

**GAO**

Report to the Ranking Minority  
Member, Committee on Education  
and the Workforce, House of  
Representatives

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March 2004

# PRIVATE PENSIONS

Publicly Available  
Reports Provide  
Useful but Limited  
Information on Plans'  
Financial Condition





Highlights of [GAO-04-395](#), a report to the Ranking Minority Member, Committee on Education and the Workforce, House of Representatives

### Why GAO Did This Study

Information about the financial condition of defined benefit pension plans is provided in two sources: regulatory reports to the government and corporate financial statements. The two sources can often appear to provide contradictory information. For example, when pension asset values declined for most large companies between 2000 and 2002, these companies all continued to report positive returns on pension assets in their financial statement calculations of pension expense. This apparent inconsistency, coupled with disclosures about corporate accounting scandals and news of failing pension plans, has raised questions about the accuracy and transparency of available information about pension plans. GAO was asked to explain and describe (1) key differences between the two publicly available sources of information; (2) the limitations of information about the financial condition of defined benefit plans from these two sources; and (3) recent or proposed changes to pension reporting, including selected approaches to pension reporting used in other countries.

[www.gao.gov/cgi-bin/getrpt?GAO-04-395](http://www.gao.gov/cgi-bin/getrpt?GAO-04-395).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Barbara Bovbjerg at (202) 512-7215 or [bovbjergb@gao.gov](mailto:bovbjergb@gao.gov).

## PRIVATE PENSIONS

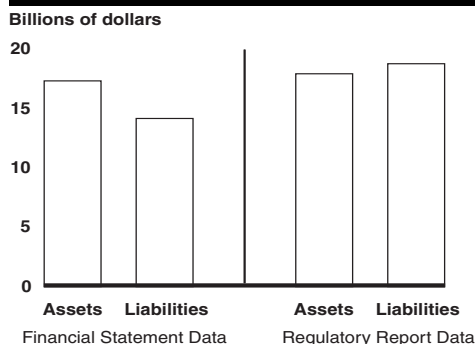
# Publicly Available Reports Provide Useful but Limited Information on Plans' Financial Condition

### What GAO Found

Information about defined benefit pension plans in regulatory reports and pension information in corporate financial statements serve different purposes and provide different information. The regulatory report focuses, in part, on the funding needs of each pension plan. In contrast, corporate financial statements show the aggregate effect of all of a company's pension plans on its overall financial position and performance. The two sources may also differ in the rates assumed for investment returns on pension assets and in how these rates are used. As a result of these differences, the information available from the two sources can appear to be inconsistent or contradictory, as evidenced by the graph below.

Both sources of information have limitations in the extent to which they meet certain needs of their users. Under current reporting requirements, regulatory reports are not timely and do not provide information about whether benefits would all be paid were the plan to be terminated. Financial statements can supplement regulatory report data because they are timelier and provide insights into the probability of a company meeting its future pension obligations. However, through December 2003, financial statements have lacked two disclosures important to investors—allocation of pension assets and estimates of future contributions to plans. There is also debate about whether current methods for calculating pension expense accurately represent the effect of pension plans on a company's operations.

Several changes have been made or proposed to provide further information. In July 2003, the administration called for public disclosure of more information about the sufficiency of a plan's assets. However, no further steps have yet been taken. For financial statements, the Financial Accounting Standards Board issued a revised standard in December 2003 requiring enhanced pension disclosures, such as pension asset allocation and expected contributions to plans. Internationally, accounting standards boards have considered proposals to change the methodology for calculating pension expense. We have previously recommended changes to improve the transparency of plan financial information, but other challenges remain. Plan participants and regulators continue to need more timely information, including measures of plan funding in the event of plan termination.



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# Contents

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<b>Letter</b>		<b>1</b>
	Results in Brief	3
	Background	4
	Form 5500 Reports and Corporate Financial Statements Differ in Key Respects	9
	Both Reports Provide Complementary Pension Information but Do Not Fully Satisfy Users	16
	Changes to Pension Accounting and Regulatory Reporting Have Been Implemented or Proposed	27
	Concluding Observations	29
	Agency Comments	30
<b>Appendix I</b>	<b>Scope and Methodology</b>	<b>32</b>
<b>Appendix II</b>	<b>Expected and Actual Returns in Financial Statements</b>	<b>36</b>
<b>Appendix III</b>	<b>GAO Contacts and Staff Acknowledgments</b>	<b>42</b>
	Contacts	42
	Staff Acknowledgments	42
<b>Tables</b>		
	Table 1: Differences in Measures of Pension Assets and Liabilities in Reports	11
	Table 2: Comparison of Pension Assets with Liabilities for a Fortune 500 Company	12
	Table 3: Use of Expected Rate of Return in Form 5500 Schedule B and Corporate Financial Statements	13
	Table 4: Average Expected and Actual Rates of Return on Pension Assets from 1994 to 2002 for a Sample of Fortune 500 Companies	24
	Table 5: Corporate Financial Statement Example—Elements of Pension Footnote and Statement of Operations for Company X for Different Expected Rates of Return	37
	Table 6: Definitions of Pension Footnote Items in Table 5	39

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**Figure**

Figure 1: Comparison of Average Expected Rates of Return Reported in Form 5500 Schedule B and Corporate Financial Statements for a Sample of Fortune 500 Companies

16

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**Abbreviations**

DOL	Department of Labor
EDGAR	Electronic Data Gathering, Analysis, and Retrieval System
EIN	employer identification number
ERISA	Employee Retirement Income Security Act of 1974
FASB	Financial Accounting Standards Board
IASB	International Accounting Standards Board
IRS	Internal Revenue Service
PBGC	Pension Benefit Guaranty Corporation
SEC	Securities and Exchange Commission
S&P	Standard and Poor's

