December 29, 2006

Memorandum

To: Members of the Board

From: Eileen W. Parlow, Assistant Director

Through: Wendy M. Comes, Executive Director

Subj: Fiscal Sustainability Reporting- Tab C

Attached for your review and comments is a draft briefing package for members of the Fiscal Sustainability Task Force.

At the Board meeting, staff will provide an update of members who have accepted invitations to participate. As of this writing, Joseph Antos, Jagadeesh Gokhale, Stephen Goss and Allen Schick have agreed to participate as technical experts. We anticipate adding one or two additional technical experts, as well as representatives from OMB, GAO and CBO.

The goal of the task force is to recommend reporting requirements on fiscal sustainability that would be informative and meaningful to financial statement users.

- The technical experts will recommend content for the report.
- A subsequent “financial statement users/communications” group will review the recommendations of the technical experts and discuss reporting options that would maximize the understandability of the information presented.

A meeting of the technical experts has been tentatively scheduled for March 9, 2007.

Please feel free to contact me at 202-512-7356 or by email at parlowe@fasab.gov to discuss any comments or questions you may have.

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1 The staff prepares Board meeting materials to facilitate discussion of issues at the Board meeting. 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.
[Date]

[Name, title]

Dear ______,

Thank you for accepting the Board’s invitation to participate in a Task Force on Fiscal Sustainability Reporting. Your participation will assist the Board in improving reporting to the public about the long-term fiscal outlook of the U.S. Government.

This briefing package contains the following:

1. The Issue ............................................................................................................................ 3
2. Plan to Address the Issue .................................................................................................... 4
4. Existing Reporting in (a) the Budget of the U.S. Government and (b) the Trustees Reports for Social Security and Medicare .............................................................................. 9
5. Suggested Topics for Consideration by the Task Force .............................................. 10

The first meeting will be held on March 9, 2007 from 9:00 A.M. to 12:00 noon in room 7B16 at 441 G Street, N.W., Washington, DC. (A second meeting may be convened, if necessary.)

If you have any questions, concerns or comments, please contact Ms. Eileen Parlow, Assistant Director and project manager, at 202-512-7357, e-mail ParlowE@fasab.gov or myself at 202-512-7356, e-mail ComesW@fasab.gov

I look forward to working with you on this important issue.

Sincerely,

Wendy M. Comes
Executive Director
1. The Issue

The Federal Accounting Standards Advisory Board (FASAB) develops “generally accepted accounting principles” (GAAP) for the federal government. (For more information on the FASAB’s organization and mission, see http://www.fasab.gov/aboutfasab.html)

The FASAB is considering what information would be most likely to enable readers of federal financial reports to determine whether future budgetary resources will likely be sufficient to sustain public services and to meet obligations as they come due. Ultimately, this may enhance the public’s understanding of long-term fiscal issues.

Many believe that federal financial reports currently do not adequately address the federal financial reporting objective, titled “stewardship,” presented below.

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

a) the government’s financial position improved or deteriorated over the period,
b) future budgetary resources will likely be sufficient to sustain public services and to meet obligations as they come due, and

SFFAC 1 indicates that “financial condition” is a broader and more forward-looking concept than that of “financial position” as reported via the balance sheet. Reporting on financial condition requires information about the national economy and society, as well as about the government itself. 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. Many of the examples provided in SFFAC 1 suggest a projection of the economy as a whole to provide a context against which to assess budget projections. (SFFAC 1, par. 144-145)

Although the annual Financial Report of the U.S. Government includes a Statement of Social Insurance and extensive accompanying information, it may not adequately address the financial condition of the government as a whole, particularly regarding projected long-term fiscal imbalances. In its audit report on the Fiscal Year (FY) 2006 Financial Report of the U.S. Government, the Government Accountability Office (GAO) noted the following:

The Nation’s Fiscal Imbalance
While we are unable to express an opinion on the U.S. government’s consolidated financial statements, the following key items deserve emphasis in
order to put the information contained in the financial statements and the Management’s Discussion and Analysis section of the 2006 Financial Report of the United States Government into context. Despite improvement in both the fiscal year 2006 reported net operating cost and the cash-based budget deficit, the U.S. government’s total reported liabilities, net social insurance commitments, and other fiscal exposures continue to grow and now total approximately $50 trillion, representing approximately four times the Nation’s total output (GDP) in fiscal year 2006, up from about $20 trillion, or two times GDP in fiscal year 2000. As this long-term fiscal imbalance continues to grow, the retirement of the “baby boom” generation is closer to becoming a reality with the first wave of boomers eligible for early retirement under Social Security in 2008. Given these and other factors, it seems clear that the nation’s current fiscal path is unsustainable and that tough choices by the President and the Congress are necessary in order to address the nation’s large and growing long-term fiscal imbalance.2

The bipartisan Concord Coalition, in partnership with the Heritage Foundation, the Brookings Institution, the AICPA, the AARP and other organizations, has been conducting a “Fiscal Wake-Up Call Tour” in an attempt to inform the American public of the nation’s long-term fiscal imbalances. (For further information, see http://www.concordcoalition.org/about.html and “Tour Q&A” at http://www.gao.gov/special.pubs/longterm/tourqa.html)

Attached is a copy of a presentation given at a Fiscal Wake-Up Tour event by the Comptroller General entitled Saving Our Future Requires Tough Choices Today, (Denver, Colorado, November 28, 2006, GAO-07-269CG).

Attached for additional detail and background are:

- Opening Remarks at the [Congressional Budget Office] Director’s Conference on Long-Term Budget Challenges, December 8, 2006

In addition, enclosed is a bound copy of the 2006 Financial Report of the U.S. Government.

[Note: Omitted from Board briefing material since it is provided separately.]

2. Plan to Address the Issue

The Board is requesting the recommendations of a task force with technical experts relevant to the issues. A list of members is presented as Attachment 7. [To be provided at the January Board meeting.]

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A subsequent “financial statement users/communications experts” group will review the recommendations of the technical experts and discuss reporting options that would maximize the understandability of the information presented. This group will include members of Congress, the media, and academia.

Note: Suggested topics for consideration by the Task Force members are in section 5 on page 10 of this document.

Next Steps

a) A roundtable meeting for the “Technical Experts” is scheduled for March 9, 2007 to discuss the views of task force members on the technical issues and recommendations that individual members wish to make. A second meeting may be convened, if necessary.

b) After this meeting, FASAB staff will draft a white paper to convey the group’s views and recommendations for the “Financial Statement Users/Communications Experts” group. The technical experts will be asked to review the draft white paper to ensure that their views and recommendations are adequately presented.

c) The Financial Statement Users/Communications Experts group will meet (tentatively in late May 2007) to discuss communications options. The technical experts may also opt to attend this meeting, if desired.

c) FASAB staff will write up the tentative recommendations and alternative proposals resulting from the above. Members of both the technical and communications groups will be asked to review and comment on this document (tentatively in late July 2007).

d) After review by task force members, FASAB staff will present recommendations to the FASAB Board for consideration at the September 2007 Board meeting. The FASAB Board will review the recommendations of the task force and will deliberate on whether new reporting standards should be proposed. A resulting proposal would be documented in an Exposure Draft and released for public comment.


Existing Reporting Requirements for the Financial Report of the U.S. Government: Overall Long-Term Fiscal Outlook

Current reporting requirements for the U.S. Government’s long-term fiscal outlook are contained in paragraphs 3 and 6 of Statement of Federal Financial Accounting Standards (SFFAS) 15, Management Discussion and Analysis, (MD&A) as follows:

[3] MD&A should include forward-looking information regarding the possible future effects of the most important existing, currently-known demands, risks, uncertainties, events, conditions and trends. MD&A may also include forward-
looking information about the possible effects of anticipated future demands, events, conditions, and trends.\(^3\) Forward-looking information may comprise a separate section of MD&A or may be incorporated with the sections listed above. MD&A should deal with the "vital few" matters; i.e., the most important matters that will probably affect the judgments and decisions of people who rely on the GPFFR as a source of information. (The specific topics mentioned in Concepts for Management’s Discussion and Analysis are examples of items that might be relevant for MD&A of a given entity.) Matters to be discussed and analyzed are those that management of the reporting entity believes it is reasonable to assume could:

- lead to significant actions or proposals by top management of the reporting unit;
- be significant to the managing, budgeting, and oversight functions of Congress and the Administration; or
- significantly affect the judgment of citizens about the efficiency and effectiveness of their Federal Government.\(^4\)

The FASAB elaborated on the above requirements in its companion concept statement, Statement of Federal Financial Accounting Concepts 3, Management’s Discussion and Analysis. Paragraphs 32 through 36 below explain the Board’s expectations regarding future effects.

[32] Future Effects of Current Demands, Risks, Uncertainties, Events, Conditions and Trends—The discussion of these current factors should go beyond a mere description of existing conditions, such as demographic characteristics, claims, deferred maintenance, commitments\(^{13}\) undertaken, and major unfunded liabilities, to include a discussion of the possible future effect of those factors. (This discussion of possible future effect of existing, currently-known factors is required pursuant to the standards in Standards for Management’s Discussion and Analysis.)

\(^3\)The word "anticipated" is used in a broad, generic sense in this document. In this context the term may encompass both "probable" losses arising from events that have occurred, which should be recognized on the face of the basic or "principal" financial statements, as well as "reasonably possible" losses arising from events that have occurred, which should be disclosed in notes to those statements. "Anticipated" may include the effects of future events that are deemed probable, for which a financial forecast would be appropriate. The term may also encompass hypothetical future trends or events that are not necessarily deemed probable, for which financial projections may be appropriate. Such information about the possible effects of anticipated future demands, events, conditions and trends, if presented, should include the term or label "projected" or "projection," and the key hypothetical underlying assumptions should be explained. As with other information presented in MD&A, no examination of this information by the auditor is now routinely included within the scope of an audit of a federal entity's financial statements; however, preparers and auditors may find useful background information in the AICPA's Statements on Standards for Attestation Engagements Nos. 1 and 4, codified as section 200, "Financial Forecasts and Projections," of the AICPA's Codification of Statements on Standards for Attestation Engagements.

\(^4\) SFFAS 15, pars. 3 and 6.
[33] Future Effects of Anticipated Future Events, Conditions, and Trends—To the extent feasible and appropriate, the discussion should also encompass the possible future effects of anticipated future events, conditions, and trends, although this additional information is not required by the standards for MD&A. For example, MD&A might discuss the possible future effect of anticipated trends in the cost of inputs that may significantly affect future output costs. Other examples include the future effect of anticipated demographic trends, such as declining mortality rates, and the future effects of potential changes in behavior that may be caused by changes in Government programs. Such behavioral changes can greatly affect the future cost of some Governmental programs. For example, such effects can arise if subsidized insurance encourages the people or entities most at risk to participate in insurance programs (“adverse selection”) or encourages risky behavior (“moral hazard”).

[34] An anticipated condition such as a prospective demographic trend or potential behavioral change may not, in itself, constitute a contingency or assumed risk that must be recognized, disclosed, or reported pursuant to SFFAS 5. Likewise, it may not be something that must be discussed in MD&A pursuant to the Standards for Management’s Discussion and Analysis. Even so, if there is a reasonable prospect of a major effect on the reporting entity due to the anticipated condition, then MD&A should include this information to the extent feasible.

[35] Where appropriate, the description of possible future effects of both existing and anticipated factors should include quantitative forecasts* or projections*. Such forecasts or projections can show the implications of existing policies and conditions in light of anticipated or reasonably possible future conditions. For example, for MD&A of the Government-wide financial statements, long-term projections of the deficit or surplus may be important indicators of financial condition and sustainability. For insurance programs, this kind of projection—which actuaries sometimes call “dynamic analysis”—would consider possible interactions among current assets, reserves, policies in force, expected future business or populations covered by the insurance, and potential behavioral changes such as adverse selection and moral hazard, if appropriate. Some programs are interrelated among themselves and/or with conditions in the private sector. For example, flood insurance programs and disaster assistance programs may be related to such an extent that analysis of programs individually would not provide a good idea of their potential impact on the Government. To the extent feasible, projections should consider the potential implications of such relationships.

[36] The future implications of current or anticipated factors often can better be expressed as a range of possible outcomes and associated probabilities than as a single point estimate. Sometimes the implications may best be discussed in nonfinancial as well as financial terms. Forward-looking information can be highly useful, but management should avoid turning this part of MD&A into mere “lobbying” for more budgetary authority.
The term “commitments” is used here in the customary sense, not as it is used in budgetary accounting.

Some projections that could involve consideration of anticipated factors would be presented as required supplementary stewardship information pursuant to the standards exposed for comment in FASAB’s exposure draft Accounting for Social Insurance, February, 1998.

In addition to reporting on the long-term fiscal outlook, there are also reporting requirements for long-term obligations for social insurance programs in SFFAS 17, Accounting for Social Insurance. The standards require that:

- a liability be recognized when payments are due and payable to beneficiaries or service providers and
- supplemental information be reported to facilitate the assessment of:
  - the long-term sustainability of the program from both an entity and a governmentwide perspective and
  - (the ability of the program and the nation to raise resources from future program participants to pay for benefits proposed to present participants.

The required supplemental information includes:

- long-range cashflow projections,
- long-range projections of the ratio between the number of those paying taxes earmarked for the program and the number of program beneficiaries, and
- actuarial present values of (i) future benefits for and (ii) contributions and tax income from or on behalf of current and future program participants.

The consolidated governmentwide financial report should include, as required supplemental information (RSI), a summary of the entities' descriptions of their social insurance programs. The description should include a discussion of the long-term sustainability and financial conditions of the programs, illustrate and explain the trends revealed in the data, and explain the relationship of the social insurance program(s) to governmentwide financing, especially regarding the intra-governmental nature of trust fund assets and government debt.5


In FY 2006, the Discussion and Analysis section of the Financial Report of the U.S. Government included a discussion of long-term spending trends for Social Security and Medicare:

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5 SFFAS 17, pars. 9, 10 and 31 as amended by SFFAS 26, par. 5.
Trustees Long-Range Outlook (2005-2080)

Social Security and Medicare costs increase steeply between 2010 and 2030 because the number of people receiving benefits will increase rapidly as the large baby-boom generation retires. Thereafter, Social Security costs grow slowly primarily due to projected increasing life expectancy. Medicare costs continue to grow rapidly due to expected increases in the use and cost of health care. The continued development of new technology is expected to cause per capita health care expenditures to continue to grow faster in the long term, than the economy as a whole.

Comparison of projected Social Security and Medicare costs to gross domestic product (GDP) is a commonly-used metric for fund analysis. Medicare costs are projected to exceed Social Security’s in 2024. Social Security expenditures amounted to 4.3 percent of GDP in 2006 and is projected to increase to 6.3 percent of GDP in 2080. Medicare’s cost amounted to 3.2 percent of GDP in 2006 and is projected to grow more than threefold to 11.0 percent of GDP in 2080. Absent reform, Social Security and Medicare together will more than double as a percentage of the U.S. economy, from nearly 6 percent in 2006 to over 17 percent by 2080.\(^6\)

The following section, “The Government’s Net Liabilities and Its Responsibilities” (pages 19-20) provides additional information.

In addition, Note 23, “Social Insurance,” and the Stewardship Information section (pages 107-136) provide over 30 pages of detailed information on long-term projected costs of Social Security, Medicare, and other social insurance programs.

Attachments:


4. Existing Reporting in (a) the Budget of the U.S. Government and (b) the Trustees Reports for Social Security and Medicare

(a) Existing Reporting in the Budget of the U.S. Government

Chapter 13, “Stewardship,” of the U.S. Budget’s Analytical Perspectives, in particular, Part III, “The Long-Term Budget Outlook,” provide detailed estimates of budget projections for the U.S. Government as a whole. Part I of this chapter notes that:

The [U.S. Government] Financial Report also includes a statement of social insurance that reviews a substantial body of information on the condition and

sustainability of the Government’s social insurance programs. The Report, however, does not extend that review to the condition or sustainability of the Government as a whole, which is a main focus of this chapter, and it does not try to relate the Government’s assets and liabilities to private wealth of broader economic and social conditions.\(^7\)

Note: although Chapter 13 of *Analytical Perspectives* provides information for the government as a whole, it notes that “Because here are serious limitations on the available data and the future is uncertain, this chapter’s findings should be interpreted with caution; its conclusions are subject to future revision.”

Also, the Budget of the U.S. Government is published on a different timetable from the annual financial statements. When the financial statements of the U.S. Government are published in mid-December for the fiscal year ended the previous September 30\(^{th}\), the relevant chapter in the U.S. Budget’s *Analytical Perspectives* is somewhat outdated, since it is generally issued the previous February.

(b) Existing Reporting in the Trustees Reports for Social Security and Medicare

The annual Trustees Reports for Social Security and Medicare provide hundreds of pages of detailed reporting and estimates. Since 1983 the Trustees have published, in addition to the regular full report, a summary document which contains a brief and easier-to-understand summary of the highlights of the full report. During the 1980s and in 1990, the summary was included as part of the larger report. Since 1991 the summaries have been published as separate documents. Each year, the Office of the Actuary publishes the current summary document on its website along with the longer, full report.

The timing of the Trustees Reports are variable; they have been issued as early as March and as late as May. The summary reports may be a valuable resource for citation in potential financial statement reporting. A copy of the 2006 Summary Report is attached.

Attachment:


5. **Suggested Topics for Consideration by the Task Force**

   **Technical Issues:**

   (a) Should fiscal sustainability reporting be a required part of the Management Discussion and Analysis, a separate financial statement, or a note to the Statement of Social Insurance?

\(^7\) *Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2007*, page 176.
[Point to consider:
The GAO has recommended a separate financial statement on sustainability, described in the “Government Accountability Office Comptroller General’s Statement” on the FY 2006 Financial Report of the U.S. Government:

Although improvements have been made, additional financial reporting enhancements are needed to effectively convey the long-term financial condition of the U.S. government and annual changes therein. Specifically, the federal government’s financial reporting should be expanded to disclose the reasons for significant changes during the year in scheduled social insurance benefits and funding. It should also include a Statement of Fiscal Sustainability—providing a long-term look at the sustainability of social insurance in the context of all federal programs. The reporting on fiscal sustainability should include additional information that will assist in understanding the sustainability of current social insurance and other federal programs, including key measures of fiscal sustainability and intergenerational equity, projected annual cash flows, and changes in fiscal sustainability during the reporting period. Further, earmarked Social Security and Medicare taxes that have not yet been used to pay benefits should be recorded as deferred earmarked revenue, resulting in an additional liability for such social-insurance-related obligations. As of September 30, 2006, such “unused” earmarked taxes related to social insurance totaled over $2 trillion.]

(b) What information should be presented?
   i. Projected cash flows (deficits/surpluses)
   ii. Projected GDP
   iii. Summary measures of imbalances (fiscal gap)
   iv. Summary measures of intergenerational imbalance
   v. Relationships between cash flows and GDP
   vi. Other measures providing context for government spending

(c) What time period should be presented for any projections?

(d) Should one or multiple projections be presented?

(e) Should existing reports be utilized when the financial reports are being prepared (November)?

(f) What policy assumptions should be used (e.g., current law, current law adjusted based on reasonable expectations, or the Administration’s Budget Proposal)?

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8The Statement of Fiscal Sustainability would show the relationship between the present value of projected revenues and outlays for social insurance and for all other federal programs.
5Intergenerational equity assesses the extent to which different age groups may be required to assume financial burdens to sustain federal responsibilities.
(g) Which economic assumptions should be used?
   i. Should OMB projections be included as some part of the FR?
   ii. How should differences between OMB and CBO projections be handled?

(h) How can the sensitivity of the projections to changes in assumptions be succinctly explained to readers?

Communications Issues (in addition to (a) above):

(i) Should sustainability reporting be conceived as an element within the financial statements that could also stand alone as a popular report?

(j) Should selected “dashboard indicators” be recommended?
   Examples include:
   • Relationship to GDP
   • Per capita amount to achieve actuarial balance
   • Per current worker to achieve actuarial balance
   • How selected indicators have improved or worsened during specified reporting periods

Attachments and Links:


(2) Opening Remarks at the [Congressional Budget Office] Director’s Conference on Long-Term Budget Challenges, December 8, 2006 (Available at http://www.cbo.gov/publications/past90days.cfm)


(7) List of Task Force members

Enclosure:
Attachments
Composition of Federal Spending

- **1966**
  - Defense: 34%
  - Social Security: 15%
  - Net interest: 7%
  - All other spending: 43%
  - Medicare & Medicaid: 1%

- **1986**
  - Defense: 29%
  - Social Security: 14%
  - Net interest: 10%
  - All other spending: 28%
  - Medicare & Medicaid: 9%

- **2006**
  - Defense: 32%
  - Social Security: 19%
  - Net interest: 21%
  - All other spending: 20%
  - Medicare & Medicaid: 19%

*Preliminary.

Source: Office of Management and Budget and the Department of the Treasury.

Note: Numbers may not add to 100 percent due to rounding.
## Fiscal Year 2005 and 2006 Deficits and Net Operating Costs

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Year 2005 ($ Billion)</th>
<th>Fiscal Year 2006 ($ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Budget Deficit</td>
<td>(494)</td>
<td>(434)</td>
</tr>
<tr>
<td>Off-Budget Surplus*</td>
<td>175</td>
<td>186</td>
</tr>
<tr>
<td>Unified Deficit</td>
<td>(318)</td>
<td>(248)</td>
</tr>
<tr>
<td>Net Operating Cost</td>
<td>(760)</td>
<td>Not available</td>
</tr>
</tbody>
</table>


Sources: The Office of Management and Budget and the Department of the Treasury.
# Estimated Fiscal Exposures

($ trillions)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explicit liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicly held debt</td>
<td>$6.9</td>
<td>$10.2</td>
</tr>
<tr>
<td>Military &amp; civilian pensions &amp; retiree health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitments &amp; contingencies</strong></td>
<td>0.5</td>
<td>0.9</td>
</tr>
<tr>
<td>E.g., PBGC, undelivered orders</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Implicit exposures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Social Security benefits</td>
<td>3.8</td>
<td>6.4</td>
</tr>
<tr>
<td>Future Medicare Part A benefits</td>
<td>2.7</td>
<td>11.3</td>
</tr>
<tr>
<td>Future Medicare Part B benefits</td>
<td>6.5</td>
<td>13.1</td>
</tr>
<tr>
<td>Future Medicare Part D benefits</td>
<td>--</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$20.4</td>
<td>$49.9</td>
</tr>
</tbody>
</table>


Note: 2006 estimates are preliminary. Estimates for Social Security and Medicare are at present value as of January 1 of each year and all other data are as of September 30.
### How Big is Our Growing Fiscal Burden?

Our total fiscal burden can be translated and compared as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fiscal exposures</td>
<td>$49.9 trillion</td>
</tr>
<tr>
<td>Total household net worth&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$53.3 trillion</td>
</tr>
<tr>
<td>Burden/Net worth ratio</td>
<td>94 percent</td>
</tr>
<tr>
<td>Burden&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Per person</td>
<td>$165,000</td>
</tr>
<tr>
<td>Per full-time worker</td>
<td>$395,000</td>
</tr>
<tr>
<td>Per household</td>
<td>$435,000</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Median household income&lt;sup&gt;3&lt;/sup&gt;</td>
<td>$46,326</td>
</tr>
<tr>
<td>Disposable personal income per capita&lt;sup&gt;4&lt;/sup&gt;</td>
<td>$32,392</td>
</tr>
</tbody>
</table>

**Notes:**
1. Federal Reserve Board, Flow of Funds Accounts, Table B.100, 2006:Q2 (Sept. 19, 2006);
2. Burdens are calculated using estimated total U.S. population as of 9/30/06, from the U.S. Census Bureau; full-time workers reported by the Bureau of Economic Analysis, in NIPA table 6.5D (Aug. 2, 2006); and households reported by the U.S. Census Bureau, in Income, Poverty, and Health Insurance Coverage in the United States: 2005 (Aug. 2006);
3. U.S. Census Bureau, Income, Poverty, and Health Insurance Coverage in the United States: 2005 (Aug. 2006); and

**Sources:** GAO analysis.
Composition of Spending as a Share of GDP Under Baseline Extended (January 2001)

*All other spending is net of offsetting interest receipts.

Source: GAO’s January 2001 analysis.
Composition of Spending as a Share of GDP Under Baseline Extended (August 2006)

Notes: In addition to the expiration of tax cuts, revenue as a share of GDP increases through 2016 due to (1) real bracket creep, (2) more taxpayers becoming subject to the AMT, and (3) increased revenue from tax-deferred retirement accounts. After 2016, revenue as a share of GDP is held constant.

Source: GAO’s August 2006 analysis.
Composition of Spending as a Share of GDP
(Assuming Discretionary Spending Grows with GDP After 2006 and All Expiring Tax Provisions are Extended)

Percent of GDP

Source: GAO’s August 2006 analysis.
Current Fiscal Policy Is Unsustainable

• The “Status Quo” is Not an Option
  • We face large and growing structural deficits largely due to known demographic trends and rising health care costs.
  • GAO’s simulations show that balancing the budget in 2040 could require actions as large as
    • Cutting total federal spending by 60 percent or
    • Raising federal taxes to 2 times today’s level

• Faster Economic Growth Can Help, but It Cannot Solve the Problem
  • Closing the current long-term fiscal gap based on reasonable assumptions would require real average annual economic growth in the double digit range every year for the next 75 years.
  • During the 1990s, the economy grew at an average 3.2 percent per year.
  • As a result, we cannot simply grow our way out of this problem. Tough choices will be required.
The Way Forward: A Three-Pronged Approach

1. Strengthen Budget and Legislative Processes and Controls

2. Improve Financial Reporting and Performance Metrics

3. Fundamental Reexamination & Transformation for the 21st Century (i.e., entitlement programs, other spending, and tax policy)

Solutions Require Active Involvement from both the Executive and Legislative Branches
Key National Indicators

• **WHAT**: A portfolio of economic, social, and environmental outcome-based measures that could be used to help assess the nation’s and other governmental jurisdictions’ position and progress

• **WHO**: Many countries and several states, regions, and localities have already undertaken related initiatives (e.g., Australia, New Zealand, Canada, United Kingdom, Oregon, Silicon Valley (California) and Boston)

• **WHY**: Development of such a portfolio of indicators could have a number of possible benefits, including
  • Serving as a framework for related strategic planning efforts
  • Enhancing performance and accountability reporting
  • Informing public policy decisions, including much needed baseline reviews of existing government policies, programs, functions, and activities
  • Facilitating public education and debate as well as an informed electorate

• **WAY FORWARD**: Consortium of key players housed by the National Academies domestically and related efforts by the OECD and others internationally
Key National Indicators: Where the World’s Sole Superpower Ranks

The United States may be the only superpower, but compared to most other OECD countries on selected key economic, social, and environmental indicators, on average, the U.S. ranks

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<table>
<thead>
<tr>
<th>OECD Categories for Key Indicators</th>
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<tr>
<td>(2006 OECD Factbook)</td>
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<tr>
<td>• Population/Migration</td>
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Source: 2006 OECD Factbook
Moving the Debate Forward

• The Sooner We Get Started, the Better
  • The miracle of compounding is currently working against us
  • Less change would be needed, and there would be more time to make adjustments
  • Our demographic changes will serve to make reform more difficult over time

• Need Public Education, Discussion, and Debate
  • The role of government in the 21st Century
  • Which programs and policies should be changed and how
  • How government should be financed
These Challenges Go Beyond Numbers and Dollars—It’s About VALUES & PEOPLE
The ABCs of Long-Term Budget Challenges

Opening Remarks by Donald B. Marron Acting Director

December 8, 2006
Good morning. Welcome to the Congressional Budget Office’s (CBO’s) annual Director’s Conference.

