement and Display

Actuarial Assumptions—The actuarial assumptions, both individually and in combination, should reflect the actuary's best judgment, taking into account anticipated future events affecting the related social insurance program. The actuary should consider the actual past experience of the social insurance program, over both short- and long-range periods, also taking into account relevant factors that may create material differences in future experience. In selecting actuarial assumptions, the actuary should be guided, to the extent appropriate, by Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations*, and ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*.

1

2

3

4

5

The FASAB pensions and ORB standards in SFFAS 5 required the “best available assumptions” guided by Actuarial Standards of Practice No. 4, *Measuring Pension Obligations*.

6

7

8

9

10

11

12

65. ... [A]ctuarial 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.

13

In SFFAS 17 the FASAB said

14

15

16

17

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

18

In SFFAS 26 the FASAB said

19

20

21

22

23

24

25

26

27

28

5. The information required by paragraphs 27(3) and 32(3) of SFFAS 17 shall be presented as a basic financial statement The underlying significant assumptions shall be included in notes that are presented as an integral part of the basic financial statement. Other information required by SFFAS 17-- including the sensitivity analysis required in par. 27(4) and 32(4)-- shall be presented as required supplementary information

Question #3 – What assumptions should be used in projecting cash flow?

The staff recommends a general requirement as in SFFAS 5 with a reference to actuarial standards of practice.

The recommendation is a pragmatic approach to this very difficult subject and has been effective for past FASAB standards. Alternatively the Board may wish to address one or several individual assumptions explicitly, e.g., the discount rate or the healthcare cost trend.

Also, from a cost-benefit perspective, one might question not availing of the current process.

Does the Board agree?

Probability and Uncertainty

The term “uncertainty” refers to the fact that the cash flows used in a present value measurement are estimates rather than known amounts. The uncertainty has accounting consequences because it has economic consequences. The term “risk” refers to any exposure to uncertainty having potential negative consequences.

The Board discussed probability at the June FASAB meeting. The Board accepted that an item could meet the liability definition of an element but not the recognition criteria. One of the ways that could occur would be through measurement, in that the probability of an inflow or outflow of future assets or services is not high enough for recognition, but it is high enough to meet the definition.

Chairman Mosso said he preferred to include a discussion of probability as an inherent part of measurability. He noted that even historical cost carries with it the obligation to record amounts that are recoverable, and whether they are recoverable is a probability assessment. Also, he noted that the notions of present value and “expected value” are based on an estimated cash flow, which is a probability assessment. Market values by their nature incorporate an expectation of future events that embodies a probability notion. Measurement hinges on future events and hence involves uncertainty and probability.

One way to assess probability involves the entity’s best estimate²⁵ approach where each variable is chosen based on the entity’s assessment that it is the most likely outcome. Another approach is the “expected value” or weighted

²⁵ “Best estimate” is defined in SFAC 7 as “the single most-likely amount in a range of possible estimated amounts, in statistics, the estimated mode. In the past accounting pronouncements have used the term *best estimate* in a variety of contexts that range in meaning from “unbiased” to “most likely.” In SFAC 7 the term “best estimate” means the most likely estimate. (SFAC 7, Glossary of Terms)

Social Insurance Measurement and Display

probability approach that takes into account the magnitude of each possible outcome. It is a composite that combines probability and magnitude of the outcome by multiplying one by the other for each outcome and summing the products.

Expected Present Value

Traditional private sector applications have focused on one cash flow estimate and attempted to capture uncertainty via the interest rate. FASB has developed the expected present value (EPV) approach that focuses on explicit assumptions about the range of possible estimated cash flows and their respective probabilities. Concepts Statement 7 provides guidance for using present value techniques to estimate fair value (an application of the income approach). It focuses on (a) a "traditional" or discount rate adjustment technique that employs a single set of cash flows, and (b) an EPV technique. Moreover, the FASB addressed questions about the application of those present value techniques, in particular, the EPV technique in the FVM ED. The clarifications more fully describe the methods to adjust for risk when using the present value techniques discussed in Concepts Statement 7 (indicated in paragraph 115 of Concepts Statement 7).

FASB explains the expected present value²⁶ technique in the FVM ED as follows:

A12. The expected present value technique begins with a set of cash flows that, in theory, represents the sum of all possible cash flows, each weighted by its probability, that is, the probability weighting of all possible outcomes (expected cash flows). It then reflects the market required risk premium for the risk inherent in the expected cash flows (not otherwise reflected in the cash flows) using one of two methods. Under Method 1, the expected cash flows are explicitly adjusted (reduced) for risk (risk-adjusted expected cash flows) and discounted at a risk-free interest rate, similar to a certainty-equivalent cashflow for an asset. Under Method 2, the expected cash flows are discounted using a rate commensurate with the risk inherent in the expected cash flows (risk-adjusted discount rate). In other words, an expected present value technique requires an adjustment for risk in either the expected cash flows or the discount rate depending on whether Method 1 or Method 2 is applied. [Footnotes omitted]

FASB has decided that fair value is the objective for initial measurement of a liability and a cost in recent standards (e.g., FAS 146) and has reviewed FAS 5 in light of this work. FASB notes that FAS 5 and Concept Statement 7 deal with uncertainty differently. The recognition criteria in FAS 5 are inconsistent with an objective of measuring at fair value. FAS 5 deals with uncertainty by requiring a probability threshold for recognition of a loss contingency. FAS 7 deals with uncertainty in the amount and timing of future cash flows by requiring that the likelihood of possible outcomes be incorporated into the measurement of the fair value of the liability.²⁷

²⁶ Also, SFAC 7 defines "expected cash flow" as the sum of probability-weighted amounts in a range of possible estimated amounts; the mean or average. (SFAC 7, Glossary of Terms)

²⁷ FAS 146, *Accounting for Costs Associated with Exit or Disposal Activity*, par. B16.

Social Insurance Measurement and Display

In their projections for the Annual Report²⁸ the Social Security Trustees' use three alternative sets of demographic, economic, and program-specific assumptions—

- Alternative II is the intermediate set of assumptions, and represents the Trustees' best estimates of likely future demographic, economic, and program-specific conditions.
- Alternative I is characterized as a low cost set—it assumes relatively rapid economic growth, low inflation, and favorable (from the standpoint of program financing) demographic conditions.
- Alternative III is characterized as a high cost set—it assumes relatively slow economic growth, high inflation, and unfavorable (from the standpoint of program financing) demographic conditions.

The projections based on “best estimate” assumptions is contrasted with projections based on estimates using low- and high-cost assumptions that vary all assumptions either low or high. This is a “deterministic” model.

For the deterministic model, certain assumptions are made regarding levels of fertility, changes in mortality, immigration levels, emigration levels, net other immigration levels, the Consumer Price Index, average real wages, unemployment rates, trust fund real yield rates, and disability incidence and recovery rates. Each of these variables will reach an assumed ultimate value at a specific point during the long-range period and will maintain that value throughout the remainder of the period. As mentioned above, three deterministic scenarios are developed assuming separate, specified values for each of these variables.²⁹

The Trustees also present analyses illustrating the uncertainty of projections. The Annual Reports contain analyses of the sensitivity of projections to changes in assumptions as well as stochastic models.

Monte Carlo and Stochastic simulations

Monte Carol and stochastic models also attempt to capture uncertainty by displaying ranges rather than a point estimate. In addition to the low-, intermediate-, and high-cost projections, the *Trustees' Annual Report* also includes a stochastic³⁰ projection that provides a probability distribution of possible future outcomes that is centered around the Trustees' intermediate assumptions. Stochastic models allow for random variation in one or more variables through time. The random variation is generally based on fluctuations observed in historical data for a selected period. Distributions of potential outcomes are derived from a large number of simulations, each of which reflects random variation in the variable(s).

²⁸ Appendix 5 contains the table of contents from the 2005 Trustees' Annual Report to illustrate the extensive nature of the information provided there.

²⁹ *The Trustees' Annual Report*, p. 158-9.

³⁰ *2005 Trustees' Annual Report*, pp. 158, 202-3.

Social Insurance Measurement and Display

The Trustees' Report explains that, in contrast to a deterministic model, the stochastic model presents

the results of 5,000 independent stochastic simulations Each of the 5,000 simulations is determined by allowing the above variables to vary throughout the long-range period. The fluctuation in the variable is projected by using standard time-series modeling, a method designed to help make inferences based on historical data. Generally, each variable is modeled by an equation that captures a relationship between current and prior years' values of the variable and introduces year-by-year random variation, as reflected in the historical period. For some variables, the equations additionally reflect relationships with other variables. Parameters for the equations are estimated using historical data for periods ranging from 20 years to 103 years depending on the nature and quality of data available. ... Each time-series equation is designed such that, in the absence of random variation, the value of the variable would equal the value assumed under the intermediate set of assumptions. For each simulation of the model, values of the variables listed above are determined by using Monte Carlo techniques to randomly assign the year-by-year variations. Each simulation produces an estimate of the financial status of the combined OASI and DI Trust Funds. ...

The results from this model should be interpreted with caution and with a full understanding of the inherent limitations. Results are very sensitive to equation specifications, degrees of interdependence among variables, and the historical periods used for the estimates. ...³¹

Additional economic assumptions and modeling are required for these projections.³²

A figure from the 2005 Trustees' Report is immediately below (Figure VI.E2 in that report). The Trustees explain that the table shows the probability distribution of the year-by-year OASDI cost rates (i.e., cost as a percentage of taxable payroll).

The range of the cost rates widens as the projections move further into the future, reflecting increasing uncertainty. The income rate under the intermediate assumptions is also included in the figure in order to give some indication of the patterns of cash flow for the OASDI program. Only this income rate is included because of the relatively small variation in income rates throughout the projection period. The lines in the figure display the median set (50th percentile) of estimated annual cost rates and the 95-percent, 80-percent, 60-percent, 40-percent, and 20-percent confidence intervals expected for future annual cost rates. It is important to note that these lines do not represent the results of individual stochastic simulations. Instead, for each given year, they represent the percentile distribution of cost rates based on all stochastic simulations for that year. The projected cost rates for the year 2035 for the low cost and high cost alternatives described earlier are 14.80 percent of payroll and 20.22 percent of payroll, respectively. These are quite close to the limits of the 95-percent confidence interval, as seen in figure VI.E2. By 2079, the cost rates for these alternatives, 13.84 and 26.76 percent of payroll, are still fairly close to the limits of the 95-percent confidence interval (14.54 and 26.94 percent of payroll).³³

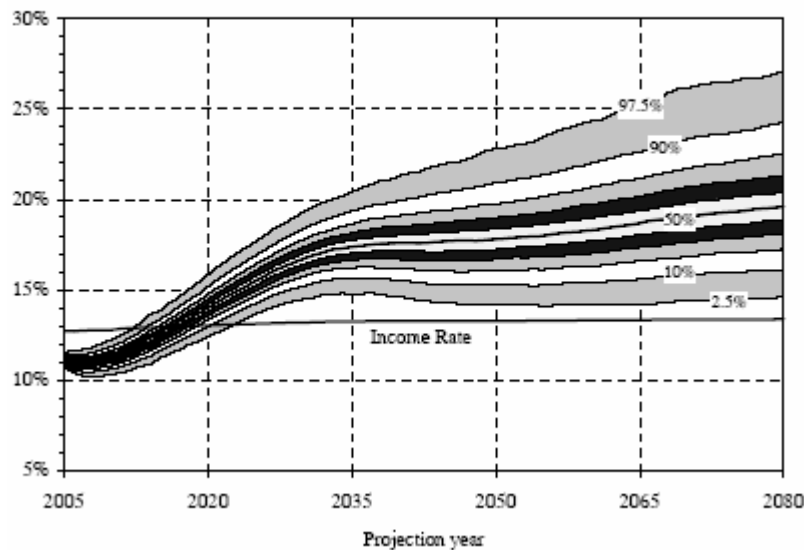
³¹ *The Trustees' Annual Report*, p. 158-9.

³² *2005 Trustees' Annual Report*, p. 82.

³³ *2005 Social Security Trustees' Report*, p. 161.

Social Insurance Measurement and Display

Figure VI.E2.—Annual Cost Rates



1
2
3
4
5
6
7
8
9

In his past work with the FASAB the SSA Chief Actuary has criticized stochastic model, which he has been encouraged to use by independent analysts, as costly and not productive of demonstrably more useful projections than the “best estimate.” However the SSA chief actuary obviously is including such projections in the Trustees’ Annual Report.

Question #4 – How should uncertainty be illustrated?

In addition to the recommendations below regarding display, disclosure and RSI, the staff recommends exploring the use of “expected present value” as an alternative to present value based on the “best estimate.”

The expected cash flow approach accommodates the use of present value techniques when the timing of cash flows is uncertain. The expected cash flow approach focuses on explicit assumptions about the range of possible estimated cash flows and their respective probabilities. The “best estimate” approach is well known and perhaps even “generally accepted” with respect to Social Security and Medicare, and yet the EPV approach is gaining acceptance in the private sector and is worth exploring for social insurance.

Does the Board agree?

10

11 2. Interest on the Obligation

12

13

14

The interest cost component recognized in a period is determined as the increase in the obligation due to the passage of time. Measuring the obligation

Social Insurance Measurement and Display

1 as a present value requires accrual of an interest cost at rates equal to the
2 assumed discount rates.

3 3. Actuarial Gains and Losses

4
5 Actuarial gains and losses result from (1) deviations between actual experience
6 and the actuarial assumptions used and (2) changes in the assumptions. Gains
7 and losses include amounts that have been realized, for example, by sale of a
8 security, as well as amounts that are unrealized. FASB in FAS 87, *Employers'*
9 *Accounting for Pensions*, did not require recognition of gains and losses as
10 components of net pension cost of the period in which they arise because
11 gains and losses may reflect refinements in estimates as well as real changes
12 in economic values and because some gains in one period may be offset by
13 losses in another or vice versa. FAS 87 requires amortizing such costs over
14 the future service of those employees active at the date of the amendment who
15 are expected to receive benefits under the plan.

16
17 In SFFAS 5, FASAB concluded that actuarial gains and losses, prior service
18 costs, and interest on the liability are expenses that should be recognized
19 immediately, without amortization. The FASAB saw no benefit to delaying
20 recognition of a cost and a liability or to reducing volatility. Others have
21 commented that smoothing has negative effects in a governmental context.³⁴

22 4. Prior Service Cost

23
24 "Prior service cost" is the cost of retroactive benefits (including benefits that
25 are granted to retirees) granted in the reporting period. It is the increase in the
26 obligation at the date of the amendment. Amendments to the social insurance
27 plans often grant increased benefits based on services rendered in prior
28 periods, i.e., retroactive benefits. FASB in FAS 87 did not require the cost of
29 providing such retroactive benefits to be included in net periodic pension cost
30 entirely in the year of the amendment because plan amendments are granted
31 with the expectation that the employer will realize economic benefits in future
32 periods. FAS 87 requires amortizing such costs over the future service of
33 those employees active at the date of the amendment who are expected to
34 receive benefits under the plan. A plan amendment can also reduce, rather
35 than increase, the projected benefit obligation. Such a reduction shall be used
36 to reduce any existing unrecognized prior service cost, and the excess, if any,
37 shall be amortized on the same basis as the cost of benefit increases.