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G A O

Accountability \* Integrity \* Reliability

United States General Accounting Office  
Washington, DC 20548

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March 31, 2004

The Honorable George Miller  
Ranking Minority Member  
Committee on Education and the Workforce  
House of Representatives

Dear Congressman Miller:

Since the stock market decline of 2000 through 2002, policy makers and pension plan participants have raised concerns about where they can obtain clear and timely information about the financial condition of defined benefit pension plans. Defined benefit plans, which promise their participants a steady retirement income, usually based on years of service and salary, tend to invest most of their assets in the stock market. These plans cover some 44 million workers and retirees, concentrated in industries such as automotive, airline, steel, telecommunications, and manufacturing. The companies that sponsor defined benefit plans bear the risks of investing these assets, and may be required to contribute money to the plans if the plans' asset values are less than certain measurements of the benefits promised to plan participants as defined by law. When several of these plans reported funding problems or were terminated in the wake of the stock market's decline, policy makers, pension participants, investors, and financial analysts alike began taking a closer look at the health of defined benefit pension plans. The information they found often appeared contradictory. For example, while the stock market was falling and some information indicated that the value of companies' pension assets was declining, other information implied that these same assets were increasing in value. In fact, publicly reported values of pension plan assets and liabilities were routinely contradictory. Coupled with news of corporate accounting scandals, these apparent contradictions have raised questions about the accuracy and transparency of available information about pension plans.

As you requested, this report examines the two main sources of financial information about defined benefit pension plans and analyzes why these sources generate different measures of the financial condition of these plans. The first source is a report, commonly referred to as the Form 5500, which plan sponsors are required to file each year with the agencies that administer federal pension laws. Part of the Form 5500 report, called Schedule B, provides actuarial and other information about a pension

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plan's assets, liabilities, actuarial assumptions, and employer contributions.<sup>1</sup> The second source is a company's annual financial statements, which among other information provide pension-related data as they pertain to a company's overall financial position, performance, and cash flows. This report explains and describes

- key differences between the two publicly available sources of information, including their methodologies and assumptions;
- certain limitations of the information about the financial condition of defined benefit plans in these two information sources; and
- recent or proposed changes to pension reporting, including selected approaches to pension reporting in other countries.

For our analysis of how information in the Form 5500 is used, we reviewed the laws that require the filing of regulatory reports on pensions and interviewed pension actuaries and officials from federal agencies that use this information. As a basis for our analyses of the information about pension plans presented in corporate financial statements, we reviewed relevant accounting standards from the Financial Accounting Standards Board (FASB), which establishes standards of financial accounting and reporting for nongovernmental entities, and interviewed board officials. We also interviewed expert users of pension information in financial statements, including financial analysts, credit rating agency officials, pension actuaries, and federal officials. These experts described and shared documentation about how they use financial statements to understand the financial position of pension plans and the impact of pension plans on companies' financial performance and cash flows. To identify approaches used in other countries and proposals for pension reporting in this country, we relied extensively on statements provided by officials at the International Accounting Standards Board and the Financial Accounting Standards Board. Our work also included analysis of Form 5500 filings and corporate financial statements for a systematic random sample of 97 publicly traded Fortune 500 companies with defined benefit pension plans. Appendix I explains the scope and methodology of our work in greater detail. We conducted our work between January 2003 and January 2004 in accordance with generally accepted government auditing standards.

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<sup>1</sup>References to pension plan asset and liability values in Form 5500 throughout this report reflect information provided in Schedule B.

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## Results in Brief

The information in a pension plan's Form 5500 report serves a substantially different purpose from the pension information disclosed in a corporate financial statement; therefore, these two reports do not provide the same measures of pension funding. As required by law, the Form 5500 requires, among other things, plan financial information including measures of assets, liabilities, and an estimated rate of return on plan assets. One purpose of this information is to determine whether plans are funded in accordance with statutory requirements. In contrast, as required by financial accounting standards, the pension information in corporate financial statements is intended to explain how a company's pension plans, in aggregate, affect its overall financial position, performance, and cash flows, and is not intended to measure pension funding needs. The different purposes and reporting requirements lead to differences in how the pension information is developed and presented. Basic methodological steps—such as whether calculations are based on values at the beginning or the end of the year—can vary substantially between the two sources. For example, one company in our sample based its Form 5500 filing on plan assets valued on June 30, 2001, while its financial statement was based on values for December 31 of the same year, contributing to a difference of almost \$600 million in reported assets. Additionally, both sources use a rate-of-return estimate, but they apply this estimate differently. As a result of the different purposes and reporting requirements, the information available from the two sources can appear to be inconsistent or contradictory.

Under current reporting requirements, information in both the Form 5500 and corporate financial statements has limitations in the extent to which it meets certain needs of regulators, plan participants, and investors. The Form 5500 provides detailed information about individual defined benefit plans, but this information is limited in two main ways. The first limitation is timeliness: Pension funding data are 1 to 2 years old by the time the Form 5500 is filed with cognizant federal agencies. However, current statutory reporting requirements provide little flexibility to improve the timeliness of Form 5500 reporting. The second limitation is that the form does not require information about whether plans have sufficient assets to meet their obligations in the event of the plan's termination. The information in corporate financial statements can help regulators and others supplement available Form 5500 data because it is more timely and can provide insights into whether a company is likely to meet its future pension obligations. According to financial analysts we spoke with, corporate financial statements have heretofore lacked two important disclosures—the composition of pension assets and an estimate of the amount a company is likely to contribute to its pensions for the coming

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year. In addition, some analysts are concerned that accounting methods designed to smooth out asset values' year-to-year fluctuations in favor of reporting longer-term trends do not really reflect the effect that significant fluctuations may have on the operations of the plan sponsor. However, others argue that current pension accounting standards are appropriate for reflecting the long-term nature of pension obligations.