In previous years, these conferences have addressed issues such as improving revenue estimation and strengthening the budget process. Today’s conference focuses on the largest fiscal challenge facing the nation: the aging of the population and the growing cost of federal health and retirement programs.

The basic challenge is well-known. If current trends continue and current policies remain in place, federal spending will outstrip revenues in coming decades, even if tax reductions enacted over the past few years expire, as scheduled, at the end of 2010. Deficits will increase sharply, debt held by the public will grow faster than the economy, and interest payments will soar, undermining the government’s finances and weakening the economy.

In short, the nation’s fiscal policy is on an unsustainable path, posing a long-term threat to the well-being of the American people and the country’s status in the world.

The reasons for that dire outlook are familiar but warrant repeating. Over coming decades, the aging of the U.S. population will slow the pace of economic growth—and the growth of tax revenues—at the same time that a combination of the aging population and rising health care costs will cause spending growth to accelerate.

Economic growth will slow because as workers age, they become less likely to participate in the labor market. Over the next decade alone, CBO estimates, that demographic effect will trim about 0.5 percentage points off of the annual growth of the labor force, and, as a result, decrease the potential real growth rate of the economy from the 3 percent that it has been, on average, since 1990 to 2.6 percent over the next 10 years.¹

At the same time, the aging population will place increased demands on Social Security. Spending for that program today amounts to about 4 percent of gross domestic product (GDP). If current trends continue, however, that spending will reach roughly 6 percent of GDP in 2030—and will continue to increase thereafter.²

Medicare and Medicaid pose an even greater challenge. Those programs face the same demographic pressures as does Social Security. However, Medicare and

² Congressional Budget Office, The Long-Term Budget Outlook (December 2005).
Medicaid also face the pressures of rapidly rising health care costs. Over recent decades, health care costs per beneficiary in those programs have grown an average of 2 percentage points to 3 percentage points faster than per capita GDP each year. Even if that extra growth slows to just 1 percentage point, spending on those programs will grow from roughly 4.6 percent of GDP today to more than 9 percent of GDP in 2030—and will continue to rise thereafter.3

To put those figures in context, keep in mind that federal spending today is slightly more than 20 percent of GDP. Social Security, Medicare, and Medicaid together amount to about 9 percent of GDP, slightly more than two-fifths of federal spending. By 2030, however, spending on those programs is projected to reach roughly 15 percent of GDP, equivalent to about three-quarters of current federal spending levels. If that increase happened and total spending was held at about today’s level as a percentage of GDP, the rest of the budget would have to be cut by more than half.

Spending on Social Security, Medicare, and Medicaid will thus exert pressures on the federal budget that economic growth alone is unlikely to alleviate. Substantial reductions in the projected growth of spending and perhaps a sizable increase in taxes as a share of the economy will therefore be necessary to maintain fiscal stability in coming decades.

The challenges themselves are well-known, yet there is little evidence that they have yet had much influence on policy decisions. The goal of today’s conference, therefore, is not only to document the challenges but, more importantly, to discuss how they might become more prominent in the policy process. That discussion has three components—the ABCs, if you will, of long-term budget challenges: how to account for long-term federal obligations, how to budget for them, and how to communicate about them.

Let me begin with the A, accounting.

The budget has long held the spotlight in discussions of fiscal policy. However, the federal government also keeps another set of books. That second set of books—the Financial Report of the United States Government—reports fiscal performance using financial accounting principles rather than budget accounting principles.

In this case, there is nothing sinister in keeping two sets of books. The budget and the financial report serve different purposes and therefore have different ways of reporting the government’s fiscal condition. Neither provides all relevant information about federal finances.

3. Ibid.
The key difference between the two reports is the method of accounting used in each. With a few exceptions, the budget uses cash accounting; it measures cash flows in and out of the U.S. Treasury and reports them in the year they occur. The financial report, in contrast, uses accrual accounting; it recognizes expenses and revenues when economic events occur, rather than when the resulting cash flows take place.

The difference between cash and accrual accounting is particularly important when outlays and underlying economic events happen at different points in time. Retirement benefits for federal workers are a prime example. The budget reports outlays when benefit payments are made to retired workers. The financial statements, in contrast, record an operating expense for the estimated cost of those benefits as workers earn them.

The Federal Accounting Standards Advisory Board (FASAB)—the organization that establishes accounting standards for the federal government—is now grappling with the question of how to apply accrual accounting principles to programs like Social Security and Medicare. As one of our speakers will discuss, a majority of the board members favor an approach that would treat a large portion of future Social Security and Medicare benefits as current liabilities and that would recognize a large expense each year (measured in the hundreds of billions or perhaps trillions of dollars) to reflect increases in those obligations over time.

Thus, FASAB’s efforts raise important questions about the appropriate accounting treatment for social insurance programs. The increasing attention being paid to FASAB and, more generally, to the financial report also raise a broader question of whether and to what extent budget policy should be informed by the accounting statements. (I should emphasize that FASAB standards apply only to the financial statements and, contrary to some media coverage, have no direct effect on the budget.)

That brings us to the B, budgeting.

As I noted, the budget is generally prepared on a cash basis. As a result, the impacts of long-term obligations appear in the budget in the years in which outlays eventually occur. That approach can create problems if significant effects occur beyond the standard five- or 10-year budget window.

Today, a 10-year window does include the beginning of the approaching fiscal challenges. As the leading edge of the baby-boom generation begins to retire and

4. For a detailed discussion of the similarities and differences between the budget and the financial reports, see Congressional Budget Office, *Comparing Budget and Accounting Measures of the Federal Government’s Fiscal Condition* (December 2006).

5. The Congressional Budget Office has one of the 10 seats on the board.
health care costs continue to rise, spending on Social Security, Medicare, and Medicaid will rise from the roughly 9 percent of GDP that it is today to about 11 percent a decade later. But a 10-year window is far too narrow to capture the full magnitude of the looming spending increases. If the budget is to remain the primary mechanism for determining fiscal policy, it is important that we explore how it can best reflect the government’s growing long-term obligations and how the budget process can be structured to facilitate efforts to deal with them.

As one of our speakers will discuss, one response to these concerns is to prepare budget projections over longer time periods. The Social Security and Medicare actuaries, for example, prepare detailed projections for those programs over the next 75 years; CBO prepares similar projections for 50 and 100 years. Those projections provide useful information—on the same cash basis as the regular budget—and, at times, have played a central role in policy deliberations (for example, during the discussions about Social Security that occurred in 2005). However, with one exception (a Senate point of order involving spending in any of the four 10-year periods after 2015), such projections or other estimates of long-term budget impacts have not yet had a formal role in the budget process.

A second response, endorsed by other speakers, would be to incorporate accrual measures of long-term obligations into the budget process. Such a change is not without precedent. Although the budget largely uses a cash basis, since the early 1990s an accrual approach has been used for credit programs such as ones providing loans and loan guarantees. That change addressed a clear weakness of prior approaches: many of the potential budget impacts of loans and loan guarantees fall outside the conventional budget windows, so cash-based budgeting provided incomplete and potentially misleading information about the ultimate effects on the budget. Applying the same logic to social insurance programs raises a host of conceptual, analytical, and political challenges: those programs are not contractual in nature; they stretch farther into the future than most credit programs; and, in the case of Medicare, the program has future costs that are much more uncertain. However, some change in budget concepts may be necessary if we are to address the federal government’s fiscal challenges in a timely fashion.

Accounting and budgeting frameworks can provide useful structure for analyzing and planning for long-term obligations. Just as important, I believe, is the C, the way that we communicate about these challenges.

Over the past few years, increasing interest in long-term budget challenges has given birth to a plethora of different ways of characterizing them. At CBO, we typically focus on long-term projections of future outlays and report those future outlays relative to the future size of the economy. Other analysts employ similar projections, but report figures in terms of future flows of dollars. Still others use

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projections and then discount them back to today as a net present value, either as a percentage of the present value of future GDP or in dollars. (As one of our speakers will explain, the latter approach can result in truly astronomical figures in the tens of trillions of dollars, particularly if one adopts an infinite horizon in order to avoid any effects resulting from the choice of a window.) Still others have adapted accrual accounting approaches to calculate annual measures of the increasing obligations in the social insurance programs. Finally, some begin with the regular budget as constructed today but emphasize measures such as the on-budget deficit rather than the unified budget deficit.

Observers differ on the analytic merits and potential usefulness of each of those approaches for the policy process. However, it is fair to say that each one conveys a perspective on long-run budget challenges.

The nation faces formidable fiscal challenges. To address them, we face difficult, important questions: How should we account for long-term obligations? How should we budget for them? How should we communicate about them? I hope that today’s conference will shed light on those issues.

Thank you all for being here.
13. STEWARDSHIP

Introduction

The budget is an essential tool for allocating resources within the Federal Government and between the public and private sectors, but current outlays, receipts, and the deficit give at best a partial picture of the Government’s financial condition. Indeed, changes in the annual budget deficit or surplus can be misleading. For example, the temporary shift from annual deficits to surpluses in the late 1990s did nothing to correct the long-term fiscal deficiencies in the major entitlement programs, which are the major source of the long-run shortfall in Federal finances. This would have been more apparent at the time if greater attention had been focused on long-term measures such as those presented in this chapter. As important as the current budget surplus or deficit is, other indicators are also needed to judge the Government’s fiscal condition.

For the Federal Government, unfortunately, there is no single number that corresponds to a business’s bottom line. The Government is judged by how its actions affect the country’s security and well-being, and that cannot easily be summed up with a single statistic. Also, even though its financial condition is important, the Government is not expected to earn a profit. Its financial status is best evaluated using a broad range of data and several complementary perspectives. This chapter presents a framework for such analysis. Because there are serious limitations on the available data and the future is uncertain, this chapter’s findings should be interpreted with caution; its conclusions are subject to future revision.

The chapter consists of four parts:
- Part I explains how the separate pieces of analysis link together. Chart 13–1 is a schematic diagram showing the linkages.
- Part II presents estimates of the Government’s assets and liabilities, which are shown in Table 13–1. This table is similar to a business balance sheet, but for that reason it cannot reveal some of the Government’s unique financial features and needs to be supplemented by the information in Parts III and IV.
- Part III shows possible long-run paths for the Federal budget. These projections vary depending on alternative economic and demographic assumptions. The projections are summarized in Table 13–2 and in a related set of charts. Table 13–3 shows present value estimates of the funding shortfall in Social Security and Medicare. Together these data indicate the scope of the Government’s future responsibilities and the resources it will have available to discharge them under current law and policy. In particular, they show the looming long-run fiscal challenge posed by the Federal entitlement programs.
- Part IV returns the focus to the present. It presents information on national economic and social conditions. The private economy is the ultimate source of the Government’s resources. Table 13–4 gives a summary of total national wealth, while highlighting the Federal investments that have contributed to that wealth. Table 13–5 shows trends in wealth and Table 13–6 presents a small sample of statistical indicators.

PART I—A FRAMEWORK TO EVALUATE FEDERAL FINANCES

No single framework can encompass all of the factors that affect the financial condition of the Federal Government, but the framework presented here is reasonably comprehensive and it offers a useful way to examine the financial implications of Federal policies. This framework includes balance-sheet information, but it also includes long-run projections of the entire budget showing where future fiscal strains are most likely to appear. It includes measures of national wealth, which support future income and tax receipts, and an array of economic and social indicators showing potential pressure points that may require future policy responses.

The Government’s legally binding obligations—its liabilities—consist in the first place of Treasury debt. Other liabilities include the pensions and medical benefits owed to retired Federal employees and veterans. These employee obligations are a form of deferred compensation; they have counterparts in the business world, and would appear as liabilities on a business balance sheet. Accrued obligations for Government insurance policies and the estimated present value of failed loan guarantees and deposit insurance claims are also analogous to private liabilities. These Government liabilities are discussed further in Part II along with the Government’s assets. The liabilities and assets are collected in Table 13–1. The liabilities shown in Table 13–1 are only a subset of the Government’s overall financial responsibilities. Indeed, the full extent of the Government’s fiscal exposure through programmatic commitments dwarfs the outstanding total of all acknowledged Federal liabilities. The commitments to Social Security and Medicare alone amount to many times the value of Federal debt held by the public.
In addition to Social Security and Medicare, the Government has a broad range of programs that dispense cash and other benefits to individual recipients. A few examples of such programs are Medicaid, food stamps, veterans' pensions and health care. The Government also provides a wide range of public services that must be financed through the tax system. It is true that specific programs may be modified or even ended at any time by the Congress and the President, and changes in the laws governing these programs are a regular part of the legislative cycle. For this reason, these programmatic commitments do not constitute "liabilities" in a legal or accounting sense, and they would not appear on a balance sheet. They are Federal responsibilities, however, and will have a claim on budgetary resources for the foreseeable future. All of the Government's existing programs are reflected in the long-run budget projections in Part III. It would be misleading to leave out any of these programmatic commitments in projecting future claims on the Government or in calculating the Government's long-run fiscal balance.

The Federal Government has many assets. These include financial assets, such as loans and mortgages which have been acquired through various credit programs. They also include the plant and equipment used to produce Government services. The Government also owns a substantial amount of land. Such assets would normally be shown on a balance sheet. The Government also has resources in addition to those that might be expected to appear on a balance sheet. These additional resources include most importantly the Government's sovereign power to tax.

Because of its unique responsibilities and resources, the most revealing way to analyze the future strains on the Government's fiscal position is to make a long-run projection of the entire Federal budget. Part III of this chapter presents a set of such projections under different assumptions about policy and future economic and demographic conditions. Over long periods of time, the spending of the Government must be financed by the taxes and other receipts it collects. Although the Government can borrow for temporary periods, it must pay interest on any such borrowing, which adds to future spending. In the long run, a solvent Government must pay for its spending out of its receipts. Although the Government can borrow for temporary periods, it must pay interest on any such borrowing, which adds to future spending. In the long run, a solvent Government must pay for its spending out of its receipts. The projections in Part III show that under an extension of the estimates in this Budget, long-run balance in this sense is not achieved, mostly because projected spending for Social Security, Medicare, and Medicaid grow faster than the revenue available to pay for them.

The long-run budget projections and the table of assets and liabilities are silent on the question of whether the public is receiving value for its tax dollars or whether Federal assets are being used effectively. Information on those points requires performance measures for Government programs supplemented by appropriate information on changes in the economy and society. Recent changes in budgeting practices have contributed to the goal of providing more information about Government programs and will permit a closer alignment of the cost of programs with performance measures. These changes have been described in detail in previous Budgets. They are reviewed in chapter 2 of this volume, and in the accompanying material that describes results obtained with the Program Assessment Rating Tool (PART). This Stewardship chapter complements the detailed exploration of Government performance with an assessment of the overall impact of Federal policy as reflected in general measures of economic and social well-being, shown in Table 13–6.

Relationship with FASAB Objectives

The framework presented here meets the stewardship objective for Federal financial reporting recommended by the Federal Accounting Standards Advisory Board (FASAB) and adopted for use by the Federal Government in September 1993. 1

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 conditions have changed and may change in the future. Federal financial reporting should provide information that helps the reader to determine:

3a. Whether the government's financial position improved or deteriorated over the period.
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.

The presentation here is an experimental approach for meeting this objective at the Government-wide level. It is intended to meet the broad interests of economists and others in evaluating trends over time, including both past and future trends. The annual Financial Report of the United States Government presents related information, but from a different perspective. The Financial Report includes a balance sheet. The assets and liabilities on that balance sheet are all based on transactions and other events that have already occurred. A similar table can be found in Part II of this chapter but based on different data and methods of valuation. The Financial Report also includes a statement of social insurance that reviews a substantial body of information on the condition and sustainability of the Government's social insurance programs. The Report, however, does not extend that review to the condition or sustainability of the Government as a whole, which is a main focus of this chapter, and it does not try to relate the Government's assets and liabilities to private wealth or broader economic and social conditions.

Connecting the Dots: The presentation that follows is constructed around a series of tables and charts. The schematic diagram, Chart 13–1, shows how the different pieces fit together. The tables and charts should be viewed as an ensemble, the main elements

of which are grouped in two broad categories—assets/resources and liabilities/responsibilities.

- The left-hand side of Chart 13–1 shows the full range of Federal resources, including assets the Government owns, tax receipts it can expect to collect given current and proposed law, and national wealth, including the trained skills of the national work force, that provide the base for Government revenues.

- The right-hand side reveals the full range of Federal obligations and responsibilities, beginning with the Government’s acknowledged liabilities from past actions, such as the debt held by the public, and including future budget outlays needed to maintain present policies and trends. This column ends with a set of indicators highlighting areas where Government activity affects society or the economy.

**Chart 13-1. The Financial Condition of the Federal Government and the Nation**

<table>
<thead>
<tr>
<th>Assets/Resources</th>
<th>Liabilities/Responsibilities</th>
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<tbody>
<tr>
<td><strong>Federal Assets</strong></td>
<td><strong>Federal Liabilities</strong></td>
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<tr>
<td>Financial Assets</td>
<td>Financial Liabilities</td>
</tr>
<tr>
<td>Monetary Assets</td>
<td>Debt Held by the Public</td>
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<tr>
<td>Mortgages and Other Loans</td>
<td>Guarantees and Insurance</td>
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<tr>
<td>Other Financial Assets</td>
<td>Deposit Insurance</td>
</tr>
<tr>
<td>Less Expected Loan Losses</td>
<td>Pension Benefit Guarantees</td>
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<tr>
<td>Physical Assets</td>
<td>Loan Guarantees</td>
</tr>
<tr>
<td>Fixed Reproducible Capital</td>
<td>Other Insurance</td>
</tr>
<tr>
<td>Defense</td>
<td>Federal Retiree Pension</td>
</tr>
<tr>
<td>Nondefense</td>
<td>and Health Insurance Liabilities</td>
</tr>
<tr>
<td>Inventories</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Non-reproducible Capital</td>
<td>Net Balance</td>
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<tr>
<td>Land</td>
<td></td>
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<td>Mineral Rights</td>
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<tr>
<th>Resources/Receipts</th>
<th>Long-Run Federal Budget Projections</th>
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<tbody>
<tr>
<td>Projected Receipts</td>
<td>(Table 13-2)</td>
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<table>
<thead>
<tr>
<th>National Assets/Resources</th>
<th>National Needs/Conditions</th>
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<tbody>
<tr>
<td>Federally Owned Physical Assets</td>
<td>Indicators of economic, social, educational, and environmental conditions</td>
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<tr>
<td>State &amp; Local Govt. Physical Assets</td>
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<tr>
<td>Federal Contribution</td>
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<td>Privately Owned Physical Assets</td>
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<tr>
<td>Education Capital</td>
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<td>Federal Contribution</td>
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<td>R&amp;D Capital</td>
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<tr>
<td>Federal Contribution</td>
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| Federal Governmental Assets and Liabilities (Table 13-1) | Actuarial Deficiencies in Social Security and Medicare (Table 13-3) |

<table>
<thead>
<tr>
<th>Resources/Receipts</th>
<th>National Wealth (Tables 13-4 and 13-5)</th>
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<td>Projected Receipts</td>
<td>Social Indicators (Table 13-6)</td>
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<tr>
<th>Responsibilities/Outlays</th>
<th>National Needs/Conditions</th>
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<tr>
<td>Projected Outlays</td>
<td>Indicators of economic, social, educational, and environmental conditions</td>
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<tr>
<td>Surplus/Deficit</td>
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<td>Actuarial Deficiencies in Social Security and Medicare</td>
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**QUESTIONS AND ANSWERS ABOUT THE GOVERNMENT'S STEWARDSHIP**

1. **According to Table 13–1, the Government's liabilities exceed its assets. No business could operate in such a fashion. Why does the Government not manage its finances more like a business?**

   The Federal Government has different objectives from a business firm. The goal of every business is to earn a profit, and as a general rule the Federal Government properly leaves activities at which a profit could be earned to the private sector. For the vast bulk of the Federal Government's operations, it would be difficult or impossible to charge prices that would even cover all its expenses. The Government undertakes these activities not to improve its balance sheet, but to benefit the Nation.

   For example, the Government invests in education and research, but it earns no direct return from these investments. People are enriched by these investments, but the returns do not show up as an increase in Government assets rather than an increase in the general state of knowledge and in the capacity of the country's citizens to earn a living and lead a fuller life. Business investment motives are quite different; business invests to earn a profit for itself, not others, and if its investments are successful, their value will be reflected in its balance sheet. Because the Federal Government's objectives are different, its balance sheet behaves differently, and should be interpreted differently.

2. **Table 13–1 seems to imply that the Government is insolvent. Is it?**

   No. Just as the Federal Government's responsibilities are different from those of private business, so are its resources. Government solvency must be evaluated in different terms. What Table 13–1 shows is that those Federal obligations that are most comparable to the liabilities of a business corporation exceed the estimated value of the assets actually owned by the Federal Government. The Government, however, has access to other resources through its sovereign powers. These powers, which include taxation, will allow the Government to meet its present obligations and those that are anticipated from future operations even though the Government's current assets are less than its current liabilities.

   Private financial markets clearly recognize this reality. The Federal Government's implicit credit rating is among the best in the world; lenders are willing to lend it money at interest rates substantially below those charged to private borrowers. This would not be true if the Government were really insolvent or likely to become so. Where governments totter on the brink of insolvency, lenders are either unwilling to lend them money, or do so only in return for a substantial interest premium.
3. **Why are Social Security and Medicare not shown as Government liabilities in Table 13–1?**

Future Social Security and Medicare benefits may be considered as promises or responsibilities of the Federal Government, but these benefits are not a liability in a legal or accounting sense. The Government has unilaterally decreased as well as increased these benefits in the past, and future reforms could alter them again. These benefits are reflected in this presentation of the Government’s finances, but they are shown elsewhere than in Table 13–1. They appear in two ways: as part of the overall budget projections in Table 13–2, and in the actuarial deficiency estimates in Table 13–3.

Other Federal programs make similar promises to those of Social Security and Medicare—Medicaid, for example. Few have suggested counting future benefits expected under these programs as Federal liabilities, yet it would be difficult to justify a different accounting treatment for them if Social Security or Medicare were to be classified as a liability. There is no bright line dividing Social Security and Medicare from other programs that promise benefits to people, and all the Government programs that do so should be accounted for similarly.

Also, if Social Security and Medicare benefits were treated as liabilities, then payroll tax receipts earmarked to finance those benefits ought to be treated as assets. This treatment would be essential to gauge the size of the future claim. Tax receipts, however, are not generally considered to be Government assets, and for good reason: the Government does not own the wealth on which future taxes depend. Including taxes on the balance sheet would be wrong for this reason, but without counting taxes the balance sheet would overstate the drain on net assets from Social Security and Medicare benefits. Furthermore, treating taxes for Social Security or Medicare differently from other taxes would be highly questionable.

Finally, under Generally Accepted Accounting Principles (GAAP), Social Security is not considered to be a liability, so not counting it as such in this chapter is consistent with accounting standards.

4. **Why doesn’t the Federal Government follow normal business practice in its bookkeeping?**

The Government is not a business, and accounting standards designed to illuminate how much a business earns and how much equity it has could provide misleading information if applied naively to the Government. The Government does not have a “bottom line” comparable to that of a business corporation, but the Federal Accounting Standards Advisory Board (FASAB) has developed, and the Government has adopted, a conceptual accounting framework that reflects the Government’s distinct functions and answers many of the questions for which Government should be accountable. This framework addresses budgetary integrity, operating performance, stewardship, and systems and controls. FASAB has also developed, and the Government has adopted, a full set of accounting standards. Federal agencies now issue audited financial reports that follow these standards and an audited Government-wide financial report is issued as well. In short, the Federal Government does follow generally accepted accounting principles (GAAP) just as businesses and State and local governments do, although the relevant principles differ depending on the circumstances. This chapter is intended to address the “stewardship objective”—assessing the interrelated condition of the Federal Government and the Nation. The data in this chapter illuminate the trade-offs and connections between making the Federal Government “better off” and making the Nation “better off.”
QUESTIONs AND ANSWERS ABOUT THE GOVERNMENT’S STEWARDSHIP

5. *When the baby boom generation retires, the deficit could become much larger than it ever was before. How is this reflected in the current evaluation of the Government’s financial condition?*

The aging of the population will become dramatically evident when the baby boomers begin to retire, and this demographic transition poses serious long-term problems for Federal entitlement programs and the budget. Both the long-range budget projections shown in this chapter and the actuarial projections prepared for Social Security and Medicare indicate how serious the problem is. It is clear from this information that reforms are needed in these programs to meet the long-term challenges.

6. *Does it make sense for the Government to finance needed capital by borrowing, which would permit a deficit in the budget, so long as the borrowing did not exceed the amount spent on investments?*

This rule might not permit much extra borrowing. Even if the Government financed new capital by borrowing, it would need to pay off the debt incurred in this way as the capital was used up. Only the net investment the Government does after subtracting capital consumption would be financed with a net increase in borrowing. As discussed in Chapter 6, recently Federal net investment in physical capital has not been very large and occasionally it has even been negative, so little if any deficit spending would have been justified by this borrowing-for-investment criterion, at least in recent years.

The Federal Government also funds substantial amounts of physical capital that it does not own, such as highways and research facilities, and it funds investment in intangible “capital” such as education and training and the conduct of research and development. A private business would never borrow to spend on assets that would be owned by someone else. However, such spending is today a principal function of the Federal Government. It is not clear whether this type of capital investment would fall under the borrowing-for-investment criterion, even though they are an important part of national wealth.

There is another difficulty with the logic of borrowing to invest. Businesses expect investments to earn a return large enough to cover their cost. In contrast, the Federal Government does not generally expect to receive a direct payoff from its investments, whether or not it owns them. In this sense, investments are no different from other Government expenditures, and the fact that they provide services over a longer period of time is no justification for excluding them when calculating the surplus or deficit.