38
39 In SFFAS 5, FASAB concluded that prior service costs, interest on the liability,
40 and actuarial gains and losses are expenses that should be recognized
41 immediately, without amortization. The FASAB saw no benefit to delaying
42 recognition of a cost and a liability or to reducing volatility. It did not regard
43 possible future benefits from the amendments such as increased employee
44 productivity as sufficiently tangible in the federal government to warrant
45 delayed recognition.

³⁴ *Defined-Benefit Pension Plans*, pp. 7-8: "Funding requirements that allow for the long-term smoothing of both asset values and discount rates are among the funding rules that have contributed to widespread underfunding."

1

Question #5 – What should be recognized as social insurance “expense” or “cost”?

The staff recommends four components.

For OASDI and HI the four components of cost describe above – “service cost,” interest on the liability, actuarial gains and losses, and prior service cost – are consistent with the benefit promise expressed for OASDI and HI as a given amount per year of work in covered employment as well as the changes therein in subsequent periods.

For SMI staff recommends insurance accounting, essentially “the present value of estimated future policy benefits to be paid to or on behalf of policyholders less the present value of estimated future net premiums to be collected from policyholders.” SMI can be characterized essentially as health insurance. It provides insurance protection for a fixed period. The Government may adjust the provisions of coverage at the end of any coverage period. It would include a liability for unpaid claims incurred resulting from insured events that have occurred as of the reporting date, with a provision for premium deficiency. Like the measure for OASDI and HI, the SMI measure would include components in addition to present value. It would include interest on the obligation and gains and losses from changes in assumptions.

Does the Board agree?

2

3

B. Liability

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

As stated above, the liability amount would be the accumulated cost as of the reporting date. It would be similar to SSA Actuary’s “maximum transition cost” (MTC) and to a pension-type liability measure. The MTC population is the current participants – workers and those on the rolls – only. It measures benefits “earned” or credited as of the reporting date. It is computed as the difference between (1) the present value of all future benefit obligations³⁵ based on past earnings as of the valuation date and (2) the value of the assets on the valuation date plus the present value of revenue from taxation of future accrued benefit obligations payable. From an accounting perspective, e.g., FAS 87, future revenue would not be included in a pension measure, but the staff assumes that the present value of “revenue from taxation of future accrued benefit obligations payable” would not be a large amount relative to the other amounts involved.

³⁵ SSA defines the “accrued benefit obligation” as the “future benefit obligations based on past earnings as of the valuation date. Thus, these accrued benefit obligations are relevant only to current participants as of the valuation date. The accrued benefit obligations are based on the primary insurance amount (PIA), the early retirement or delayed retirement factors, and other rules of payment.”

Social Insurance Measurement and Display

For 2004, SSA estimates the MTC for Social Security to be \$13.5 trillion. The MTC is net of assets in the trust fund and adding back the assets yields a net obligation of \$15 trillion, as shown in Table 1 immediately below.

Table 1
"Maximum Transition Cost"
PBO-type Amount

(trillions)	Social Security	Medicare
Revenue	\$ 0 ³⁶	\$ 0
Cost	15.0	???
Net	15.0	???
Less: Assets	1.5 ³⁷	???
Maximum Transition Cost	\$13.5 ³⁸	???

Some years ago Alan Greenspan has noted the problem of the transition obligation for Social Security, i.e., how to finance previously promised benefits that he calls the implicit accrued unfunded liability. He has said private accounts would presumably involve making the implicit accrued unfunded liability of the current social security system to beneficiaries explicit. He suggested, for example, that

participants could each receive a non-marketable certificate that confirmed irrevocably the obligations of the U.S. Government to pay a real annuity at retirement, indexed to changes in the cost of living. The amount of that annuity would reflect the benefits accrued through the date of privatization.

Under our current system, social security beneficiaries technically do not have an irrevocable claim to current levels of promised future benefits because legislative actions can lower future benefits. In contrast, the explicit liability of federal government debt to the public is essentially irrevocable. A critical consideration for the privatization of social security is how financial markets are factoring in the implicit unfunded liability of the current system in setting long-term interest rates.

If markets perceive that this liability has the same status as explicit federal debt, then one must presume that interest rates have already fully adjusted to the implicit contingent liability. However, if markets have not fully accounted for this implicit liability, then making it explicit could lead to higher interest rates for U.S. government debt.

³⁶ Although the SSA defines the "maximum transition cost" to include income tax on SS benefits, the assumption used here is that such revenue would not be material.

³⁷ From FY 2004 FRUSG.

³⁸ From SSA.

Social Insurance Measurement and Display

For any level of real annuity at retirement, the corresponding current value of recognition certificates would depend on a number of technical assumptions. These assumptions have no impact on the real payouts from the retirement annuities but determine the current notional value of recognition certificates, which is useful for making broad economic comparisons. For example, factoring in a 2 percent real annual rate of discount and including other technical assumptions, the value of recognition certificates the U.S. government would need to issue to ensure that all currently accrued legislated future benefits are paid would be roughly \$9-1/2 trillion. Alternatively, at a 1 percent real rate, the value would be roughly \$12 trillion, and at a 6 percent real rate, the value would be about \$4-1/2 trillion. Because, under a wide range of assumptions, the magnitude of this liability remains very large relative to the current outstanding federal debt to the public--\$3-1/2 trillion--the market adjustment could be substantial.

There is reason to suspect, however, that if such a liability is made explicit in a manner similar to the transition procedure in Chile, each dollar of new liability will weigh far less on financial markets than a dollar of current public debt. In the case of the Chilean pension reform, a significant portion of the implicit liability of their old system was made explicit at the initiation of the new pension system by the issuance of "recognition bonds" that were deposited in workers' individual accounts. These bonds were initially nonmarketable, indexed for price inflation, and yielded a fixed real return on a specified face value. In Chile, the liquidation of these bonds generally occurs only after a worker retires and the proceeds from the bonds are required to be paid in the form of an annuity or through programmed partial withdrawals. These bonds have been viewed as a different instrument from other forms of public debt, and it is likely that if an instrument such as recognition certificates were issued here, it also would be viewed as distinct from fully-liquid marketable public debt.

In effect, under privatization, the obligations of social security would be transferred from an implicit government account to millions of private individual accounts. Retirement needs would be funded first by the conversion of recognition certificates, and later by withdrawals from private defined contribution funds. The outstanding certificates would accordingly decline with time, and finally be paid off some decades in the future. But if benefits and contributions do not change, national savings are only being transferred from the federal government account to that of households and are not increased in the process. It is only if contributions or private saving increases that household and national saving increases.³⁹ [Greenspan's footnotes omitted]

ABO vs. PBO

The accrued liability for OASDI and HI presumably would be a "PBO" type number. When pension cash flows are projected analysts prepare both "projected benefit obligation" (PBO) projections and "accumulated benefit obligation" (ABO) projections. The PBO is the actuarial present value of all benefits attributed by the plan's benefit formula to employee service rendered prior to that date. The PBO is measured using an assumption as to future compensation levels.

³⁹ *Social security*, Testimony of Chairman Alan Greenspan Before the Task Force on Social Security of the Committee on the Budget, U.S. Senate, November 20, 1997.

Social Insurance Measurement and Display

The (ABO) is the actuarial present value of benefits attributed by the pension benefit formula to employee service rendered prior to that date and based on current and past compensation levels. The ABO differs from the PBO in that it includes no assumption about future compensation levels. For plans with flat-benefit or non-pay-related pension benefit formulas, the ABO and the PBO are the same. The ABO and the portion of the ABO that represents the vested benefit obligation provide information about the obligation the employer would have if the plan were discontinued.

The PBO is a measure of benefits attributed to service to date assuming that the plan continues in effect and that estimated future events (including compensation increases, turnover, and mortality) occur. Hence the PBO is more appropriate measure of the obligation considering the going concern convention.

Question #6 – What should be recognized as the social insurance liability?
The staff recommends that liability be the accumulated cost.

As stated above, accrued costs and liabilities for social insurance would exclude costs attributable to obligating events occurring in the future. Costs are recognized only when obligating events occur. Future events cannot be considered unless there is a past event, even if they are virtually certain to occur. The staff assumes that revenue to be earned or demanded in the future, like costs incurred in the future, would not be included in an accrual accounting measure of current or accumulated revenue. However, long duration insurance contracts include the notion of “premium deficiency” in the calculation of the liability. The staff recommends an insurance accounting approach for SMI.

Does the Board agree?

II. Display⁴⁰

The SI display possibilities include, among others:

A. Cost Display Alternatives

1. Single amount on the statement of net cost (SNC) for total cost as is done currently (see Appendixes 2, 3, and 4). The cost would include the present value of future outflow from obligating events occurring in the period as well as interest on the liability, actuarial gains and losses (if any), and prior service cost (if any).

⁴⁰ For current balance sheet, statement of net cost, and statement of changes in net position, with related notes, for Social Security, Medicare, and the Governmentwide entity, see Appendixes 2, 3, and 4, respectively.

Social Insurance Measurement and Display

2. A single amount on the SNC for (1) the present value of future outflow from obligating events occurring in the period plus (2) interest on the obligation. Actuarial gains and losses would be reported as a component of “net position”, i.e., equity, and the annual increase/decrease would be reported on the statement of changes in net position.
3. Multiple amounts on the SNC, e.g., for total cost split between:
 - a. Initial cost and re-measurement due to changes in assumptions. Some argue that such information would have both predictive and feedback value is relatively objective, consistent measurement basis in a mixed attribute model. It facilitates analysis of the effects of measurement subjectivity on reported financial performance.
 - b. “a” immediately above and/or short- and long-term projections, to reflect uncertainty.

B. Liability Display Alternatives

1. Single amount on balance sheet for total liability as with current SSA and FR. (See Appendixes 2, 3 and 4)
2. Single amount on balance for liability representing (1) the present value of future outflow from obligating events occurring in the period plus (2) interest on the obligation. Actuarial gains and losses would be reported as a component of “net position”, i.e., equity, and the annual increase/decrease would be reported on the statement of changes in net position.
3. Multiple amounts on the balance for the total liability representing uncertainties inherent in the calculation
 - a. Service cost, interest, and actuarial/prior service
 - b. Age cohorts
 - i. 62+
 - ii. 40 quarters or equivalent to 61 years old
 - a. By length of projection
 - i. 10 years
 - ii. 20 years
 - iii. total

With any of the options about, the liability amount could be tied to SOSI as shown in the pro forma table in Appendix 7, which is from the June FASAB briefing material for Social Insurance.

Social Insurance Measurement and Display

Is the objective feedback regarding performance of social insurance programs, predictive of the future or both? If the objective of the measurement is to recognize the full cost of the cost that is being incurred on the statement of net cost and the accumulated of such cost on the balance sheet, then options #1 and 3 would serve. On the other hand, if one feels that actuarial gains and losses and/or prior service costs distort the operating information, then one may want to recognize those items separately.

Question #7 – What should be displayed for social insurance on the statement of net cost, balance sheet, and other statements?

The Social Insurance project staff recommends a total amount for cost on the statement of net cost and liability on the balance sheet representing all components of accrued cost and liability. The totals could be disaggregated by, for example, age cohort, and/or by degree of uncertainty, and/or by “service cost” plus interest on the liability and actuarial gains and losses.

With respect to employee pensions and other retirement benefits the FASAB precedent is to recognize all components of net cost in the year of incurrence. The conclusion has been that, for example, amortizing actuarial gains and losses over X number of years produces a “smoothing” effect that can be misleading and in the private sector has allowed the preparer to manage earnings.

Does the Board agree?

III. Disclosure

“Disclosure” is defined as reporting information in notes or narrative regarded as an integral part of the basic financial statement. [*FASAB Consolidated Glossary*] The social insurance standards – SFFAS 17, 25, and 26 – require a (1) “due and payable” liability, (2) an essentially cash expense, (3) the statement of social insurance as basic information, (4) disclosure of assumptions, and (5) RSI dealing with cash flow projections (in terms of nominal dollars, taxable payroll, and GDP), dependency ratio, and sensitivity analysis.

What information should the notes contain in addition to the assumptions called for in SFFAS 26 (assuming the Board is satisfied with that requirement)? The possibilities for disclosure include:

- a. Statement of Social Insurance (SOSI). The Board might decide that the SOSI information should be presented in a note rather than a basic statement. Staff assumes the Board is satisfied with the SOSI as a basic statement as provided in SFFAS 25.
- b. SFFAS 17, par. 27, RSI information:
 - i. Cashflow projections

Social Insurance Measurement and Display

Cashflow Projections - Projections of cashflow for those persons who are participating or eventually will participate in the program as contributors or beneficiaries during a projection period sufficient to illustrate long-term sustainability (e.g., traditionally the "Social Security," or OASDI, program has used a projection period of 10 years for relatively short-term and 75 years for long-term projections, and the UI program has used a projection period of 10 years for its projections). The projection should include current workers, retirees, survivors, disabled persons, and new participants entering the workforce or becoming beneficiaries, including those who will be born or immigrate to the United States during the projection period. The information should include the following: (a) Actuarial projections of the annual cashflow, in nominal dollars, with amounts reported for at least every fifth year in the projection period. The cashflow information should show (i) total cash inflow etc.

- ii. Ratio of contributors to beneficiaries
- iii. Sensitivity analysis

c. Information that illustrates uncertainty:

- i. Stochastic graphic showing probability ranges (as illustrated above).
- ii. Low-, intermediate-, high-cost projections
 - 1. Tables
 - 2. Graphs/charts
 - 3. Narrative
- iii. Sensitivity analysis – See SFFAS 17, par. 27(d)
- iv. Other
- v. Alternative – RSI, i.e., status quo

- d. "Actuarial accrued liability" and/or net present value (NPV) for the "closed group" population, i.e., includes participants who have not attained 40 quarters or work in covered employment. For example, from the Trustees' Annual Report:

Social Insurance Measurement and Display

Table IV.B7.—Present Values of OASDI Cost Less Tax Revenue and Unfunded Obligations for Program Participants

[Present values as of January 1, 2005; dollar amounts in trillions]

	Present value	Expressed as a percentage of future payroll and GDP	
		Taxable payroll	GDP
Present value of future cost less future taxes for current participants . . .	\$13.7	4.3	1.5
Less current trust fund (tax accumulations minus expenditures to date for past and current participants)	1.7	.5	.2
Equals unfunded obligation for past and current participants ¹	12.0	3.8	1.3
Plus present value of cost less taxes for future participants for the infinite future	-.9	-.3	-.1
Equals unfunded obligation for all participants through the infinite horizon	11.1	3.5	1.2

¹ This concept is also referred to as the closed group unfunded obligation.

Notes:

1. The present value of future taxable payroll for 2005 through the infinite horizon is \$319.7 trillion.
2. The present value of GDP for 2005 through the infinite horizon is \$921.2 trillion.
3. Totals do not necessarily equal the sums of rounded components.