Several changes have been made or proposed to provide additional information about the financial condition of defined benefit plans. In an effort to improve the transparency of pension plan information, the administration proposed in July 2003 that additional information be made available to the public about plans' financial condition. This information, which until now has been available only to government regulators under certain conditions, includes computations that provide a more accurate picture of a plan's ability to meet its obligations if it were to be terminated, as well as more detailed information about plans when companies' pensions are collectively underfunded by at least \$50 million. As of March 2004, no action has yet been taken on the administration's proposal. For financial statements, the Financial Accounting Standards Board in December 2003 issued a revised accounting standard requiring disclosure of more information, such as the allocation of plan assets and the company's expected pension plan contributions in the upcoming year. Outside the United States, accounting standards boards have been considering proposals that would change the methodology for calculating pension cost. We have previously recommended changes to improve the transparency of plan financial information, but other challenges remain. Plan participants, regulators, policy makers, and investors continue to need more timely information, including measures of plan funding in the event of plan termination.

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## Background

Once the most prevalent type of pension plan, defined benefit plans no longer predominate, but they still constitute a significant part of the nation's retirement landscape. They usually base retirement income on salary and years of service (for example, a benefit of 1.5 percent of an employee's highest annual salary multiplied by the number of years of service) and are one of two pension types. The other type of pension, called a defined contribution plan, bases benefits on contributions to, and investment returns on, individual investment accounts. Among workers covered by pensions in 1998, about 56 percent were covered only by



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defined contribution plans (including 401(k)<sup>2</sup> plans), compared with about 14 percent who were covered only by defined benefit plans, and about 30 percent who were covered by both types of plans.<sup>3</sup>

Under a defined benefit plan, the employer is responsible for funding the benefit, investing and managing plan assets, and bearing the investment risk.<sup>4</sup> To fund their defined benefit pension plans, companies set up dedicated trust funds from which they cannot remove assets without incurring significant tax penalties. To promote the security of participants' benefits, the Employee Retirement Income Security Act of 1974 (ERISA), among other requirements, sets minimum pension funding standards. These funding standards establish the minimum amounts that defined benefit plan sponsors must contribute in each year to help ensure that their plans have sufficient assets to pay benefits when due. If plan asset values fall below the minimum funding targets, employers may have to make additional contributions.

The financial stability of defined benefit pension plans is of interest not only to workers whose retirement incomes depend on the plan, but also to the cognizant federal agencies and to investors in the companies that sponsor the plans. Federal policy encourages employers to establish and maintain pension plans for their employees by providing preferential tax treatment under the Internal Revenue Code for plans that meet applicable requirements. ERISA established a federally chartered organization, the Pension Benefit Guaranty Corporation (PBGC), to insure private sector defined benefit pension plans, subject to certain limits, in the event that a

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<sup>2</sup>A 401(k) plan generally allows participants to make contributions that are not taxed until the funds are used. Earnings on these contributions likewise accumulate tax-free until the funds are used.

<sup>3</sup>*Private Pension Plan Bulletin: Abstract of 1998 Form 5500 Annual Reports*, U.S. Department of Labor Pension and Welfare Benefits Administration, Number 11 (Washington, D.C.: Winter 2001-2002).

<sup>4</sup>In contrast, under a defined contribution plan, the employee bears the investment risk. Hybrid plans, such as cash balance plans, are defined benefit plans, which combine some of the characteristics of defined contribution plans. The characteristics of these various types of plans are explained more fully in our publication *Answers to Key Questions about Private Pension Plans*, [GAO-02-745SP](#) (Washington, D.C.: September 2002), pp. 22-24.

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plan sponsor cannot meet its pension obligations.<sup>5</sup> As part of its role as an insurer, PBGC monitors the financial solvency of those plans and plan sponsors that may present a risk of loss to plan participants and the PBGC. We recently designated PBGC's single-employer insurance program as high-risk because of its current financial weaknesses,<sup>6</sup> as well as the serious, long-term risks to the program's future viability.<sup>7</sup> Investors' interest in pension plans is prompted by the fact that a company's pension plans represent a claim on its current and future resources—and therefore potentially on its ability to pay dividends or invest in production and business growth. Thus, all three groups—regulators, participants, and investors—need information about these plans.

To meet the information needs of the federal agencies that administer federal pension laws, ERISA and the Internal Revenue Code require the filing of an annual report, which includes financial and actuarial information about each plan.<sup>8</sup> The PBGC, the Department of Labor, and the Internal Revenue Service (IRS) jointly develop the Form 5500, Annual Return/Report of Employee Benefit Plan, to be used by plan administrators to meet their annual reporting obligations under ERISA and the Internal Revenue Code.<sup>9</sup> Plan administrators of private sector pension

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<sup>5</sup>PBGC receives no direct federal tax dollars to support this insurance program; rather it is funded by premiums paid by the corporate sponsors of defined benefit plans insured by PBGC. The program receives the assets of terminated underfunded plans and any of the sponsor's assets that PBGC recovers during bankruptcy proceedings. PBGC finances the unfunded liabilities of terminated plans with (1) premiums paid by plan sponsors and (2) income earned from the investment of program assets.

<sup>6</sup>On January 15, 2004, PBGC released its fiscal year 2003 financial results and reported a current deficit of \$11.2 billion for the single-employer insurance program.

<sup>7</sup>See U.S. General Accounting Office, *Pension Benefit Guaranty Corporation Single-Employer Insurance Program: Long-Term Vulnerabilities Warrant "High-Risk" Designation*, [GAO-03-1050SP](#) (Washington, D.C.: July 23, 2003).

<sup>8</sup>ERISA sections 103 and 104 of Title I and Internal Revenue Code sections 6057, 6058, and 6059 provide the statutory authority for the filing of an annual return/report, which includes financial information pertaining to the plan.