Finally, the Federal Government pursues policies that support the overall economic well-being of the Nation and its security interests. For such reasons, the Government may deem it desirable to run a budget surplus, even if this means paying for its own investments from current receipts, and there will be other times when it is necessary to run a deficit, even one that exceeds Government net investment. Considerations in addition to the size of Federal investment must be weighed in choosing the right level of the surplus or deficit.
PART II—THE FEDERAL GOVERNMENT’S ASSETS AND LIABILITIES

Table 13–1 takes a backward look at the Government’s assets and liabilities summarizing what the Government owes as a result of its past operations netted against the value of what it owns. The table gives some perspective by showing these net asset figures for a number of years beginning in 1960. To ensure comparability across time, the assets and liabilities are measured in terms of constant FY 2005 dollars and the balance is also shown as a ratio to GDP. Government liabilities have exceeded the value of assets (see chart 13–2) over this entire period, but, in the late 1970s, a speculative run-up in the prices of oil and other real assets temporarily boosted the value of Federal holdings. When those prices subsequently declined, real Federal asset values declined and only recently have they regained the level they had reached in the mid-1980s.

Currently, the total real value of Federal assets is estimated to be 77 percent greater than it was in 1960. Meanwhile, Federal liabilities have increased by 244 percent in real terms. The decline in the Federal net asset position has been partly due to persistent Federal budget deficits that have boosted debt held by the public most years since 1960. Other factors have also been important such as large increases in health benefits promised for Federal retirees and the sharp rise in veterans’ disability compensation. The relatively slow growth in Federal asset values also helped reduce the net asset position.

The shift from budget deficits to budget surpluses in the late 1990s temporarily checked the decline in Federal net assets. Currently, the net excess of liabilities over assets is about $5.7 trillion or about $19,000 per capita. As a ratio to GDP, the excess of liabilities over assets reached a peak of 52 percent in 1993; it declined to 38 percent in 2000; it rose to 46 percent in 2003; and it has declined slightly since then to around 45 percent of GDP at the end of 2005. The average since 1960 has been 36 percent (see Table 13–1).

Assets

Table 13–1 offers a comprehensive list of the financial and physical resources owned by the Federal Government.

Financial Assets: According to the Federal Reserve Board’s Flow-of-Funds accounts, the Federal Government’s holdings of financial assets amounted to $0.6 trillion at the end of 2005. Government-held mortgages (measured in constant dollars) reached a peak in the early 1990s as the Government acquired mortgages from savings and loan institutions that had failed. The Government subsequently liquidated most of the mortgages it acquired from these bankrupt savings and loans. Meanwhile, Government holdings of other loans
have been declining in real terms since the mid-1980s. The face value of mortgages and other loans overstates their economic worth. OMB estimates that the discounted present value of future losses and interest subsidies on these loans was around $50 billion as of year-end 2005. These estimated losses are subtracted from the face value of outstanding loans to obtain a better estimate of their economic worth.

Reproducible Capital: The Federal Government is a major investor in physical capital and computer software. Government-owned stocks of such capital have amounted to about $1.1 trillion in constant dollars for most of the last 45 years (OMB estimate). This capital consists of defense equipment and structures, including weapons systems, as well as nondefense capital goods. Currently, less than two-thirds of the capital is defense equipment or structures. In 1960, defense capital was over 90 percent of the total. In the 1970s, there was a substantial decline in the real value of U.S. defense capital and there was another large decline in the 1990s after the end of the Cold War. Meanwhile, nondefense Federal capital has increased at an average annual rate of around 2 1/4 percent. The Government also holds inventories of defense goods and other items that in 2005 amounted to about 25 percent of the value of its fixed capital.

Nonreproducible Capital: The Government owns significant amounts of land and mineral deposits. There are no official estimates of the market value of these holdings (and of course, in a realistic sense, many of these resources would never be sold). Researchers in the private sector have estimated what they are worth.
however, and these estimates are extrapolated in Table 13–1. Private land values fell sharply in the early 1990s, but they have risen since 1993. It is assumed here that Federal land shared in the decline and the subsequent recovery. Oil prices have been on a roller coaster since the mid-1990s. They declined sharply in 1997–1998, rebounded in 1999–2000, fell again in 2001, and rose substantially in 2002–2005. These fluctuations have caused the estimated value of Federal mineral deposits to fluctuate as well. In 2005 as estimated here, the combined real value of Federal land and mineral rights was higher than it has ever been, but only 30 percent greater than in 1982. These estimates omit some valuable assets owned by the Federal Government, such as works of art and historical artifacts partly because such unique assets are unlikely ever to be sold and partly because there is no comprehensive inventory or realistic basis for valuing them.

Total Assets: The total value of Government assets measured in constant dollars has risen sharply in the past three years, and was higher in 2005 than ever before. The Government’s asset holdings are vast. As of the end of 2005, Government assets were estimated to be worth about $3.8 trillion or 30 percent of GDP.

Liabilities

Table 13–1 includes all Federal liabilities that would normally be listed on a balance sheet. All the various forms of publicly held Federal debt are counted, as are Federal pension and health insurance obligations to civilian and military retirees including the disability compensation that is owed the Nation’s veterans, which can be thought of as a form of deferred compensation. The estimated liabilities stemming from Federal insurance programs and loan guarantees are also shown. The benefits that are due and payable under various Federal programs are also included, but these liabilities reflect only binding short-term obligations, not the Government’s full commitment under these programs.

Future benefit payments that are promised through Social Security and other Federal income transfer programs are not Federal liabilities in a legal or accounting sense. They are Federal responsibilities, however, and it is important to gauge their size, but they are not binding in the same way as a legally enforceable claim would be. The budget projections and other data in Part III are designed to provide a sense of these broader responsibilities and their claim on future budgets.

Debt Held by the Public: The Federal Government’s largest single financial liability is the debt owed to the public. It amounted to about $4.6 trillion at the end of 2005. Publicly held debt declined for several years in the late 1990s because of the unified budget surpluses that emerged at that time, but as deficits returned, publicly held debt began to increase again.

Insurance and Guarantee Liabilities: The Federal Government has contingent liabilities arising from the loan guarantees it has made and from its insurance programs. When the Government guarantees a loan or offers insurance, cash disbursements are often small initially, and if a fee is charged the Government may even collect money; but the risk of future cash payments associated with such commitments can be large. The figures reported in Table 13–1 are estimates of the current discounted value of prospective future losses on outstanding guarantees and insurance contracts. The present value of all such losses taken together is about $0.1 trillion. As is true elsewhere in this chapter, this estimate does not incorporate the market value of the risk associated with these contingent liabilities; it merely reflects the present value of expected losses. Although individually many of these programs are large and potential losses can be a serious concern, relative to total Federal liabilities or even the total debt held by the public, these insurance and guarantee liabilities are fairly small. They were less than 2 percent of total liabilities in 2005.

Pension and Post-Employment Health Liabilities: The Federal Government owes pension benefits as a form of deferred compensation to retired workers and to current employees who will eventually retire. It also provides civilian retirees with subsidized health insurance through the Federal Employees Health Benefits program and military retirees receive similar benefits. Veterans are owed compensation for their service-related disabilities. While the Government’s employee pension obligations have risen slowly, there has been a sharp increase in the liability for future health benefits and veterans compensation. The discounted present value of all these benefits was estimated to be around $4.4 trillion at the end of 2005 up from $3.0 trillion in 2000.2 There was a large expansion in Federal military retiree health benefits legislated in 2001.

The Balance of Net Liabilities

The Government need not maintain a positive balance of net assets to assure its fiscal solvency, and the buildup in net liabilities since 1960 has not significantly affected Federal creditworthiness. Long-term Government interest rates in 2003 reached their lowest levels in 45 years, and in 2004–2005 they remained lower than at any time from 1965 through 2002. Despite the continued good performance of interest rates, there are limits to how much debt the Government can assume without putting its finances in jeopardy. Over an extended time horizon, the Federal Government must take in enough revenue to cover all of its spending including debt service. The Government’s ability to service its debt in the long run cannot be gauged from a balance sheet alone. To judge the prospects for long-run solvency it is necessary to project the budget into the future. That is the subject of the next section.

2Estimates of these liabilities were derived from the 2005 Financial Report of the United States Government and Reports from earlier years. Values for some prior years were extrapolated.
PART III—THE LONG-RUN BUDGET OUTLOOK

A balance sheet, with its focus on obligations arising from past transactions, can only show so much information. For the Government, it is also important to anticipate what future budgetary requirements might flow from current laws and policies. Despite the uncertainty surrounding the assumptions needed for such estimates, very long-run budget projections can be useful in sounding warnings about potential problems. Federal responsibilities extend well beyond the next five or ten years, and problems that may be small in that time frame can become much larger if allowed to grow.

Programs like Social Security and Medicare are expected to continue indefinitely, and so long-range projections for Social Security and Medicare have been prepared for decades. Budget projections for individual programs, even important ones such as Social Security and Medicare, however, cannot reveal the Government’s overall budgetary position. Only by projecting the entire budget is it possible to anticipate whether sufficient resources will be available to meet all the anticipated requirements for individual programs. It is also necessary to estimate how the budget’s future growth compares with that of the economy to judge how well the economy might be able to support future budgetary needs.

To assess the overall financial condition of the Government, it is necessary to examine the future prospects for all Government programs including the revenue sources that support Government spending. Such an assessment reveals that the key drivers of the long-range deficit are, not surprisingly, Social Security and Medicare along with Medicaid, the Federal program that helps States provide health coverage for low-income people and nursing home care for the elderly. Medicaid, like Medicare and Social Security, is projected to grow more rapidly than the economy over the next several decades and to add substantially to the overall budget deficit. Under current law, there is no offset anywhere in the budget large enough to cover all the demands that will eventually be imposed by Social Security, Medicare, and Medicaid.

Future budget outcomes depend on a host of unknowns—constantly changing economic conditions, unforeseen international developments, unexpected demographic shifts, the unpredictable forces of technological advance, and evolving political preferences to name a few. These uncertainties make even short-run budget forecasting quite difficult, and the uncertainties increase the further into the future projections are extended. While uncertainty makes forecast accuracy difficult to achieve, it enhances the importance of long-run budget projections because people are risk averse. It is not possible to assess the likelihood of future risks without projections. A full treatment of all the relevant risks is beyond the scope of this chapter, but the chapter does show how long-run budget projections respond to changes in some of the key economic and demographic parameters. Given the uncertainties, a useful first step is to work out the implications of expected developments on a “what if” basis.

The Impending Demographic Transition

In 2008, the first members of the huge generation born after World War II, the so-called baby boomers, will reach age 62 and become eligible for early retirement under Social Security. Three years later, they will turn 65 and become eligible for Medicare. In the years that follow, the elderly population will steadily increase, putting serious strains on the budget because of increased expenditures for Social Security and for the Government’s health programs serving this population.

The pressures are expected to persist even after the baby boomers are gone. The Social Security actuaries project that the ratio of workers to Social Security beneficiaries will fall from around 3.3 currently to a little over 2 by the time most of the baby boomers have retired. From that point forward, because of lower fertility and improved mortality, the ratio is expected to continue to decline slowly. With fewer workers to pay the taxes needed to support the retired population, budgetary pressures will continue to grow. The problem posed by the demographic transition is a permanent one.

Currently, the three major entitlement programs—Social Security, Medicare and Medicaid—account for 43 percent of non-interest Federal spending, up from 30 percent in 1980. By 2035, when the remaining baby boomers will be in their 70s and 80s, these three programs could easily account for nearly two-thirds of non-interest Federal spending. At the end of the projection period, in 2080, the figure rises to around three-quarters of non-interest spending. In other words, under an extension of current-law formulas, almost all of the budget, aside from interest, would go to these three programs alone. To say the least, that would severely reduce the flexibility of the budget, and the Government’s ability to respond to new challenges.

An Unsustainable Path

These long-run budget projections show clearly that the budget is on an unsustainable path, although the rise in the deficit unfolds gradually. The budget deficit is projected to decline as the economy expands over the next several years, while most of the baby boomers are still in the work force. As the baby boomers begin to reach retirement age in large numbers, the deficit begins to rise. In about 10 years, the deficit as a share of GDP is projected to reach a low point and then begin an inexorable increase. Without reforms, by the end of this chapter’s projection period in 2080, rising deficits would have driven publicly held Federal debt to levels well above the previous peak level relative to GDP reached at the end of World War II. Long before that point is ever reached there is likely to be a crisis that will force budgetary changes, but the tim-
The revenue projections start with the budget's estimate of receipts under the Administration's proposals. In the long run, receipts are assumed to increase as people's real incomes rise. The income tax is indexed for inflation, but not for real growth, so as real incomes rise, the effective income rate increases. This tendency is partly offset because many excise taxes are not indexed and therefore tend to decline in real terms as inflation pushes up the price level. Furthermore, payroll taxes are based on cash wages and the share of cash wages in total compensation and in overall GDP has been declining as workers receive a larger share of their compensation in the form of untaxed fringe benefits. These offsetting tendencies are not powerful enough, however, to prevent the overall tax share from rising somewhat in the long run. In the projections summarized in Table 13–2, the ratio of receipts to GDP rises to around 22 percent by the end of the 75-year period.3

In the past, these long-run budget projections have jumped off from the end point for the current budget. This year's Budget includes the effects of adding personal retirement accounts to Social Security. Personal accounts are one element within a set of larger reforms that would restore solvency to Social Security. The Administration has not yet specified a complete set of reforms to achieve solvency. Within the current budget horizon, these other reforms would not have significant budget effects. In the long range, however, their effects would be significant. Because these other reforms are not yet specified, the long-range projections shown here do not incorporate personal retirement accounts. Show-

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### Table 13-2. LONG-RUN BUDGET PROJECTIONS

(receipts, outlays, surplus or deficit, and debt as a percent of GDP)

<table>
<thead>
<tr>
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<td>20.9</td>
<td>17.9</td>
<td>18.9</td>
<td>19.4</td>
<td>20.0</td>
<td>21.3</td>
<td>22.4</td>
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<tr>
<td>Outlays:</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discretionary</td>
<td>10.1</td>
<td>8.7</td>
<td>6.3</td>
<td>6.1</td>
<td>5.6</td>
<td>5.6</td>
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<td>Mandatory:</td>
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<td></td>
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</tr>
<tr>
<td>Social Security</td>
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<td>4.3</td>
<td>4.2</td>
<td>4.2</td>
<td>4.9</td>
<td>5.8</td>
<td>5.9</td>
<td>6.1</td>
<td>6.4</td>
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<tr>
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<td>1.7</td>
<td>2.0</td>
<td>2.8</td>
<td>3.7</td>
<td>5.0</td>
<td>6.1</td>
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</tr>
<tr>
<td>Medicaid</td>
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<td>0.7</td>
<td>1.2</td>
<td>1.5</td>
<td>1.9</td>
<td>2.1</td>
<td>2.3</td>
<td>2.8</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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<td>3.2</td>
<td>2.4</td>
<td>2.3</td>
<td>1.9</td>
<td>1.6</td>
<td>1.4</td>
<td>1.1</td>
<td>0.9</td>
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<tr>
<td>Subtotal, mandatory</td>
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<td>9.8</td>
<td>10.8</td>
<td>12.4</td>
<td>14.4</td>
<td>15.7</td>
<td>17.8</td>
<td>21.0</td>
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<tr>
<td>Net Interest</td>
<td>1.9</td>
<td>3.2</td>
<td>2.3</td>
<td>1.9</td>
<td>1.4</td>
<td>1.5</td>
<td>2.3</td>
<td>4.7</td>
<td>9.4</td>
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<tr>
<td>Total outlays</td>
<td>21.7</td>
<td>21.8</td>
<td>18.4</td>
<td>18.9</td>
<td>19.4</td>
<td>21.6</td>
<td>23.6</td>
<td>28.2</td>
<td>36.1</td>
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</tr>
<tr>
<td>Surplus or Deficit (–)</td>
<td>–2.7</td>
<td>–3.9</td>
<td>2.4</td>
<td>–1.0</td>
<td>–0.6</td>
<td>–2.2</td>
<td>–3.6</td>
<td>–6.9</td>
<td>–13.7</td>
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</tr>
<tr>
<td>Primary Surplus or Deficit (–)</td>
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<td>–0.6</td>
<td>4.7</td>
<td>0.9</td>
<td>0.9</td>
<td>–0.6</td>
<td>–1.3</td>
<td>–2.1</td>
<td>–4.2</td>
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<td>Federal Debt Held by the Public</td>
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<td>42.0</td>
<td>35.1</td>
<td>37.5</td>
<td>26.2</td>
<td>28.8</td>
<td>43.3</td>
<td>88.6</td>
<td>177.4</td>
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Note: The figures shown in this table for 2015 and beyond are the product of a long-range forecasting model maintained by the Office of Management and Budget. This model is separate from the models and capabilities that produce detailed programmatic estimates in the Budget. It was designed to produce long-range forecasts based on additional assumptions regarding growth of the economy, the long-range evolution of specific programs, and the demographic and economic forces affecting those programs. The model, its assumptions, and sensitivity testing of those assumptions are presented in this chapter.

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3 The Alternative Minimum Tax is also scheduled to take a growing share of income under current law, because its parameters are not indexed to inflation. That increase is not assumed to continue in these projections because it would imply a fundamental change in the tax system.

4 The long-run projections do not incorporate the Administration's proposal for automatic spending reductions in Medicare if the program's future reliance on general revenues exceeds the threshold of 45 percent of expenditures established in the Medicare Modernization Act. This proposal is intended to encourage Congress and the President to reach agreement on reforms to slow Medicare spending to bring it back in line with the 45 percent threshold. Assuming that these automatic reductions would continue each year throughout the 75-year projection period would result in an unrealistic projection of Medicare spending.

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The long-run budget outlook is highly uncertain (see the technical note at the end of this chapter for a further discussion of the forecasting assumptions used to make these budget projections). With pessimistic assumptions, the fiscal picture deteriorates even sooner than in the base projection. More optimistic assumptions imply a longer period before the pressures of rising entitlement spending overwhelm the budget. But despite the unavoidable uncertainty, these projections clearly show that under a wide range of forecasting assumptions, the resources generated by the programs themselves will be insufficient to cover the long-run costs of Social Security and Medicare.

### Alternative Economic, Technical, and Policy Assumptions

The quantitative results discussed above are sensitive to changes in underlying economic and technical assumptions. Some of the most important of these alternative economic and technical assumptions and their effects on the budget outlook are discussed below. They generally show that there are mounting deficits under most reasonable projections of the budget.

1. Health Spending: The projections for Medicare over the next 75 years are based on the actuarial projections in the 2005 Medicare Trustees' Report that include the effects of the Medicare Prescription Drug and Modernization bill enacted in 2003. Following the recommendations of its Technical Review Panel, the Medi...
care trustees assume that over the long-run “age-and
gender-adjusted, per-beneficiary spending growth ex-
ceeds the growth of per-capita GDP by 1 percentage
point per year.” This implies that total Medicare spend-
ing will rise faster than GDP throughout the projection
period.
Eventually, the rising trend in health care costs for
both Government and the private sector will have to
end, but it is hard to know when and how that will
happen. Improved health and increased longevity are
highly valued, and society has shown that it is willing
to spend a larger share of income on them than it
did in the past. Whether society will be willing to de-
vote the large share of resources to health care implied
by these projections is an open question. The alter-
natives highlight the effect of raising or lowering the
projected growth rate in per capita health care costs
by \( \frac{1}{4} \) percentage point.

2. Discretionary Spending: The projection of discre-
tionary spending is essentially arbitrary, because dis-
cretionary spending is determined annually through the
legislative process, and no formula can dictate future
spending in the absence of legislation. Alternative as-
sumptions have been made for discretionary spending
in past budgets. Holding discretionary spending un-
changed in real terms is the “current services” assump-
tion used for baseline budget projections when there
is no legislative guidance on future spending levels.
Extending this assumption over many decades, how-
ever, is not realistic. When the population and economy
grow, as assumed in these projections, the demand for
public services is very likely to expand as well. The
current base projection assumes that discretionary
spending keeps pace with the growth in GDP in the
long run, so that spending increases in real terms
whenever there is real economic growth. An alternative
assumption would be to limit the percentage increase
in discretionary spending to the increase in population
plus inflation, in other words, to hold the real per cap-
ita inflation-adjusted level of discretionary spending
constant. This along with the projected rise in tax rev-
ue produces a small budget surplus. Even in this
case, the entitlement problem is not solved but the
threat to the budget is postponed for several decades.
3. A Constant Revenue Share: In the base projection, individual income tax receipts gradually rise over time relative to GDP. This increase reflects the higher marginal tax rates that people face as their real incomes rise. Eventually, these higher rates would bring the ratio of receipts to GDP to unprecedented levels—22 percent after 75 years. Alternatively, receipts might be expected to hold within some long-run historical range.
Over the last 40 years, for example, receipts have averaged 18.2 percent of GDP. Tax receipts have risen above this ratio from time to time, most recently at the end of the 1990s, but those periods of high taxes have always been followed by tax changes that have restored the average tax ratio. Although such changes require legislation and so are not implied by current law, a plausible alternative is to hold the receipts ratio constant relative to GDP. In that case, the deficit rises somewhat faster than in the base assumptions.

4. Productivity: The rate of future productivity growth has a major effect on the long-run budget outlook. It is also highly uncertain. Over the next few decades an increase in productivity growth would reduce projected budget deficits appreciably. Higher productivity growth adds directly to the growth of the major tax bases, while it has only a delayed effect on outlay growth even assuming that in the long-run discretionary spending rises with GDP. In the latter half of the 1990s, after two decades of much slower growth, the rate of productivity growth increased unexpectedly and it has increased again since 2000. This increase in productivity growth is one of the most welcome developments of the last several years. Although the long-run growth rate of productivity is inherently uncertain, growth in real GDP per hour averaged 2.2 percent per year from 1948 through 1973 and again from 1995 through 2004. It has grown 2.6 percent per year since 2000, and the projections here assume that real GDP per hour will grow at a 2.3 percent annual rate. If the recent increase in trend productivity growth is sustained, it might continue growing faster than the historical average for some time to come. The alternatives highlight the effect of raising the projected productivity growth rate by \( \frac{1}{4} \) percentage point and the effect of lowering it by the same amount.


- The demographic projections assume that fertility will average around 1.9 births per woman in the future, just slightly below the replacement rate needed to maintain a constant population—2.1 births.
The rate of immigration is assumed to average around 900,000 per year in these projections. Higher immigration relieves some of the downward pressure on population growth from low fertility and allows total population to expand throughout the projection period, although at a much slower rate than has prevailed historically.
• Mortality is projected to decline, i.e., people are expected to live longer. The average female lifespan is projected to rise from 79.6 years in 2004 to 85.2 years by 2080, and the average male lifespan is projected to increase from 74.6 years in 2004 to 81.7 years by 2080. A technical panel to the Social Security Trustees recently reported that the improvement in longevity might even be greater.

Chart 13-9. Alternative Mortality Assumptions

Surplus(+) / Deficit(-) as a percent of GDP

Actuarial Projections for Social Security and Medicare

Social Security and Medicare are the Government’s two largest entitlement programs. Both rely on payroll tax receipts from current workers and employers for at least part of their financing, while the programs’ benefits largely go to those who are retired. The importance of these programs for the retirement security of current and future generations makes it essential to understand their long-range financial prospects. Both programs’ actuaries have calculated that they face persistent long-run deficits. How best to measure the long-run imbalance in Social Security is a challenging analytical question; the imbalance may be even more difficult to measure in Medicare, which includes both Hospital Insurance (HI), funded through the payroll tax, and Supplementary Medical Insurance (SMI), financed through premiums and general revenues. Under reasonable assumptions, however, each program embodies such a huge financial deficiency, and it will be very difficult for the Government as a whole to maintain control of the budget without addressing both of these programs’ financial problems.
Social Security: The Long-Range Challenge

Social Security provides financial security for the elderly, the disabled, and survivors. The Social Security system is intended to be self-financing over time. The principle of self-financing is important because it compels corrections in the event that projected benefits consistently exceed dedicated receipts.

While Social Security is running surpluses today, it will begin running cash deficits within 12 years. Social Security's spending path is unsustainable under current law. The retirement of the baby-boom generation, born following World War II, will begin to increase greatly the number of Social Security beneficiaries within five years. Demographic trends toward lower fertility rates and longer life spans mean that the ratio of retirees to the working population will remain permanently higher following the baby boomers' passage through the system. The number of workers available to support each beneficiary is projected to decline from 3.3 today to 2.2 in 2030, and to continue to decline slowly from there. This decline in the workforce available to support retiree benefits means that the Government will not be able to meet current-law benefit obligations at current payroll tax rates.

The size of Social Security's future shortfall cannot be known with precision, but a gap between Social Security receipts and outlays emerges under a wide range of reasonable forecasting assumptions. Long-range uncertainty underscores the importance of creating a system that is financially stable and self-contained. Otherwise, the demands created by Social Security could compromise the rest of the budget and the Nation's economic health. The actuarial shortfall is estimated to be $12.8 trillion over an infinite horizon.

The current structure of Social Security leads to substantial generational differences in the average rate of return people can expect from the program. While previous generations have fared extremely well, the average individual born today can expect to receive less than a two percent annual real rate of return on their total payroll taxes (including the employer's portion, which most economists believe is ultimately borne by labor). Moreover, such estimates in a sense overstate the expected rate of return for future retirees, because they assume no changes in current-law taxes or benefits, even though such changes are needed to meet Social Security's financing shortfall. As an example, a 1995 analysis found that after adjusting revenues to keep the system solvent, a typical worker born in 2000 would receive a 1.5 percent rate of return instead of a 1.7 percent rate of return.

One way to address the issues of uncertainty and declining rates of return, while protecting national savings, would be to allow individuals to invest some of their payroll taxes in personal retirement accounts. The budget includes the estimated impact from the creation of personal accounts, funded through the Social Security payroll tax. The Administration has also embraced the concept of progressive indexing, which would significantly contribute to the solvency of the system by partially indexing the growth of benefits for higher-wage workers to inflation rather than wage growth.
Medicare: The Long-Range Challenge

Medicare provides health insurance for tens of millions of Americans, including most of the nation’s seniors. It is composed of two programs: Hospital Insurance (HI) or Part A, which covers medical expenses relating to hospitalization, and Supplemental Medical Insurance (SMI) or Part B, which pays for physicians’ services and other related expenditures. Starting this year, Medicare offers a voluntary prescription drug benefit, Medicare Part D, which is part of the SMI Trust Fund.