- e. "Unfunded obligations" of the open group population, e.g., from the Social Security Trustees' Annual Report

Table IV.B5.—Components of 75-Year Actuarial Balance Under Intermediate Assumptions (2005-79)

Item	OASI	DI	OASDI
Present value as of January 1, 2005 (in billions):			
a. Payroll tax revenue	\$23,771	\$4,037	\$27,808
b. Taxation of benefits revenue	1,520	122	1,642
c. Tax income (a + b)	25,291	4,159	29,450
d. Cost	30,121	5,032	35,154
e. Cost minus tax income (d - c)	4,830	874	5,704
f. Trust fund assets at start of period	1,501	186	1,687
g. Open group unfunded obligation (e - f)	3,330	687	4,017
h. Ending target trust fund ¹	262	40	301
i. Income minus cost, plus assets at start of period, minus ending target trust fund (c - d + f - h = -g - h)	-3,591	-727	-4,318
j. Taxable payroll	224,501	224,501	224,501
Percent of taxable payroll:			
Actuarial balance (100 × i ÷ j)	-1.60	-.32	-1.92

¹ The calculation of the actuarial balance includes the cost of accumulating a target trust fund balance equal to 100 percent of annual cost by the end of the period.

Note: Totals do not necessarily equal the sums of rounded components.

In its work on the FVM ED the FASB is proposing disclosure requirements as follows:

1. For each major category of **assets and liabilities re-measured** at fair value during the period, the disclosures should segregate fair value amounts into three disclosure levels, that is, fair value amounts at the

Social Insurance Measurement and Display

- end of the period determined using quoted prices for identical assets or liabilities (Level 1), direct market inputs (Level 2 and Level 3), and indirect inputs (Level 4 and Level 5), and include information about the valuation techniques used. [Emphasis added]
2. Total gains or losses (unrealized and realized) for each major category of assets and liabilities **re-measured** at fair value during the period, segregating amounts included in earnings and in other comprehensive income. Unrealized gains or losses related to those assets and liabilities still held at the reporting date should be separately disclosed for each disclosure level below Level 3. [Emphasis added]
 3. Quantitative disclosures using a tabular format are required for interim and annual periods. Other disclosures (for example, information about the valuation techniques used) are required for annual periods only.
 4. The fair value information disclosed under the FVM Statement should include the fair value information disclosed under FASB pronouncements.

Question #8 – What should be disclosed about social insurance in the notes?

The staff recommends ... to be determined.

Does the Board have a preference at this time?

IV. RR Retirement, Unemployment Insurance, Black Lung Benefits

Question #9 – What should be done with RR Retirement, Unemployment Insurance, and Black Lung Benefits?

Staff recommends the following:

1. **Railroad Retirement – analogize to OASDI and SMI.**
2. **Unemployment Insurance – continue to apply SFFAS 17**
3. **Black Lung Benefits – continue to apply SFFAS 17**

Railroad Retirement program features are similar enough to OASDI and Medicare to apply the same approach. Unemployment insurance is unlike OASDI and SMI and for the present the SFFAS 17 is adequate. Black Lung Benefits is immaterial and is phasing-out and SFFAS 17 requirements are adequate.

Does the Board agree?

Social Insurance Measurement and Display

V. The Objective of the Measurement: What is being communicated?

SFFAC 1 states that the objectives of financial reporting are designed to guide the Board in developing standards for information to (1) demonstrate its accountability, (2) provide useful information, and (3) help internal users of financial information improve the government's management. SFFAC 1 notes that the objectives "also consider many of the needs expressed by current and potential users of federal financial information. They provide a framework ... for considering how new accounting standards might help to enhance accountability and decision-making in a cost-effective manner. "

Two of the four objectives of Federal Financial Reporting are especially noteworthy:

Operating Performance—Federal financial reporting should assist report users in evaluating the service efforts, costs, and accomplishments of the reporting entity; the manner in which these efforts and accomplishments have been financed; and the management of the entity's assets and liabilities. Federal financial reporting should provide information that helps the reader to determine

- the costs of providing specific programs and activities and the composition of, and changes in, these costs;
- the efforts and accomplishments associated with federal programs and the changes over time and in relation to costs; and
- the efficiency and effectiveness of the government's management of its assets and liabilities.

Stewardship—Federal financial reporting should assist report users in assessing the impact on the country of the government's operations and investments for the period and how, as a result, the government's and the nation's financial condition has changed and may change in the future. Federal financial reporting should provide information that helps the reader to determine whether

- the government's financial position improved or deteriorated over the period,
- future budgetary resources will likely be sufficient to sustain public services and to meet obligations as they come due, and
- government operations have contributed to the nation's current and future well-being.

The terms "sustainability" or "sustainable solvency" are used frequently in discussion of social insurance programs. These terms typically involve both accrued costs and future costs and future revenue over a fixed period of time. Accrued costs typically involve the notion of inter-period equity.

Individual Reporting Entities vs. the Governmentwide Entity

Is the objective the same for the individual agency reporting entities (SSA and HHS) as for the Government as a whole (Financial Report)? The SSA and HHS "trust fund" entities are similar to Pension Benefit Guaranty Corporation (PBGC).

Social Insurance Measurement and Display

Solvency for individual entities is a different concept than for the Government as a whole. Social Security and Medicare trust funds and the PBGC invest in Treasury securities. The SS trust fund held about \$1.5 trillion in Treasury securities as of FY 2004, which is an asset to the trust fund entity and a liability for the Government as a whole. And \$15 billion of PBGC's \$28 billion in investment assets reported in FY 2004 are US Government securities. These securities will have to be redeemed via resources available through the general budget – i.e., by general taxes or public debt or program cuts.

Many useful things are reported about PBGC using accrual accounting principles. The federal analysts, business press, and others cite amounts reported in the PBGC financial, e.g., the single employer plans, a \$23 billion negative net position (\$40 billion in assets and \$63 billion in liabilities). Also, PBGC reports \$96 billion in “reasonably possible” claims for the single employer plans.

Regarding sustainability, PBGC estimated that for FY 2004 total underfunding was \$450 billion for single employer plans and \$150 billion for multiple employer plans.

ERISA states that PBGC obligations are not backed by the “full faith and credit” of the Government but most analysts conclude there is an implicit Government guaranty.⁴¹

“Sustainable Solvency”

The dictionary definition of “sustain” that is closest to the financial accounting usage is “to keep up;” and “solvent” means to be able to pay all legal debts. GAO has defined “solvency” and “sustainable solvency” for Social Security as essentially being able to pay full benefits as they come due, permanently.⁴²

SSA tests sustainability using the concept of “long-range close actuarial balance” over a 75-year period of time. Income and cost rates are calculated for each of 66 valuation periods within the full 75-year long-range projection period. The test of long-range close actuarial balance is met if, for each of the 66 valuation periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period.⁴³

SS Trustees also test “short-range financial adequacy.” To meet this test the trust fund ratio⁴⁴ must be projected to remain at or above 100 percent throughout the 10-year projection period, if it exceeded 100 percent at the beginning of the projection period. Alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and not

⁴¹ See, for example *Pension Guaranty Corporation* p. 3. “As a practical matter, however, the public probably views the pension insurance system as carrying an implicit federal guarantee.”

⁴² Social Security Reform: Answers to Key Questions, Glossary of Key Terms, “Solvency, Sustainable.”

⁴³ The 2005 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance Trust Funds (*2005 Trustees' Annual Report*), pp. 204-5.

⁴⁴ The assets at the beginning of the year expressed as a percentage of the cost during the year.

Social Insurance Measurement and Display

be depleted at any time during this period) and then remain at or above 100 percent throughout the remainder of the 10-year period.

More recently, the Trustees have included a discussion of the “infinite horizon.” The projection includes the benefits participants have accrued for work in covered performed as of the reporting date as well as benefits to be accrued (and taxes to be paid) in the future.

The sustainability of Social Security and Medicare is subject to different interpretations. Social Security is sustainable at its current level until 2044 at which point, if nothing is done in the interim and all assumptions are accurate, the trust fund will be exhausted and benefits presumably will have to be cut about 25%. The program is sustainable after 2044 at this reduced level. What is not sustainable is the current level of benefits.

The Medicare is sustainable at its current level until 2020 at which point the trust fund will be exhausted and benefits will have to be cut XX%. The program can continue paying benefits after 2020 indefinitely at this reduced level.

The sustainability question for the Government as a whole, of course, combines Social Security and Medicare with all other programs. The unified budget deficit is \$400 billion. Deficits are projected to continue indefinitely and GAO, CBO and others have characterized this policy as unsustainable. CBO believes the resulting rise in government debt could seriously harm the economy.⁴⁵ The change from annual surplus in the Social Security program to annual deficit and debt redemptions will represent a significant challenge for the budget as a whole.

“Solvency”

There are two perspectives regarding “solvency”: short- and long-term, e.g., in the short-term a program is solvency if its inflows are adequate to provide for outflow, for example 10 years. GAO has defined solvency for Social Security as a condition of financial viability in which the program can meet its full financial obligations as they come due. Specially, the ability to pay full benefits using existing revenue sources and trust fund balances.⁴⁶ “Long-term solvency” may be synonymous with sustainability, for example, as in the GAO usage in *Social Security: Societal Changes Add Challenges to Program Protections*.⁴⁷

Inter-period equity

“Inter-period equity” means the adequacy of annual inflow to pay for annual cost. The matching of revenue and cost, i.e., of annual taxes paid and benefits accrued. The adequacy of annual or cumulative payroll taxes to fund annual or cumulative future benefits.

⁴⁵ Holtz-Eakin, Douglas, *Options for Social Security: Budgetary and Distributional Impacts*, Testimony before the Committee on Finance, United States Senate, May 25, 2005, p. 4, (*Options for Social Security*).

⁴⁶ Social Security Reform: Answers to Key Questions, Glossary of Key Terms, “Solvency.”

⁴⁷ Bovbjerg, Barbara, Testimony Before the Subcommittee on Social Security, Committee on Ways and Means, US House of Representatives, May 17, 2005, page 12.

Social Insurance Measurement and Display

GASB Concepts Statement 1 indicates that inter-period equity can be assessed by "whether current-year revenues are sufficient to pay for the services provided that year" (par. 61). More recently, the GASB (1995) has suggested that an inter-period equity-related result is "whether the government's financial position is better or worse as a result of the year's activities."

Financial position and inter-period equity are related concepts. The FASAB Objectives (SFFAC 1, par. 137) state that

[a]ssessing whether the government's financial position improved or deteriorated over the period is important not only because it has financial implications but also because it has social and political implications. This is because analysis of why financial position improved or deteriorated helps to explain whether financial burdens were passed on by current-year taxpayers to future-year taxpayers without related benefits. The latter notion is sometimes referred to as "interperiod equity."

Financial position is more limited in scope than "financial condition." SFFAC 1 states that:

Indicators of financial position, measured on an accrual basis, are the starting point for reporting on financial condition but must be supplemented in a variety of ways. For example, subobjective 3B⁴⁸ might imply reporting, among other things, a current law budget projection under a range of alternative assumptions. Reports intended to achieve subobjective 3C might disclose, among other things, the contribution that the government is making to national wealth by financing assets that are not federally owned, such as research and development, education and training, and state-owned infrastructure. Information on trends in total national wealth and income is also important.⁴⁹

The balance sheet and statement of net cost are primary means of communication. Accruing an expense and accumulating a liability on the Federal balance sheet as workers perform under Social Security arguably would focus management's attention on the economic cost of the program rather than merely the cash outlays. It would focus attention on the claims being accumulated from current activity that are being passed on to future periods or, for the "full eligibility" alternative, on claims originating in past periods that will almost certainly need to be paid in future periods.

Inter-generational Equity

Inter-period equity and inter-generational equity are related, although the latter is a more complex notion. Jagadeesh Gokhale has offered two measures of

⁴⁸ SFFAC 1, Objective 3: Federal financial reporting should assist report users in assessing the impact on the country of the government's operations and investments for the period and how, as a result, the government's and the nation's financial condition has changed and may change in the future. 3B: Whether future budgetary resources will likely be sufficient to sustain public services and to meet obligations as they come due. 3C: Whether government operations have contributed to the nation's current and future well-being.

⁴⁹ SFFAC 1, par. 145.

Social Insurance Measurement and Display

1 sustainability: the “fiscal imbalance” (FI) and the “generational imbalance” (GI).⁵⁰
2 The FI equals the current federal debt held by the public, plus the present value of
3 all future federal non-interest spending, minus the present value of all future
4 federal receipts. The FI measures how much fiscal policy must be changed in
5 order to be sustainable; a sustainable fiscal policy requires FI to be zero. The GI
6 measures how much of the FI is caused, in particular, by past and current
7 generations. It equals the present value of projected outlays paid to generations
8 currently alive, less the present value of projected tax revenues from the same
9 generations and the program’s current assets.

10
11 The GI is similar to the closed group population on the SOSI. The closed group
12 refers to “current participants,” defined as those participants age 15 and over on
13 January 1 of a valuation year. The ABO or PBO would differ from any closed
14 group – or open group – measure that included benefits attributable to future work
15 in covered employment and payroll taxes to be paid in the future. The “open
16 group” refers to all participants in the system over a specified time period, e.g., 75
17 years, either currently in the system or projected to be. The ABO or PBO would
18 include only benefits accumulated as of the reporting date.

19
20 Mr. Gokhale believes the GI measure captures the redistributive effect of policies.
21 For example, under a policy where current benefits were increased along with off-
22 setting future payroll taxes, the GI measure would increase even though FI would
23 not change. Therefore, he asserts that the FI and GI measures taken together
24 comprise a powerful analytical tool for policymakers, enabling them to make more
25 informed decisions.

26
27 The SOSI presents information about inter-generational equity. The total for the
28 SOSI represents an open group estimate over a 75-year horizon that is important
29 for assessing sustainability, and the subtotals provide an inter-generational
30 perspective: closed group estimates for three cohorts – participants 62 and over,
31 participants 15-61, and future participants – over a 75-year horizon. The subtotals
32 articulate the extent to which Social Security resources on hand and to be provided
33 are sufficient to pay the benefits payable in the future under current law by cohort.
34 Assuming the status quo, it provides a measure of the payroll taxes needed from
35 future participants to fund benefits at current levels to current participants.

36
37 However, the SOSI does not include all contributions paid by and on behalf of or
38 benefits received by participants before the measurement date, so it would not be
39 a complete measure of the intergenerational transfer.⁵¹ Some might argue that
40 either an ABO or a closed group measure on the balance sheet would imply a
41 greater intergenerational equity deficiency than actually exists because it would not
42 reflect the amount of contributions paid by and on behalf of current participants, or
43 benefits received by them, before the measurement date.

⁵⁰ See Gokhale, Jagadeesh, and Kent Smetters, “Fiscal and Generational Imbalances: New Budget Measures For New Budget Priorities,” (Washington, DC, AEI Press, 2003).

⁵¹ Laurence J. Kotlikoff has written extensively on inter-generational accounting. His latest book is *The Coming Generational Storm: What You Need to Know About America’s Economic Future*, (Cambridge: The MIT Press, 2004).