<sup>9</sup>The Internal Revenue Service enforces standards that relate to such matters as how employees become eligible to participate in benefit plans, how they become eligible to earn rights to benefits, and how much, at a minimum, employers must contribute. The Department of Labor enforces ERISA's reporting and disclosure provisions and fiduciary responsibility standards, which among other things concern the type and extent of information provided to the federal government and plan participants and how pension plans are operated in the interests of plan participants.

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and welfare plans are generally required to file a Form 5500 each year.<sup>10</sup> The filing includes a short document for identification purposes and general information, plus a series of separate statements and schedules (attachments) that are filed as they pertain to each type of benefit plan. This form and its statements and schedules are used to collect detailed plan information about assets, liabilities, insurance, and financial transactions, plus financial statements audited by an independent qualified public accountant, and for defined benefit plans, an actuarial statement.<sup>11</sup> More than 1 million of the forms are filed annually, of which approximately 32,000 represent defined benefit pension plans insured by PBGC. The information on the form is made available to plan participants upon request and serves as the basis for a summary annual report provided to plan participants and their beneficiaries.

One part of the Form 5500 filing, called Schedule B, includes information about a defined benefit pension plan's assets, liabilities, actuarial assumptions, and employer contributions. The various measures of plan assets and liabilities are required by ERISA and the Internal Revenue Code to determine whether plans are funded according to the statutory requirements. Specifically, under Schedule B, IRS requires, among other things, the disclosure of assets and liabilities and an expected rate of return, which is called the valuation liability interest rate. IRS reviews this information to ensure compliance with the minimum funding requirements for pension plans. In addition, according to PBGC officials, PBGC may use Schedule B information to help them identify plans that may be in financial distress and thus represent a risk to the insurance program and plan participants. Some plan sponsors also use information in the Schedule B to calculate certain insurance premiums they pay to PBGC.

In addition to the annual reporting requirement, PBGC has authority to require plans to provide the agency with detailed financial information. Specifically, if a company's pension plans reach a certain level of underfunding in aggregate, ERISA requires the company to provide information to PBGC in what is called a 4010 filing. The 4010 filing

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<sup>10</sup>The Department of Labor has issued regulations exempting certain pension and welfare plans from the requirement to file a Form 5500 based on size and type of plan. Welfare plans provide participants and their beneficiaries various nonpension benefits such as for health care, unemployment, disability, training programs, and legal services. Welfare plans are not subject to the same funding requirements as pension plans.

<sup>11</sup>For plans with fewer than 100 participants the agencies have developed simplified reporting requirements that do not include audited financial statements.

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includes proprietary information about the plan sponsor, its total pension assets, and its total benefit obligations were the company to terminate its pension plans immediately. However, under current law, PBGC is not permitted to disclose this information to the public.

The Securities Exchange Act of 1934 requires publicly traded corporations to annually file a 10-K report, which is often referred to as the corporate financial statement, with shareholders and the Securities and Exchange Commission (SEC). The SEC uses 10-K reports to ensure that companies are meeting disclosure requirements so that investors can make informed investment decisions. The 10-K report describes the business, finances, and management of a corporation. For companies whose defined benefit pension plans are material to their financial statements, accounting standards require a footnote to the financial statements that details the cost, cash flows, assets, and liabilities associated with these plans. Footnote disclosures provide more detailed information about data presented in the company's financial statements.<sup>12</sup> Standards for reporting this information are set by the Financial Accounting Standards Board.<sup>13</sup>

Actuaries estimate the present value of pension liabilities using economic and demographic assumptions. These assumptions are needed to estimate the amount of money required now and in the future to meet a pension plan's future benefit obligation. Economic assumptions include rates of inflation, returns on investments, and salary growth rates. Demographic assumptions include changes in the workforce from retirement, death, and other service terminations. Most actuarial assumptions for measuring pension plan funding are not specifically prescribed by law or subject to advance approval from the IRS or any other government agency. However,

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<sup>12</sup>The statement of earnings and comprehensive income measures profitability of the company by showing the income earned and expenses incurred during the year. Comprehensive income would include accounting adjustments and holding gains and losses for certain securities and investments. The statement of financial position provides information about a company's assets, liabilities, and equity and their relationships to one another at the end of the company's fiscal year. The statement of cash flows reflects a company's major sources of cash receipts and its major uses of cash. The statement of stockholder's equity reflects the company's transactions during the year related to capital contributions and distributions to company stockholders.

<sup>13</sup>FASB's mission is to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information. FASB, which is part of a structure that is independent of all other business and professional organizations, develops broad accounting concepts, standards for financial reporting, and guidance on how to implement the standards.

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ERISA requires the plan actuary to select assumptions that are individually reasonable and represent the actuary's "best estimate of anticipated experience under the plan."<sup>14</sup>

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## Form 5500 Reports and Corporate Financial Statements Differ in Key Respects

The pension plan financial information reported in Form 5500 Schedule B serves a different purpose from the pension information disclosed in corporate financial statements. The information in each source is subject to different reporting requirements; therefore, measurements of pension funding are unlikely to be the same in the two reports. Government regulators and others use Form 5500 information for many purposes, including to determine whether plans are meeting minimum funding requirements and required contributions for each defined benefit plan that a company sponsors, while financial analysts and investors use pension information in corporate financial statements to determine how the company's plans in aggregate affect its overall financial position, performance, and cash flows. Because of their different purposes and reporting requirements, these two sources use different measures and assumptions to generate information. For example, in providing information about the values of their pension assets and the present value of their future pension obligations, the Form 5500 and the corporate financial statements often base their valuations at different points in time and use different methods of calculation. Both of these reports also include an assumption about rates of return on the investment of pension assets. However, these rates may differ, and this assumption serves a different purpose in each report. As a result of such differences, information in the two reports is generally not similar, and because the two sources of information use similar terminology—for example, both refer to asset values and investment returns—the results can appear contradictory.