Like Social Security, HI is intended to be self-financing through dedicated taxes. According to the Medicare trustees’ most recent report, the Trust Fund is projected to be depleted in 2020. Looking at the long run, the Medicare actuaries project a 75-year unfunded promise to Medicare’s HI trust fund of around $8.6 trillion (net present value). However, this measure tells less than half the story because it does not include the deficiency in Medicare’s Part B and Part D programs. The main source of dedicated revenues to the SMI Trust Fund is beneficiary premiums, which generally cover about one-quarter of its expenses. SMI’s funding structure creates an enormous financing gap for the program, and is the largest contributor to the total Medicare program shortfall of $29.9 trillion. SMI’s financing gap is covered by an unlimited tap on general revenues. According to the Medicare Trustees 2005 report, “When the Part D program becomes fully implemented in 2006, general revenue transfers are expected to constitute the largest single source of income to the Medicare program as a whole—and would add significantly to the Federal Budget pressures.”

This bifurcated trust fund structure finances Medicare as if the program offers two separate, unrelated benefits, instead of recognizing that Medicare provides integrated, comprehensive health insurance coverage. The MMA took an important first step toward improving Medicare sustainability by requiring the Medicare Trustees’ Report to include a new, comprehensive fiscal analysis of the program’s financing and issue a warning if this analysis projects that the share of Medicare expenditures funded through general revenue funding exceeds 45 percent. However, while this warning requires the President to propose legislation to restore Medicare spending to sustainable levels, it does not mandate congressional action.

The Budget proposes to strengthen the MMA provision by modestly slowing the rate of Medicare growth if the MMA threshold is exceeded. The lower growth would be achieved through a four-tenths of a percent reduction to all payments beginning the year the threshold is exceeded. The change would only take effect if the President and Congress fail to agree on legislation to bring Medicare spending back into line with the threshold established by the MMA. The reduction would grow by four-tenths of a percent every year the shortfall continues to occur. This proposal would improve Medicare’s sustainability by slowing the rate of growth in spending.

The Social Security and Medicare Trustees’ Projections: In their annual reports and related documents, the Social Security and Medicare trustees typically present calculations of the 75-year actuarial imbalance or deficiency for Social Security and Medicare. The calculation covers current workers and retirees, as well as those projected to join the program within the next 75 years (this is the so-called “open-group”); the “closed-group” covers only current workers and retirees). These estimates measure the present value of each program’s future benefits net of future income. They are complementary to the flow projections described in the preceding section. More recently, the trustees’ reports have also included a projection of the deficiency in perpetuity. This is the clearest way to see the imbalances in both programs.

The present value of the Social Security imbalance over the next 75 years was estimated to be $5.7 trillion as of January 1, 2005. The comparable estimate for Medicare was $29.9 trillion. (The estimates in Table 13–3 were prepared by the Social Security and Medicare actuaries, and they are based on the intermediate economic and demographic assumptions used for the 2005 trustees’ reports. These differ in some respects from the assumptions used for the long-run budget projections described in the preceding section, but Table 13–3 would still show large imbalances if the budget assumptions had been used for the calculations.) Doing the calculations for a 75-year horizon understates the deficiencies, because the 75-year actuarial calculations omit the large deficits that continue to occur beyond the 75th year. The understatement is significant, even though values in the distant future are discounted by a large amount. For example, merely adding an additional year to the estimating period would widen the imbalance for Social Security from $5.7 trillion to $5.8 trillion. Since 2004, the Social Security and Medicare actuaries have also presented the actuarial imbalances calculated in perpetuity without assuming a fixed horizon. Table 13–3 shows how much these distant benefits add to the programs’ imbalances. For Social Security, the imbalance in perpetuity is $12.8 trillion and for Medicare it is a staggering $68.4 trillion as of January 1, 2005.
The imbalance estimated on a perpetuity basis is the amount that the Government would have to raise in the private capital markets to resolve the program’s imbalance permanently (given current assumptions). If nothing else changes, the estimated imbalance will grow every year at approximately the rate of interest, just as an unpaid debt grows with interest each year it remains outstanding. For Social Security this implies an increase of approximately $600 billion in 2005 and growing amounts with every year that the imbalance remains unaddressed. The comparable imbalance in Medicare is much larger than the Social Security imbalance. The exact size of the imbalance is harder to estimate for Medicare because of greater uncertainty regarding the future growth of medical costs.

**Social Security:** The current deficiency in Social Security is essentially due to the fact that past and current participants will receive more benefits than they have paid for with taxes (calculated in terms of present values). By contrast, future participants—those who are now under age 15 or not yet born—are projected to pay in present value about $0.8 trillion more than they will collect in benefits. This can be seen by comparing the total deficiency in perpetuity, $12.8 trillion, with the excess of benefits over taxes for current program participants, $13.6 trillion, from Table 13–3. In other words, the taxes that future participants are expected to pay will be large enough to cover the benefits due them under current law, but not large enough to cover those benefits plus the benefits promised to current program participants in excess of the taxes paid by current program participants.

**Medicare:** Extending the horizon to infinity shows that the benefits due future participants will eventually exceed projected payroll tax receipts and premiums by a huge margin. The infinite horizon projections shown at the top of Table 13–3 reveal that total Medicare benefits exceed future taxes and premiums by $68.4 trillion in present value. This is due to an expected excess of benefits over taxes for current participants over their lifetimes, but also for future generations. Unlike Social Security, the imbalance is not simply the inherited result of a pay-as-you-go program that was never fully funded, and which faces a demographic crunch. That is part of the problem, but even more fundamental is the assumption that medical costs continue to rise in excess of general inflation so that medical spending increases in proportion to total output in the economy.

Passage of the Medicare Prescription Drug, Improvement and Modernization Act added substantially to Medicare’s actuarial deficiency, as can be seen in the 75-year projections in Table 13–3 comparing 2003 with 2004. The legislation also increased private sector participation and added new fiscal safeguards which may help address Medicare’s financial shortfall, but how large the impact of these changes will be is uncertain and their effects are not captured in the figures reported here.

**Table 13–3. ACTUARIAL PRESENT VALUES OF BENEFITS IN EXCESS OF FUTURE TAXES AND PREMIUMS**

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<tr>
<th></th>
<th>2004</th>
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<tr>
<td><strong>Medicare</strong></td>
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<tr>
<td>Future benefits less taxes for those age 15 and over</td>
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<td>Future benefits less taxes and premiums for those age 14 and under and those not yet born</td>
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<td><strong>Social Security and Medicare</strong></td>
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<td>3.6</td>
</tr>
<tr>
<td>Future benefits less taxes and premiums for those age 14 and under and those not yet born</td>
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<tr>
<td>Net present value for past, present and future participants</td>
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<td>39.9</td>
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</table>

**Addendum:**

Actuarial deficiency as a percent of the discounted payroll tax base:

<p>| | | | | |</p>
<table>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>-1.89</td>
<td>-1.86</td>
<td>-1.87</td>
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<td>-1.21</td>
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General revenues have covered about 75 percent of SMI program costs for many years, with the rest being covered by premiums paid by the beneficiaries. In Table 13–3, only the receipts explicitly earmarked for financing these programs have been included. The intragovernmental transfer is not financed by dedicated tax revenues, and the share of general revenues that would have to be devoted to SMI to close the gap increases substantially under current projections. Other Government programs also have a claim on these general revenues. From the standpoint of the Government as a whole, only receipts from the public can finance expenditures.

A significant portion of Medicare’s actuarial deficiency is caused by the rapid expected increase in future benefits due to rising health care costs. Some, perhaps most, of the projected increase in relative health care costs reflects improvements in the quality of care, although there is also evidence that medical errors, waste, and excessive medical liability claims add needlessly to costs. But even though the projected increases in Medicare spending are likely to contribute to longer life-spans and safer treatments, the financial implications remain the same. As long as medical costs continue to outpace the growth of GDP and other expenditures, as assumed in these projections, the financial pressure on the budget will mount, and that is reflected in the estimates shown in Tables 13–2 and 13–3.

The Trust Funds and the Actuarial Deficiency: The fact that a special account or trust fund exists does not mean that the Government necessarily saved the money recorded there. The trust fund surpluses could have added to national saving if debt held by the public had actually been reduced because of the trust fund accumulations. But it is impossible to know for sure whether this happened or not.

At the time Social Security or Medicare redeems the debt instruments in the trust funds to pay benefits not covered by income, the Treasury will have to turn to the public capital markets to raise the funds to finance the benefits, just as if the trust funds had never existed. From the standpoint of overall Government finances, the trust funds do not reduce the future burden of financing Social Security or Medicare benefits, and for that reason, the trust funds are not netted against future benefits in Table 13–3. The eventual claim on the Treasury is better revealed by the difference between future benefits and future taxes or premiums.

In any case, trust fund assets remain small in size compared with the programs’ future obligations and well short of what would be needed to pre-fund future benefits as indicated by the programs’ actuarial deficiencies. Historically, Social Security and Medicare’s HI program were financed mostly on a pay-as-you-go basis, whereby workers’ payroll taxes were immediately used to pay retiree benefits. For the most part, workers’ taxes have not been used to pre-fund their own future benefits, and taxes were not set at a level sufficient to pre-fund future benefits had they been saved.

The Importance of Long-Run Measures in Evaluating Policy Changes: Consider a proposed policy change in which payroll taxes paid by younger workers were reduced by $100 this year while the expected present value of these workers’ future retirement benefits were also reduced by $100. The present value of future benefit payments would decrease by the same amount as the reduction in revenue. On a cash flow basis, however, the lost revenue occurs now, while the decrease in future outlays is in the distant future beyond the budget window, and the Federal Government must increase its borrowing to make up for the lost revenue in the meantime. If policymakers only focus on the Government’s near-term borrowing needs, a reform such as this would appear to worsen the Government’s finances, whereas the policy actually has a neutral impact.

Now suppose that future outlays were instead reduced by a little more than $100 in present value. In this case, the actuarial deficiency would actually decline, even though the Government’s borrowing needs would again increase if the savings occurred outside the budget window. Focusing on the Government’s near-term borrowing alone, therefore, can lead to a bias against policies that could improve the Federal Government’s overall long-run fiscal condition. Taking a longer view of policy changes and considering measures of the Government’s fiscal condition other than the unified budget surplus or deficit can correct for such mistakes.

PART IV—NATIONAL WEALTH AND WELFARE

Unlike a private corporation, the Federal Government routinely invests in ways that do not add directly to its assets. For example, Federal grants are frequently used to fund capital projects by State or local governments for highways and other purposes. Such investments are valuable to the public, which pays for them with its taxes, but they are not owned by the Federal Government and would not show up on a balance sheet for the Federal Government. It is true, of course, that by encouraging economic growth in the private sector, the Government augments future Federal tax receipts. However, the fraction of the return on investment that comes back to the Government in higher taxes is far less than what a private investor would require before undertaking a similar investment.

The Federal Government also invests in education and research and development (R&D). These outlays contribute to future productivity and are analogous to an investment in physical capital. Indeed, economists have computed stocks of human and knowledge capital to reflect the accumulation of such investments. Nonetheless, such hypothetical capital stocks are obviously not owned by the Federal Government, nor would they appear on a typical balance sheet as a Government
asset, even though these investments also contribute to future tax receipts.

To show the importance of these kinds of issues, Table 13–4 presents a national balance sheet. It includes estimates of national wealth classified into three categories: physical assets, education capital, and R&D capital. The Federal Government has made contributions to each of these types of capital, and these contributions are shown separately in the table. At the same time, the private wealth shown in Table 13–4 generates future income and tax receipts, which finance future public activities. The Nation’s wealth sets the ultimate limit on the resources available to the Government.

The table shows that Federal investments are responsible for about 7 percent of total national wealth including education and research and development. This may seem like a small fraction, but it represents a large volume of capital: $7.3 trillion. The Federal contribution is down from 8.9 percent in the mid-1980s and from 11.7 percent in 1960. Much of this reflects the relative decline in the stock of defense capital, which has fallen from around 34 percent of GDP in 1960 to under 6 percent in 2005.

| Physical Assets: The physical assets in the table include stocks of plant and equipment, office buildings, residential structures, land, and the Government’s physical assets such as military hardware and highways. Automobiles and consumer appliances are also included in this category. The total amount of such capital is vast, $55.5 trillion in 2005, consisting of $47.0 trillion in private physical capital and $8.5 trillion in public physical capital (including capital funded by State and local governments); by comparison, GDP was around $12 trillion in 2005. The Federal Government’s contribution to this stock of capital includes its own physical assets of $3.1 trillion plus $1.3 trillion in accumulated grants to State and local governments for capital projects. The Federal Government has financed about one-quarter of all the physical capital held by other levels of government.

Education Capital: Economists have developed the concept of human capital to reflect the notion that individuals and society invest in people as well as in physical assets. Investment in education is a good example of how human capital is accumulated. Table 13–4 includes an estimate of the stock of capital represented by the Nation’s investment in formal education and training. The estimate is based on the cost of replacing

### Table 13–4. NATIONAL WEALTH

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<td>54.6</td>
<td>63.1</td>
<td>69.0</td>
<td>87.7</td>
<td>97.1</td>
<td>102.2</td>
<td>106.9</td>
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<tr>
<td>Net Claims of Foreigners on U.S. (+)</td>
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<tr>
<td>Net Wealth</td>
<td>19.5</td>
<td>23.8</td>
<td>30.0</td>
<td>37.9</td>
<td>49.3</td>
<td>54.5</td>
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<td>67.4</td>
<td>84.6</td>
<td>92.9</td>
<td>97.9</td>
<td>101.4</td>
</tr>
</tbody>
</table>

### ADDENDA:

- Per Capita Wealth (thousands of 2005 $) | 108.1 | 122.9 | 146.3 | 175.8 | 216.0 | 228.3 | 248.3 | 252.6 | 259.2 | 289.9 | 318.9 | 332.5 | 341.4 |
- Ratio of Wealth to GDP (in percent) | 691.4 | 673.1 | 707.2 | 789.8 | 857.7 | 794.9 | 776.0 | 744.5 | 764.6 | 793.6 | 805.0 | 805.0 |
- Total Federally Funded Capital (trillions 2005 $) | 2.3 | 2.6 | 3.0 | 3.5 | 4.3 | 4.8 | 5.0 | 5.1 | 5.6 | 6.4 | 6.8 | 7.3 |
- Percent of National Wealth | 11.7 | 10.7 | 9.9 | 9.3 | 8.7 | 8.9 | 8.0 | 7.5 | 6.9 | 6.9 | 7.2 | 7.2 |
the years of schooling embodied in the U.S. population aged 15 and over; in other words, the goal is to measure how much it would cost to reeducate the U.S. workforce at today’s prices (rather than at the original cost). This is more meaningful economically than the historical cost of schooling, and is comparable to the methods used to estimate the physical capital stocks presented earlier.

Although this is a relatively crude measure, it does provide a rough order of magnitude for the current value of the investment in education. According to this measure, the stock of education capital amounted to $48.1 trillion in 2005, of which about 3 percent was financed by the Federal Government. It was approximately equal in value to the Nation’s private stock of physical capital. The main investors in education capital have been State and local governments, parents, and students themselves.

Even broader concepts of human capital have been proposed. Not all useful training occurs in a schoolroom or in formal training programs at work. Much informal learning occurs within families or on the job, but measuring its value is very difficult. Labor compensation, however, amounts to about two-thirds of national income with the other third attributed to capital, and thinking of total labor income as the product of human capital suggests that the total value of human capital would be two times the estimated value of physical capital if human capital earned a similar rate of return to other forms of capital. Thus, the estimates offered here are in a sense conservative, because they reflect only the costs of acquiring formal education and training, which is why they are referred to as education capital rather than human capital. They constitute that part of total human capital that can be attributed to formal education and training.

*Research and Development Capital:* Research and Development can also be thought of as an investment, because R&D represents a current expenditure that is made in the expectation of earning a future return. After adjusting for depreciation, the flow of R&D investment can be added up to provide an estimate of the current R&D stock. This stock is estimated to have been $3.3 trillion in 2005. Although this represents a large amount of research, it is a relatively small portion of total National wealth. Of this stock, 38 percent was funded by the Federal Government.

*Liabilities:* When considering how much the United States owes as a Nation, the debts that Americans owe to one another cancel out. When the debts of one American are the assets of another American, these debts are not a net liability of the Nation as a whole. Table 13–4 only shows National totals. Gross debt is important even though it does not appear in Table 13–4. The amount of debt owed by Americans to other Americans can exert both positive and negative effects on the economy. Americans’ willingness and ability to borrow have helped fuel the current expansion by supporting consumption and housing purchases. On the other hand, growing debt could be a risk to future growth, if the ability to service the higher level of debt were to become impaired.

The only debts that show up in Table 13–4 are the debts Americans owe to foreigners for the investments that foreigners have made here. America’s net foreign debt has been increasing rapidly in recent years, because of the rising imbalance in the U.S. current account. Although the current account deficit is at record levels, the size of the net foreign debt remains relatively small compared with the total stock of U.S. assets. It amounted to 5.5 percent of total assets in 2005.

Federal debt does not appear explicitly in Table 13–4 because most of it consists of claims held by Americans; only that portion of the Federal debt which is held by foreigners is included along with the other debts to foreigners. Comparing the Federal Government’s net liabilities with total national wealth does, however, provide another indication of the relative magnitude of the imbalance in the Government’s accounts. Federal net liabilities, as reported in Table 13–1, amounted to 5.6 percent of net U.S. wealth as shown in Table 13–4. Prospectively, however, Federal liabilities are a much larger share of national wealth, as indicated by the long-run projections described in Part III.

**Trends in National Wealth**

The net stock of wealth in the United States at the end of 2005 was $101 trillion, about eight times the size of GDP. Since 1960, it has increased in real terms at an average annual rate of 3.7 percent per year. It grew very rapidly from 1960 to 1973, at an average annual rate of 4.5 percent per year, slightly faster than real GDP grew over the same period. Between 1973 and 1995 growth slowed, as real net wealth grew at an average rate of just 3.1 percent per year, which paralleled the slowdown in real GDP over this period. Since 1995 the rate of growth in U.S. real wealth has picked up. Net wealth has been growing at an average rate of 4.2 percent since 1995, about the same rate as from 1960 to 1973. Productivity growth has also accelerated since 1995, following a similar slowdown from 1973 to 1995.

The net stock of privately owned nonresidential plant and equipment accounts for about 27 percent of all privately owned physical assets. In real terms, it grew 3.3 percent per year on average from 1960 to 2005. It grew especially rapidly from 1960 to 1973, at an average rate of 3.9 percent per year. Since 1973 it has grown more slowly, averaging around 3.0 percent per year. Plant and equipment did not experience a more rapid rate of growth over the last ten years compared with 1973–1995. Private plant and equipment grew 3.0 percent per year on average between 1973 and 1995 and at the same rate from 1995 through 2005. Privately owned residential structures and land have all grown much more rapidly in real value since

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2 R&D depreciates in the sense that the economic value of applied research and development tends to decline with the passage of time, as still newer ideas move the technological frontier.
1995 than from 1973 to 1995, while the stock of consumer durables has grown less rapidly.

The accumulation of education capital has averaged 4.6 percent per year since 1960. It also slowed down between 1973 and 1995 and has grown only slightly more rapidly since then. It grew at an average rate of 5.8 percent per year in the 1960s, 1.9 percentage points faster than the average rate of growth in private physical capital during the same period. Since 1995, education capital has grown at a 4.2 percent annual rate. This reflects both the extra resources devoted to schooling in this period, and the fact that such resources have been increasing in economic value. Meanwhile, R&D stocks have grown at an average rate of 4.0 percent per year since 1995.

### Table 13–5. TRENDS IN NATIONAL WEALTH
(Average annual rates in percent)

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<td>4.3</td>
<td>2.8</td>
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<td>4.2</td>
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<td>Private Physical Wealth</td>
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<td>3.9</td>
<td>2.7</td>
<td>5.0</td>
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<td>Nonresidential Plant and Equipment</td>
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<td>3.9</td>
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<td>3.0</td>
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<tr>
<td>Residential Structures</td>
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<td>4.1</td>
<td>3.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Public Physical Wealth</td>
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<td>2.8</td>
<td>1.6</td>
<td>3.5</td>
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<tr>
<td>Net Education</td>
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<td>5.8</td>
<td>4.1</td>
<td>4.2</td>
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<tr>
<td>Net R&amp;D</td>
<td>5.3</td>
<td>8.6</td>
<td>3.9</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Other Federal Influences on Economic Growth

Federal investment decisions, as reflected in Table 13–4, obviously are important, but the Federal Government also affects wealth in ways that cannot be easily captured in a formal presentation. The Federal Reserve's monetary policy affects the rate and direction of capital formation in the short run, and Federal regulatory and tax policies also affect how capital is invested, as do the Federal Government's policies on credit assistance and insurance.

#### Social Indicators

There are certain broad responsibilities that are unique to the Federal Government. Especially important are preserving national security, fostering healthy economic conditions including sound economic growth, promoting health and social welfare, and protecting the environment. Table 13–6 offers a rough cut of information that can be useful in assessing how well the Federal Government has been doing in promoting the domestic portion of these general objectives.

The indicators shown in Table 13–6 are only a subset drawn from the vast array of available data on conditions in the United States. In choosing indicators for this table, priority was given to measures that were consistently available over an extended period. Such indicators make it easier to draw valid comparisons and evaluate trends. In some cases, however, this meant choosing indicators with significant limitations.
some text
Such a table can serve two functions. First, it highlights areas where the Federal Government might need to modify its current practices or consider new approaches. Where there are clear signs of deteriorating conditions, corrective action might be appropriate. Second, the table provides a context for evaluating other data on Government activities. For example, Government actions that weaken its own financial position may be appropriate when they promote a broader social objective. The Government cannot avoid making such trade-offs because of its size and the broad ranging effects of its actions. Monitoring these effects and incorporating them in the Government's policy making is a major challenge.

It is worth noting that, in recent years, many of the trends in these indicators turned around. The improvement in economic conditions beginning around 1995 has been widely noted, and there have also been some significant social improvements. Perhaps, most notable has been the turnaround in the crime rate. Since reaching a peak in the early 1990s, violent crime has fallen by a third. The turnaround has been especially dramatic in the murder rate, which has been lower since 1998 than at any time since the 1960s. The 2001 recession had a negative effect on some of these indicators: unemployment rose and real GDP growth declined for a time. But as the economy recovered much of the improvement shown in Table 13–6 was preserved. Indeed, productivity growth, the best indicator of future changes in the standard of living accelerated. Since 2000, it has increased faster than in any other five-year period since the 1960s.

**TECHNICAL NOTE: SOURCES OF DATA AND METHODS OF ESTIMATING**

**Long-Range Budget Projections**

The long-range budget projections are based on demographic and economic assumptions. A simplified model of the Federal budget, developed at OMB, is used to compute the budgetary implications of these assumptions.

**Demographic and Economic Assumptions:** For the years 2006–2016, the assumptions are drawn from the Administration’s economic projections used for the budget. These budget assumptions reflect the President’s policy proposals. The economic assumptions are extended beyond this interval by holding constant inflation, interest rates, and unemployment at the levels assumed in the final year of the budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2005 Social Security trustees’ report. The projected rate of growth for real GDP is built up from the labor force assumptions and an assumed rate of productivity growth. Productivity growth is held constant at the average rate of growth in the budget’s economic assumptions.

- CPI inflation holds stable at 2.5 percent per year; the unemployment rate is constant at 5.0 percent; and the yield on 10-year Treasury notes is steady at 5.6 percent.
- Real GDP per hour, a measure of productivity, grows at the same average rate as in the Administration’s medium-term projections—2.3 percent per year.
- Consistent with the demographic assumptions in the trustees’ reports, U.S. population growth slows from around 1 percent per year to about half that rate by 2030, and slower rates of growth beyond that point. Annual population growth is only 0.2 percent at the end of the projection period in 2080.
- Real GDP growth declines over time because of the slowdown in population growth and the increase in the population over age 65, who supply less work effort than younger people do. Historically, real GDP has grown at an average yearly rate of 3.4 percent. In these projections, average real GDP growth eventually declines to around 2.5 percent per year.

The economic and demographic projections described above are set by assumption and do not automatically change in response to changes in the budget outlook. This is unrealistic, but it simplifies comparisons of alternative policies.

**Budget Projections:** For the period through 2011, receipts and outlays follow the budget’s policy projections, except that the projections do not include Social Security personal accounts. In the long run, receipts are projected using simple rules of thumb linking income taxes, payroll taxes, excise taxes, and other receipts to projected tax bases derived from the economic projections. Discretionary spending grows at the rate of growth in nominal GDP. Social Security is projected by the Social Security actuaries using these long-range assumptions. Medicare benefits are projected based on the estimates in the 2005 Medicare trustees’ report, adjusted for differences in the inflation rate and the growth rate in real GDP per capita. Federal pensions are derived from the most recent actuarial forecasts available at the time the budget is prepared, repriced using Administration inflation assumptions. Medicaid outlays are based on the economic and demographic projections in the model. Other entitlement programs are projected based on rules of thumb linking program spending to elements of the economic and demographic projections such as the poverty rate.

**Federally Owned Assets and Liabilities**

**Financial Assets:** The principal source of data is the Federal Reserve Board’s Flow-of-Funds Accounts.

**Fixed Reproducible Capital:** Estimates were developed from the OMB historical data base for physical capital outlays and software purchases. The data base extends back to 1940 and was supplemented by data from other selected sources for 1915–1939. The source data are in current dollars. To estimate investment flows in constant dollars, it was necessary to deflate
the nominal investment series. This was done using chained price indexes for Federal investment from the National Income and Product Accounts. The resulting capital stocks were aggregated into nine categories and depreciated using geometric rates roughly following those used by the Bureau of Economic Analysis in its estimates of physical capital stocks.


Debt Held by the Public: Treasury data.

Insurance and Guarantee Liabilities: Sources of data are the OMB Pension Guarantee Model and OMB estimates based on program data. Historical data on liabilities for deposit insurance were also drawn from CBO’s study, The Economic Effects of the Savings and Loan Crisis, issued January 1992.

Pension and Post-Employment Health Liabilities: The accrued liabilities for Federal retiree pensions and retiree health insurance along with the liability for Veterans disability compensation were derived from the Financial Report of the United States Government (and the Consolidated Financial Statement for some earlier years). Prior to 1976, the values were extrapolated.

Other Liabilities: The source of data for trade payables and miscellaneous liabilities is the Federal Reserve’s Flow-of-Funds Accounts. The Financial Report of the United States Government was the source for benefits due and payable.

National Balance Sheet

Publicly Owned Physical Assets: Basic sources of data for the federally owned or financed stocks of capital are the Federal investment flows described in Chapter 6. Federal grants for State and local government capital are added, together with adjustments for inflation and depreciation in the same way as described above for direct Federal investment. Data for total State and local government capital come from the revised capital stock data prepared by the Bureau of Economic Analysis extrapolated for 2005.

Privately Owned Physical Assets: Data are from the Flow-of-Funds national balance sheets and from the private net capital stock estimates prepared by the Bureau of Economic Analysis extrapolated for 2005 using investment data from the National Income and Product Accounts.