Social Insurance Measurement and Display

1
2
3
4
5

And, unlike an ABO or PBO or other measures of benefit accrued as of the reporting date, the SOSI present values include benefits attributable to future work in covered employment and payroll taxes to be paid in the future.

Question #10 – What is the reporting objective for social insurance?

The staff recommends that the objective should be to report the costs incurred in during the reporting period based on obligating events in that period.

The objective of the communication should be to report the costs incurred in during the reporting period and the amount of those costs that will have to be financed in future budgets. The latter are sometimes referred to as “legacy costs” or “sunk costs.” They represent the accrued liability portion of long-term actuarial projections. Other measures are either macro economic or pertain to a specific aspect of the plan, e.g., return on investment.

Does the Board agree?

6

1 Appendix 1 – Present Value, from FASB Fair Value Measurement ED
PRESENT VALUE TECHNIQUES

Introduction

A1. In the absence of quoted prices for identical or similar assets or liabilities in active markets, fair value shall be estimated based on the results of multiple valuation techniques whenever the information necessary to apply those techniques is available without undue cost and effort (a Level 3 estimate). A present value technique may be used to estimate fair value (an application of the income approach). Present value is a tool used to link future amounts (cash flows) to the present through a discount rate. Present value is one of the foundations of economics and finance and is part of most asset-pricing models, including option-pricing models. Moreover, the present value of future cash flows is implicit in the market prices of assets and liabilities recognized in the financial statements.

A2. A fair value estimate, using present value, should capture the following elements that taken together would make up the price at which an asset or liability could be exchanged in a transaction between knowledgeable, unrelated willing parties:

- a. An estimate of future cash flows
- b. Possible variations in the amount and (or) timing of the cash flows
- c. The price for bearing the uncertainty inherent in the cash flows
- d. The time value of money, represented by the risk-free interest rate
- e. Other case-specific factors, such as liquidity and market imperfections
- f. In the case of a liability, the effect of an entity's creditworthiness (discussed in paragraphs A23–A27).

A3. Present value techniques differ in how they incorporate those elements. This appendix discusses two present value techniques—a discount rate adjustment technique (paragraphs A9–A11) and an expected present value technique (paragraphs A12–A19).¹⁰ Regardless of the technique used, certain general principles govern:

- a. Cash flows and discount rates should reflect assumptions that marketplace participants would use in their estimates of fair value.
- b. Cash flows and discount rates should consider only factors related to the asset (or liability) being measured.
- c. To avoid double counting or omitting the effects of risk factors, discount rates should reflect assumptions about risk that are not otherwise considered in the cash flows. For example, a discount rate that reflects expectations about future defaults is appropriate if using contractual cash flows of a loan (discount rate adjustment technique), but not if using expected (probability-weighted) cash flows (expected

¹⁰FASB Concepts Statement No. 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, describes these present value techniques but uses different terms. In Concepts Statement 7, traditional present value refers to a discount rate adjustment technique, while expected cash flow approach refers to an expected present value technique.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

- present value technique) because expected cash flows already reflect assumptions about future defaults.
- d. Assumptions about cash flows and discount rates should be internally consistent. For example, nominal cash flows (that include the effect of inflation) should be discounted at a rate that includes the effect of inflation.¹¹ Similarly, real cash flows (that exclude the effect of inflation) should be discounted at a rate that excludes the effect of inflation.
 - e. Discount rates should be consistent with the underlying economic factors of the currency in which the cash flows are denominated.

Risk and Uncertainty

A4. Like other estimates, a fair value estimate, using present value, is made under conditions of uncertainty because the cash flows used are estimates rather than known amounts. In many cases, the amount and timing of the cash flows will be uncertain. Even contractual amounts, like the payments on a loan, will be uncertain if there is risk of default.

A5. Marketplace participants generally seek compensation for bearing the uncertainty inherent in cash flows (risk premium).¹² For example, marketplace participants will place a higher value on an asset with promised (contractual) cash flows and no uncertainty than on an asset with expected cash flows of the same amount that are uncertain. The lower value reflects compensation for bearing risk. Similarly, marketplace participants will demand more to assume a liability with cash flows that are uncertain than a liability with cash flows of the same amount and no uncertainty. The higher value reflects compensation for bearing risk. An estimate that excludes compensation for bearing risk would not faithfully represent fair value if it is apparent that marketplace participants would seek compensation for bearing that risk.

A6. The objective of including risk in the estimate of fair value is to replicate the market's behavior toward assets and liabilities with uncertain cash flows, using as a benchmark the rate on monetary assets that are essentially risk free and 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 U.S. dollars, U.S. Treasury securities often provide such a benchmark because they are assumed to pose neither

¹¹The risk-free interest rate generally includes the effect of inflation (nominal discount rate).

¹²Portfolio theory distinguishes between (a) risk specific to a particular asset (or liability) that can be avoided through diversification when that asset (or liability) is held in a portfolio together with other assets (and liabilities) having different risk properties (nonsystematic or diversifiable risk) and (b) risk specific to a particular asset (or liability) that cannot be diversified (systematic or nondiversifiable risk). Specifically, portfolio theory holds that in a market in equilibrium, marketplace participants (investors) will be compensated only for bearing the systematic or nondiversifiable risk inherent in the cash flows.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

uncertainty in timing nor risk of default to the holder.¹³ Other securities, such as those issued by riskier counterparties, have varying degrees of default (and other) risk, and marketplace participants demand more for bearing that risk.

A7. To illustrate the concept of risk, consider two 10-year assets. Asset A is a U.S. Treasury security with promised (contractual) cash flows of \$10,000 and no uncertainty. Asset B is a different security with cash flows that are uncertain, ranging from \$8,000 to \$12,000. For Asset B, uncertainty is incorporated in the expected cash flows (discussed in paragraph A13), which assuming events of equal magnitude and probability above and below the mean (symmetric probability distribution), are \$10,000. Thus, for both assets, the expected cash flows are the same. However, Asset A has a certain payoff (no dispersion of possible outcomes about its expected amount), while Asset B has an uncertain payoff (dispersion of possible outcomes about its expected amount). If the risk-free interest rate for 10-year instruments is 5 percent, a marketplace participant would pay about \$6,139¹⁴ for Asset A and something less for Asset B, depending on the price (risk premium) that marketplace participants would demand for bearing the uncertainty inherent in the cash flows.

Present Value Techniques

A8. For a fair value estimate, the present value technique used depends on circumstances relevant to the asset (or liability) being measured. For example, the discount rate adjustment technique may be useful when prices for similar assets (or liabilities) with similar uncertainties can be observed in the marketplace. If prices for similar assets (or liabilities) cannot be observed in the marketplace, an expected present value technique often will be a more effective measurement tool.

Discount Rate Adjustment Technique

A9. The discount rate adjustment technique uses a single set of cash flows from the range of possible estimated amounts. For example, such cash flows might be contractual cash flows or, if contractual cash flows are not available, the single, most-likely amount in a range of possible estimated amounts (best estimate). The cash flow(s) are discounted at a rate commensurate with the risk inherent in the cash flow(s) (risk-adjusted discount rate).

A10. The discount rate adjustment technique does not explicitly link the risk in the cash flows and the discount rate. Rather, because discount rates should reflect assumptions about risk that are not otherwise considered in the cash flows, the discount rate adjustment technique is based on the assumption that the discount rate can fully incorporate the risk inherent in the cash flows. Accordingly, the risk-adjusted discount rate must be derived from some other comparable asset (or liability) whose price and other relevant attributes can be observed in the marketplace. Those other relevant attributes include the nature of

¹³A yield curve for U.S. Treasury securities may be used to determine the appropriate risk-free interest rates.

¹⁴\$6,139 is the present value of \$10,000 discounted for 10 years at 5 percent.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

the cash flows (for example, whether the cash flows are contractual or otherwise estimated and whether the cash flows are likely to respond similarly to changes in economic conditions), as well as credit standing, collateral, restrictive covenants, and liquidity. If a single asset (or liability) does not fully incorporate the risk inherent in the cash flows of the asset (or liability) being measured, it may be possible to derive a discount rate using an approach that uses data for several comparable assets (or liabilities) in conjunction with the risk-free yield curve (“build-up” approach).

A11. To illustrate the application of the discount rate adjustment technique, assume that Asset A will pay an uncertain amount in one year (no timing uncertainty). The best (most likely) estimate of that amount is \$800. There is an established market for comparable assets, and information about those assets, including price information, is disclosed. Of those comparable assets:

- a. Asset B has a best estimate payment of \$1,200 in 1 year, a market price of \$1,083, and an implied annual rate of return of 10.8 percent $[(\$1,200/\$1,083) - 1]$.
- b. Asset C has a best estimate payment of \$700 in 2 years, a market price of \$566, and an implied annual rate of return of 11.2 percent $[(\$700/\$566)^{0.5} - 1]$.
- c. All three assets are comparable with respect to risk (dispersion of possible payoffs and credit rating).

Based on the timing of the payments (one year for Asset B versus two years for Asset C), Asset B is deemed more similar to Asset A. Using the best estimate payment for Asset A (\$800) and a risk-adjusted discount rate derived from Asset B (10.8 percent), the fair value of Asset A is \$722 $(\$800/1.108)$.¹⁵

Expected Present Value Technique

A12. The expected present value technique begins with a set of cash flows that, in theory, represents the sum of all possible cash flows, each weighted by its probability, that is, the probability weighting of all possible outcomes (expected cash flows).¹⁶ It then reflects the market required risk premium for the risk inherent in the expected cash flows (not otherwise reflected in the cash flows) using one of two methods. Under Method 1, the expected cash flows are explicitly adjusted (reduced) for risk (risk-adjusted expected cash flows) and discounted at a risk-free interest rate, similar to a certainty-equivalent cash

¹⁵In the absence of available market information for Asset B, the risk-adjusted discount rate could be derived from Asset C using the “build-up” approach referred to in paragraph A10. In that case, the two-year discount rate indicated by Asset C would be adjusted to a one-year discount rate based on the term structure of the risk-free yield curve. Additional information and analysis also might be required to determine if the risk premium for one-year and two-year assets is the same. If they are not the same, the two-year discount rate also would be adjusted for that difference (based on additional analysis).

¹⁶The resulting estimate is identical to *expected value*, which, in statistical terms, is the weighted average of a discrete random variable’s possible values where the respective probabilities are used as weights. The expected value of a continuous random variable is that variable’s possible values weighted by the respective probabilities.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

flow for an asset.¹⁷ Under Method 2, the expected cash flows are discounted using a rate commensurate with the risk inherent in the expected cash flows (risk-adjusted discount rate).¹⁸ In other words, an expected present value technique requires an adjustment for risk in either the expected cash flows or the discount rate depending on whether Method 1 or Method 2 is applied.

A13. Unless the distribution of possible outcomes is symmetrical around its expected value (mean), the expected cash flows used in the expected present value technique will differ from the single best estimate cash flows used in the discount rate adjustment technique. The difference between the expected cash flows and the single best estimate depends on the shape of the distribution of possible outcomes. To the extent the cash flows used in those techniques are different, the risk-adjusted discount rates also will be different because the risks in the cash flows differ; however, the estimated fair values should be the same.

A14. In some situations, accounting estimates may incorporate elements of expected cash flows, considering the likelihood of possible outcomes (probability assessments) as follows:

- a. The estimated amount falls somewhere between \$50 and \$250, but no amount in the range is more likely than any other amount (representing a uniform distribution). Based on that limited information, the expected cash flow is \$150 $[(50 + 250)/2]$. In this case the single best estimate (most likely) cash flow cannot be determined because each possible outcome is equally likely.
- b. The estimated amount will be \$50 with a 10 percent probability, \$250 with a 30 percent probability, or \$100 with a 60 percent probability (representing a discrete distribution). Based on that limited information, the expected cash flow is \$140 $[(50 \times .10) + (250 \times .30) + (100 \times .60)]$. In this case the single best estimate (most likely) cash flow is \$100 because it has the highest probability (60 percent).

A15. In contrast to the situations referred to above, most fair value estimates involve possible cash flows over multiple periods with varying degrees of uncertainty in both amounts and timing. For those more complex measurements, the expected present value technique, which considers expectations about all possible cash flows (amounts and timing), often will be a more effective measurement tool, especially if similar assets (or liabilities) cannot be observed in the marketplace.

A16. For example, assume that an asset has expected cash flows of \$780 in 1 year based on the possible cash flows and probabilities shown below:

¹⁷A *certainty-equivalent cash flow* refers to an expected cash flow (as defined) adjusted for risk such that one is indifferent to trading a certain cash flow for an expected cash flow. For example, if one were willing to trade an expected cash flow of \$1,200 for a certain cash flow of \$1,000, the \$1,000 is the certainty equivalent of the \$1,200. In that case, one would be indifferent as to the asset held.

¹⁸Models used for pricing risky assets, such as the Capital Asset Pricing Model, can be used to estimate a risk-adjusted discount rate.

Social Insurance Measurement and Display
Appendix 1 – Present Value, from FASB FVM ED

Possible Cash Flows	Probability	Probability-Weighted Cash Flows
\$500	15%	\$75
\$800	60%	\$480
\$900	25%	\$225
Expected cash flows		\$780

The applicable risk-free interest rate for cash flows with a 1-year horizon is 5 percent, and the risk premium (for systematic or nondiversifiable risk) is 3 percent.

A17. Using the expected present value technique, the expected present value (fair value) of the asset is \$722, whether under Method 1 or Method 2.

- Under Method 1, the expected cash flows are explicitly adjusted for risk. Using the concept of certainty equivalents, the risk adjustment (based on the risk premium of 3 percent) is \$22 ($\$780 - [\$780 \times (1.05/1.08)]$), which results in risk-adjusted expected cash flows of \$758 ($\$780 - \22). In that case, the \$758 is the certainty equivalent of \$780 and is discounted at the risk-free interest rate (5 percent). The expected present value (fair value) is \$722 ($\$758/1.05$).
- Under Method 2, the expected cash flows are discounted at a risk-adjusted discount rate of 8 percent (the 5 percent risk-free interest rate plus the 3 percent risk premium). The expected present value (fair value) is \$722 ($\$780/1.08$).

A18. Both Methods 1 and 2 yield the same result—an expected present value (fair value) of \$722. That same result could be achieved using the discount rate adjustment technique, but only if the best estimate cash flows (\$800) are discounted at a rate of 10.8 percent ($\$800/\722 or 1.108). Although the discount rate of 10.8 percent can be derived from the prior results (in effect, reverse-engineered), it is not possible to determine whether the 10.8 percent discount rate is appropriate or to otherwise support its derivation without reference to a similar asset in the marketplace.

A19. The set of cash flows used for the expected present value technique, in theory, represents the probability weighting of all possible outcomes (paragraph A12). However, an entity does not need to consider distributions of all possible cash flows using complex models and techniques in order to apply an expected present value technique. Rather, even in cases in which an entity has access to limited data, it should be possible to develop a limited number of discrete scenarios and probabilities that capture the array of possible cash flows without using complex models and techniques. In developing those scenarios, an entity might use realized cash flows for some past period, adjusted for changes in circumstances occurring subsequently (such as changes in economic conditions, industry trends, and competition), and incorporating the assumptions of marketplace participants. Each application of the expected present value technique will differ based on the facts and circumstances of each measurement situation, available information, and judgments applied. Such judgments include determining whether to apply a continuous or discrete

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

probability distribution and, if a discrete probability distribution is applied, the number of discrete scenarios.