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## Form 5500 Reports and Corporate Financial Statements Serve Different Purposes

One objective of the Form 5500 is to provide financial and other information about the operations of an individual employee benefit plan. For defined benefit pension plans, the Form 5500 Schedule B provides measures of plan assets and liabilities; actuarial information, such as economic assumptions and demographic assumptions about plan participants; and information about how much the plan sponsor is contributing to meet ERISA funding requirements. If a company sponsors more than one plan, it must file a Form 5500 for each plan. While analysts

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<sup>14</sup>ERISA Section 103(a)(4)(B).

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and investors may use this information, it is primarily used by federal regulators to measure plan funding and ensure compliance with applicable laws and regulations.

The pension information in a company's financial statement, by contrast, primarily serves a different purpose. The financial statement is intended to provide financial and other information about a company's consolidated operational performance as measured primarily by earnings. In this context, pension information is mostly provided in a footnote to give financial statement users information about the status of an employer's pension plans and the plans' effect on the employer's financial position and profitability. For example, certain details about the company's annual cost of providing pension benefits are presented in the pension footnote disclosure because this cost, or expense, affects the company's profitability. The users of corporate financial statements are primarily financial analysts and investors who are trying to assess the company's financial condition, profitability, and cash flows, and whose concern is not so much the financial condition of individual pension plans but the effect that the company's pension obligations may have on its future cash flows and profitability.

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## Measures of Pension Assets and Liabilities Differ in Form 5500 Reports and Corporate Financial Statements

Even where the Form 5500 and corporate financial statements provide similar types of information, such as pension assets and liabilities, their values usually differ. Among the key reasons for this are different dates of measurement, different definitions of reporting entity, different methodologies for determining costs of benefits, and different methods of measuring assets and liabilities. Table 1 summarizes some of the differences.

**Table 1: Differences in Measures of Pension Assets and Liabilities in Reports**

	<b>Form 5500 Schedule B</b>	<b>Corporate financial statement</b>	<b>Significance</b>
Measurement dates	May be any day during the plan year. Large companies typically use the first day of the plan year, while many small companies use the last day. Plan years normally run concurrently with the company's fiscal year.	The last day of the plan sponsor's fiscal year or, if used consistently, a date not more than 3 months prior to the end of the fiscal year.	The use of different dates generally results in different asset and liability values as asset prices fluctuate and, with the passage of time, additional liabilities accrue.
Number of plans covered in report	One form is filed for each qualifying plan sponsored by a company.	Regardless of number of plans sponsored by a company, total pension assets and liabilities are generally reported in aggregate for all plans, including those not required to file a Form 5500 (e.g., plans for employees overseas).	A company may sponsor multiple plans that have different benefit provisions and are funded at different levels. These potential differences may be masked by the aggregation of data.
Method of determining annual cost of benefits	ERISA allows companies to choose one of six different methods.	Accounting standards mandate a single method of measuring the annual cost of benefits earned. This method is one of the six allowed in Form 5500.	Methods for spreading out the cost of benefits over the working life of employees may differ, resulting in different measures of cost and obligations each year.
Method of calculating asset and liability values	Assets are valued on an actuarial basis, and liabilities are reported two ways: (1) actuarial liability, calculated using an interest rate selected by the plan actuary, and (2) current liability, based on an interest rate prescribed by law. <sup>a</sup>	Assets are reported at their fair value and liabilities are calculated using an interest rate that is typically equal to the rate for long-term investment in corporate bonds – this rate is typically different from the interest rates used in Form 5500. <sup>b</sup>	Actuarial asset values represent average asset values over some time period while fair values reflect asset values at a specific time. Using different interest rates to calculate present values of plan liabilities will yield different results.

Source: GAO analysis.

<sup>a</sup>In calculating current liability for purposes of the funding rules, the Internal Revenue Code requires plans to use an interest rate from within a permissible range of rates. See 26 U.S.C. 412(b)(5)(B). Plan sponsors may select a rate within 90 to 105 percent of the weighted average interest rate on 30-year Treasury bond securities during the 4-year period ending on the last day before the beginning of the plan year. The top of the permissible range was increased to 120 percent of the weighted average rate for 2002 and 2003. The Department of the Treasury does not currently issue 30-year securities. As of March 2002, the IRS publishes the average yield on the 30-year Treasury bond maturing in February 2031 as a substitute.

<sup>b</sup>The interest rate used to calculate pension liabilities in corporate financial statements should reflect the rate at which the benefits could be effectively settled by purchasing a group annuity for plan participants. The interest rates used to determine the current prices of annuity contracts and the rates of return on high-quality long-term corporate bonds should be considered in developing this discount rate assumption.

These differences in asset and liability measurements can result in significantly divergent results for the Form 5500 and the corporate financial statements. As an example, table 2 shows the different asset and liability values presented in a plan's Form 5500 filing and in the plan sponsor's corporate financial statements for a Fortune 500 company in

1999-2001 and the resulting effects on the reported pension funding ratios (pension assets divided by pension liabilities).

**Table 2: Comparison of Pension Assets with Liabilities for a Fortune 500 Company**

Year	Form 5500 Schedule B				Corporate financial statement	
	Actuarial asset value	Actuarial liability	Actuarial asset value	Current liability	Fair value of company's pension assets	Projected benefit obligation
1999	\$18.081	\$11.822	\$18.081	\$13.883	\$21.861	\$17.719
<i>Funding ratio</i>	<i>152.9 percent</i>		<i>130.2 percent</i>		<i>123.4 percent</i>	
2000	\$18.505	\$11.008	\$18.505	\$13.862	\$20.314	\$17.763
<i>Funding ratio</i>	<i>168.1 percent</i>		<i>133.5 percent</i>		<i>114.4 percent</i>	
2001	\$17.324	\$11.151	\$17.324	\$14.159	\$17.923	\$18.769
<i>Funding ratio</i>	<i>155.4 percent</i>		<i>122.4 percent</i>		<i>95.5 percent</i>	

Source: GAO analysis.