Education Capital: The stock of education capital is computed by valuing the cost of replacing the total years of education embodied in the U.S. population 15 years of age and older at the current cost of providing schooling. The estimated cost includes both direct expenditures in the private and public sectors and an estimate of students’ forgone earnings, i.e., it reflects the opportunity cost of education. Estimates of students’ forgone earnings are based on the minimum wage for high-school students and year-round, full-time earnings of 18–24 year olds for college students. These year-round earnings are reduced by 25 percent because students are usually out of school three months of the year. Yearly earnings by age and educational attainment are from the Bureau of the Census.

For this presentation, Federal investment in education capital is a portion of the Federal outlays included in the conduct of education and training. This portion includes direct Federal outlays and grants for elementary, secondary, and vocational education and for higher education. The data exclude Federal outlays for physical capital at educational institutions because these outlays are classified elsewhere as investment in physical capital. The data also exclude outlays under the GI Bill; outlays for graduate and post-graduate education spending in HHS, Defense and Agriculture; and most outlays for vocational training. The Federal share of the total education stock in each year is estimated by averaging the prior years’ shares of Federal education outlays in total education costs.

Data on investment in education financed from other sources come from educational institution reports on the sources of their funds, published in U.S. Department of Education, Digest of Education Statistics. Nominal expenditures were deflated by the implicit price deflator for GDP to convert them to constant dollar values. Education capital is assumed not to depreciate, but to be retired when a person dies. An education capital stock computed using this method with different source data can be found in Walter McMahon, “Relative Returns to Human and Physical Capital in the U.S. and Efficient Investment Strategies,” Economies of Education Review, Vol. 10, No. 4, 1991. The method is described in detail in Walter McMahon, Investment in Higher Education, Lexington Books, 1974.

Research and Development Capital: The stock of R&D capital financed by the Federal Government was developed from a data base that measures the conduct of R&D. The data exclude Federal outlays for physical capital used in R&D because such outlays are classified elsewhere as investment in federally financed physical capital. Nominal outlays were deflated using the GDP deflator to convert them to constant dollar values.

Federally funded capital stock estimates were prepared using the perpetual inventory method in which annual investment flows are cumulated to arrive at a capital stock. This stock was adjusted for depreciation by assuming an annual rate of depreciation of 10 percent on the estimated stock of applied research and development. Basic research is assumed not to depreciate. These are the same assumptions used in a study published by the Bureau of Labor Statistics estimating the R&D stocks financed by private industry (U.S. De-

A similar method was used to estimate the stock of R&D capital financed from sources other than the Federal Government. The component financed by universities, colleges, and other nonprofit organizations is estimated based on data from the National Science Foundation, Surveys of Science Resources. The industry-financed R&D stock component is estimated from that source and from the U.S. Department of Labor, “The Impact of Research and Development on Productivity Growth,” Bulletin 2331, September 1989.

Experimental estimates of R&D capital stocks have been prepared by BEA. The results are described in “A Satellite Account for Research and Development,” Survey of Current Business, November 1994. These BEA estimates are lower than those presented here primarily because BEA assumes that the stock of basic research depreciates, while the estimates in Table 13–4 assume that basic research does not depreciate. BEA also assumed a slightly higher rate of depreciation for applied research and development, 11 percent, compared with the 10 percent rate used here.

Sources of Data and Assumptions for Estimating Social Indicators

The main sources for the data in this table are the Government statistical agencies. The data are all publicly available, and can be found in such general sources as the annual Economic Report of the President and the Statistical Abstract of the United States, or from the respective agencies’ web sites.
United States Government  
Statements of Social Insurance  
Present Value of Long-Range (75 Years, except Black Lung) Actuarial Projections

<table>
<thead>
<tr>
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<tr>
<td><strong>Federal Old-Age, Survivors and Disability Insurance (Social Security): (Note 23)</strong></td>
<td></td>
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<tr>
<td>Contributions and Earmarked Taxes from:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants who have attained age 62</td>
<td>533</td>
<td>464</td>
<td>411</td>
<td>359</td>
<td>348</td>
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<tr>
<td>Participants ages 15-61</td>
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<td>15,290</td>
<td>14,388</td>
<td>13,576</td>
<td>13,048</td>
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<td>12,213</td>
<td>11,893</td>
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<td>25,289</td>
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<td>Expenditures for Scheduled Future Benefits for:</td>
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<tr>
<td>Participants who have attained age 62</td>
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<td>5,395</td>
<td>4,933</td>
<td>4,662</td>
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<td>Participants ages 15-61</td>
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<td>Future participants (under age 15 and births during period)</td>
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<td>5,704</td>
<td>5,229</td>
<td>4,927</td>
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</table>

| **Federal Hospital Insurance (Medicare Part A): (Note 23)** |       |       |       |       |       |
| Contributions and Earmarked Taxes from: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 192   | 162   | 148   | 128   | 125   |
| Participants who have not attained eligibility age 15-64 | 5,685 | 5,064 | 4,820 | 4,510 | 4,408 |
| Future participants (under age 15 and births during period) | 4,767 | 4,209 | 4,009 | 3,773 | 3,753 |
| All current and future participants | 10,644 | 9,435 | 8,976 | 8,411 | 8,286 |
| Expenditures for Scheduled Future Benefits for: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 2,397 | 2,179 | 2,168 | 1,897 | 1,747 |
| Participants who have not attained eligibility age 15-64 | 15,633 | 12,668 | 12,054 | 10,028 | 9,195 |
| Future participants (under age 15 and births during period) | 3,904 | 3,417 | 3,246 | 2,653 | 2,470 |
| All current and future participants | 21,934 | 18,264 | 17,468 | 14,577 | 13,412 |
| Present value of future expenditures less future revenue | 11,290 | 8,829 | 8,492 | 6,166 | 5,126 |

| **Federal Supplementary Medical Insurance (Medicare Part B): (Note 23)** |       |       |       |       |       |
| Premiums from: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 409   | 363   | 332   | 283   | 252   |
| Participants who have not attained eligibility age 15-64 | 3,167 | 2,900 | 2,665 | 2,148 | 1,856 |
| Future participants (under age 15 and births during period) | 906 | 924 | 891 | 688 | 600 |
| All current and future participants | 4,481 | 4,187 | 3,889 | 3,119 | 2,708 |
| Expenditures for Scheduled Future Benefits for: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 1,773 | 1,622 | 1,475 | 1,306 | 1,132 |
| Participants who have not attained eligibility age 15-64 | 12,433 | 11,541 | 10,577 | 8,845 | 7,463 |
| Future participants (under age 15 and births during period) | 3,407 | 3,408 | 3,277 | 2,622 | 2,238 |
| All current and future participants | 17,613 | 16,571 | 15,329 | 12,773 | 10,833 |
| Present value of future expenditures less future revenue | 13,131 | 12,384 | 11,440 | 9,653 | 8,125 |

| **Federal Supplementary Medical Insurance (Medicare Part D): (Note 23)** |       |       |       |       |       |
| Premiums and State Transfers from: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 173   | 185   | 176   |       |       |
| Participants who have not attained eligibility age 15-64 | 1,700 | 1,790 | 1,857 |       |       |
| Future participants (under age 15 and births during period) | 492 | 572 | 618 |       |       |
| All current and future participants | 2,366 | 2,547 | 2,651 |       |       |
| Expenditures for Scheduled Future Benefits for: |       |       |       |       |       |
| Participants who have attained eligibility age 65 | 792   | 880   | 773   |       |       |
| Participants who have not attained eligibility age 15-64 | 7,338 | 7,913 | 7,566 |       |       |
| Future participants (under age 15 and births during period) | 2,121 | 2,440 | 2,431 |       |       |
| All current and future participants | 10,250 | 11,233 | 10,770 |       |       |
| Present value of future expenditures less future revenue | 7,884 | 8,686 | 8,119 |       |       |
United States Government  
Statements of Social Insurance  
Present Value of Long-Range (75 Years, except Black Lung) Actuarial Projections

************UNAUDITED**********

(In billions of dollars)

<table>
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<td>Railroad Retirement: (Note 23)</td>
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<td>Participants who have attained eligibility</td>
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<tr>
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<td>76</td>
</tr>
<tr>
<td>Future participants</td>
<td>25</td>
<td>16</td>
<td>14</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>All current and future participants</td>
<td>201</td>
<td>173</td>
<td>167</td>
<td>167</td>
<td>162</td>
</tr>
<tr>
<td>Present value of future expenditures less future revenues</td>
<td>101</td>
<td>91</td>
<td>87</td>
<td>83</td>
<td>79</td>
</tr>
</tbody>
</table>

Black Lung (Part C): (Note 23)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Present value of future expenditures less future revenues</td>
<td>(4)</td>
<td>(5)</td>
<td>(4)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
</tbody>
</table>

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1. The projection period is 1/1/2006 - 12/31/2080 and the valuation date is 1/1/2006.
2. The projection period is 1/1/2005 - 12/31/2079 and the valuation date is 1/1/2005.
3. The projection period is 1/1/2004 - 12/31/2078 and the valuation date is 1/1/2004.
4. The projection period is 1/1/2003 - 12/31/2077 and the valuation date is 1/1/2003.
5. The projection period is 1/1/2002 - 12/31/2076 and the valuation date is 1/1/2002.
6. These amounts represent the present value of the transfers from the General Fund of the Treasury to the Supplementary Medical Insurance Trust Fund. These future intragovernmental transfers are included as income in both HHS' and the Centers for Medicare & Medicaid Services’ (CMS) Financial Report but are not income from the Governmentwide perspective of this report.
7. These amounts approximate the present value of the financial interchange and transfers from the General Fund of the Treasury to the Social Security Equivalent Benefit (SSEB) Account (see discussion of Railroad Retirement Program in the required supplemental information section of this report). They are included as income in the Railroad Retirement Financial Report but are not income from the Governmentwide perspective of this report.
8. Does not include interest expense accruing on the outstanding debt.
10. The projection period is 9/30/2005 - 9/30/2040 and the valuation date is 9/30/2005.
12. The projection period is 9/30/2003 - 9/30/2040 and the valuation date is 9/30/2003.
13. The projection period is 9/30/2002 - 9/30/2040 and the valuation date is 9/30/2002.

Totals do not necessarily equal the sum of components due to rounding.

The accompanying notes are an integral part of these financial statements.
United States Government
Supplemental Information (Unaudited)
for the Years Ended September 30, 2006,
and September 30, 2005

Social Insurance

The social insurance programs were developed to provide income security and health care coverage to citizens under specific circumstances as a responsibility of the Government. Because taxpayers rely on these programs in their long-term planning, social insurance program information should indicate whether they are sustainable under current law, as well as what their effect will be on the Government’s financial condition. The resources needed to run these programs are raised through taxes and fees. Eligibility for benefits rests in part on earnings and time worked by the individuals. Social Security benefits are generally redistributed intentionally toward lower-wage workers (i.e., benefits are progressive). In addition, each social insurance program has a uniform set of entitling events and schedules that apply to all participants.

Social Security and Medicare

Social Security

The Federal Old-Age and Survivors Insurance (OASI) Trust Fund was established on January 1, 1940, as a separate account in the Treasury. The Federal Disability Insurance (DI) Trust Fund, another separate account in the Treasury, was established on August 1, 1956. OASI pays cash retirement benefits to eligible retirees and their eligible dependents and survivors, and the much smaller DI fund pays cash benefits to eligible individuals who are unable to work due to medical conditions. At the end of calendar year 2005, OASDI benefits were paid to approximately 48 million beneficiaries. Though the events that trigger benefit payments are quite different, both trust funds have the same earmarked financing structure: primarily payroll taxes and income taxes on benefits. All financial operations of the OASI and DI Programs are handled through these respective funds. The two funds are often referred to as simply the combined OASDI Trust Funds.

The primary financing of these two funds are taxes paid by workers, their employers, and individuals with self-employment income, based on work covered by the OASDI Program. Since 1990, employers and employees have each paid 6.2 percent of covered earnings. The self-employed pay 12.4 percent of covered earnings. Payroll taxes are computed on wages and net earnings from self-employment up to a specified maximum annual amount ($94,200 in 2006) that increases each year with economy-wide wages.

Since 1984, up to one-half of OASDI benefits have been subject to Federal income taxation. Effective for taxable years beginning after 1993, the maximum percentage of benefits subject to taxation was increased from 50 percent to 85 percent. The revenue from income taxes on up to 50 percent of benefits is allocated to the OASDI Trust Funds and the rest is allocated to the Hospital Insurance (HI) Trust Fund.

Medicare

The Medicare Program, created in 1965, also has two separate trust funds: the Hospital Insurance (HI, Medicare Part A) and Supplementary Medical Insurance (SMI, Medicare Parts B and D) Trust Funds. HI pays for inpatient acute hospital services and major alternatives to hospitals (skilled nursing services, for example) and SMI

---

1 Medicare legislation in 2003 created the new Part D account in the SMI Trust Fund to track the finances of a new prescription drug benefit that began in 2006. As in the case of Medicare Part B, approximately three-quarters of revenues to the Part D account will come from future transfers from the General Fund of the Treasury. Consequently, the nature of the relationship between the SMI Trust Fund and the Federal budget described below is largely unaffected by the presence of the Part D account though the magnitude will be greater.
Social Security, Medicare, and Governmentwide Finances

The current and future financial status of the separate Social Security and Medicare Trust Funds is the focus of the trustees’ reports, a focus that may appropriately be referred to as the “trust fund perspective.” In contrast, the Federal Government primarily uses the unified budget concept as the framework for budgetary analysis and presentation. It represents a comprehensive display of all Federal activities, regardless of fund type or on- and off-budget status, a broader focus than the trust fund perspective that may appropriately be referred to as the “budget perspective” or the “Governmentwide perspective.” Social Security and Medicare are among the largest expenditure categories of the U.S. Federal budget. Together, they now account for more than a third of all Federal spending and the percentage is projected to rise dramatically for the reasons discussed below. This section describes in detail the important relationship between the trust fund perspective and the Governmentwide perspective.

Figure 1 is a simplified graphical depiction of the interaction of the Social Security and Medicare Trust Funds with the rest of the Federal budget. The boxes on the left show sources of funding, those in the middle represent the trust funds and other Government accounts (of which the General Fund is a part) into which that funding flows, and the boxes on the right show simplified expenditure categories. The figure is intended to illustrate how the various sources of program revenue flow through the budget to beneficiaries. The general approach is to group revenues and expenditures that are linked specifically to Social Security and/or Medicare separately from those for other Federal programs. (For ease of understanding, these other Federal programs are referred to here as other Government programs.)

Each of the trust funds has its own sources and types of revenue. With the exception of General Fund transfers to SMI, each of these revenue sources is earmarked specifically for the respective trust fund, and cannot be used for other purposes. In contrast, personal and corporate income taxes and other revenue go into the General Fund of the Treasury and are drawn down for any Government program for which Congress has approved spending. The arrows from the boxes on the left represent the flow of these revenues into the trust funds and other Government accounts.

The heavy line between the top two boxes in the middle of Figure 1 represents intragovernmental transfers between the SMI Trust Fund and other Government accounts. The Medicare SMI Trust Fund is shown separately from the Social Security trust funds (OASI and DI) and the Medicare HI Trust Fund to highlight the unique financing of SMI. SMi is currently the only one of the four programs that receives large transfers from the General Fund of the Treasury, which is part of the other Government accounts (the Part D account will receive transfers from the States). The transfers finance roughly three-fourths of SMI Program expenses. While the transfers currently support the Part B account, in 2006 additional transfers were made to the Part D account and are expected to finance about three-fourths of expenses in that account. The transfers are automatic; their size depends on how much the program spends, not on how much revenue comes into the Treasury. If General Fund revenues become insufficient

2 The Federal unified budget encompasses all Federal Government financing and is synonymous with a Governmentwide perspective.

3 Other programs also have dedicated revenues in the form of taxes and fees (and other forms of receipt) and there are a large number of earmarked trust funds in the Federal budget. Total trust fund receipts account for about 40 percent of total Government receipts with the Social Security and Medicare Trust Funds accounting for about two-thirds of trust fund receipts. For further discussion see Federal Trust and Other Earmarked Funds, GAO-01-199SP, January 2001. In the figure and the discussion that follows, we group all other programs, including these other earmarked trust fund programs, under “Other Government Accounts” to simplify the description and maintain the focus on Social Security and Medicare.
to cover both the mandated transfer to SMI and expenditures on other general Government programs, Treasury would have to borrow to make up the difference. In the longer run, if transfers to SMI are increasing—as shown below, they are projected to increase significantly in coming years—then Congress must either raise taxes, cut other Government spending, or reduce SMI benefits.

The dotted lines between the middle boxes of Figure 1 also represent intragovernmental transfers but those transfers arise in the form of “borrowing/lending” between the Government accounts. Interest credited to the trust funds arises when the excess of program income over expenses is loaned to the General Fund. The vertical lines labeled Surplus Borrowed represent these flows from the trust funds to the other Government accounts. These loans reduce the amount the General Fund has to borrow from the public to finance a deficit (or likewise increase the amount of debt paid off if there is a surplus). But the General Fund has to credit interest on the loans from the trust fund programs, just as if it borrowed the money from the public. The credits lead to future obligations for the General Fund (which is part of the other Government accounts). These transactions are indicated in Figure 1 by the vertical arrows labeled Interest Credited. The credits increase trust fund income exactly as much as they increase credits (future obligations) in the General Fund. So from the standpoint of the Government as a whole, at least in an accounting sense, these interest credits are a wash.

It is important to understand the additional implications of these loans from the trust funds to the other Government accounts. When the trust funds get the receipts that they loan to the General Fund, these receipts provide additional authority to spend on benefits and other program expenses. The General Fund, in turn, has taken on the obligation of paying interest on these loans every year and repaying the principal when trust fund income from other sources falls below expenditures—the loans will be called in and the General Fund will have to reduce other spending, raise taxes, or borrow more from the public to finance the benefits paid by the trust funds.

**Figure 1**

*Social Security, Medicare, and Governmentwide Finances*
Actual dollar amounts roughly corresponding to the flows presented in Figure 1 are shown in Table 1 for fiscal year 2006. The first three columns show revenues and expenditures for HI, SMI, and OASDI, respectively, and the fourth column is the sum of these three columns. The fifth column has total revenues and expenditures for all other Government programs, which includes the General Fund account, and the last column is the sum of the “combined” and “other Government” columns. In Table 1, revenues from the public (left side of Figure 1) and expenditures to the public (right side of Figure 1) are shown separately from transfers between Government accounts (middle of Figure 1). Note that the transfers ($162.8 billion) and interest credits ($114.5 billion) received by the trust funds appear as negative entries under other Government and are thus offsetting when summed for the total budget column. These two intragovernmental transfers are key to the differences between the trust fund and budget perspectives.

From the Governmentwide perspective, only revenues received from the public (and States in the case of Medicare, Part D) and expenditures made to the public are important for the final balance. Trust fund revenue from the public consists of payroll taxes, benefit taxes, and premiums. For HI, the difference between total expenditures made to the public ($184.9 billion) and revenues ($194.4 billion) was $9.5 billion in 2006, indicating that HI had a relatively small positive effect on the overall budget outcome in that year. For the SMI account, revenues from the public (premiums) were relatively small, representing about a quarter of total expenditures made to the public in 2006. The difference, $147.7 billion, resulted in a net draw on the overall budget balance in that year. For OASDI, the difference between total expenditures made to the public ($548.5 billion) and revenues from the public ($636.4 billion) was $87.9 billion in 2006, indicating that OASDI had a positive effect on the overall budget outcome in that year.

The trust fund perspective is captured in the bottom section of each of the three trust fund columns. For HI, total revenues exceeded total expenditures by $25.4 billion in 2006, as shown at the bottom of the first column. This surplus would be added to the beginning trust fund (not shown) that leads to budget obligations in future years. For SMI, total revenues of $210.2 billion ($46.1 + $164.1), including $162.6 billion transferred from other Government accounts (the General Fund), exceeded total expenditures by $16.4 billion. Transfers to the SMI Program from other Government accounts (the General Fund), amounting to about 75 percent of program costs, are obligated under current law and therefore appropriately viewed as revenue from the trust fund perspective. For OASDI, total revenues of $733.8 billion ($636.4 + $97.4), including interest and a small amount of other Government transfers, exceeded total expenditures of $548.5 billion by $185.2 billion.
Table 1
Annual Revenues and Expenditures for Medicare and Social Security Trust Funds and the Total Federal Budget, Fiscal Year 2006

(In billions of dollars)

<table>
<thead>
<tr>
<th>Revenue and Expenditure Categories</th>
<th>HI</th>
<th>SMI</th>
<th>OASDI</th>
<th>Combined</th>
<th>Other Government</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trust Funds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues from the Public:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll and benefit taxes</td>
<td>190.7</td>
<td>-</td>
<td>636.4</td>
<td>827.1</td>
<td>-</td>
<td>827.1</td>
</tr>
<tr>
<td>Premiums</td>
<td>3.7</td>
<td>46.1</td>
<td>-</td>
<td>49.8</td>
<td>-</td>
<td>49.8</td>
</tr>
<tr>
<td>Other taxes and fees</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,529.8</td>
<td>1,529.8</td>
</tr>
<tr>
<td>Total</td>
<td>194.4</td>
<td>46.1</td>
<td>636.4</td>
<td>876.9</td>
<td>1,529.8</td>
<td>2,406.7</td>
</tr>
<tr>
<td>Total expenditures to the public</td>
<td>184.9</td>
<td>193.8</td>
<td>548.5</td>
<td>927.1</td>
<td>1,727.2</td>
<td>2,654.4</td>
</tr>
<tr>
<td>Net results for budget perspective</td>
<td>9.5</td>
<td>(147.7)</td>
<td>87.9</td>
<td>(50.3)</td>
<td>(197.4)</td>
<td>(247.7)</td>
</tr>
<tr>
<td>Revenues from Other Government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers</td>
<td>0.5</td>
<td>162.6</td>
<td>(0.3)</td>
<td>162.8</td>
<td>(162.8)</td>
<td>-</td>
</tr>
<tr>
<td>Interest credits</td>
<td>15.4</td>
<td>1.5</td>
<td>97.7</td>
<td>114.5</td>
<td>(114.5)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>15.9</td>
<td>164.1</td>
<td>97.4</td>
<td>277.3</td>
<td>(277.3)</td>
<td>-</td>
</tr>
<tr>
<td>Net results for trust fund</td>
<td>25.4</td>
<td>16.4</td>
<td>185.2</td>
<td>227.0</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>perspective</td>
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<td>4</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1 This column is the sum of the preceding two columns and shows data for the total Federal budget. The figure $247.7 was the total Federal deficit in fiscal year 2006.

2 The OASDI figure includes $3.8 billion transferred to the Railroad Retirement Board for benefit payments and is therefore an expenditure to the public.

3 Net results are computed as revenues less expenditures.

4 Details may not add to totals due to rounding.

Note: “N/A” indicates not applicable.

Cashflow Projections

Background

Economic and Demographic Assumptions. The Boards of Trustees\(^4\) of the OASDI and Medicare Trust Funds provide in their annual reports to Congress short-range (10-year) and long-range (75-year) actuarial estimates of each trust fund. Because of the inherent uncertainty in estimates for 75 years into the future, the Boards use three alternative sets of economic and demographic assumptions to show a range of possibilities. The economic and demographic assumptions used for the most recent set of intermediate projections for Social Security and Medicare are shown in the “Social Security” and “Medicare” sections of Note 23—Social Insurance.

\(^4\) There are six trustees: the Secretaries of Treasury (managing trustee), Health and Human Services, and Labor; the Commissioner of the Social Security Administration; and two public trustees who are appointed by the President and confirmed by the Senate for a 4-year term. By law, the public trustees are members of two different political parties.
Beneficiary-to-Worker Ratio. Underlying the pattern of expenditure projections for both the OASDI and Medicare Programs is the impending demographic change that will occur as the large baby-boom generation, born in the years 1946 to 1964, retires or reaches eligibility age. The consequence is that the number of beneficiaries will increase much faster than the number of workers who pay taxes that are used to pay benefits. The pattern is illustrated in Chart 1 which shows the ratio of OASDI beneficiaries to workers for the historical period and estimated for the next 75 years. In 2006, there were about 30 beneficiaries for every 100 workers. By 2030, there will be about 46 beneficiaries for every 100 workers. A similar demographic pattern confronts the Medicare Program. For example, for the HI Program, there were about 26 beneficiaries for every 100 workers in 2006; by 2030 there are expected to be about 42 beneficiaries for every 100 workers. This ratio for both programs will continue to increase to about 50 beneficiaries for every 100 workers by the end of the projection period, after the baby-boom generation has moved through the Social Security system due to declining birth rates and increasing longevity.

Chart 1—OASDI Beneficiaries per 100 Covered Workers
1970-2080

Source: www.ssa.gov/OACT/TR/TR06
Social Security Projections

*Nominal Income and Expenditures*. Chart 2 shows historical values and actuarial estimates of combined OASDI annual income (excluding interest) and expenditures for 1970-2080 in nominal dollars. The estimates are for the open-group population. That is, the estimates include taxes paid from, and on behalf of, workers who will enter covered employment during the period, as well as those already in covered employment at the beginning of that period. These estimates also include scheduled benefit payments made to, and on behalf of, such workers during that period. Note that expenditure projections in Chart 2 and subsequent charts are based on current-law benefit formulas regardless of whether the income and assets are available to finance them.

Currently, Social Security tax revenues exceed benefit payments and will continue to do so until 2017, when revenues are projected to fall below benefit payments, after which the gap between expenditures and revenues continues to widen.
**Income and Expenditures as a Percent of Taxable Payroll.** Chart 3 shows annual income (excluding interest but including both payroll and benefit taxes) and expenditures expressed as percentages of taxable payroll, commonly referred to as the income rate and cost rate, respectively.

The OASDI cost rate is projected to decline slightly until about 2008. It then begins to increase rapidly and first exceeds the income rate in 2017, producing cashflow deficits thereafter. As described above, surpluses that occur prior to 2017 are “loaned” to the General Fund and accumulate, with interest, reserve spending authority for the trust fund. The reserve spending authority represents an obligation for the General Fund. Beginning in 2017, Social Security will start using interest credits to meet full benefit obligations. The Government will need to raise taxes, reduce benefits, increase borrowing from the public, and/or cut spending for other programs to meet its obligations to the trust fund. By 2040, the trust fund reserves (and thus reserve spending authority) are projected to be exhausted. Even if a trust fund’s assets are exhausted, however, tax income will continue to flow into the fund. Present tax rates would be sufficient to pay 74 percent of scheduled benefits after trust fund exhaustion in 2040 and 70 percent of scheduled benefits in 2080.