Present Value in the Measurement of Liabilities

A20. The present value techniques discussed in this appendix apply to liabilities as well as to assets. However, application of those techniques to liabilities requires that the risk adjustment to the discount rate or cash flows reflect an entity's credit standing.

A21. Some liabilities are held by others as assets, for example, an entity's notes or bonds payable. To estimate the fair value of such liabilities, an entity attempts to estimate the price at which other entities are willing to hold its liabilities as assets. That process involves the same techniques and computational issues involved in measuring assets. For example, the proceeds from a loan are the price that a lender paid to hold the borrower's promise of future cash flows as an asset. Similarly, the fair value of a bond payable is the price at which that security trades, as an asset, in the marketplace. Accordingly, in the application of an expected present value technique to estimate the fair value of such liabilities, the compensation that marketplace participants demand for bearing uncertainty unrelated to credit standing will typically be reflected as a decrease to the expected cash flows.

A22. Other liabilities represent rights that generally cannot be sold (by their holders) like other assets. For example, entities often sell products with an accompanying warranty. Buyers of those products rarely have the ability or inclination to sell the warranty separately from the covered asset, but they own a warranty asset nonetheless. Some of an entity's liabilities, like an obligation for environmental cleanup, are not the assets of identifiable individuals. However, such liabilities are sometimes settled through assumption by a third party. In estimating the fair value of such liabilities, the objective is to estimate the price that the entity would have to pay a third party of equal credit standing to assume the liability. Accordingly, when using an expected present value technique to estimate the fair value of such liabilities, the compensation that marketplace participants demand for bearing uncertainty unrelated to credit standing will typically be reflected as an increase to the expected cash flows.

Credit Standing and Liability Measurement

A23. Those who hold the entity's obligations as assets incorporate the entity's credit standing in determining the prices they are willing to pay. When an entity incurs a liability in exchange for cash, the role of its credit standing is easy to observe. An entity with a strong credit standing will receive more cash, relative to a fixed promise to pay, than an entity with a weak credit standing. For example, if 2 entities both promise to pay \$500 in 5 years, the entity with a strong credit standing may receive about \$374 in exchange for its promise (a 6 percent interest rate). The entity with a weak credit standing may receive about \$284 in exchange for its promise (a 12 percent interest rate). Each entity initially records its respective liability at fair value, which is the amount of proceeds received—an amount that incorporates that entity's credit standing.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

A24. The effect of an entity's credit standing on the fair value of its liabilities depends on the ability of the entity to pay and on other provisions of those liabilities that protect holders. Liabilities that are guaranteed by governmental bodies (for example, many bank deposit liabilities in the United States) may pose little risk of default to the holder. Other liabilities may include sinking-fund requirements or significant collateral. Such aspects must be considered in estimating the extent to which the entity's credit standing affects the fair value of its liabilities.

A25. The role of the entity's credit standing in a settlement transaction is less direct but equally important. A settlement transaction involves three parties—the entity, the parties to whom it is obligated, and a third party. The price of the transaction will reflect the competing interests of each party. For example, suppose Entity A (obligor) has an obligation to pay \$500 to Entity B (obligee) 3 years hence. Entity A has a poor credit rating and therefore borrows at a 12 percent interest rate.

- a. In a settlement transaction, Entity B would never consent to replace Entity A with an entity of lower credit standing. All other things being equal, Entity B might consent to replace Entity A with a borrower of similar credit standing and would probably consent to replace Entity A with a more creditworthy entity.
- b. Entity C has a good credit rating and therefore borrows at a 6 percent interest rate. It might willingly assume Entity A's obligation to Entity B for \$420 (the present value at 6 percent). Entity C has no incentive to assume the obligation for less (a higher interest rate) if it can borrow at 6 percent because it can receive \$420 for an identical promise to pay \$500.
- c. However, if Entity A were to borrow the money to pay Entity C, it would have to promise the lender \$590 (\$420 with accumulated interest at 12 percent) due in 3 years.

A26. Based on the example above, the fair value of Entity A's liability should be approximately \$356 (the present value of \$500 in 3 years at 12 percent). The \$420 price demanded by Entity C includes the fair value of Entity A's liability (\$356) plus the price of an upgrade in the credit quality of the liability. Like the purchase of a guarantee, the additional amount represents a separate element of a new arrangement rather than an element of the fair value of Entity A's original liability.

A27. The effect of an entity's credit standing on the measurement of its liabilities is usually captured in an adjustment to the discount rate. However, an expected present value technique, which considers possible cash flows in the measurement, may be useful in considering the effect of credit standing on liabilities other than debt. For example, a liability may subject the entity to a range of possible outflows, ranging from very low to very high amounts. The higher the amount, the greater the chance of default. In those situations, the effect of possible cash flows on an entity's credit standing may be effectively incorporated in the computation of those expected cash flows.

Social Insurance Measurement and Display

Appendix 1 – Present Value, from FASB FVM ED

Relationship to Accounting for Loss Contingencies

A28. For a liability measured at fair value, the guidance in FASB Statement No. 5, *Accounting for Contingencies*, and FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss*, does not apply. Both Statement 5 and a fair value measurement consider uncertainty inherent in future cash flows (amount and timing). However, Statement 5 considers uncertainty in the context of recognition, establishing a probability threshold for when to recognize a loss contingency. In contrast, a fair value measurement considers uncertainty in the context of measurement, incorporating uncertainty directly in the measurement.¹⁹

Social Insurance Measurement and Display
Appendix 2 – Current Reporting: Selected Social Security 2004 Financial Statements

1 **Appendix 2 – Current Reporting: Selected Social Security 2004 Financial**
2 **Statements**

Consolidated Balance Sheets as of
September 30, 2004 and September 30, 2003

Assets	(Dollars in Millions)	
	2004	2003
Intragovernmental:		
Fund Balance with Treasury (Note 4)	\$ 3,148	\$ 2,310
Investments (Note 5)	1,635,398	1,484,219
Interest Receivable, Net (Note 6)	22,315	\$ 20,933
Accounts Receivable, Net (Note 6)	624	872
Total Intragovernmental	1,661,485	1,508,334
Accounts Receivable, Net (Notes 3 and 6)	6,182	5,830
Property, Plant and Equipment, Net (Note 7)	1,231	909
Other	9	6
Total Assets	\$ 1,668,907	\$ 1,515,079
Liabilities (Note 8)		
Intragovernmental:		
Accrued Railroad Retirement Interchange	\$ 3,712	\$ 3,767
Accounts Payable	4,993	6,261
Other	247	259
Total Intragovernmental	8,952	10,287
Benefits Due and Payable	51,569	49,487
Accounts Payable	489	387
Other	1,205	1,133
Total	62,215	61,294
Net Position		
Unexpended Appropriations	1,489	705
Cumulative Results of Operations	1,605,203	1,453,080
Total Net Position	1,606,692	1,453,785
Total Liabilities and Net Position	\$ 1,668,907	\$ 1,515,079

3

Social Insurance Measurement and Display
Appendix 2 – Current Reporting: Selected Social Security 2004 Financial
Statements

Consolidated Statements of Net Cost for the Years Ended
September 30, 2004 and September 30, 2003

	(Dollars in Millions)	
	2004	2003
OASI Program		
Benefit Payments	\$ 412,474	\$ 397,654
Operating Expenses (Note 9)	2,537	2,481
Total Cost of OASI Program	415,011	400,135
Less: Exchange Revenues (Notes 10 and 11)	16	7
Net Cost of OASI Program	414,995	400,128
DI Program		
Benefit Payments	75,169	69,800
Operating Expenses (Note 9)	2,221	2,045
Total Cost of DI Program	77,390	71,845
Less: Exchange Revenues (Notes 10 and 11)	15	7
Net Cost of DI Program	77,375	71,838
SSI Program		
Benefit Payments	35,216	33,217
Operating Expenses (Note 9)	2,872	2,789
Total Cost of SSI Program	38,088	36,006
Less: Exchange Revenues (Notes 10 and 11)	293	265
Net Cost of SSI Program	37,795	35,741
Other		
Benefit Payments	13	429
Operating Expenses (Note 9)	1,279	1,292
Total Cost of Other	1,292	1,721
Less: Exchange Revenues (Notes 10 and 11)	15	9
Net Cost of Other	1,277	1,712
Total Net Cost		
Benefit Payments	522,872	501,100
Operating Expenses (Note 9)	8,909	8,607
Total Cost	531,781	509,707
Less: Exchange Revenues (Notes 10 and 11)	339	288
Total Net Cost	\$ 531,442	\$ 509,419

1

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

Social Insurance Measurement and Display
Appendix 2 – Current Reporting: Selected Social Security 2004 Financial Statements

Consolidated Statements of Changes in Net Position for the Years Ended
September 30, 2004 and September 30, 2003

	(Dollars in Millions)			
	2004		2003	
	Cumulative Results of Operations	Unexpended Appropriations	Cumulative Results of Operations	Unexpended Appropriations
Net Position, Beginning Balance	\$ 1,453,080	\$ 705	\$ 1,297,567	\$ 794
Budgetary Financing Sources (other than Exchange Revenues)				
Appropriations Received		52,536		48,822
Other Adjustments	0	0	0	(128)
Appropriations Used	51,752	(51,752)	48,783	(48,783)
Tax Revenues (Note 12)	559,661		546,808	
Interest Revenues	87,616		84,220	
Transfers-In/Out (Note 13)				
Trust Fund Draws and Other - In	1,740		1,244	
Trust Fund Draws and Other - Out	(13,958)		(12,814)	
Railroad Retirement Interchange	<u>(3,788)</u>		<u>(3,802)</u>	
Net Transfers-In/Out	(16,006)		(15,372)	
Other Budgetary Financing Sources	85		87	
Other Financing Sources				
Transfers In-Out	5		9	
Imputed Financing Sources (Note 14)	<u>452</u>		<u>397</u>	
Total Financing Sources	683,565	784	664,932	(89)
Net Cost of Operations	531,442		509,419	
Ending Balances	\$ 1,605,203	\$ 1,489	\$ 1,453,080	\$ 705

Social Insurance Measurement and Display
Appendix 2 – Current Reporting: Selected Social Security 2004 Financial Statements

Required Supplementary Stewardship Information: Social Insurance

Statement of Social Insurance Old-Age, Survivors and Disability Insurance 75-Year Projection as of January 1, 2004 (In billions)					
		Estimates from Prior Years			
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
<i>Actuarial present value¹ for the 75-year projection period of estimated future income (excluding interest)² received from or on behalf of:</i>					
Current participants ³ who, at the start of projection period:					
Have not yet attained retirement eligibility age (Ages 15-61)	\$14,388	\$13,576	\$13,048	\$12,349	\$11,335
Have attained retirement eligibility age (Age 62 and over)	411	359	348	309	266
Those expected to become participants (Under age 15) ⁴	12,900	12,213	11,893	11,035	10,088
All current and future participants	27,699	26,147	25,289	23,693	21,688
<i>Actuarial present value¹ for the 75-year projection period of estimated future cost⁵ for or on behalf of:</i>					
Current participants ³ who, at the start of projection period:					
Have not yet attained retirement eligibility age (Ages 15-61)	22,418	21,015	20,210	18,944	17,217
Have attained retirement eligibility age (Age 62 and over)	4,933	4,662	4,402	4,255	4,020
Those expected to become participants (Under age 15) ⁴	5,578	5,398	5,240	4,700	4,297
All current and future participants	32,928	31,075	29,851	27,899	25,534
<i>Actuarial present value¹ for the 75-year projection period of estimated future excess of income (excluding interest) over cost</i>	-\$5,229	-\$4,927	-\$4,562	-\$4,207	-\$3,845
<i>Trust fund assets⁶ at start of period</i>	1,531	1,378	1,213	1,049	896
<i>Actuarial present value¹ for the 75-year projection period of estimated future excess⁷ of income (excluding interest) and trust fund assets at start of period over cost</i>	-\$3,699	-\$3,550	-\$3,350	-\$3,157	-\$2,949

1

Social Insurance Measurement and Display
Appendix 2 – Current Reporting: Selected Social Security 2004 Financial
Statements

5. Investments

Chart 5 displays SSA's investments in U.S. par-value Treasury special securities and U.S. Treasury bonds at amortized cost. Treasury specials are Treasury securities that are issued directly by the Treasury Secretary to a government investment account that are non-negotiable and non-transferable in the secondary market. Par-value Treasury specials are issued with a stated rate of interest applied to its par amount and are purchased and redeemed at par plus accrued interest at or before maturity. The interest rates on these investments range from 3 1/2 percent to 8 3/4 percent and are payable on September 30, December 31, and at maturity or redemption. Investments held for the trust funds mature at various dates ranging from the present to the year 2019.

Chart 5 - Investments as of September 30: (\$ in millions)		
	2004	2003
Special Issue U.S. Treasury Securities	\$ 1,635,368	\$ 1,484,189
U.S. Treasury Bonds - Carrying value	30	30
Total Investments	\$ 1,635,398	\$ 1,484,219

8. Liabilities

Benefits Due and Payable

Benefits Due and Payable are amounts owed to program recipients that have not yet been paid as of the balance sheet date. Chart 8b shows the amounts for SSA's major programs as of September 30, 2004 and 2003. These amounts include an estimate for unadjudicated cases that will be payable in the future. Except for the SSI program, the unadjudicated cases are covered by budgetary resources.

Chart 8b - Benefits Due and Payable as of September 30: (\$ in millions)		
	2004	2003
OASI	\$ 37,055	\$ 35,878
DI	16,048	16,967
SSI	1,757	1,541
Other	0	37
Sub-Total	54,860	54,423
Less: Intra-agency eliminations	(3,291)	(4,936)
Total	\$ 51,569	\$ 49,487

Social Insurance Measurement and Display
Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements

1

2 **Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial**
3 **Statements**

U.S. Department of Health and Human Services
CONSOLIDATED BALANCE SHEET
As of September 30, 2004 and 2003
(In Millions)

	2004	Restated 2003
Assets (Note 2)		
Intragovernmental		
Fund Balance with Treasury (Note 3)	\$ 97,667	\$ 86,289
Investments, Net (Note 5)	287,886	282,350
Accounts Receivable, Net (Note 6)	573	899
Anticipated Congressional Appropriations (Note 7)	9,248	11,830
Other (Note 11)	386	350
Total Intragovernmental	\$ 395,760	\$ 381,718
Accounts Receivable, Net (Note 6)	2,052	2,817
Loans Receivable and Foreclosed Property, Net (Note 8)	390	387
Cash and Other Monetary Assets (Note 4)	460	843
Inventory and Related Property, Net (Note 9)	1,027	93
General Property, Plant & Equipment, Net (Note 10)	3,877	3,318
Other (Note 11)	185	85
Total Assets	\$ 403,751	\$ 389,261
Liabilities (Note 12)		
Intragovernmental		
Accounts Payable	\$ 652	\$ 271
Accrued Payroll and Benefits	64	70
Other (Note 16)	785	594
Total Intragovernmental	\$ 1,501	\$ 935
Accounts Payable	759	888
Entitlement Benefits Due and Payable (Note 13)	49,229	48,123
Accrued Grant Liability (Note 15)	3,755	3,752
Loan Guarantees Liabilities (Note 8)	191	362
Federal Employee & Veterans Benefits (Note 14)	7,178	6,903
Accrued Payroll & Benefits	789	718
Other (Note 16)	3,416	1,461
Total Liabilities	\$ 66,818	\$ 63,142
Net Position		
Unexpended Appropriations	82,052	75,385
Cumulative Results of Operations	254,881	250,734
Total Net Position	\$ 336,933	\$ 326,119
Total Liabilities & Net Position	\$ 403,751	\$ 389,261

The accompanying "Notes to the Principal Financial Statements" are an integral part of these statements.