Note: Asset and liability values are in billions of dollars. Funding ratios in italics are calculated by dividing assets by liabilities.

One reason for the significant differences in measures of assets and liabilities between the Form 5500 and corporate financial statement filings in table 2 is that the company sponsors more than one pension plan. When companies sponsor multiple pension plans, the details of specific plans are generally aggregated in corporate financial statements to show their net effect on the plan sponsor and are not intended to provide details about the funding of each plan. Thus, the pension information of a sponsor with both underfunded and overfunded plans may show little or no funding deficiencies, although the consequences to participants in the underfunded plans could be quite severe in the event of plan termination.

### Form 5500 Reports and Corporate Financial Statements Use Expected Rates of Return Differently

One of the most confusing aspects of these two information sources is their difference with regard to the expected rate of return on pension assets. The expected rate of return is the anticipated long-term average investment return on pension assets. The Form 5500 Schedule B and the corporate financial statements both use an expected rate of return in calculating financial information about pension plans. In this regard, the expected rate of return is one of many assumptions, such as inflation and mortality rates, that affect a key pension reporting measure. In theory, the expected rates of return reported in each source should be similar because the assumption is derived from similar, or even the very same, assets. However, between these two sources there are differences in the rate's



purpose, selection, and method of application that may, in fact, contribute to differences between the assumed rates of return used in the two sources. Key differences in expected rates of return between the reports are shown in table 3.

**Table 3: Use of Expected Rate of Return in Form 5500 Schedule B and Corporate Financial Statements**

	<b>Form 5500 Schedule B</b>	<b>Corporate financial statement</b>
Purpose of expected rate of return	To calculate pension funding.	To calculate pension expense. <sup>a</sup>
How is the rate applied?	Serves as the interest rate used to measure the present value of plan liabilities.	Multiplied by the “market-related” value of pension assets to obtain a dollar value for the expected return on pension assets for the year. <sup>b</sup>
To which plan/plans does the rate apply?	For each individual pension plan a rate of return is selected. For companies with multiple plans, the rate may differ from plan to plan because of different plan provisions and investments.	A rate is determined for each plan. However, only a single weighted-average rate is reported, regardless of the number of plans.
Who selects rate?	Plan actuary, in consultation with company management.	Company management.

Source: GAO analysis.

<sup>a</sup>Pension expense refers to net periodic pension cost or net periodic pension expense, which is a calculated value. We heretofore refer to net periodic pension cost or net periodic pension expense as pension expense.

<sup>b</sup>Market-related value is either the fair value of pension assets or an average value of pension assets over a period not exceeding 5 years.

In Form 5500 Schedule B, the expected rate of return is used to calculate pension funding—that is, the measurements of pension assets and liabilities, which determine whether, and in fact, what amount the company needs to contribute to its pension plan to meet the statutory minimum funding requirements.<sup>15</sup> The expected rate of return is usually derived from the pension plan’s investment experience and assumptions about long-term rates of return on the different classes of assets held by

<sup>15</sup>There are additional measures of pension funding required by ERISA and the Internal Revenue Code, but this measure of pension funding is the first one used to determine compliance with pension funding requirements.

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the plan.<sup>16</sup> Actuaries calculate a present value of plan liabilities using the expected rate of return, which is called the valuation liability interest rate on the Form 5500 Schedule B. If plan liabilities exceed assets, the resulting difference is used, in part, to determine the amount the company may have to contribute to the pension plan for that year. The amount of contributions required under the minimum funding rules of the Internal Revenue Code is generally the amount needed to fund benefits earned during that year plus that year's portion of other liabilities that are amortized over a period of years.<sup>17</sup> Amendments to ERISA in 1987 and 1994 made significant changes to the funding rules, including the establishment of a deficit reduction contribution requirement if plan funding is inadequate.<sup>18</sup> The 1987 amendments to ERISA established the current liability measure, which is based on a mandated interest rate rather than a rate selected at the discretion of the plan actuary.

For financial statements, the expected rate of return is used to calculate the annual expected investment return on pension assets, which factors into the measurement of pension expense. Pension expense represents the company's cost of benefits for the year and generally includes (1) service cost—benefits earned by plan participants for a period of service; (2) interest cost—increases in the benefit obligation because of the passage of time;<sup>19</sup> (3) expected returns on pension assets, which offset some or all of the net benefit costs; (4) amortization of prior service cost resulting from plan amendments; and (5) amortization of gains or losses, if any, that may result from changes in assumptions or actual experience that differs from assumptions. To calculate a dollar amount for the expected return, the expected rate of return is multiplied by the value of

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<sup>16</sup>A class of assets is composed of assets that share similar characteristics, such as risks and expected rates of return. Examples include equities, corporate bonds, government bonds, and real estate.

<sup>17</sup>Minimum funding rules permit certain plan liabilities, such as past service liabilities, to be amortized over specified time periods. See 26 U.S.C. 412(b)(2)(B). Past service liabilities occur when benefits are granted for service before the plan was established or when benefit increases after establishment of the plan are made retroactive.

<sup>18</sup>See the Omnibus Budget Reconciliation Act of 1987, (P.L. 100-203, Dec. 22, 1987) and Retirement Protection Act of 1994 (P.L. 103-465, Dec. 8, 1994).