**Chart 3—OASDI Income (Excluding Interest) and Expenditures as a Percent of Taxable Payroll 1970-2080**

Source: www.ssa.gov/OACT/TR/TR06
Income and Expenditures as a Percent of GDP. Chart 4 shows estimated annual income (excluding interest) and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the OASDI Program in relation to the capacity of the national economy to sustain it. The gap between expenditures and income widens continuously with expenditures generally growing as a share of GDP and income declining slightly relative to GDP. Social Security’s expenditures are projected to grow from 4.3 percent of GDP in 2006 to 6.3 percent in 2080. In 2080, expenditures are projected to exceed income by 1.8 percent of GDP.

Sensitivity Analysis. Actual future income from OASDI payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors: the size and composition of the population that is receiving benefits, the level of monthly benefit amounts, the size and characteristics of the work force covered under OASDI, and the level of workers’ earnings. These factors will depend, in turn, upon future marriage and divorce rates, birth rates, death rates, migration rates, labor force participation and unemployment rates, disability incidence and termination rates, retirement age patterns, productivity gains, wage increases, cost-of-living increases, and many other economic and demographic factors.

This section presents estimates that illustrate the sensitivity of long-range expenditures and income for the OASDI Program to changes in selected individual assumptions. In this analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low cost (Alternative I) and high cost (Alternative III) projections. For example, when analyzing sensitivity with respect to variation in real wages, income and expenditure projections using the intermediate assumptions are compared to the outcome when projections are done by changing only the real wage assumption to either low cost or high cost alternatives.
The low cost alternative is characterized by assumptions that generally improve the financial status of the program (relative to the intermediate assumption) such as slower improvement in mortality (beneficiaries die younger). In contrast, assumptions under the high cost alternative generally worsen the financial outlook. One exception occurs with the CPI assumption (see below).

Table 2 shows the effects of changing individual assumptions on the present value of estimated OASDI expenditures in excess of income (the shortfall of income relative to expenditures in present value terms). The assumptions are shown in parentheses. For example, the intermediate assumption for the annual rate of reduction in age-sex-adjusted death rates is 0.72 percent. For the low cost alternative, a slower reduction rate (0.30 percent) is assumed as it means that beneficiaries die at a younger age relative to the intermediate assumption, resulting in lower expenditures. Under the low cost assumption, the shortfall drops from $6,449 billion to $5,000 billion, a 22 percent smaller shortfall. The high cost death rate assumption (1.26 percent) results in an increase in the shortfall, from $6,449 billion to $8,195 billion, a 27 percent increase in the shortfall. Clearly, alternative death rate assumptions have a substantial impact on estimated future cashflows in the OASDI Program.

A higher fertility rate means more workers relative to beneficiaries over the projection period, thereby lowering the shortfall relative to the intermediate assumption. An increase in the rate from 2.0 to 2.3 results in a 12 percent smaller shortfall (i.e., expenditures less income), from $6,449 billion to $5,699 billion.

Higher real wage growth results in faster income growth relative to expenditure growth. Table 2 shows that a real wage differential that is 0.5 greater than the intermediate assumption of 1.1 results in a drop in the shortfall from $6,449 billion to $5,542 billion, a 14 percent decline.

The CPI change assumption operates in a somewhat counterintuitive manner, as seen in Table 2. A lower rate of change results in a higher shortfall. This arises as a consequence of holding the real wage assumption constant while varying the CPI so that wages (the income base) are affected sooner than benefits. If the rate is assumed to be 1.8 percent rather than 2.8 percent, the shortfall rises about 7 percent, from $6,449 billion to $6,876 billion.

The effect of net immigration is similar to fertility in that, over the 75-year projection period, higher immigration results in proportionately more workers (taxpayers) than beneficiaries. The low-cost assumption for net immigration results in a 7 percent drop in the shortfall, from $6,449 billion to $5,982 billion, relative to the intermediate case; and the high-cost assumption results in a 5 percent higher shortfall.

Finally, Table 2 shows the sensitivity of the shortfall to variations in the real interest rate or, in present value terminology, the sensitivity to alternative discount rates. Assuming a higher discount rate results in a lower present value. The shortfall of $4,850 billion is 25 percent lower when the real interest rate is 3.6 percent rather than 2.9 percent, and 40 percent higher when the real interest rate is 2.1 percent rather than 2.9 percent.
Table 2
Present Values of Estimated OASDI Expenditures in Excess of Income Under Various Assumptions, 2006-2080

(In billions of dollars)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Low</th>
<th>Intermediate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average annual reduction in death rates</td>
<td>5,000</td>
<td>6,449</td>
<td>8,195</td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
<td>(0.72)</td>
<td>(1.26)</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>5,699</td>
<td>6,449</td>
<td>7,189</td>
</tr>
<tr>
<td></td>
<td>(2.3)</td>
<td>(2.0)</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Real wage differential</td>
<td>5,542</td>
<td>6,449</td>
<td>7,091</td>
</tr>
<tr>
<td></td>
<td>(1.6)</td>
<td>(1.1)</td>
<td>(0.6)</td>
</tr>
<tr>
<td>CPI change</td>
<td>6,015</td>
<td>6,449</td>
<td>6,876</td>
</tr>
<tr>
<td></td>
<td>(3.8)</td>
<td>(2.8)</td>
<td>(1.8)</td>
</tr>
<tr>
<td>Net immigration</td>
<td>5,982</td>
<td>6,449</td>
<td>6,782</td>
</tr>
<tr>
<td></td>
<td>(1,300,000)</td>
<td>(900,000)</td>
<td>(672,500)</td>
</tr>
<tr>
<td>Real interest rate</td>
<td>4,850</td>
<td>6,449</td>
<td>9,034</td>
</tr>
<tr>
<td></td>
<td>(3.6)</td>
<td>(2.9)</td>
<td>(2.1)</td>
</tr>
</tbody>
</table>

Numbers in parentheses are the values of the assumptions used in the respective scenario.

Source: 2006 OASDI Trustees Report and SSA.

Medicare Projections

Recent Medicare Legislation. On December 8, 2003, President Bush signed into law the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. The 2003 law will have a major impact on the operations and finances of Medicare. The law added a prescription drug benefit to Medicare beginning in 2006 and a new prescription drug account in the SMI Trust Fund. The benefit could be obtained through a private drug-only plan, a private preferred-provider organization or health maintenance organization, or through an employer-sponsored retiree health plan. The preferred-provider organizations are new to the Medicare Program and will operate on a regional basis. The Federal Government will assume some of the costs of providing prescription drug coverage to people eligible for both Medicare and Medicaid.

The legislation also includes provisions not related to the prescription drug benefit. It includes increases in Medicare provider reimbursements, higher Medicare Part B premiums for people at higher income levels, and an expansion of tax-deductible health savings accounts. The 2003 legislation is expected to have a significant effect on future Medicare finances as seen below and earlier in the Statement of Social Insurance.

Health Care Cost Growth. In addition to the growth in the number of beneficiaries per worker, the Medicare Program has the added pressure of expected growth in the use and cost of health care per person. Continuing development and use of new technology is expected to cause health care expenditures to grow faster than GDP in the long run. For the intermediate assumption, health care expenditures per beneficiary are assumed to grow, on average, about one percentage point faster than per capita GDP over the long range.
Total Medicare. It is important to recognize the rapidly increasing long-range cost of Medicare and the large role of general revenues and beneficiary premiums in financing the SMI Program. Chart 5 shows expenditures and current-law noninterest revenue sources for HI and SMI combined as a percentage of GDP. The total expenditure line shows Medicare costs rising to 11 percent of GDP by 2080. Revenues from taxes and premiums (including State transfers under Part D) are expected to increase from 1.8 percent of GDP in 2005 to 3.1 percent of GDP in 2080. Payroll tax income declines gradually as a percent of GDP as growth in the number of workers paying such taxes slows and wages as a portion of compensation declines, offset by higher premiums combined for Parts B and D of SMI as a percent of GDP. General revenue contributions for SMI, as determined by current law, are projected to rise as a percent of GDP from 1.0 percent to 5.0 percent over the same period. Thus, revenues from taxes and premiums (including State transfers) will fall substantially as a share of total noninterest Medicare income (from 65 percent in 2005 to 40 percent in 2080) while general revenues will rise (from 35 percent to 60 percent). The gap between total noninterest Medicare income (including general revenue contributions) and expenditures begins around 2010 and then steadily continues to widen, reaching 3.3 percent of GDP by 2080.

Chart 5—Total Medicare (HI and SMI) Expenditures and Noninterest Income as a Percent of GDP 1970-2080

Source: www.ssa.gov/OACT/TRSUM/trsummary.html
Medicare, Part A (Hospital Insurance)—Nominal Income and Expenditures. Chart 6 shows historical and actuarial estimates of HI annual income (excluding interest) and expenditures for 1970-2080 in nominal dollars. The estimates are for the open-group population. The figure reveals a widening gap between projected income and expenditures.

Chart 6—Medicare Part A Income (Excluding Interest) and Expenditures 1970-2080

(In billions of nominal dollars)
Medicare, Part A Income and Expenditures as a Percent of Taxable Payroll. Chart 7 illustrates income (excluding interest) and expenditures as a percentage of taxable payroll over the next 75 years. The chart shows that the expenditure rate exceeds the income rate beginning in 2004, and cash deficits continue thereafter. Trust fund interest earnings and assets provide enough resources to pay full benefit payments until 2018 with general revenues used to finance interest and loan repayments to make up the difference between cash income and expenditures during that period. Pressures on the Federal budget will thus emerge well before 2018. Present tax rates would be sufficient to pay 80 percent of scheduled benefits after trust fund exhaustion in 2018 and 29 percent of scheduled benefits in 2080.

Source: www.ssa.gov/OACT/TRSUM/images/LD_ChartC.html and CMS
Medicare Part A Income and Expenditures as a Percent of GDP. Chart 8 shows estimated annual income (excluding interest) and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the HI Program in relation to the capacity of the national economy to sustain it. Medicare Part A’s expenditures are projected to grow from 1.5 percent of GDP in 2005, to 2.8 percent in 2030, and to 4.9 percent by 2080. The gap between expenditures and income widens continuously with expenditures growing as a share of GDP and income declining slightly relative to GDP. By 2080, expenditures are projected to exceed income by 3.5 percent of GDP.

Source: www.ssa.gov/OACT/TRSUM/images/LD_ChartC.html and CMS
Medicare, Parts B and D (Supplemental Medical Insurance). Chart 9 shows historical and actuarial estimates of Medicare Part B and Part D premiums (and Part D State transfers) and expenditures for each of the next 75 years, in nominal dollars. The gap between premiums and State transfer revenues and program expenditures, a gap that will need to be filled with transfers from general revenues, grows throughout the projection period.


(In billions of nominal dollars)

Source: Centers for Medicare & Medicaid Services
Medicare Part B and Part D Premium and State Transfer Income and Expenditures as a Percent of GDP.

Chart 10 shows expenditures for the Supplementary Medical Insurance Program over the next 75 years expressed as a percentage of GDP, providing a perspective on the size of the SMI Program in relation to the capacity of the national economy to sustain it. In 2005, SMI expenditures were $157 billion, which was 1.26 percent of GDP. After 2005, this percentage is projected to increase steadily reaching 6.1 percent in 2080. This reflects growth in the volume and intensity of Medicare services provided per beneficiary throughout the projection period, including the prescription drug benefits, together with the effects of the baby boom retirement. Premium and State transfer income grows from about 0.3 percent in 2005 to nearly 1.5 percent of GDP in 2080, so the portion financed by General Fund transfers to SMI is projected to be about 75 percent throughout the projection period.

Chart 10—Medicare Part B and Part D Premium and State Transfer Income and Expenditures as a Percent of GDP

1970-2080

Medicare Sensitivity Analysis. This section illustrates the sensitivity of long-range cost and income estimates for the Medicare Program to changes in selected individual assumptions. As with the OASDI analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low cost and high cost projections (see description of sensitivity analysis for OASDI).

Table 3 shows the effects of changing various assumptions on the present value of estimated HI expenditures in excess of income (the shortfall of income relative to expenditures in present value terms). The assumptions are shown in parentheses. Clearly, net HI expenditures are extremely sensitive to alternative assumptions about the growth in health care cost. For the low cost alternative, the slower growth in health costs causes the shortfall to drop from $11,290 billion to $4,459 billion, a 61 percent smaller shortfall. The high cost assumption results in a near doubling of the shortfall, from $11,290 billion to $22,387 billion.
Variations in the next four assumptions in Table 3 result in relatively minor changes in net HI expenditures. The higher or lower fertility assumptions cause a less than 2 percent change in the shortfall relative to the intermediate case. The higher real wage growth rate results in about a 7 percent greater shortfall while a lower growth rate reduces the shortfall by about 9 percent. Wages are a key cost factor in the provision of health care. Higher wages also result in greater payroll tax income. HI expenditures exceed HI income by a wide and increasing margin in the future (Charts 6 to 8). As a result, an assumed higher real wage differential has a larger impact on HI expenditures than HI income, thereby increasing the shortfall of income relative to expenditures. CPI and net immigration changes have very little effect on net HI expenditures. Higher immigration increases the net shortfall modestly as higher payroll tax revenue is more than offset by higher medical care expenditures.

Table 3 also shows that the present value of net HI expenditures is 25 percent lower if the real interest rate is 3.6 percent rather than 2.9 percent and 40 percent higher if the real interest rate is 2.1 percent rather than 2.9 percent.

### Table 3
**Present Values of Estimated Medicare Part A Expenditures in Excess of Income Under Various Assumptions, 2006-2080**

(In billions of dollars)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Low</th>
<th>Intermediate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average annual growth in health costs</td>
<td>4,459</td>
<td>11,290</td>
<td>22,387</td>
</tr>
<tr>
<td></td>
<td>(3.1)</td>
<td>(4.1)</td>
<td>(5.1)</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>11,078</td>
<td>11,290</td>
<td>11,510</td>
</tr>
<tr>
<td></td>
<td>(2.3)</td>
<td>(2.0)</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Real wage differential</td>
<td>10,521</td>
<td>11,290</td>
<td>12,286</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
<td>(1.1)</td>
<td>(1.6)</td>
</tr>
<tr>
<td>CPI change</td>
<td>11,234</td>
<td>11,290</td>
<td>11,337</td>
</tr>
<tr>
<td></td>
<td>(1.8)</td>
<td>(2.8)</td>
<td>(2.8)</td>
</tr>
<tr>
<td>Net immigration</td>
<td>11,157</td>
<td>11,290</td>
<td>11,498</td>
</tr>
<tr>
<td></td>
<td>(672,500)</td>
<td>(900,000)</td>
<td>(1,300,000)</td>
</tr>
<tr>
<td>Real interest rate</td>
<td>8,464</td>
<td>11,290</td>
<td>15,847</td>
</tr>
<tr>
<td></td>
<td>(3.6)</td>
<td>(2.9)</td>
<td>(2.1)</td>
</tr>
</tbody>
</table>

1 The sensitivity of the projected HI net cashflow to variations in future mortality rates is also of interest. At this time, however, relatively little is known about the relationship between improvements in life expectancy and the associated changes in health status and per beneficiary health expenditures. As a result, it is not possible at present to prepare meaningful estimates of the Part A mortality sensitivity.

2 Annual growth rate is the aggregate cost of providing covered health care services to beneficiaries. The low cost and high cost alternatives assume that costs increase 1 percent slower or faster, respectively, than the intermediate assumption, relative to growth in taxable payroll.

3 The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year and if she were to survive the entire childbearing period.
Table 4 shows the effects of various assumptions about the growth in health care costs on the present value of estimated SMI (Medicare Parts B and D) expenditures in excess of income. As with HI, net SMI expenditures are very sensitive to changes in the health care cost growth assumption. For the low cost alternative, the slower assumed growth in health costs reduces the Governmentwide resources needed for Part B from $13,132 billion to $9,236 billion and in Part D from $7,884 billion to $5,559 billion, about a 30 percent difference in each case. The high-cost assumption increases Governmentwide resources needed to $19,316 billion for Part B and to $11,539 billion for Part D, just over a 45 percent increase in each case.

Table 4

<table>
<thead>
<tr>
<th>Medicare Program</th>
<th>Governmentwide Resources Needed</th>
<th>Low (4.1)</th>
<th>Intermediate (5.1)</th>
<th>High (6.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part B</td>
<td></td>
<td>9,236</td>
<td>13,132</td>
<td>19,316</td>
</tr>
<tr>
<td>Part D</td>
<td></td>
<td>5,559</td>
<td>7,884</td>
<td>11,539</td>
</tr>
</tbody>
</table>

1 Annual growth rate is the aggregate cost of providing covered health care services to beneficiaries. The low and high scenarios assume that costs increase one percent slower or faster, respectively, than the intermediate assumption.

Source: Centers for Medicare & Medicaid Services.

Sustainability of Social Security and Medicare

75-Year Horizon

According to the 2006 Medicare Trustees Report, the HI Trust Fund is projected to remain solvent until 2018 and, according to the 2006 Social Security Trustees Report, the OASDI Trust Funds are projected to remain solvent until 2040. In each case, some general revenues must be used to satisfy the authorization of full benefit payments until the year of exhaustion. This occurs when the trust fund balances accumulated during prior years are needed to pay benefits, which leads to a transfer from general revenues to the trust funds. Moreover, under current law, General Fund transfers to the SMI Trust Fund will occur into the indefinite future and will continue to grow with the growth in health care expenditures.

The potential magnitude of future financial obligations under these three social insurance programs is therefore important from a unified budget perspective as well as for understanding generally the growing resource demands of the programs on the economy. A common way to present future cashflows is in terms of their present value. This approach recognizes that a dollar paid or collected next year is worth less than a dollar today, because a dollar today could be saved and earn a year’s-worth of interest (see footnote 1).

Table 5 shows the magnitudes of the primary expenditures and sources of financing for the three trust funds computed on an open-group basis for the next 75 years and expressed in present values. The data are consistent with the Statements of Social Insurance included in the principal financial statements. For HI, revenues from the public are projected to fall short of total expenditures by $11,290 billion in present value terms which is the additional amount needed in order to pay scheduled benefits over the next 75 years. From the trust fund perspective, the amount needed is $11,005 billion in present value after subtracting the value of the existing trust fund balances (an asset to the trust fund account but an intragovernmental transfer to the overall budget). For SMI, revenues from the public for Parts B and D combined are estimated to be $21,016 billion less than total expenditures for the two accounts, an amount that, from a budget perspective, will be needed to keep the SMI program solvent for the next 75 years. From the trust fund perspective, however, the present values of total revenues and total expenditures for the

5 Interest income is not a factor in this table as dollar amounts are in present value terms.
SMI Program are equal due to the annual adjustment of revenue from other Government accounts to meet program costs. For OASDI, projected revenues from the public fall short of total expenditures by $6,449 billion in present value dollars and, from the trust fund perspective, by $4,591 billion.

From the Governmentwide perspective, the present value of the total resources needed for the Social Security and Medicare Programs equals $38,754 billion, in addition to payroll taxes, benefit taxes, and premium payments from the public. From the trust fund perspective, which counts the trust funds and the general revenue transfers to the SMI Program as dedicated funding sources additional resources in the amount of $15,572 billion in present value terms are needed, beyond the $21,015 billion in present value of required general revenue transfers already scheduled for the SMI Program and the $2,167 billion to honor the trust fund investments in Treasury securities.

### Table 5
Present Values of Costs Less Revenues of 75-Year Open Group Obligations HI, SMI, and OASDI

(\text{In billions of dollars, as of January 1, 2006)}

<table>
<thead>
<tr>
<th></th>
<th>HI</th>
<th>SMI</th>
<th>OASDI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues from the Public:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>10,644</td>
<td>-</td>
<td>-</td>
<td>32,107</td>
</tr>
<tr>
<td>Premiums, State transfers</td>
<td>-</td>
<td>4,481</td>
<td>2,366</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>10,644</td>
<td>4,481</td>
<td>2,366</td>
<td>32,107</td>
</tr>
<tr>
<td>Total costs to the public</td>
<td>21,934</td>
<td>17,613</td>
<td>10,250</td>
<td>38,557</td>
</tr>
</tbody>
</table>

**Net results for Government-wide (budget) perspective\(^1, 2\):**

<table>
<thead>
<tr>
<th></th>
<th>HI</th>
<th>Part B</th>
<th>Part D</th>
<th>OASDI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues from other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government accounts</td>
<td>-</td>
<td>13,131</td>
<td>7,884</td>
<td>-</td>
<td>21,015</td>
</tr>
<tr>
<td>Trust fund in 1/1/2006</td>
<td>285</td>
<td>23</td>
<td>-</td>
<td>1,859</td>
<td>2,167</td>
</tr>
<tr>
<td>Net results for trust fund perspective(^1)</td>
<td>11,005</td>
<td>23</td>
<td>-</td>
<td>4,590</td>
<td>15,572</td>
</tr>
</tbody>
</table>

\(^1\) Net results are computed as costs less revenues.
\(^2\) Details may not add to totals due to rounding.

Source: 2006 OASDI and Medicare Trustees’ Reports.

### Infinite Horizon

The 75-year horizon represented in Table 5 is consistent with the primary focus of the Social Security and Medicare Trustees’ Reports. For the OASDI Program, for example, an additional $6.5 trillion in present value will be needed above currently scheduled taxes to pay for scheduled benefits ($4.6 trillion from the trust fund perspective). Yet, a 75-year projection is not a complete representation of all future financial flows through the infinite horizon. For example, when calculating unfunded obligations, a 75-year horizon includes revenue from some future workers but only a fraction of their future benefits. In order to provide a more complete estimate of the long-run unfunded obligations of the programs, estimates can be extended to the infinite horizon. The open-group infinite horizon net obligation is the present value of all expected future program outlays less the present value of all expected future program tax and premium revenues. Such a measure is provided in Table 6 for the three trust funds represented in Table 5.

From the budget or Governmentwide perspective, the values in line 1 plus the values in line 4 of Table 6 represent the value of resources needed to finance each of the programs into the infinite future. The sums are shown in the last line of the table (also equivalent to adding the values in the second and fifth lines). The total resources

\(^6\) The SMI Trust Fund also has a very small amount of existing assets.
needed for all the programs sums to almost $86 trillion in present value terms. This need can be satisfied only through increased borrowing, higher taxes, reduced program spending, or some combination.

The second line shows the value of the trust fund at the beginning of 2006. For the HI and OASDI Programs this represents, from the trust fund perspective, the extent to which the programs are funded. From that perspective, when the trust fund is subtracted, an additional $28.1 trillion and $13.3 trillion, respectively, are needed to sustain the programs into the infinite future. As described above, from the trust fund perspective, the SMI Program is fully funded. The substantial gap that exists between premiums and State transfer revenue and program expenditures in the SMI Program ($26.2 trillion + $16.0 trillion) represents future general revenue obligations of the Federal budget.

In comparison to the analogous 75-year number in Table 5, extending the calculations beyond 2080 captures the full lifetime benefits and taxes and premiums of all current and future participants. The shorter horizon understates financial needs by capturing relatively more of the revenues from current and future workers and not capturing all of the benefits that are scheduled to be paid to them.

### Table 6
Present Values of Costs Less Tax, Premium and State Transfer Revenue through the Infinite Horizon, HI, SMI, OASDI

<table>
<thead>
<tr>
<th>(In trillions of dollars as of January 1, 2006)</th>
<th>HI</th>
<th>SMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present value of future costs less future taxes and premiums and State transfers for current participants</td>
<td>12.2</td>
<td>10.6</td>
</tr>
<tr>
<td>Less current trust fund</td>
<td>0.3</td>
<td>-</td>
</tr>
<tr>
<td>Equals net obligations for past and current participants</td>
<td>11.9</td>
<td>10.6</td>
</tr>
<tr>
<td>Plus net obligations for future participants</td>
<td>16.2</td>
<td>15.6</td>
</tr>
<tr>
<td>Equals net obligations through the infinite future for all participants</td>
<td>28.1</td>
<td>26.2</td>
</tr>
<tr>
<td>Present value of future costs less the present values of future income over the infinite horizon</td>
<td>28.4</td>
<td>26.2</td>
</tr>
</tbody>
</table>

Source: 2006 OASDI and Medicare Trustees’ Reports.

### Railroad Retirement, Black Lung, and Unemployment Insurance

#### Railroad Retirement
The RRB was created in the 1930s to establish a retirement benefit program for the nation’s railroad workers. As the social security program legislated in 1935 would not give railroad workers credit for service performed prior to 1937, legislation was enacted in 1934, 1935, and 1937 (collectively the Railroad Retirement Acts of the 1930s) to establish a railroad retirement program separate from the social security program.

Railroad retirement pays full retirement annuities at age 60 to railroad workers with 30 years of service. The program pays disability annuities based on total or occupational disability. It also pays annuities to spouses, divorced spouses, widow(er)s, remarried widow(er)s, surviving divorced spouses, children, and parents of deceased railroad workers. Medicare covers qualified railroad retirement beneficiaries in the same way as it does Social Security beneficiaries.

Payroll taxes paid by railroad employers and their employees provide a primary source of income for the Railroad Retirement and Survivors’ Benefit Program. By law, railroad retirement taxes are coordinated with Social Security taxes.
Security taxes. Employees and employers pay tier I taxes at the same rate as Social Security taxes. Tier II taxes finance railroad retirement benefit payments that are higher than Social Security levels.

Other sources of program income include: financial interchanges with the Social Security and Medicare trust funds, earnings on investments, Federal income taxes on railroad retirement benefits, and appropriations (provided after 1974 as part of a phase out of certain vested dual benefits). Refer to Note 23—Social Insurance, for additional information on railroad retirement program financing.

The Railroad Retirement and Survivors Improvement Act of 2001 (RRSIA), liberalized benefits for 30-year service employees and their spouses, eliminated a cap on monthly benefits for retirement and disability benefits, lowered minimum service requirements from 10 to 5 years, and provided for increased benefits for widow(er)s. Per the RRSIA, amounts in the Railroad Retirement Account and the SSEB Account that are not needed to pay current benefits and administrative expenses are transferred to the National Railroad Retirement Investment Trust (NRRIT) whose sole purpose is to manage and invest railroad retirement assets. NRRIT’s Board of Trustees is empowered to invest trust assets in nongovernmental assets, such as equities and debt, as well as, in Government securities. Prior to RRSIA, all investments were limited to Government securities.

Since its inception, NRRIT has received $21.3 billion from RRB (including $19.2 billion in fiscal year 2003, pursuant to RRSIA) and returned $3.6 billion. During fiscal year 2006, the NRRIT made net transfers of $947 million to the RRB to pay retirement benefits. Administrative expenses of the trust are paid out of trust assets. The balance as of September 30, 2006, and 2005, of non-federal securities and investments of the NRRIT are disclosed in Note 7—Securities and Investments.

Cashflow Projections

Economic and Demographic Assumptions. The economic and demographic assumptions used for the most recent set of projections are shown in the “Railroad Retirement” section of Note 23—Social Insurance.