4

5

6

Social Insurance Measurement and Display
Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements

U. S. Department of Health and Human Services
CONSOLIDATED STATEMENT OF NET COST
For the Years Ended September 30, 2004 and 2003
(In Millions)

	2004	Restated 2003
Responsibility Segments		
Administration for Children & Families (ACF)	\$ 45,969	\$ 47,593
Administration on Aging (AoA)	1,336	1,315
Agency for Healthcare Research & Quality (AHRQ)	(158)	311
Centers for Disease Control & Prevention (CDC)	5,114	5,406
Centers for Medicare & Medicaid Services (CMS)	451,647	416,009
Food & Drug Administration (FDA)	1,510	1,361
Health Resources & Services Administration (HRSA)	7,007	6,648
Indian Health Service (IHS)	3,362	3,048
National Institutes of Health (NIH)	26,167	22,729
Office of the Secretary (OS)	1,867	2,166
Program Support Center (PSC)	282	751
Substance Abuse & Mental Health Services Administration (SAMHSA)	3,117	3,029
Net Cost of Operations	<u>\$ 547,220</u>	<u>\$ 510,366</u>

The accompanying "Notes to the Principal Financial Statements" are an integral part of these statements.

Social Insurance Measurement and Display
Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements

U.S. Department of Health and Human Services
CONSOLIDATED STATEMENT OF CHANGES IN NET POSITION
For the Years Ended September 30, 2004 and 2003
(In Millions)

	2004		Restated 2003	
	Cumulative Results of Operations	Unexpended Appropriations	Cumulative Results of Operations	Unexpended Appropriations
Beginning Balances	\$ 250,734	\$ 75,385	\$ 243,859	\$ 73,786
Prior period adjustments (+/-) (Note 20)	123	281	337	(84)
Beginning balances, as adjusted	<u>\$ 250,857</u>	<u>\$ 75,666</u>	<u>\$ 244,196</u>	<u>\$ 73,702</u>
Budgetary Financing Sources:				
Appropriations received	-	392,109	-	359,073
Appropriations transferred-in/out (+/-)	-	479	-	(720)
Other adjustments (rescissions, etc) (+/-)	(40)	(5,363)	309	(8,238)
Appropriations used	380,839	(380,839)	348,432	(348,432)
Nonexchange revenue	170,573	-	167,616	-
Donations and forfeitures of cash and cash equivalents	41	-	47	-
Transfers-in/out without reimbursement (+/-)	(1,185)	-	(746)	-
Other budgetary financing sources (+/-)	-	-	(2)	-
Other Financing Sources:				
Donations and forfeitures of property	3	-	-	-
Transfers-in/out without reimbursement (+/-)	665	-	899	-
Imputed financing from costs absorbed by others	339	-	339	-
Other (+/-)	9	-	10	-
Total Financing Sources	<u>\$ 551,244</u>	<u>\$ 6,386</u>	<u>\$ 516,904</u>	<u>\$ 1,683</u>
Net Cost of Operations (+/-)	<u>547,220</u>	<u>-</u>	<u>510,366</u>	<u>-</u>
Ending Balances	<u><u>\$ 254,881</u></u>	<u><u>\$ 82,052</u></u>	<u><u>\$ 250,734</u></u>	<u><u>\$ 75,385</u></u>

The accompanying "Notes to the Principal Financial Statements" are an integral part of these statements.

1

Social Insurance Measurement and Display **Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements**

Note 5. Investments, Net

HHS' investments, net at September 30, 2004 and 2003 are summarized below.

(Dollars in Millions)	2004				
	Cost	Unamortized (Premium) Discount	Investments, Net	Other Adjustments	Market Value Disclosure
Intragovernmental Securities					
Marketable	\$17	\$ -	\$ 17	\$ 1	\$ 18
Non-Marketable: Par Value	281,814	-	281,814	-	281,814
Non-Marketable: Market-based	2,018	48	2,066	-	2,066
Subtotal	\$283,849	\$48	\$ 283,897	\$ 1	\$283,898
Accrued Interest	3,988	-	3,988	-	3,988
Total, Intragovernmental	\$287,837	\$48	\$ 287,885	\$ 1	\$287,886

(Dollars in Millions)	2003				
	Cost	Unamortized (Premium) Discount	Investments, Net	Other Adjustments	Market Value Disclosure
Intragovernmental Securities					
Marketable	\$20	\$ -	\$ 20	\$ -	\$ 20
Non-Marketable: Par Value	276,244	-	276,244	-	276,244
Non-Marketable: Market-based	1,989	31	2,020	-	2,020
Subtotal	\$278,253	\$ 31	\$ 278,284	-	\$ 278,284
Accrued Interest	4,066	-	4,066	-	4,066
Total, Intragovernmental	\$282,319	\$31	\$ 282,350	\$ -	\$ 282,350

HHS FY 2004 Performance and Accountability Report
Notes to the Principal Financial Statements

III.B.14

Note 5. Investments, Net (continued)

HHS invests entity trust fund balances in excess of current needs in U.S. Treasury securities. The majority of HHS investments in securities are redeemed at maturity and no provision is made for unrealized gains or losses. The Treasury Department acts as the fiscal agent for the U.S. Government's investments in securities. HHS securities purchased and redeemed include Marketable, Non-Marketable, Par Value, One Day Certificates, and Non-Marketable, Market-based (MK).

Par value securities purchased by CMS are recorded at cost, interest is earned based on a statutory formula, and securities are redeemed at face value. MK securities mirroring marketable securities terms that are not traded on any securities exchange include both Non-Marketable, MK, and One Day Certificates. MKs are purchased by HRSA's Vaccine Injury Compensation Program (VICP) trust fund, the Ricky Ray Hemophilia Relief trust fund and the NIH Gift funds. The MKs are purchased at a discount or premium based on market terms and are recorded at cost. Discounts and premiums are recorded and amortized on a straight-line basis. Marketable securities purchased are recorded at cost based on market terms. Currently, securities held by the VICP will mature in fiscal years 2005 through 2009.

CMS invests in U.S. Treasury Special Issues bonds (Par value securities) that are special public obligations for exclusive purchase by the Medicare trust funds. Special issued bonds are always purchased and redeemed at face value. Certificates are short term and paid 4 1/2 percent in FY 2004 and FY 2003. The bond interest rates ranged from 3 1/2 percent to 8 3/4 percent in FY 2004 and FY 2003. The accrued interest receivable as of September 30, 2004 and 2003 was \$3,988 million and \$4,066 million, respectively.

Social Insurance Measurement and Display
Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements

Note 13. Entitlement Benefits Due and Payable

Entitlement Benefits Due and Payable represents benefits due and payable to the public at year-end from entitlement programs enacted by law. The largest entitlement programs in HHS are the CMS managed Medicare and Medicaid programs which comprise all of the HHS entitlement benefits due and payable.

Entitlement Benefits Due and Payable at September 30, 2004 and 2003 are summarized below.

	2004			Restated 2003		
	Liabilities Covered by Budgetary Resources	Liabilities Not Covered by Budgetary Resources	Total	Liabilities Covered by Budgetary Resources	Liabilities Not Covered by Budgetary Resources	Total
(Dollars in Millions)						
Medicare	\$ 29,875	\$ -	\$ 29,875	\$ 30,339	\$ -	\$30,339
Medicaid	9,315	10,039	19,354	8,797	8,987	17,784
Other	-	-	-	-	-	-
Totals	\$ 39,190	\$10,039	\$ 49,229	\$ 39,136	\$ 8,987	\$48,123

Social Insurance Measurement and Display
Appendix 3 – Current Reporting: Selected Medicare (CMS/HHS) 2004 Financial Statements

Table 1—Actuarial Present Values of Hospital Insurance and Supplementary Medical Insurance Revenues and Expenditures: 75-year Projection as of January 1, 2004 (In billions)															
	HI					SMI ²					Part D				
	2004	2003	2002	2001	2000	2004	2003	2002	2001	2000	2004	2003	2002	2001	2000
<i>Actuarial present value¹ of estimated future income (excluding interest) received from or on behalf of:</i>															
Current participants ³ who, at start of projection period:															
Have not yet attained eligibility age (ages 15-64)	\$4,820	\$4,510	\$4,408	\$4,136	\$3,757	\$10,505	\$8,796	\$7,423	\$7,378	\$6,109	\$7,545	—	—	—	—
Have attained eligibility age (age 65 and over)	148	128	125	113	97	1,310	1,160	1,008	1,032	934	713	—	—	—	—
Those expected to become participants (under age 15)	4,009	3,773	3,753	3,507	3,179	3,514	2,817	2,402	2,370	1,616	2,511	—	—	—	—
All current and future participants	8,976	8,411	8,286	7,757	7,033	15,329	12,773	10,833	10,780	8,659	10,770	—	—	—	—
<i>Actuarial present value¹ of estimated future expenditures⁴ paid to or on behalf of:</i>															
Current participants ³ who, at start of projection period:															
Have not yet attained eligibility age (ages 15-64)	12,054	10,028	9,195	8,568	6,702	10,577	8,845	7,463	7,415	6,094	7,566	—	—	—	—
Have attained eligibility age (age 65 and over)	2,168	1,897	1,747	1,693	1,681	1,475	1,306	1,132	1,159	1,051	773	—	—	—	—
Those expected to become participants (under age 15)	3,246	2,653	2,470	2,225	1,349	3,277	2,622	2,238	2,206	1,514	2,431	—	—	—	—
All current and future participants	17,468	14,577	13,412	12,487	9,732	15,329	12,773	10,833	10,780	8,659	10,770	—	—	—	—
<i>Actuarial present value¹ of estimated future income (excluding interest) less expenditures</i>	-8,492	-6,166	-5,126	-4,730	-2,700	0	0	0	0	0	0	—	—	—	—
Trust fund assets at start of period	256	235	209	177	141	24	34	41	44	45	0	—	—	—	—
<i>Assets at start of period plus actuarial present value¹ of estimated future income (excluding interest) less expenditures</i>	-8,236	-5,931	-4,917	-4,553	-2,558	24	34	41	44	45	0	—	—	—	—
¹ Present values are computed on the basis of the intermediate set of economic and demographic assumptions specified in the Report of the Boards of Trustees for the year shown and over the 75-year projection period beginning January 1 of that year.															
² SMI income includes premiums paid by beneficiaries and general revenue contributions made on behalf of beneficiaries. Transfers from State Governments are also included as income for Part D of SMI. See footnote 2 concerning treatment of SMI general revenues in the consolidated financial statement of the U.S. Government.															
³ Current participants are the "closed group" of individuals age 15 and over at the start of each period, although not all those older than 15 have yet participated. The projection period covers 75 years, a period that covers most of their working and retirement years. As a practical matter, the present values of future income and expenditures from/for current participants beyond 75 years are not material to this calculation. The projection period for new entrants covers the next 75 years.															
⁴ Expenditures include benefit payments and administrative expenses.															
Note: Totals do not necessarily equal the sums of rounded components.															

Social Insurance Measurement and Display
Appendix 4 – Current Reporting: Selected United States Government 2004
Financial Statements

1 **Appendix 4 – Current Reporting: Selected United States Government 2004**
2 **Financial Statements**

3 **United States Government**
Balance Sheets
as of September 30, 2004, and September 30, 2003

(In billions of dollars)	2004	2003
Assets:		
Cash and other monetary assets (Note 2)	97.0	119.6
Accounts receivable, net (Note 3)	35.1	33.8
Loans receivable, net (Note 4)	220.9	221.1
Taxes receivable, net (Note 5)	21.3	22.9
Inventories and related property, net (Note 6)	261.5	252.7 ¹
Property, plant, and equipment, net (Note 7)	652.7	658.2
Other assets (Note 8)	108.8	97.1
Total assets	<u>1,397.3</u>	<u>1,405.4</u>
Liabilities:		
Accounts payable (Note 9)	60.1	62.2
Federal debt securities held by the public and accrued interest (Note 10)	4,329.4	3,944.9
Federal employee and veteran benefits payable (Note 11)	4,062.1	3,880.0
Environmental and disposal liabilities (Note 12)	249.2	249.9
Benefits due and payable (Note 13)	102.9	100.0
Loan guarantee liabilities (Note 4)	43.1	34.6
Other liabilities (Note 14)	260.3	228.0 ¹
Total liabilities	9,107.1	8,499.6
Contingencies (Note 18) and Commitments (Note 19)		
Net position	<u>(7,709.8)</u>	<u>(7,094.2)¹</u>
Total liabilities and net position	<u>1,397.3</u>	<u>1,405.4</u>

4

Social Insurance Measurement and Display
Appendix 4 – Current Reporting: Selected United States Government 2004
Financial Statements
United States Government
Statements of Net Cost
for the Years Ended September 30, 2004, and September 30, 2003