<sup>19</sup>For each additional period of employment (for example, 1 year), active plan participants normally earn additional pension benefits, which increase a company's pension costs. Furthermore, as employees get closer to retirement with each passing year, the present value of the company's benefit obligation increases because there is less time available to invest pension assets and earn interest on them.

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pension assets.<sup>20</sup> This expected return is used instead of the actual return on pension assets in the calculation of pension expense, which has the effect of smoothing out the volatility of investment returns from year to year. Furthermore, if the expected return on plan assets is high enough, a company may report a negative pension expense—or pension income.

Form 5500 reports and, until recently, corporate financial statements have not provided specific information about how expected rates of return are selected.<sup>21</sup> Actuaries told us that they estimate rates of return on the basis of several economic forecasting measures and also take into account how asset allocations may change in the future based on the demographics of plan participants. In contrast, financial analysts and actuaries told us that many companies select their expected rates of return on the basis of their pension asset returns in past years.<sup>22</sup> However, in December 2002 a Securities and Exchange Commission staff member publicly stated that the SEC would likely review expected rates of return higher than 9 percent if the rate was not clearly justified in the company's financial statement. The SEC determined the 9 percent rate on the basis of studies on the historical returns on large-company domestic stocks and corporate bonds between 1926 and the first three quarters of 2002. According to actuaries and financial analysts we spoke with, this statement by the SEC has been a primary factor in the selection of lower rates of return in 2002.

Figure 1 shows the average expected rates of return reported for 1993 to 2002 by the companies and their pension plans in our sample.

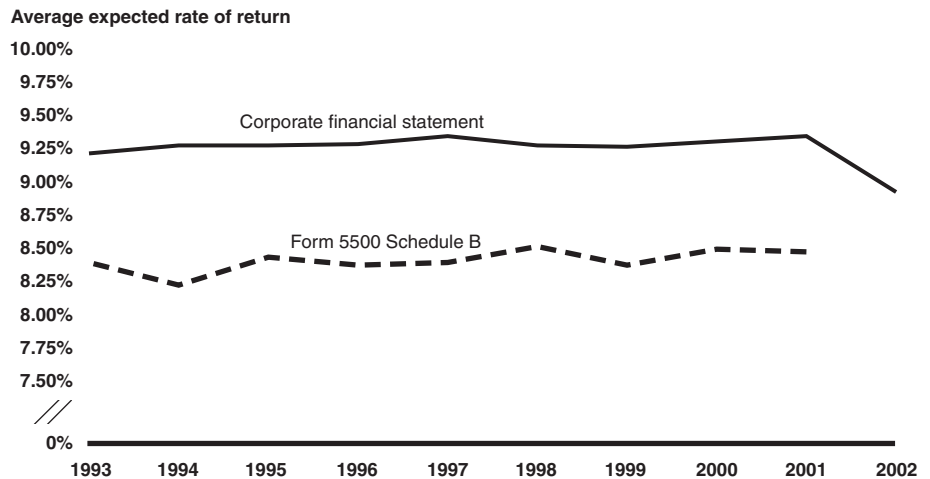
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<sup>20</sup>Financial analysts told us that most large companies substitute a “market-related” value of pension assets for the reported market value for the purpose of this calculation. See example in appendix II.

<sup>21</sup>In December 2003 FASB revised its pension disclosure standard, *Statement of Financial Accounting Standards No. 132*, to require a narrative description of the basis used to determine the overall long-term expected rate of return on assets assumption.

<sup>22</sup>For a Form 5500 filing, ERISA requires an enrolled actuary to certify that all assumptions used are individually reasonable and represent the actuary's “best estimate of anticipated experience under the plan.” For corporate financial statements, actuaries told us that they provide companies an actuarial report, which states whether the actuary believes the rate of return assumption used by company management falls within a reasonable range. The company's independent auditor must separately evaluate the reasonableness of all significant assumptions.

**Figure 1: Comparison of Average Expected Rates of Return Reported in Form 5500 Schedule B and Corporate Financial Statements for a Sample of Fortune 500 Companies**



Source: GAO analysis.

Note: Companies in this sample were all listed in the 2003 Fortune 500. Data from Form 5500 reports for 2002 were not fully available at the time of this analysis. PBGC analysis of its entire Form 5500 dataset shows that the average expected rate of return for plans with at least 10,000 participants ranged from 8.371 percent in 1994 to 8.473 percent in 2001 before falling to 8.408 percent in 2002 for the 80 percent of plans with data available. The number of observations per year for corporate financial statements and Form 5500 ranged from 63 to 89 and 61 to 84, respectively. See appendix I for further description of the methodology.

## Both Reports Provide Complementary Pension Information but Do Not Fully Satisfy Users

Both the Form 5500 Schedule B and corporate financial statements have limitations in the extent to which their required information meets certain needs of regulators, plan participants, and some investors. The Form 5500 takes considerable time for companies to prepare and for federal agencies to process, so it is not available to pension plan participants and others on a timely basis. The required asset and liability measures in the Form 5500 Schedule B are used by regulators to monitor compliance with statutory funding requirements. However, these funding measures are not intended to indicate whether plans have sufficient assets to cover all benefit obligations in the event of plan termination. In addition to using the Form 5500, regulators can also use corporate financial statements to try to determine whether a plan sponsor will be able to meet its obligations to its pension plans. However, some investors have concerns about whether corporate financial statements accurately reflect the effect of pensions on plan sponsors. According to financial analysts we spoke with, the pension information in corporate financial statements is also limited because it has

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not, until recently, included key disclosures, and the methodology used to calculate pension expense does not reflect the potential impact of actual investment returns on a company's future cash flows and profitability. However, others argue that the current accounting for pension expense is appropriate for reflecting the long-term nature of pension obligations and their effect on the plan sponsor.