Nominal Income and Expenditures. Chart 11 shows, in nominal dollars, estimated railroad retirement income (excluding interest and financial interchange income) and expenditures for the period 2006-2080 based on the intermediate set of assumptions used in the RRB’s actuarial evaluation of the program. The estimates are for the open-group population, which includes all persons projected to participate in the Railroad Retirement Program as railroad workers or beneficiaries during the period. Thus, the estimates include payments from, and on behalf of, those who are projected to be employed by the railroads during the period as well as those already employed at the beginning of the period. They also include expenditures made to, and on behalf of, such workers during that period.
As Chart 11 shows, expenditures are expected to exceed tax income for the entire projection period. The imbalances continue to widen until about 2020, after which their growth slows for the next 45 years (until 2050). After 2060, the imbalances widen due in part to reductions in tax rates between 2061 to 2068.
Income and Expenditures as a Percent of Taxable Payroll. Chart 12 shows estimated expenditures and income as a percent of tier II taxable payroll. The imbalances grow until 2016 but then begin to decrease steadily as expenditures fall. Tax rates begin to decline after 2048, stabilizing after 2063. Compared to last year, projected tax rates are lower. The tier II tax rate is determined from a tax rate table based on the average account benefit ratio.
**Sensitivity Analysis.** Actual future income from railroad payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors as mentioned above. Two crucial assumptions are employment growth and the interest rate. Table 7 shows the sensitivity of the shortfall in the Railroad Retirement Program to variations in these two assumptions. The low-cost employment scenario has a 4.5 percent smaller shortfall of income to expenditures, and the high-cost scenario has a 3.8 percent higher shortfall. A higher discount rate reduces future values relative to a lower rate. As seen in the table, the shortfall is 29.5 percent lower if the interest rate is 11 percent rather than 7.5 percent and 72 percent higher when the interest rate is 4 percent rather than 7.5 percent.

### Table 7
**Present Values of Railroad Retirement Expenditures in Excess of Income Under Various Employment and Interest Rate Assumptions**

(In millions of dollars)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Low</th>
<th>Middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment¹</td>
<td>96,480</td>
<td>101,050</td>
<td>104,876</td>
</tr>
<tr>
<td></td>
<td>(1.0%)</td>
<td>(2.5%)</td>
<td>(4.0%)</td>
</tr>
<tr>
<td>Interest rate</td>
<td>71,242</td>
<td>101,050</td>
<td>173,819</td>
</tr>
<tr>
<td></td>
<td>(11%)</td>
<td>(7.5%)</td>
<td>(4%)</td>
</tr>
</tbody>
</table>

¹ The low and middle employment scenarios have passenger service employment remaining at 43,000 and the remaining employment base declining at 1.0 percent and 2.5 percent, respectively, for the next 25 years. The high cost scenario has passenger service employment declining by 500 per year until a level of 35,000 is reached with the remaining employment base declining by 4.0 percent per year for 25 years, at a reducing rate over the next 25 years, and remaining level thereafter.

Source: Railroad Retirement Board.

**Sustainability of Railroad Retirement**

Table 8 shows the magnitudes of the primary expenditures and sources of financing for the Railroad Retirement Program computed on an open-group basis for the next 75 years and expressed in present values as of January 1, 2006. The data are consistent with the statements of social insurance.

From a Governmentwide perspective, revenues are expected to fall short of expenditures by approximately $101.1 billion, which represents the present value of resources needed to sustain the Railroad Retirement Program. From a trust fund perspective, when the trust fund balance and the financial interchange and transfers are included, the combined balance of the NRRIT, the Railroad Retirement Account, and the SSEB Account show a slight surplus.
### Table 8
Present Values of 75-Year Projections of Revenues and Expenditures for the Railroad Retirement Program\(^1,2\)

(In billions of present-value dollars as of January 1, 2006)

<table>
<thead>
<tr>
<th>Estimated Future Income (Excluding Interest)(^3) Received from or on Behalf of:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current participants who have attained retirement age</td>
<td>4.5</td>
</tr>
<tr>
<td>Current participants not yet having attained retirement age</td>
<td>39.7</td>
</tr>
<tr>
<td>Those expected to become participants</td>
<td>55.5</td>
</tr>
<tr>
<td>All participants</td>
<td>99.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Future Expenditures: (^4)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current participants who have attained retirement age</td>
<td>91.7</td>
</tr>
<tr>
<td>Current participants not yet having attained retirement age</td>
<td>84.1</td>
</tr>
<tr>
<td>Those expected to become participants</td>
<td>25.0</td>
</tr>
<tr>
<td>All participants</td>
<td>200.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net obligations from budget perspective (expenditures less income)</th>
<th>101.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Retirement Program assets (mostly investments stated at market)(^5)</td>
<td>30.0</td>
</tr>
<tr>
<td>Financial Interchange from Social Security Trust</td>
<td>72.1</td>
</tr>
<tr>
<td>Net Obligations from Trust Fund Perspective</td>
<td>(1.0)</td>
</tr>
</tbody>
</table>

1. Represents combined values for the Railroad Retirement Account, SSEB Account, and NRRIT, based on middle employment assumption.
2. The data used reflect the provisions of RRSIA of 2001.
3. Future income (excluding interest) includes tier I taxes, tier II taxes, and income taxes on benefits.
4. Future expenditures include benefits and administrative expenditures.
5. The value of the fund reflects the 7.5 percent interest rate assumption. The RRB uses the relatively high rate due to investments in private securities.

Note: Detail may not add to totals due to rounding. Employee and beneficiary status are determined as of 1/1/2005 whereas present values are as of 1/1/2006.
Black Lung

The Federal Coal Mine Health and Safety Act of 1969 created the Black Lung Disability Benefit Program to provide compensation for medical and survivor benefits for eligible coal miners who are disabled due to pneumoconiosis (black lung disease) arising out of their coal mine employment. The DOL operates the Black Lung Disability Benefit Program. The 1977 Black Lung Amendments established a Black Lung Disability Trust Fund (BLDTF) to provide benefit payments to eligible coal miners disabled by pneumoconiosis when no responsible mine operator can be assigned the liability. The beneficiary population has been declining as the incidence of black lung disease has fallen, and the group of miners affected by the disease (and their widows) has been dying at a more rapid rate than new awards have been made.

Excise taxes on coal mine operators, based on the sale of coal, is the primary source of financing black lung disability payments and related administrative costs. The Black Lung Benefits Revenue Act provides for repayable advances to the BLDTF from the General Fund of the Treasury in the event that BLDTF resources are not adequate to meet program obligations. On September 30, 2006, total liabilities of the BLDTF exceed assets by $9.6 billion. This deficit fund balance represents the accumulated shortfall of excise taxes necessary to meet benefit payment and interest expenses. This shortfall was funded by repayable advances to the BLDTF which are repayable with interest. Estimates for future interest on advances are based on the interest rates on outstanding advances ranging from 4.5 percent to 13.8 percent and new borrowings ranging from 4.9 percent to 5.8 percent.

From the budget or consolidated financial perspective, Chart 13 shows projected black lung expenditures (excluding interest) and excise tax collections for the period 2007-2040. The significant assumptions used in the most recent set of projections are shown in the “Black Lung” section of Note 23—Social Insurance. Analysts project that a scheduled reduction in taxes on coal sales will decrease cash inflows by 52 percent between the years 2013 to 2015. After 2015, cash surpluses continue to widen due to a declining beneficiary population and increasing revenues. Including projected interest payments that the program must make, however, the picture changes dramatically.
Chart 13—Estimated Black Lung Income and Expenditures (Excluding Interest)
2007-2040

(In millions of nominal dollars)

Source: Department of Labor
Chart 14 shows the projected financial status of the program from a trust fund perspective that includes interest outflows from the program to the general fund. Trust fund net outflows (benefits plus interest payments less cash income from excise taxes) grow without bound, as a result of projected interest payments on the large accumulated liability to the general fund. This deficit fund balance represents the accumulated shortfall between excise taxes and benefit payment plus interest expenses.

Table 9 shows present values of 35-year projections of expenditures and revenues for the Black Lung Program computed as of September 30, 2006, using a discount rate equivalent to 6.34 percent. (The discount rate is higher than the current Government borrowing rate because the program borrowed from the General Fund during periods of relatively high interest rates). From a Governmentwide (budget) perspective, the present value of expenditures is expected to be less than the present value of income by $3.7 billion (a surplus). From a trust fund perspective, a large balance ($9.6 billion) is owed to the General Fund. From that perspective, when that accumulated balance is combined with the cashflow surplus, the program shows a negative balance of $5.9 billion in present value dollars.
Table 9  
Present Values of 35-Year Projections of Revenues and Expenditures for the Black Lung Program

(In billions of present value dollars, as of September 30, 2006)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated future tax income</td>
<td>6.9</td>
</tr>
<tr>
<td>Estimated future expenditures</td>
<td>3.2</td>
</tr>
<tr>
<td>Net obligations from budget perspective (expenditures less income)</td>
<td>(3.7)</td>
</tr>
<tr>
<td>Accumulated balance due General Fund</td>
<td>9.6</td>
</tr>
<tr>
<td>Net obligations from trust fund perspective</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Source: Department of Labor projections and Treasury Department calculations.

Unemployment Insurance

The Unemployment Insurance Program was created in 1935 to provide temporary partial wage replacement to unemployed workers who lose their jobs. The program is administered through a unique system of Federal and State partnerships established in Federal law but administered through conforming State laws by State agencies. DOL interprets and enforces Federal law requirements and provides broad policy guidance and program direction, while program details such as benefit eligibility, duration, and amount of benefits are established through individual State unemployment insurance statutes and administered through State unemployment insurance agencies.

The program is financed through the collection of Federal and State unemployment taxes that are credited to the Unemployment Trust Fund (UTF) and reported as Federal tax revenue. The fund was established to account for the receipt, investment, and disbursement of unemployment taxes. Federal unemployment taxes are used to pay for Federal and State administration of the Unemployment Insurance Program, veterans’ employment services, State employment services, and the Federal share of extended unemployment insurance benefits. Federal unemployment taxes also are used to maintain a loan account within the UTF, from which insolvent State accounts may borrow funds to pay unemployment insurance benefits.
Chart 15 shows the projected cash contributions and expenditures over the next 10 years under expected economic conditions (described below). The significant assumptions used in the projections include total unemployment rates, civilian labor force levels, percent of unemployed receiving benefits, total wages, distribution of benefit payments by State, State tax rate structures, State taxable wage bases, and interest rates on UTF investments. These projections, excluding interest earnings, indicate positive net cash inflows for the next 4 years. There is a crossover back to a net outflow in fiscal year 2012, after which net inflows resume for the remainder of the projection period.

Chart 15—Estimated Unemployment Fund Cashflow Using Expected Economic Conditions 2007-2016

(In billions of nominal dollars)
Table 10 shows present values of 10-year projections of revenues and expenditures for the Unemployment Insurance Program using a discount rate of 6.04 percent, the average of the interest rates underlying the 10-year projections. Three sets of numbers are presented in order to show the effects of varying economic conditions as reflected in different assumptions about the unemployment rate. For expected economic conditions, the estimates are based on an unemployment rate of 4.8 percent during fiscal year 2007, increasing to 4.9 percent in fiscal year 2009 and thereafter. Under the mild recessionary scenario, the unemployment rate peaks at 7.43 percent in fiscal year 2009 and declines gradually until reaching 4.9 percent in 2015. Finally, under the deep recession scenario, the unemployment rate is assumed to peak at 10.14 percent in 2010 and gradually fall to 5.25 percent by the end of the projection period.

Each scenario uses an open group that includes current and future participants of the Unemployment Insurance Program. Table 10 shows that, as economic conditions worsen, while tax income is projected to increase as higher layoffs result in higher employer taxes, benefit outlays increase much faster. From the Governmentwide (budget) perspective, under expected conditions, the present value of income exceeds the present value of expenditures by $16 billion. From the same perspective, under a deep recession scenario, the present value of expenditures exceeds the present value of income by $51 billion. From a trust fund perspective, the program has more than $66 billion in assets. When combined with the present value of net cash income under expected economic conditions, the program has a surplus of $82 billion.

Table 10
Present Values of 10-Year Projections of Revenues and Expenditures for Unemployment Insurance Under Three Alternative Scenarios for Economic Conditions

(In billions of present value dollars, as of October 1, 2006)

<table>
<thead>
<tr>
<th>Economic Conditions</th>
<th>Expected</th>
<th>Mild Recession</th>
<th>Deep Recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future cash income</td>
<td>357.3</td>
<td>415.6</td>
<td>475.1</td>
</tr>
<tr>
<td>Future expenditures</td>
<td>341.3</td>
<td>420.1</td>
<td>526.3</td>
</tr>
<tr>
<td>Net obligations from budget perspective (expenditures less income)</td>
<td>(16.0)</td>
<td>4.5</td>
<td>51.2</td>
</tr>
<tr>
<td>Trust fund assets</td>
<td>66.1</td>
<td>66.1</td>
<td>66.1</td>
</tr>
<tr>
<td>Net obligations from trust fund perspective</td>
<td>(82.1)</td>
<td>(61.6)</td>
<td>(14.9)</td>
</tr>
</tbody>
</table>

1Net obligations from the trust fund perspective=net obligations from the budget perspective-trust fund assets. The negative values in this line are indicative of surpluses.

Source: Data for the present value calculations are from the Department of Labor.

Unemployment Trust Fund Solvency

Each State’s accumulated UTF net assets or reserve balance should provide a defined level of benefit payments over a defined period. To be minimally solvent, a State’s reserve balance should provide for 1 year’s projected benefit payment needs based on the highest levels of benefit payments experienced by the State over the last 20 years. A ratio of 1.0 or greater prior to a recession indicates a State is minimally solvent. States below this level are vulnerable to exhausting their funds in a recession. States exhausting their reserve balance must borrow funds from the Federal Unemployment Account (FUA) to make benefit payments. The Missouri state account had loans payable to FUA at the end of fiscal year 2006. In addition, Texas had outstanding debts to other sources. During periods of high-sustained unemployment, balances in the FUA may be depleted. In these circumstances, FUA is authorized to borrow from the Treasury General Fund.

Chart 16 presents the State by State results of this analysis as of September 30, 2006. As the table illustrates, 27 State funds were below the minimal solvency ratio on September 30, 2006.
Chart 16—Unemployment Trust Fund Solvency as of September 30, 2006

Years of benefit payments held in reserve
A MESSAGE TO THE PUBLIC:

Each year the Trustees of the Social Security and Medicare trust funds report on the current status and projected condition of the funds over the next 75 years. This message summarizes the 2006 Annual Reports.

The fundamentals of the financial status of Social Security and Medicare remain problematic under the intermediate economic and demographic assumptions. Social Security's current annual surpluses of tax income over expenditures will soon begin to decline, and will be followed by deficits that begin to grow rapidly toward the end of the next decade as the baby-boom generation retires. Expenditures of Medicare's Hospital Insurance (HI) Trust Fund that pays hospital benefits are projected to exceed taxes and other dedicated revenues in 2006, with annual cash flow deficits expected to continue and to grow rapidly after 2010 as baby boomers begin to retire. The projected growing deficits in both programs will exhaust HI trust fund reserves in 2018 and Social Security reserves in 2040, under current financing arrangements. In addition, the Medicare Supplementary Medical Insurance (SMI) Trust Fund that pays for physician services and the new prescription drug benefit will require substantial increases over time in both general revenue financing and beneficiary premium charges. As Social Security and HI reserves are drawn down and SMI general revenue financing requirements continue to grow, pressure on the Federal budget will intensify. We do not believe the currently projected long-run growth rates of Social Security or Medicare are sustainable under current financing arrangements.

Social Security

The annual cost of Social Security benefits represents 4.2 percent of gross domestic product (GDP) in 2005 and is projected to rise to 6.2 percent of GDP in 2030, and then slightly to 6.3 percent of GDP in 2080. The projected 75-year actuarial deficit in the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds is 2.02 percent of taxable payroll, up from 1.92 percent in last year's report. This increase is due primarily to advancing the projection period, the availability of recent data that led to revisions in key assumptions, and to changes in methods. Although the program passes our short-range test of financial adequacy, it continues to fail our long-range test of close actuarial balance by a wide margin. Projected OASDI tax income will begin to fall short of outlays in 2017, and will be sufficient to finance only 74 percent of scheduled annual benefits in 2040, when the combined OASDI trust fund is projected to be exhausted.
Social Security could be brought into actuarial balance over the next 75 years in various ways, including an immediate increase of 16 percent in payroll tax revenues or an immediate reduction in benefits of 13 percent (or some combination of the two). To the extent that changes are delayed or phased in gradually, greater adjustments in scheduled benefits and revenues would be required. Ensuring that the system is solvent on a sustainable basis over the next 75 years and beyond would also require larger changes.

**Medicare**

As we reported last year, Medicare's financial difficulties come sooner—and are much more severe—than those confronting Social Security. While both programs face demographic challenges, the impact is more severe for Medicare because health care costs increase at older ages. Moreover, underlying health care costs per enrollee are projected to rise faster than the wages per worker on which the payroll tax is paid and on which Social Security benefits are based. As a result, while Medicare's annual costs were 2.7 percent of GDP in 2005, or over 60 percent of Social Security's, they are now projected to surpass Social Security expenditures in a little more than 20 years and reach 11 percent of GDP in 2080.

The projected 75-year actuarial deficit in the HI Trust Fund is now 3.51 percent of taxable payroll, up from 3.09 percent in last year's report due primarily to greater costs in 2005 than expected, changes in managed care assumptions, advancing the projection period, and more recent data that suggests higher utilization of health services in the future. The fund again fails our test of short-range financial adequacy, as assets drop below the level of the next year's projected expenditures within 10 years—in 2012. The fund also continues to fail our long-range test of close actuarial balance by a wide margin. The projected date of HI Trust Fund exhaustion moves forward to 2018, from 2020 in last year's report, and projected HI tax income falls short of outlays in this and all future years. HI could be brought into actuarial balance over the next 75 years by an immediate 121 percent increase in program income, or an immediate 51 percent reduction in program outlays (or some combination of the two). As with Social Security, however, adjustments of far greater magnitude would be necessary to the extent changes are delayed or phased in gradually, or to make the program solvent on a sustainable basis over the next 75 years and beyond.
Part B of the SMI Trust Fund, which pays doctors' bills and other outpatient expenses, and the recent Part D, which pays for access to prescription drug coverage, are both projected to remain adequately financed into the indefinite future by operation of current law that automatically sets financing each year to meet next year's expected costs. Expected rapid cost increases, however, will result in rapidly growing general revenue financing needs—projected to rise from just under 1 percent of GDP today to almost 5.0 percent in 2080—as well as substantial increases over time in beneficiary premium charges.

The Medicare Modernization Act of 2003 requires that the Medicare Report include a determination of whether the difference between total Medicare outlays and dedicated financing sources (such as premiums and payroll taxes) exceeds 45 percent of total outlays within the first seven years of the projection period (2006-2012 for the 2006 Report). The Act requires that an affirmative determination in two consecutive reports be treated as a funding warning for Medicare that would, in turn, require a Presidential proposal to respond to the warning and expedited Congressional consideration of such proposal. The 2006 Report projects that the difference will reach 45 percent in 2012, marking the first time a determination of “excess general revenue Medicare funding” has been made. A similar determination in next year's report would trigger the Medicare funding warning.

**Conclusion**

Though highly challenging, the financial difficulties facing Social Security and Medicare are not insurmountable. We must, however, take action to address them in a timely manner. The sooner these challenges are addressed, the more varied and less disruptive their solutions can be. With informed public discussion and creative thinking that relates the principles underlying these programs to the economic and demographic realities, and to the changing needs and preferences of working and retired households, Social Security and Medicare can continue to play a critical role in the lives of all Americans.

*By the Trustees:*

John W. Snow,Secretary of the Treasury, and Managing Trustee

Elaine L. Chao,Secretary of Labor, and Trustee
Michael O. Leavitt,
Secretary of Health
and Human Services,
and Trustee

Jo Anne B. Barnhart,
Commissioner of
Social Security,
and Trustee

John L. Palmer,
Trustee

Thomas R. Saving,
Trustee
A SUMMARY OF THE 2006 ANNUAL SOCIAL SECURITY
AND MEDICARE TRUST FUND REPORTS

Who Are the Trustees? There are six Trustees, four of whom serve by
virtue of their positions in the Federal Government: the Secretary of the
Treasury, the Secretary of Labor, the Secretary of Health and Human Ser-
vices, and the Commissioner of Social Security. The other two Trustees
are public representatives appointed by the President: John L. Palmer,
University Professor and Dean-Emeritus of the Maxwell School of Citiz-
enship and Public Affairs at Syracuse University, and Thomas R. Saving,
Director of the Private Enterprise Research Center and Professor of Eco-
nomics at Texas A & M University.

What Are the Trust Funds? The trust funds were created in the U.S.
Treasury to account for all program income and disbursements. Social
Security and Medicare taxes, premiums and other income are credited to
the funds. Benefit payments and program administrative costs are the
only purposes for which disbursements from the funds can be made.

Program revenues not needed in the current year to pay benefits and
administrative costs are invested in special non-marketable securities of
the U.S. Government on which a market rate of interest is credited. Thus,
the trust funds represent the accumulated value, including interest, of all
prior program annual surpluses and deficits, and provide automatic
authority to pay benefits.

There are four separate trust funds. For Social Security, the Old-Age and
Survivors Insurance (OASI) Trust Fund pays retirement and survivors
benefits, and the Disability Insurance (DI) Trust Fund pays disability ben-
efits. (The combined trust funds are described as OASDI.) For Medicare,
the Hospital Insurance (HI) Trust Fund pays for inpatient hospital and
related care. The Supplementary Medical Insurance (SMI) Trust Fund is
composed of Part B, which pays for physician and outpatient services,
and Part D, which provides the new prescription drug benefit. Medicare
benefits are provided to most people age 65 and over and to most workers
who are receiving Social Security disability benefits.

What Were the Trust Fund Results in 2005? In December 2005,
40.1 million people received OASI benefits, 8.3 million received DI ben-
efits, and 42.5 million were covered under Medicare. Trust fund opera-
tions, in billions of dollars, are shown below (totals may not add due to
rounding). All four trust funds showed net increases in assets during
2005.

<table>
<thead>
<tr>
<th></th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
<th>SMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets (end of 2004)</td>
<td>$1,500.6</td>
<td>$186.2</td>
<td>$269.3</td>
<td>$19.4</td>
</tr>
<tr>
<td>Income during 2005</td>
<td>604.3</td>
<td>97.4</td>
<td>199.4</td>
<td>158.1</td>
</tr>
<tr>
<td>Outgo during 2005</td>
<td>441.9</td>
<td>88.0</td>
<td>182.9</td>
<td>153.5</td>
</tr>
</tbody>
</table>
How Has the Outlook for the Trust Funds Changed Since Last Year?

Under the intermediate assumptions, the combined OASDI Trust Funds show a 75-year actuarial deficit equal to 2.02 percent of taxable payroll, somewhat larger than last year’s estimate of 1.92 percent. That change is largely attributable to two factors. First, moving the valuation period forward a year from 2005-79 to 2006-80, adds a year (2080) with a large projected deficit into the estimate of long-range funding adequacy. Second, in light of recent evidence, the assumed long-term real interest rate has been lowered from 3.0 to 2.9 percent, increasing the present value of projected annual deficits in program finances later in the valuation period.

The OASDI Trust Funds, separately and combined, are adequately financed over the next 10 years under the intermediate assumptions.

Medicare’s HI Trust Fund now has a projected 75-year actuarial deficit equal to 3.51 percent of payroll compared with last year’s estimate of 3.09 percent under the intermediate assumptions. That change results from multiple factors that include moving the valuation period forward by a year to include 2080 (a high deficit year), higher than anticipated HI costs in 2005 that are judged likely to persist, higher assumed costs for managed care and non-hospital services, and improvements in projection methods. The HI Trust Fund is inadequately funded over the next 10 years, with trust fund assets projected to fall short of 100 percent of expenditures in 2012. The SMI Trust Fund is adequately financed in both the short and long term because of the automatic financing established for Medicare Parts B and D.

How Are Social Security and Medicare Financed? For OASDI and HI, the major source of financing is payroll taxes on earnings that are paid by employees, their employers, and by the self-employed. The self-employed are charged the equivalent of the combined employer and employee tax rates. During 2005, an estimated 159 million people had earnings covered by Social Security and paid payroll taxes; for Medicare, the corresponding figure was 163 million people. The payroll tax rates are set by law and for OASDI apply to earnings up to an annual maximum ($94,200 in 2006) that increases with the growth in nationwide average wages. HI taxes are paid on total earnings. The tax rates (in percent) for 2006 and later are:

<table>
<thead>
<tr>
<th></th>
<th>OASI</th>
<th>DI</th>
<th>OASDI</th>
<th>HI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>5.30</td>
<td>0.90</td>
<td>6.20</td>
<td>1.45</td>
<td>7.65</td>
</tr>
<tr>
<td>Employers</td>
<td>5.30</td>
<td>0.90</td>
<td>6.20</td>
<td>1.45</td>
<td>7.65</td>
</tr>
<tr>
<td>Combined</td>
<td>10.60</td>
<td>1.80</td>
<td>12.40</td>
<td>2.90</td>
<td>15.30</td>
</tr>
</tbody>
</table>

Within SMI both Part B and Part D are financed largely (about 75 percent) by payments from Federal general fund revenues supplemented by
monthly premiums charged beneficiaries. In 2006, the Part B premium is $88.50. The national average Part D premium for 2006 is estimated to be $32.20. (Actual premium amounts charged to Part D beneficiaries depend on the specific plan in which they are enrolled.) Part D also receives payments from States beginning in 2006 for Federal assumption of Medicaid responsibilities for premium and cost-sharing subsidies for individuals eligible for both Medicare and Medicaid, which will initially cover 12 percent of Part D costs but gradually decline to 9 percent. Part B and Part D premium amounts are based on methods defined in law and increase as the estimated costs of those programs rise. Income to each trust fund by source in 2005 is shown in the table below (totals may not add due to rounding).