	Gross Cost	Earned Revenue	Net Cost	Gross Cost	Earned Revenue	Net Cost
(In billions of dollars)	2004			2003		
Department of Defense ^{1,2}	672.1	22.3	649.8	562.2	12.5	549.7
Department of Health & Human Services ^{1,2}	583.9	33.4	550.5	542.3	29.7	512.6
Social Security Administration	534.9	2.6	532.3	512.6	0.3	512.3
Interest on Treasury Securities held by the public	158.3	-	158.3	156.8	-	156.8
Department of Agriculture ^{1,2}	84.1	7.6	76.5	95.0	10.7	84.3
Department of the Treasury ^{1,2}	79.2	4.0	75.2	79.0	2.6	76.4
Department of Education	63.9	4.8	59.1	59.0	5.0	54.0
Department of Labor	58.6	-	58.6	68.1	-	68.1
Department of Transportation ^{1,2}	56.7	0.6	56.1	63.3	1.2	62.1
Department of Veterans Affairs	51.1	3.2	47.9	175.7	2.1	173.6
Department of Housing and Urban Development	41.8	1.3	40.5	44.1	2.0	42.1
Department of Homeland Security	45.7	5.7	40.0	27.5	2.6	24.9
Department of Justice ¹	35.4	0.8	34.6	30.7	1.3	29.4
Department of Energy ¹	27.3	4.9	22.4	2.0	5.3	(3.3)
National Aeronautics and Space Administration	17.3	0.1	17.2	12.9	0.1	12.8
Department of the Interior	18.8	2.2	16.6	16.0	4.7	11.3
Pension Benefit Guaranty Corporation	16.9	3.9	13.0	12.3	1.2	11.1
Department of State	13.9	1.3	12.6	12.7	1.4	11.3
Agency for International Development	10.7	0.1	10.6	10.3	0.1	10.2
Railroad Retirement Board	9.3	-	9.3	9.6	-	9.6
Environmental Protection Agency	9.5	0.3	9.2	9.5	0.4	9.1
Office of Personnel Management	22.3	13.9	8.4	0.3	-	0.3
Department of Commerce ¹	9.1	1.4	7.7	8.8	1.3	7.5
Federal Communications Commission	7.6	0.8	6.8	7.1	1.2	5.9
National Science Foundation	5.2	-	5.2	4.8	-	4.8
Small Business Administration ²	2.1	0.5	1.6	5.0	0.7	4.3
Federal Deposit Insurance Corporation	0.8	0.2	0.6	(0.2)	0.2	(0.4)
Nuclear Regulatory Commission	0.8	0.5	0.3	0.7	0.5	0.2
Tennessee Valley Authority ²	8.6	8.3	0.3	8.0	7.0	1.0
National Credit Union Administration	0.2	0.1	0.1	0.2	0.5	(0.3)
General Services Administration ¹	-	0.5	(0.5)	0.8	0.3	0.5
Export-Import Bank of the United States ²	1.3	2.7	(1.4)	(0.3)	0.3	(0.6)
U.S. Postal Service	54.0	68.0	(14.0)	81.5	67.6	13.9
All other entities	30.6	11.1	19.5	34.6	2.0	32.6
Total	2,732.0	207.1	2,524.9	2,652.9	164.8	2,488.1

1

Social Insurance Measurement and Display
Appendix 4 – Current Reporting: Selected United States Government 2004
Financial Statements
United States Government
Statements of Operations and Changes in Net Position
for the Years Ended September 30, 2004, and September 30, 2003

(In billions of dollars)	2004	2003
Revenue:		
Individual income tax and tax withholdings	1,512.3	1,481.3
Corporation income taxes	183.8	128.2
Unemployment taxes	36.8	31.2
Excise taxes	72.5	67.6
Estate and gift taxes	24.8	21.9
Customs duties	21.0	19.0
Other taxes and receipts	47.7	39.8
Miscellaneous earned revenues	13.8	7.0
Total revenue	1,912.7	1,796.0
 Less net cost of Government operations ¹	 2,524.9	 2,488.1
Unreconciled transactions affecting the change in net position (Note 16)	(3.4)	24.5
Net operating cost	<u>(615.6)</u>	<u>(667.6)</u>
 Net position, beginning of period	 <u>(7,094.2)</u>	 <u>(6,820.2)</u>
Change in accounting principle (Note 17)	-	383.1
Prior period adjustments (Note 17)	-	10.5
Net operating cost	<u>(615.6)</u>	<u>(667.6)</u>
 Net position, end of period	 <u>(7,709.8)</u>	 <u>(7,094.2)¹</u>

1

Social Insurance Measurement and Display
Appendix 4 – Current Reporting: Selected United States Government 2004
Financial Statements

Note 13. Benefits Due and Payable

These amounts are the benefits owed to program recipients or medical service providers as of the fiscal yearend that have not been paid. For a description of the programs, see the Stewardship Responsibilities section under Stewardship Information.

Benefits Due and Payable as of September 30

(In billions of dollars)	2004	2003
Federal Old-Age and Survivors Insurance	37.1	35.9
Grants to States for Medicaid	19.3	17.8
Federal Hospital Insurance (Medicare Part A)	15.0	15.0
Federal Supplementary Medical Insurance (Medicare Part B).....	14.8	15.3
Federal Disability Insurance	12.8	12.0
Supplemental security income.....	1.8	1.5
Unemployment insurance	1.1	1.5
Other benefits	1.0	1.0
Total benefits due and payable.....	<u>102.9</u>	<u>100.0</u>

1

Social Insurance Measurement and Display
Appendix 4 – Current Reporting: Selected United States Government 2004
Financial Statements

United States Government

Statements of Social Insurance

Present Value of Long-Range (75-Years, except Black Lung) Actuarial Projections

(In billions of dollars)	2004	2003	2002	2001	2000
Federal Old-Age, Survivors and Disability Insurance (Social Security):					
<i>Contributions and Earmarked Taxes from:</i>					
Participants who have attained age 62	411	359	348	309	286
Participants ages 15-61	14,388	13,578	13,048	12,349	11,335
Future participants (under age 15 and births during period) ..	12,900	12,213	11,893	11,035	10,088
All current and future participants	27,699	26,147	25,289	23,693	21,699
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained age 62	4,933	4,862	4,401	4,256	4,020
Participants ages 15-61	22,418	21,015	20,210	18,944	17,217
Future participants (under age 15 and births during period) ..	5,578	5,398	5,240	4,700	4,297
All current and future participants	32,928	31,075	29,851	27,900	25,534
Present value of future expenditures less future revenue ..	5,229 ¹	4,927 ²	4,562 ³	4,207 ⁴	3,845 ⁵
Federal Hospital Insurance (Medicare Part A):					
<i>Contributions and Earmarked Taxes from:</i>					
Participants who have attained eligibility age	148	128	125	113	97
Participants who have not attained eligibility age	4,820	4,510	4,408	4,136	3,757
Future participants	4,009	3,773	3,753	3,507	3,179
All current and future participants	8,976	8,411	8,286	7,756	7,033
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	2,168	1,897	1,747	1,693	1,681
Participants who have not attained eligibility age	12,054	10,028	9,195	8,568	8,702
Future participants	3,246	2,653	2,470	2,225	1,349
All current and future participants	17,468	14,577	13,412	12,487	9,732
Present value of future expenditures less future revenue ..	8,492 ¹	6,166 ²	5,126 ³	4,730 ⁴	2,699 ⁵
Federal Supplementary Medical Insurance (Medicare Part B):					
<i>Premiums:</i>					
Participants who have attained eligibility age	332	284	252	258	234
Participants who have not attained eligibility age	2,665	2,148	1,856	1,845	1,527
Future participants	891	688	600	593	404
All current and future participants	3,889	3,120	2,708	2,696	2,165
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	1,475	1,308	1,132	1,159	1,051
Participants who have not attained eligibility age	10,577	8,845	7,483	7,415	6,094
Future participants	3,277	2,622	2,238	2,206	1,514
All current and future participants	15,329	12,773	10,833	10,780	8,659
Present value of future expenditures less future revenue ⁶ ..	11,440 ¹	9,653 ²	8,125 ³	8,084 ⁴	6,494 ⁵
Federal Supplementary Medical Insurance (Medicare Part D):					
<i>Premiums:</i>					
Participants who have attained eligibility age	176				
Participants who have not attained eligibility age	1,857				
Future participants	618				
All current and future participants	2,651				
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	773				
Participants who have not attained eligibility age	7,566				
Future participants	2,431				
All current and future participants	10,770				
Present value of future expenditures less future revenue ⁶ ..	8,119 ¹				

1

Social Insurance Measurement and Display
Appendix 5 – Current Reporting: Social Security Trustees’ Annual Report, Table of Contents

Appendix 5 – Current Reporting: Social Security Trustees’ Annual Report, Table of Contents

3

CONTENTS

I. INTRODUCTION	1
II. OVERVIEW	2
A. HIGHLIGHTS	2
B. TRUST FUND FINANCIAL OPERATIONS IN 2004	4
C. ASSUMPTIONS ABOUT THE FUTURE	6
D. PROJECTIONS OF FUTURE FINANCIAL STATUS	7
E. CONCLUSION.....	16
III. FINANCIAL OPERATIONS OF THE TRUST FUNDS AND LEGISLATIVE CHANGES IN THE LAST YEAR	18
A. OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE (OASI) AND DISABILITY INSURANCE (DI) TRUST FUNDS, IN CALENDAR YEAR 2004	18
1. OASI Trust Fund.....	18
2. DI Trust Fund	22
3. OASI and DI Trust Funds, Combined	24
B. SOCIAL SECURITY AMENDMENTS SINCE THE 2004 REPORT	28
IV. ACTUARIAL ESTIMATES.....	29
A. SHORT-RANGE ESTIMATES	29
1. Operations of the OASI Trust Fund.....	30
2. Operations of the DI Trust Fund	33
3. Operations of the Combined OASI and DI Trust Funds	37
4. Factors Underlying Changes in 10-Year Trust Fund Ratio Estimates From the 2004 Report.....	38
B. LONG-RANGE ESTIMATES	40
1. Annual Income Rates, Cost Rates, and Balances	41
2. Comparison of Workers to Beneficiaries	46
3. Trust Fund Ratios	49
4. Summarized Income Rates, Cost Rates, and Balances	53
5. Additional Measures of OASDI Unfunded Obligations	57
6. Test of Long-Range Close Actuarial Balance	60
7. Reasons for Change in Actuarial Balance From Last Report ..	64

4

5

Social Insurance Measurement and Display

Appendix 5 – Current Reporting: Social Security Trustees’ Annual Report, Table of Contents

V. ASSUMPTIONS AND METHODS UNDERLYING	
ACTUARIAL ESTIMATES	69
A. DEMOGRAPHIC ASSUMPTIONS AND METHODS	70
1. Fertility Assumptions	70
2. Mortality Assumptions	71
3. Immigration Assumptions	73
4. Total Population Estimates	76
5. Life Expectancy Estimates	78
B. ECONOMIC ASSUMPTIONS AND METHODS	82
1. Productivity Assumptions	82
2. Price Inflation Assumptions	83
3. Average Earnings Assumptions	84
4. Assumed Real-Wage Differentials	86
5. Labor Force and Unemployment Projections	88
6. Gross Domestic Product Projections	90
7. Interest Rate Projections	91
C. PROGRAM-SPECIFIC ASSUMPTIONS AND METHODS	95
1. Automatically Adjusted Program Amounts	95
2. Covered Employment	102
3. Taxable Payroll and Payroll Tax Revenue	103
4. Insured Population	104
5. Old-Age and Survivors Insurance Beneficiaries	106
6. Disability Insurance Beneficiaries	112
7. Average Benefits	119
8. Benefit Payments	120
9. Administrative Expenses	120
10. Railroad Retirement Financial Interchange	120
11. Benefits to Uninsured Persons	121
12. Military-Service Transfers	121
13. Income From Taxation of Benefits	121
VI. APPENDICES	123
A. HISTORY OF OASI AND DI TRUST FUND OPERATIONS	123
B. HISTORY OF ACTUARIAL BALANCE ESTIMATES	137
C. FISCAL YEAR HISTORICAL DATA AND PROJECTIONS	
THROUGH 2014	142

Social Insurance Measurement and Display
Appendix 6 – Current Reporting: Selected PBGC 2004 Financial Statements

**Appendix 6 – Current Reporting: Selected Pension Benefit Guarantee Corporation
2004 Financial Statements**

Pension Benefit Guaranty Corporation
Statements of Financial Condition

	Single-Employer Program		Multiemployer Program		Memorandum Total	
	September 30,		September 30,		September 30,	
<i>(Dollars in millions)</i>	2004	2003	2004	2003	2004	2003
LIABILITIES						
Present value of future benefits, net (Note 4):						
Trusteed plans	\$ 43,344	\$ 38,904	\$ 3	\$ 3	\$ 43,347	\$ 38,907
Terminated plans pending trusteeship	501	463	0	0	501	463
Settlements and judgments	65	67	0	0	65	67
Claims for probable terminations	16,926	5,207	0	0	16,926	5,207
Total present value of future benefits, net	60,836	44,641	3	3	60,839	44,644
Present value of nonrecoverable future financial assistance (Note 5)			1,295	1,250	1,295	1,250
Unearned premiums (Note 9)	223	207	8	8	231	215
Due for purchases of securities	531	127	0	0	531	127
Accounts payable and accrued expenses (Note 6)	708	279	0	0	708	279
Total liabilities	62,298	45,254	1,306	1,261	63,604	46,515
Net position	(23,305)	(11,238)	(236)	(261)	(23,541)	(11,499)
Total liabilities and net position	\$ 38,993	\$ 34,016	\$1,070	\$1,000	\$ 40,063	\$ 35,016

Social Insurance Measurement and Display
Appendix 6 – Current Reporting: Selected PBGC 2004 Financial Statements

Pension Benefit Guaranty Corporation
Statements of Operations and Changes in Net Position

	Single-Employer Program		Multiemployer Program		Memorandum Total	
	For the Years Ended September 30,		For the Years Ended September 30,		For the Years Ended September 30,	
<i>(Dollars in millions)</i>	2004	2003	2004	2003	2004	2003
UNDERWRITING:						
Income:						
Premium (Note 9)	\$ 1,458	\$ 948	\$ 27	\$ 25	\$ 1,485	\$ 973
Other	24	28	0	0	24	28
Total	1,482	976	27	25	1,509	1,001
Expenses:						
Administrative	263	271	0	0	263	271
Other	(36)	97	0	0	(36)	97
Total	227	368	0	0	227	368
Other underwriting activity:						
Losses from completed and probable terminations (Note 10)	14,707	5,377	0	0	14,707	5,377
Losses from financial assistance (Note 5)			55	480	55	480
Actuarial adjustments (Note 4)	1,525	108	1	1	1,526	109
Total	16,232	5,485	56	481	16,288	5,966
Underwriting loss	(14,977)	(4,877)	(29)	(456)	(15,006)	(5,333)
FINANCIAL:						
Investment income (Note 11):						
Fixed	983	1,276	54	37	1,037	1,313
Equity	2,196	2,059	0	0	2,196	2,059
Other	18	14	0	0	18	14
Total	3,197	3,349	54	37	3,251	3,386
Expenses:						
Investment	25	19	0	0	25	19
Actuarial charges (Note 4):						
Due to passage of time	1,881	1,770	0	0	1,881	1,770
Due to change in interest rates	(1,619)	4,283	0	0	(1,619)	4,283
Total	287	6,072	0	0	287	6,072
Financial income (loss)	2,910	(2,723)	54	37	2,964	(2,686)
Net income (loss)	(12,067)	(7,600)	25	(419)	(12,042)	(8,019)
Net position, beginning of year	(11,238)	(3,638)	(261)	158	(11,499)	(3,480)
Net position, end of year	\$(23,305)	\$(11,238)	\$(236)	\$(261)	\$(23,541)	\$(11,499)

1
2
3

Social Insurance Measurement and Display

Appendix 6 – Current Reporting: Selected PBGC 2004 Financial Statements

Note 2 — Significant Accounting Policies

1

PRESENT VALUE OF FUTURE BENEFITS (PVFB): The PVFB is the estimated liability for future pension benefits that PBGC is or will be obligated to pay the participants of trustee plans and terminated plans pending trusteeship. This liability is stated as the actuarial present value of estimated future benefits less the present value of estimated recoveries from sponsors and members of their controlled group and the assets of terminated plans pending trusteeship as of the date of the financial statements. PBGC also includes the estimated liabilities attributable to probable future plan terminations as a separate line item in the PVFB (net of estimated recoveries and assets). PBGC uses assumptions to adjust the value of those future payments to reflect the time value of money (by discounting) and the probability of payment (by means of decrements, such as for death or retirement). PBGC also includes anticipated expenses to settle the benefit obligation in the determination of the PVFB. PBGC's benefit payments to participants represent a reduction to the PVFB liability.

The values of the PVFB are particularly sensitive to changes in underlying estimates and assumptions. These estimates and assumptions could change and the impact of these changes may be material to PBGC's financial statements (see Note 4).

2
3

- (1) Trustee Plans — represents the present value of future benefit payments less the present value of expected recoveries (for

4
5

Social Insurance Measurement and Display

Appendix 6 – Current Reporting: Selected PBGC 2004 Financial Statements

which a settlement agreement has not been reached with sponsors and members of their controlled group) for plans that have terminated and been trustee by PBGC prior to fiscal year-end.

- (2) Terminated Plans Pending Trusteeship — represents the present value of future benefit payments less the plans' net assets (at fair value) anticipated to be received and the present value of expected recoveries (for which a settlement agreement has not been reached with sponsors and members of their controlled group) for plans that have terminated but have not been trustee by PBGC prior to fiscal year-end.
- (3) Settlements and Judgments — represents estimated liabilities related to settled litigation.
- (4) Net Claims for Probable Terminations — In accordance with Statement of Financial Accounting Standards No. 5 (Accounting for Contingencies) PBGC recognizes net claims for probable terminations which represent PBGC's best estimate of the losses, net of plan assets and the present value of expected recoveries (from sponsors and members of their controlled group) for plans that are likely to terminate in a future year. These estimated losses are based on conditions that existed as of PBGC's fiscal year-end. Management believes it is likely that one or more events subsequent to PBGC's fiscal year-end will occur, confirming the loss. Criteria used for classifying a specific plan as a probable termination include, but are not limited to, one or more of the following conditions: the plan sponsor is in liquidation or comparable state insolvency proceeding with no known solvent controlled group member; sponsor filed or intends to file for distress plan termination; or PBGC seeks involuntary plan termination. In addition, management takes into account other economic events and factors in making judgments regarding the classification of a plan as a probable termination. These events and factors may include, but are not limited to: the plan sponsor is in bankruptcy or has indicated that a bankruptcy filing is imminent; the plan sponsor has stated that plan termination is likely; the plan sponsor has received a going concern opinion from its independent auditors; or the plan sponsor is in default under existing credit agreement(s).

In addition, a reserve for large unidentified probable losses is recorded based on actual PBGC experience, as well as the historical industry bond default rates. This reserve has been developed by segregating plan sponsors with aggregate under-

funding equal to or greater than \$5 million into risk bands which reflect their level of credit risk. A reserve for small unidentified probable losses and incurred but not reported claims is also recorded based on an actuarial loss development methodology (triangulation) (see Note 4).

- (5) PBGC identifies certain plans as high risk if the plan sponsor meets one or more criteria that include, but are not limited to, the following conditions: sponsor is in Chapter 11 proceedings; sponsor received a minimum funding waiver within the past five years; sponsor granted security to an unsecured creditor as part of a renegotiation of debt within the past two years; sponsor is known to have been in default on existing debt within the past two years (regardless of whether it received a waiver of default); or sponsor's unsecured debt is rated CCC+/Caa1 or lower by S&P or Moody's respectively. PBGC specifically reviews each plan identified as high risk and classifies those plans as probable if, based on available evidence, PBGC concludes that plan termination is likely. Otherwise, high risk plans are classified as reasonably possible.
- (6) In accordance with Statement of Financial Accounting Standards No. 5 (Accounting for Contingencies), PBGC's exposure to losses from plans of companies that are classified as reasonably possible is disclosed in footnotes. Criteria used for classifying a company as a reasonably possible include, but are not limited to, one or more of the following conditions: the plan sponsor is in Chapter 11 reorganization; funding waiver pending or outstanding with the Internal Revenue Service (IRS); sponsor missed minimum funding contribution; sponsor's bond rating is below-investment-grade for Standard & Poor's (BB+) or Moody's (Ba1); sponsor has no bond rating but unsecured debt is below investment grade; or sponsor has no bond rating but the ratio of long-term debt plus unfunded benefit liability to market value of shares is 1.5 or greater (see Note 7).

PRESENT VALUE OF NONRECOVERABLE FUTURE FINANCIAL ASSISTANCE: In accordance with Title IV of ERISA, PBGC provides financial assistance to multiemployer plans, in the form of loans, to enable the plans to pay guaranteed benefits to participants and reasonable administrative expenses. These loans, issued in exchange for interest-bearing promissory notes, constitute an obligation of each plan.

The present value of nonrecoverable future financial assistance represents the estimated nonrecoverable payments to be provided by PBGC in the future to multiemployer plans that will not be able to meet their

Social Insurance Measurement and Display

Appendix 7 – Pro Forma Statement of Social Insurance

Appendix 7 – Pro Forma Statement of Social Insurance

Illustrating a Line for an Accrued Liability.

The following table contains a pro forma statement of social insurance (SOSI) that illustrates what the SOSI might look like if it added lines linked to accrued liabilities on the balance sheet. The table presents disaggregated information regarding the present SOSI line item for Social Security participants age 15-61. It presents lines for (1) benefits accrued for participants having attained 40 quarters of work in covered employment (40 QC), which would relate to the balance sheet if the 40 QC obligating event were used for liability determination; (2) benefits accrued for participants without 40 QC; and (3) benefits to be accrued by these participants in the future. Similar pro forma lines are added to the Medicare sections. This pro forma SOSI also illustrates a total “accrued benefit obligation,” which would represent the accrual of all costs attributable to past work in covered employment for all participants regardless of whether they have attained 40 QC. It leaves open decisions about measurement methodology.

United States Government Statement of Social Insurance Present Value of Long-Range (75-Years) Actuarial Projections

	2004	2003	2002	2001	2000
Federal Old-Age, Survivors and Disability Insurance (Social Security)					
<i>Contributions and Earmarked Taxes from:</i>					
1. Participants who have attained age 62.....	411	359	348	309	266
2. Participants ages 15-61	14,388	13,576	13,048	12,349	11,335
3. Future participants (< age 15 + births + immigrants during the periods)	<u>12,900</u>	<u>12,213</u>	<u>11,893</u>	<u>11,035</u>	<u>10,088</u>
4. All Current and future participants (lines 1 + 2 + 3).....	<u>27,699</u>	<u>26,147</u>	<u>25,289</u>	<u>23,693</u>	<u>21,689</u>
<i>Expenditures for Scheduled Future Benefits for:</i>					
5. Participants who have attained age 62.....	4,933	4,662	4,401	4,256	4,020
6. Participants ages 15-61:	[22,418]	[21,015]	[20,210]	[18,944]	[17,217]
6a. Benefits accrued for those with 40 QC	XXX	XXX	XXX	XXX	XXX
6b. Liability on the balance sheet (lines 5 + 6a)	XXX	XXX	XXX	XXX	XXX
6c. Benefits accrued for those without 40 QC	XXX	XXX	XXX	XXX	XXX
6d. Accrued benefit obligation (lines 6b + 6c)	XXX	XXX	XXX	XXX	XXX
6e. Benefits to be accrued in future.....	XXX	XXX	XXX	XXX	XXX
7. Future participants (< age 15 + births + immigrants during the periods)	<u>5,578</u>	<u>5,398</u>	<u>5,240</u>	<u>4,700</u>	<u>4,297</u>
8. All Current and future participants (lines 6d + 6e + 7).....	<u>32,928</u>	<u>31,075</u>	<u>29,851</u>	<u>27,900</u>	<u>25,534</u>
9. Present value of future expenditures less future revenue (lines 8 – 4).....	<u>5,229</u>	<u>4,927</u>	<u>4,562</u>	<u>4,207</u>	<u>3,845</u>

Social Insurance Measurement and Display

Appendix 7 – Pro Forma Statement of Social Insurance

Federal Hospital Insurance (Medicare Part A):					
<i>Contributions and Earmarked Taxes from:</i>					
10. Participants who have attained eligibility age.....	148	128	125	113	97
11. Participants who have not attained eligibility age.....	4,820	4,510	4,408	4,136	3,757
12. Future participants	<u>4,009</u>	<u>3,773</u>	<u>3,753</u>	<u>3,507</u>	<u>3,179</u>
13. All Current and future participants (lines 10 + 11 + 12).....	<u>8,976</u>	<u>8,411</u>	<u>8,286</u>	<u>7,756</u>	<u>7,033</u>
<i>Expenditures for Scheduled Future Benefits for:</i>					
14. Participants who have attained eligibility age	2,168	1,897	1,747	1,693	1,681
15. Participants who have not attained eligibility age:	[12,054]	[10,028]	[9,195]	[8,568]	[6,702]
15a. Benefits accrued for those with 40 QC	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
15b. Liability on the balance sheet (lines 14 + 15a)	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
15c. Benefits accrued for those without 40 QC	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
15d. Accrued benefit obligation (lines 15b + 15c)	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
15e. Benefits to be accrued in future	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
16. Future participants	<u>3,246</u>	<u>2,653</u>	<u>2,470</u>	<u>2,225</u>	<u>1,349</u>
17. All Current and future participants (lines 15d + 15e + 16)	<u>17,468</u>	<u>14,577</u>	<u>13,412</u>	<u>12,487</u>	<u>9,732</u>
18. Present value of future expenditures less future revenue (lines 17 – 13) ...	<u>8,492</u>	<u>6,166</u>	<u>5,126</u>	<u>4,730</u>	<u>2,699</u>
Federal Supplementary Medical Insurance (Medicare Part B):					
<i>Contributions and Earmarked Taxes from:</i>					
19. Participants who have attained eligibility age	332	284	252	258	234
20. Participants who have not attained eligibility age	2,665	2,148	1,856	1,845	1,527
21. Future participants	<u>891</u>	<u>688</u>	<u>600</u>	<u>593</u>	<u>404</u>
22. All Current and future participants (lines 19 + 20 + 21).....	<u>3,889</u>	<u>3,120</u>	<u>2,708</u>	<u>2,696</u>	<u>2,165</u>
<i>Expenditures for Scheduled Future Benefits for:</i>					
23. Participants who are enrolled in SMI/Part B – balance sheet liability	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
24. Participants who have attained eligibility age without enrolling.....	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
25. Participants who have attained eligibility age (lines 23 + 24)	1,475	1,306	1,132	,159	1,051
26. Participants who have not attained eligibility age.....	10,577	[8,845]	[7,463]	[7,415]	[6,094]
27. Future participants	<u>3,277</u>	<u>2,622</u>	<u>2,238</u>	<u>2,205</u>	<u>1,514</u>
28. All Current and future participants (lines 25 + 26 + 27).....	<u>15,329</u>	<u>12,773</u>	<u>10,833</u>	<u>10,780</u>	<u>8,659</u>
29. Present value of future expenditures less future revenue (lines 28 – 22).....	<u>11,440</u>	<u>9,653</u>	<u>8,125</u>	<u>8,084</u>	<u>6,494</u>
Federal Supplementary Medical Insurance (Medicare Part D):					
<i>Premiums:</i>					
30. Participants who have attained eligibility age	176				
31. Participants who have not attained eligibility age	1,857				
32. Future participants	<u>618</u>				
33. All Current and future participants (lines 30 + 31 + 32).....	<u>2,651</u>				

Social Insurance Measurement and Display
Appendix 7 – Pro Forma Statement of Social Insurance

<i>Expenditures for Scheduled Future Benefits for:</i>					
34. Participants who are enrolled in SMI/Part D – balance sheet liability		XXX			
35. Participants who have attained eligibility age without enrolling.....		<u>XXX</u>			
36. Participants who have attained eligibility age.....		773			
37. Participants who have not attained eligibility age.....		7,566			
38. Future participants		<u>2,431</u>			
39. All Current and future participants (lines 36 + 37 + 38).....		<u>10,770</u>			
40. Present value of future expenditures less future revenue (lines 39 – 33)		<u>8,119</u>			

1
2
3

Social Insurance Measurement and Display

Appendix 8 – Beneficiary Projections

1 Appendix 8 – Beneficiary Projections

Table 24–4. BENEFICIARY PROJECTIONS FOR MAJOR BENEFIT PROGRAMS

(Annual average, in thousands)

	2003 Actual	Estimate					
		2004	2005	2006	2007	2008	2009
Farmer direct payments	1,997	1,957	1,957	1,938	1,918	1,899	1,880
Federal family education loans	5,980	6,302	6,556	6,726	6,855	7,216	7,588
Federal direct student loans	2,073	2,163	2,275	2,382	2,507	2,635	2,768
Medicaid/State Children's Health Insurance Program	46,000	47,900	48,300	48,600	49,000	49,300	49,600
Medicare-eligible military retiree health benefits	1,634	1,682	1,720	1,754	1,788	1,827	1,863
Medicare:							
Hospital insurance	40,467	41,198	41,880	42,561	43,294	44,111	45,053
Supplementary medical insurance	38,369	38,928	39,477	40,028	40,619	41,282	42,054
Railroad retirement	629	614	599	585	573	562	553
Federal civil service retirement	2,383	2,386	2,407	2,441	2,473	2,505	2,538
Military retirement	2,006	2,030	2,052	2,074	2,099	2,118	2,132
Unemployment compensation	10,340	10,190	10,050	9,930	9,830	9,830	9,910
Food stamps	21,264	23,690	24,872	24,201	23,596	23,077	22,645
Child nutrition	31,194	31,929	32,427	32,941	33,448	33,966	34,494
Foster care and adoption assistance	558	584	609	638	668	700	733
Supplemental security income (SSI):							
Aged	1,150	1,134	1,122	1,113	1,107	1,104	1,102
Blind/disabled	5,403	5,577	5,745	5,877	5,975	6,049	6,116
Subtotal, SSI	6,553	6,711	6,867	6,990	7,082	7,153	7,218
Child care and development fund ¹	2,500	2,400	2,400	2,300	2,300	2,200	2,200
Social security (OASDI):							
Old age and survivor insurance	39,254	39,588	39,969	40,382	40,899	41,524	42,256
Disability insurance	7,330	7,664	7,996	8,302	8,587	8,855	9,082
Veterans compensation:							
Veterans	2,445	2,548	2,607	2,691	2,773	2,848	2,897
Survivors (non-veterans)	312	323	328	334	341	349	357
Subtotal, veterans compensation	2,757	2,871	2,935	3,025	3,114	3,197	3,254
Veterans pensions:							
Veterans	345	344	343	340	337	334	330
Survivors (non-veterans)	226	218	208	199	190	182	175
Subtotal, veterans pensions	571	562	551	539	527	516	505

¹ Includes children served through the CCDF (including TANF transfers) and through funds spent directly on child care in the Social Services Block Grant and TANF programs.