<table>
<thead>
<tr>
<th>Source (in billions)</th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
<th>SMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll taxes</td>
<td>$506.9</td>
<td>$86.1</td>
<td>$171.4</td>
<td>—</td>
</tr>
<tr>
<td>General fund revenue</td>
<td>—</td>
<td>—</td>
<td>0.5</td>
<td>$119.2</td>
</tr>
<tr>
<td>Interest earnings</td>
<td>84.0</td>
<td>10.3</td>
<td>15.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Beneficiary premiums</td>
<td>—</td>
<td>—</td>
<td>2.4</td>
<td>37.5</td>
</tr>
<tr>
<td>Taxes on benefits</td>
<td>13.8</td>
<td>1.1</td>
<td>8.8</td>
<td>—</td>
</tr>
<tr>
<td>Other</td>
<td>-0.3</td>
<td>—</td>
<td>1.1</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>604.3</td>
<td>97.4</td>
<td>199.4</td>
<td>158.1</td>
</tr>
</tbody>
</table>

**What Were the Administrative Expenses in 2005?** Administrative expenses, as a percentage of total expenditures, were:

<table>
<thead>
<tr>
<th>Administrative expenses 2005</th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
<th>SMI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.7</td>
<td>2.6</td>
<td>1.6</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**How Are Estimates of the Trust Funds’ Future Status Made?**

Short-range (10-year) and long-range (75-year) estimates are reported for all funds. The estimates are based on current law and assumptions about all of the factors that affect the income and outgo of each trust fund. Assumptions include economic growth, wage growth, inflation, unemployment, fertility, immigration, and mortality, as well as factors relating to disability incidence and the cost of hospital, medical, and prescription drug services.

Because the future is inherently uncertain, three alternative sets of economic and demographic assumptions are used to show a range of possibilities. The intermediate assumptions (alternative II) reflect the Trustees’ best estimate of future experience. The low-cost alternative I is more optimistic for trust fund financing, and the high-cost alternative III is more pessimistic; they show trust fund projections for more and less favorable economic and demographic conditions for trust fund financing than the
best estimate. The statistics and analysis presented in the rest of the Summary are based on the intermediate assumptions.

The assumptions are reexamined each year in light of recent experience and new information about future trends, and are revised as warranted. For example, the intermediate assumptions in this year’s reports include a lower long-term real rate of interest (2.9 percent), a higher ultimate total fertility rate (2.0), and an increased long-term rate of growth in productivity (1.7 percent). In general, greater confidence can be placed in the assumptions and estimates for earlier projection years than for later years.

**What is the Short-Range Outlook (2006-2015) for the Trust Funds?**

For the short range, the adequacy of the OASI, DI, and HI Trust Funds is measured by comparing their assets at the beginning of a year to projected costs for that year (the “trust fund ratio”). A trust fund ratio of 100 percent or more—that is, assets at least equal to projected benefit payments for a year—is considered a good indicator of a fund’s short-term adequacy. This level of projected assets for any year means that even if expenditures exceed income, the trust fund reserves, combined with annual tax revenues, would be sufficient to pay full benefits for several years, allowing time for legislative action to restore financial adequacy.

By this measure, the OASI and DI funds are considered financially adequate throughout the short range because the assets of each fund exceed the 100 percent level through the year 2015. The HI fund does not meet the short-range test of financial adequacy because its assets fall below the 100 percent level of one year’s outgo during 2012. Chart A shows these trust fund ratios under the intermediate assumptions through 2025.

**Chart A–OASI, DI, and HI Trust Fund Ratios**

*Assets as a percentage of annual expenditures*
For SMI, a less stringent annual “contingency reserve” asset test applies to both Part B and Part D because the financing of each of those accounts is provided by beneficiary premiums and Federal general fund revenue payments automatically adjusted each year to meet expected costs. Thus, under current law both SMI accounts are fully financed during the next decade and beyond no matter what the costs may be; however, these projections of solvency for the SMI Trust Fund do not obviate concern about the large projected increases in SMI costs.

The following table shows the projected income and outgo, and the change in the balance of each trust fund except SMI, over the next 10 years. Note the separation of SMI income and expenditures into columns for Parts B and D. The change in SMI is not shown because of its automatic annual adjustments in income to meet the next year’s projected expenditures.

<table>
<thead>
<tr>
<th>Year</th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
<th>B</th>
<th>D</th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
<th>B</th>
<th>D</th>
<th>OASI</th>
<th>DI</th>
<th>HI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$639</td>
<td>$102</td>
<td>$210</td>
<td>$177</td>
<td>$58</td>
<td>$468</td>
<td>$96</td>
<td>$200</td>
<td>$173</td>
<td>$58</td>
<td>$171</td>
<td>$6</td>
<td>$10</td>
</tr>
<tr>
<td>2007</td>
<td>673</td>
<td>107</td>
<td>219</td>
<td>199</td>
<td>68</td>
<td>489</td>
<td>102</td>
<td>213</td>
<td>182</td>
<td>68</td>
<td>184</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2008</td>
<td>720</td>
<td>113</td>
<td>233</td>
<td>204</td>
<td>78</td>
<td>513</td>
<td>107</td>
<td>227</td>
<td>194</td>
<td>78</td>
<td>207</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2009</td>
<td>763</td>
<td>118</td>
<td>246</td>
<td>228</td>
<td>87</td>
<td>542</td>
<td>113</td>
<td>243</td>
<td>208</td>
<td>87</td>
<td>221</td>
<td>5</td>
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</tr>
<tr>
<td>2010</td>
<td>810</td>
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<td>94</td>
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<td>104</td>
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<td>127</td>
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<td>104</td>
<td>250</td>
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<td>285</td>
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<td>304</td>
<td>155</td>
<td>803</td>
<td>159</td>
<td>363</td>
<td>300</td>
<td>155</td>
<td>260</td>
<td>-5</td>
<td>-42</td>
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What is the Long-Range (2006-2080) Outlook for Social Security and Medicare Costs? An instructive way to view the projected cost of Social Security and Medicare is to compare the real resource requirements for the two programs with gross domestic product (GDP), the most frequently used measure of the total U.S. economy (Chart B). Costs for both programs increase steeply between 2010 and 2030 because the number of people receiving benefits will increase rapidly as the large baby-boom generation retires. But Medicare costs increase at a faster rate because of the rising cost of health services, increasing utilization rates, and anticipated increases in the complexity of services. Beyond 2030, Social Security costs grow slowly but continue to increase primarily because of projected increases in life expectancy. Medicare costs, however, will continue to grow rapidly due to expected increases in the cost of health care. The continued development, adoption, and use of new technology will likely cause per capita health care expenditures to continue to grow faster in the long term, as they have in the past, than the economy as a whole.
The 75-year projected cost outlook for Social Security is very similar to that described in last year's report. In contrast, there are two aspects of the Medicare projections that are notably different. Perhaps most important is a substantial downward revision in the estimated cost of Medicare Part D benefits. This year's report projects Part D costs at 0.4 percent of GDP in 2006, rising to 2.3 percent of GDP in 2080. By comparison, last year's projections were for costs to equal 0.6 percent of GDP in 2006, increasing to 3.3 percent in 2079. The main reasons for the revised projections are lower than expected drug spending in 2004 and 2005, anticipated drug cost savings in 2006 and later years in Part D plans, and lower than previously anticipated enrollments in stand-alone prescription drug plans. The second important factor that affects the time path of Medicare cost projections is a change in projection methodology. In recent reports, the increase in average expenditures per beneficiary during the 25th through 75th years of the projection period has been assumed to equal the growth in per capita GDP plus 1 percentage point. This report implements a scenario in which health care cost growth rates gradually decline from their recent rates of 2 to 3 percentage points above annual GDP growth to an ultimate assumed level equal to the rate of GDP growth. Over the 2006-80 reference period, the change effectively increases projected costs earlier in the period but lowers them in later years.

In 2005, the combined cost of the Social Security and Medicare programs represented nearly 7 percent of GDP. Social Security outgo amounted to 4.2 percent of GDP in 2005 and is projected to increase to 6.3 percent of GDP in 2080. Medicare’s cost was smaller in 2005, 2.7 percent of GDP, but will surpass the cost of Social Security in just over two decades. It is projected to grow to 11.0 percent of GDP in 2080—a fourfold increase—when it will be 75 percent larger than the cost of Social Security. The Medicare cost projection for 2080 is substantially lower than the 13.6 percent figure for 2079 presented in last year's report. In 2080, the combined cost of the programs will represent 17.3 percent of GDP. By way of comparison, in 2005 all Federal receipts amounted to 17.5 percent of GDP.
What is the Outlook for OASDI and HI Costs Relative to Tax Income? Although Medicare’s and Social Security’s costs are projected to grow substantially faster than the economy over the next several decades, tax income to the HI and OASDI Trust Funds is not. Because the primary source of income for HI and OASDI is the payroll tax, it is customary to compare the programs’ income and cost rates as percentages of taxable payroll, as in Chart C. Note that the income rate lines do not rise substantially over the long run. This is because payroll tax rates are not scheduled to change and income from the other tax source to these programs, taxation of OASDI benefits, will rise only gradually from a greater proportion of beneficiaries being subject to taxation in future years.
What is the Long-Range Actuarial Balance of the OASI, DI, and HI Trust Funds? The traditional way to view the outlook of the payroll tax financed trust funds is in terms of their actuarial balances for the 75-year valuation period. The actuarial balance of a fund is essentially the difference between annual income and costs, expressed as a percentage of taxable payroll, summarized over the 75-year projection period. Because SMI is brought into balance annually through premium increases and general revenue transfers, actuarial balance is not a useful concept for that program.

The OASI, DI, and HI Trust Funds each have an actuarial deficit under the intermediate assumptions, as shown below. Each actuarial deficit can be interpreted as the percentage points that could be either added to the current law income rate or subtracted from the cost rate for each of the next 75 years to bring the funds into actuarial balance, defined as a terminal trust fund balance equal to the following year’s expenditures. However, such uniform changes, while adequate for this period as a whole, would close less than half of the gap in 2080 between the annual income and cost rates for OASDI and HI shown in Chart C.

### Chart C–Income and Cost Rates

[Percentage of taxable payroll]

The chart shows the historical and estimated income and cost rates for the OASDI and HI programs from 1970 to 2080. The historical rates are shown in blue, and the estimated rates are shown in red.

### Long-Range Actuarial Deficit of the OASI, DI, and HI Trust Funds

(As a percentage of taxable payroll; totals may not add due to rounding)

<table>
<thead>
<tr>
<th>Actuarial Deficit</th>
<th>OASI</th>
<th>DI</th>
<th>OASDI</th>
<th>HI</th>
</tr>
</thead>
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<tr>
<td>1.68</td>
<td>0.33</td>
<td>2.02</td>
<td>3.51</td>
<td></td>
</tr>
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</table>
What Are Key Dates in Long-Range OASI, DI, and HI Financing?

When costs exceed income excluding interest (shown in Chart C), use of trust fund assets occurs in stages. For HI, the process is predicted to start anew in 2006, when net redemptions of trust fund assets will begin to be needed to help pay benefits. In fact, that already occurred in 2004, but not in 2005 due to an unexpected adjustment to tax revenue for earlier years. Beginning in 2010 the amount of assets that will have to be redeemed each year will exceed the annual interest earned on the fund assets. The trust fund is projected to be exhausted in 2018. Those dates are two years earlier than reported last year due to higher than expected costs in 2005 that are likely to persist and higher utilization rates anticipated for HI services. In 2018, tax income is estimated to be sufficient to pay 80 percent of HI costs—and by 2080 only 29 percent. For OASDI the onset of net trust fund redemptions occurs in 2017 and redemptions begin to exceed annual interest income in 2027. OASDI assets are now projected to be exhausted in 2040—a year earlier than indicated in last year’s report—when tax income would cover 74 percent of costs. By 2080, tax income would cover 70 percent of scheduled benefits. The key dates regarding cash flows are shown below.

### KEY DATES FOR THE TRUST FUNDS

<table>
<thead>
<tr>
<th>Event</th>
<th>OASI</th>
<th>DI</th>
<th>OASDI</th>
<th>HI</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year outgo exceeds income excluding interest</td>
<td>2018</td>
<td>2005</td>
<td>2017</td>
<td>2006</td>
</tr>
<tr>
<td>First year outgo exceeds income including interest</td>
<td>2028</td>
<td>2013</td>
<td>2027</td>
<td>2010</td>
</tr>
<tr>
<td>Year trust fund assets are exhausted</td>
<td>2042</td>
<td>2025</td>
<td>2040</td>
<td>2018</td>
</tr>
</tbody>
</table>

How Do the Sources of Medicare Financing Change? As Medicare costs grow over time, general revenues and beneficiary premiums will play a larger role in financing the program. Chart D shows expenditures and current law non-interest revenue sources for HI and SMI combined as a percentage of GDP. The total expenditure line is the same as shown in Chart B and shows Medicare costs rising to 11.0 percent of GDP by 2080. Revenues from taxes are expected to remain roughly 1.5 percent of GDP, while general fund revenue contributions are projected to rise from 1.4 percent in 2006 to 4.6 percent in 2080, and beneficiary premiums from 0.4 to 1.5 percent of GDP. Thus, revenues from taxes will fall substantially as a share of total non-interest Medicare income (from 45 percent to 19 percent) while general fund revenues will rise (from 42 to 60 percent), as will premiums (from 12 percent to 19 percent). The gap between total non-interest income and expenditures steadily widens due to growing annual HI deficits, which reach 3.5 percent of GDP by 2080. All told, by 2080 the Medicare program is projected to require general revenue transfers equal to 8.1 percent of GDP, assuming that the HI deficit would be so covered, which is not automatic under current law.
The Medicare Modernization Act (2003) requires that the Board of Trustees determine whether the difference between program outlays and dedicated financing sources (HI payroll taxes, the HI share of income taxes on Social Security benefits, Part D State transfers, and beneficiary premiums) exceeds 45 percent of Medicare outlays within the first seven years of the 75-year projection period. Because that difference (35 percent in 2005) is projected to reach 45 percent in 2012, a determination of “excess general revenue Medicare funding” is made in this year’s report. If two consecutive annual reports contain such a determination, a “Medicare funding warning” is triggered. That finding would require the President to submit proposed legislation to respond to the warning and Congress to act upon it on an expedited basis.

**Why is Reform to Improve the Medicare and Social Security Financial Imbalance Needed?** Public discussion of the financial status of Medicare and Social Security tends to focus on the HI and OASDI Trust Fund exhaustion dates, when projected finances under current law would be insufficient to pay the full amount of scheduled benefits. A more fundamental reason for concern is the growing demands that the programs will place on Federal general fund revenues well before their trust funds are exhausted.

The mounting financial shortfall in these programs is illustrated in Chart E. It shows, as a percentage of GDP, the gap between annual HI and OASDI tax income and the cost of scheduled benefits, plus the 75 percent
general fund revenue contributions to SMI’s Part B (75 percent of expenditures) and Part D. The initial negative amounts for OASDI in 2005 and for more than a decade thereafter represent net revenues to the Treasury that result in the issuance of Treasury bonds to the trust funds in years of annual cash flow surpluses. The positive amounts that begin in 2017 for OASDI and in 2010 for HI initially represent payments the Treasury must make to the funds when assets are redeemed to help pay benefits in the years leading up to exhaustion of the funds. After the exhaustion dates, (2040 for OASDI, 2018 for HI), those amounts depict growing shortfalls in program finances.

In 2006, the Social Security tax income surplus is estimated to be more than offset by the shortfall in tax and premium income for Medicare, resulting in a small overall cash shortfall that must be covered by transfers from general fund revenues. The combined shortfall is projected to grow each year, such that by 2017 net revenue flows from the general fund to the trust funds will total $487 billion, or 2.2 percent of GDP. Because neither the interest paid on the Treasury bonds held in the HI and OASDI Trust Funds, nor their redemption, provides any net new income to the Treasury, the full amount of the required Treasury payments to the trust funds must be financed by some combination of increased taxation, increased Federal borrowing from and debt held by the public, and a reduction in other government expenditures. Thus, these payments along with the 75 percent general fund revenue contributions to SMI will add greatly to pressures on Federal general fund revenues much sooner than is generally appreciated.

**Chart E—OASDI and HI Tax Income Shortfall to Pay Scheduled Benefits, and the 75 Percent General Fund Revenue Contribution to SMI**

*Percentage of GDP*
It is also evident from Chart E that currently projected benefit costs for Medicare and Social Security pose a far more serious long-term financing problem than is generally recognized. The shortfall of dedicated payroll tax and premium income will grow rapidly in the 2010 to 2030 period as the baby-boom generation reaches retirement age. Beyond 2030, the shortfall continues to increase rapidly due to health care costs that grow faster than GDP and because of the increasing life expectancy of beneficiaries. In 2005, the combined annual cost of HI, SMI, and OASDI amounted to about 40 percent of total Federal revenues and about 7 percent of GDP. These costs are projected to double to 14 percent of GDP by 2040 and then to rise further to 17 percent of GDP in 2080. Over the past four decades, the average share of total Federal revenues as a percentage of GDP has been 18 percent and has never exceeded 21 percent. Assuming the continued need to fund a wide range of other government functions, the anticipated growth in Social Security and Medicare costs would require that the total Federal revenue share of GDP increase to wholly unprecedented levels.

This year’s Trustees Reports describe large long-term financial imbalances for Social Security and especially Medicare, and demonstrate the need for timely and effective action. The sooner that solutions are adopted, the more varied and gradual they can be.
A MESSAGE FROM THE PUBLIC TRUSTEES

These are the sixth consecutive annual Trustees Reports in which we have participated since first being appointed Public Trustees by President Clinton in 2000. When we wrote our message last year, we did not expect to continue in this role, but we were recently reappointed by President Bush. As Public Trustees we have always striven to work in a nonpartisan way to ensure the integrity of the process by which these reports are prepared and the credibility of the information they contain. Despite the inherent uncertainty of the projections in these reports due to numerous assumptions that must be made, we believe they provide the most reliable picture available of the financial outlook under current law for the Medicare and Social Security programs.

Social Security

This year's OASDI report shows very minor deviations from last year's in the financial status of Social Security. In essence, there has been a slight deterioration in the outlook for the combined trust funds through mid-century—largely due to the negative consequences of an assumed lower interest rate for the income generated by trust fund assets—and a slight improvement in the latter part of the 75-year projection period—largely due to the positive consequences of an assumed higher fertility rate for the growth of the labor force. As a result of these changes and the extension of the valuation period by one year, the date of trust fund exhaustion has advanced from 2041 to 2040 and there have been increases in both the 75-year actuarial deficit (from 1.92 to 2.02 of taxable payroll) and the open group unfunded obligation (from $4.0 to $4.6 trillion in present value); whereas the program's annual cost and deficit in 2080 have both declined in relative terms (from 6.4 to 6.3 percent of GDP and from 5.8 to 5.4 percent of taxable payroll, respectively).

But the larger picture for Social Security remains the same. Current annual surpluses of tax income over expenditures for the combined OASDI trust funds will soon begin to decline with the retirement of the baby-boom generation and, in little more than a decade, they become rapidly growing deficits covered by cash transfers from the General Fund of the Treasury (resulting from redemption of trust fund assets) that will reach 15 percent of Federal income tax revenues (projected at their historical average of GDP over the past four decades) by the time of trust fund exhaustion. At that time, annual Social Security tax income will be sufficient to pay only about three-quarters of scheduled benefits, and the
gap between the two will gradually increase over the remainder of the 75-year projection period with continued improvements in life expectancies.

As we noted in last year's Message, demographic change is the major force shaping the financial outlook for Social Security; only highly unlikely changes in expected rates of fertility, mortality, and immigration could dramatically alter this outlook. The same is true of the long-term growth rate of the economy. Certainly the financial outlook for Social Security would substantially improve were the economy to expand as rapidly in future decades as in past ones, but the marked slowdown in the growth of the labor force over the next two decades virtually prohibits this.

Long-run economic growth is largely determined by increases in the size of the labor force and in output per hour worked, or total economy productivity. The labor force has grown at a rate averaging 1.6 percent annually over the past four decades, mainly because of high birth rates in the decades immediately following World War II and the large increase in the labor force participation rate of women over the final third of the century. Along with an average annual growth rate in productivity of about 1.7 percent for the past 40 years, this has resulted in the economy growing over the same period at an annual average rate of 3.0 percent (after adjusting for inflation). But women's labor force participation is not expected to increase much further and the baby-boom generation will soon begin exiting the labor force. In consequence, even though the Trustees assume the continuation of relatively robust rates of fertility and immigration, this year's report—like last year's—shows the annual growth rate of the labor force declining to 0.5 percent in less than a decade and to only 0.3 percent within two decades and thereafter. The result is a long-term rate of real economic growth not much above 2 percent, unless prospective increases in productivity far exceed any historic norms and the most optimistic expert projections. The Trustees currently assume 1.7 percent for the ultimate growth rate of productivity, and we know of no expert forecast that would place it significantly above 2 percent.

**Medicare**

The changes from last year in the financial outlook for Medicare are much more substantial and complex than for Social Security. Currently, HI tax income and other dedicated revenues fall slightly below annual expenditures. These “cash flow” deficits are now projected to grow more rapidly in the near term due to somewhat higher than expected costs in
2005 and upward revision in the short-term assumptions about utilization of HI services. In consequence, the HI trust fund exhaustion date advances from 2020 to 2018, at which time annual tax income will be sufficient to pay only 80 percent of estimated expenditures. The immediate outlook for Part B has also worsened somewhat due to higher-than-anticipated costs in 2004 and 2005 and a recently legislated increase in the physician fee schedule update for 2006. Even so, the projected Part B payments are unrealistically constrained because they must assume the sizeable annual reductions in this fee schedule in subsequent years mandated by current law actually occur—despite the fact that Congress overrode such reductions in each of the past four years and is highly likely to do so again in the future. In contrast to HI and Part B, costs in the near term for the new Part D drug benefit are projected to be significantly lower than those in the 2005 report due to recent slower growth in overall prescription drug spending and lower enrollment in stand-alone prescription drug plans than was expected a year ago, among other factors.

In addition to the factors just noted, Medicare's long-range financial outlook also reflects a refinement in the long-term growth assumption used by the Trustees for all three program components that has the effect of raising projected costs in the intermediate term while significantly lowering them toward the end of the 75-year projection period. This refinement provides for a more gradual transition from current health care cost growth rates—which have averaged 2 to 3 percentage points above the level of GDP growth—to the ultimate assumed rate equal to that of GDP growth, in such a way that the overall cost for the next 75 years as a whole is consistent with the previous “GDP plus 1 percent” assumption, other things held constant. Under the new methodology, costs for all Medicare services are assumed to grow about 1.4 percent faster than GDP in 2030 but only 0.8 percent faster by 2050 and 0.2 percent by 2080—as opposed to a constant 1.0 percent faster than GDP over this 50-year period.

1 The assumed long range rate of growth in annual Medicare expenditures per beneficiary is a crucial determinant of the projected cost of Medicare-covered services in the more distant future. In recent reports, this growth rate was assumed be one percent higher than that of GDP per capita for years 25 through 75 of the projection period. With the inclusion of infinite-horizon projections starting in the 2004 report, per beneficiary expenditures after the 75th year were assumed to increase at the same rate as per capita GDP.
As a result of all updates and changes in assumptions and methodology from last year, expenditures for HI are now projected to grow by 2080 from their current levels of 3.1 percent of taxable payroll and 1.5 percent of GDP to 'only' 11.6 and 4.9 percent, respectively, rather than to 12.9 and 5.4 percent as previously projected. But the actuarial deficit for HI over the next 75 years shown in this year's report has increased from 3.09 to 3.51 percent of taxable payroll, and the corresponding unfunded obligation from $8.6 to $11.0 trillion in present value. The pattern of higher initial, followed by lower ultimate, annual costs is largely attributable to the refinement in the long-term growth rate assumption; whereas the higher 75-year actuarial deficit is largely attributable to the addition of 2080 (a high deficit year) in the valuation period and the worse-than-expected experience in 2005 and utilization adjustments described earlier.

In a similar vein, expenditures for Medicare Part B are now projected ultimately to grow to 'only' 3.8 percent of GDP—up from their current level of 1.3 percent—in contrast to 4.9 percent in last year's report; while the present value of the 75-year general revenue transfer required by the program has risen from $12.4 trillion to $13.1 trillion (and would have risen much more were it not for the unrealistic assumption about future reductions in physician reimbursement rates mandated by current law).

Projected expenditures for Part D are also now much lower at the end of the 75-year period: 2.3 percent of GDP rather than 3.3 percent. But, in contrast to HI and Part B, this year's report shows Part D on a lower growth trajectory throughout the entire 75-year period. This is because the program-specific factors leading to the slower near-term cost growth for Part D noted earlier are assumed to continue in the longer run and dominate the faster growth effects during the intermediate years as projected using the new methodology for the long-term cost growth path shared by all three components of Medicare. As a consequence, the present value of the 75-year general revenue transfer required by Part D is now projected to be $8.0 trillion, down from $8.7 trillion.

In last year's message we noted that there is considerably more uncertainty inherent in the Medicare projections than in those for Social Security, particularly for the long run. Both share the same economic and demographic assumptions, but projections for Medicare also depend
upon assumptions about the development and utilization of new medical technologies. Scientific breakthroughs, new blockbuster drugs, the development of new medical treatment techniques, and the broader use of existing technologies are all important to the long-term course of Medicare costs, and these and related factors are extremely difficult to assess. As demonstrated by the refinement in methodology for projecting these costs discussed earlier, small changes in what is assumed about the course of Medicare expenditures relative to GDP over the long run can produce major changes in the financial outlook for the program. But the fact that, under current law, Medicare is on a trajectory of rapidly rising costs relative to earmarked sources of revenue is not going to change, and this has predictable and problematic consequences for the Federal budget, taxpayers and Medicare beneficiaries—as well as for the HI trust fund—in the near future. Last year, general revenue transfers to Medicare were equal to 7 percent of Federal income tax revenues. If the Trustee's projections prove a reliable guide to the next few decades, absent an increase in earmarked sources of revenue for the program, in just 15 years payment of currently scheduled Medicare benefits would require General Fund transfers equal to 25 percent of Federal income tax revenues (projected at their historic level of GDP)—more than triple their 2005 fiscal burden—and less than 10 years later the General Fund transfer would equal nearly 40 percent of Federal income tax revenues. Similarly, Medicare beneficiaries' out-of-pocket expenses for health care will be consuming a rapidly growing share of their available income over this period.

We should further note here that, while it seems reasonable to assume (per capita) health care and Medicare expenditure growth will gradually slow to the rate of growth of GDP—because there is presumably some upper limit to what share of their growing incomes Americans will want to devote to health care—no such slowdown has materialized over the past half-century. At present there are no clear indications of when, or even how, the past trend might abate. If it does not soon, then the serious fiscal problem discussed above will become dire. Clearly we must not only adjust Medicare's funding, but also work much harder to improve our understanding of the long-term determinants of overall spending on health care and how best to slow the growth of that spending.
Conclusion

Both Social Security and Medicare are projected to be in poor fiscal shape, though Social Security poses a far more manageable problem—in analytic and dollar terms—than does Medicare. The fiscal problems of both programs are driven by inexorable demographics and, in the case of Medicare, inexorable health care cost inflation, and are not likely to be ameliorated by economic growth or mere tinkering with program financing.

John L. Palmer, 
Trustee

Thomas R. Saving, 
Trustee