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### Form 5500 Information Is Untimely but Statutory Reporting Requirements Limit Opportunities to Improve Timeliness

Information in the Form 5500 is plan-specific and identifies the value of assets a plan must have to comply with ERISA funding requirements. However, this information is at least 1 to 2 years old by the time it is fully available, making it an unreliable tool for determining a plan's current financial condition. The value of plan assets can significantly change over this period of time, and the value of plan liabilities may also change because of changes in interest rates, plan amendments, layoffs, early retirements, and other factors. For plans that experience a rapid deterioration in their financial condition, the funding measures required in Form 5500 may not reveal the true extent of a plan's financial distress to plan participants and the cognizant federal agencies.

The Form 5500 Schedule B information is not timely for three main reasons. First, the plan's assets and liabilities can be measured at the beginning of the plan fiscal year instead of the end of the year, resulting in information that is over a year old when the Form 5500 is filed. In 2001, of the 61 companies in our sample with both Form 5500 and corporate financial statement data, at least 48 used the beginning of the plan sponsor's fiscal year for the plan's measurement date.<sup>23</sup> Second, ERISA allows plan sponsors 210 days, plus a 2½ month extension, from the end of the plan fiscal year to file their Form 5500. According to PBGC officials and actuaries we spoke with, most plans file at the extension deadline, almost 10 months after the end of the fiscal year, and almost 2 years from the measurement date if it is the beginning of the fiscal year. Third, according to Department of Labor officials, it has taken an average of 6½ months to process Form 5500 filings, though actuaries and PBGC officials told us that recently, some processing has been completed within 1 to 2 months of receiving the forms. Even with this improvement in processing time, most large companies' 2003 pension data in Form 5500 will be based

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<sup>23</sup> Actuaries for small pension plans told us that they normally use end-of-year data because it is not difficult to assemble information about all plan participants and their clients usually prefer to have contributions to the plan in synchronization with the benefits earned during the year.

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on valuations as of January 1, 2003, and will not be available to the public until January 2005.<sup>24</sup>

There are several difficulties in making the filing of Form 5500 reports more timely. According to actuaries we spoke with, collecting and preparing the necessary information is time-consuming and resource-intensive for plan sponsors. Large companies' human resource data are often not well organized for this purpose, according to two pension experts we spoke with. Common problems include merging information from different databases, dealing with retiree data that may not be computerized, and identifying vested participants who have left the company.<sup>25</sup> The data collection and analysis becomes much more complicated when companies go through mergers, acquisitions, or divestitures. According to one senior pension actuary we spoke with, data preparation efforts can consume as much as 75 percent of the time involved in preparing the Form 5500 filing. Other issues include scheduling the work of auditors and actuaries who must review and work with the information once it has been assembled.

Once the forms are completed and submitted to the Department of Labor, speeding up the processing also has complications. While the process is significantly faster now than it used to be, it depends on paper rather than electronic filing and is slowed because the Form 5500 is also used for defined contribution and welfare benefit plans. Only about 32,000 of the more than 1 million Form 5500 filings pertain to PBGC-insured defined benefit plans, and the filings for defined benefit plans are not readily identifiable in order to receive priority when the Department of Labor processes these forms. Additionally, if errors in the Form 5500 filing are identified, the filing is returned to the plan sponsor with a 30-day deadline for making corrections and refile. If errors are not properly corrected in

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<sup>24</sup>In practice, PBGC has taken steps to allow for timelier monitoring of those plans that may pose a financial risk to the single-employer pension insurance program. In 1993 PBGC established the Form 5500 intercept program, which has speeded up the process for obtaining information on the largest and most underfunded plans. For about 2,100 plans on the intercept list, the Department of Labor mails copies of their Form 5500 filings to PBGC before it begins to process them.

<sup>25</sup>A vested participant has earned the nonforfeitable right to his or her accrued benefit. There are certain rules that private plan sponsors must follow regarding the length of time that participants must work in order to be fully vested in their accrued benefits. Participants are 100 percent vested in any contributions they make to a qualified plan, but may have to work for a certain period of time before earning a right to their employer's contributions.

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the first response, the administrator is notified and given an additional 30 days to correct the amended filing.

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## ERISA Does Not Require Reporting of Plan Termination Funding in Form 5500

A second limitation in Form 5500 is that it is not required to furnish information about the ability of a plan to meet its obligations to participants if it were to be terminated.<sup>26</sup> Compliance with ERISA funding rules, as reported in Form 5500, is often based on the plan's current liability, which is the sum of all liabilities to employees and their beneficiaries under the plan. In theory, keeping a pension plan funded up to its current liability will ensure that the plan has assets to meet its benefit obligations to plan participants as long as the plan sponsor remains in business. However, if a plan is suddenly terminated because of its sponsor's financial distress, the plan liabilities are likely to increase and plan assets are less likely to cover the cost of all benefit obligations. Therefore, Form 5500 information often does not accurately indicate the ability of the plan to meet its benefit obligations to plan participants in the event that the plan sponsor goes bankrupt. A different measure, called the termination liability, comes closer to expressing the pension plan's cost of discharging the promised benefits to participants in a distress termination. The termination liability, which is usually higher than current liability, reflects the cost to a company of paying an insurer to assume its pension obligations were the plan to be terminated.<sup>27</sup> PBGC has found no simple relationship between measures of current and termination liability, and therefore a fixed set of factors cannot be applied to the plan's current liability funding level (or its components) to estimate termination liability. For plans whose vested benefits are underfunded by at least \$50 million, PBGC receives a termination liability measure in a separate filing called a Section 4010 filing (named after the ERISA section that requires companies to submit such reports). However, this information is available only to PBGC and by law may not be publicly disclosed.

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<sup>26</sup> Terminating an underfunded plan is termed a distress termination if the plan sponsor requests the termination or an involuntary termination if PBGC initiates the termination. PBGC assumes responsibility for terminated underfunded plans and pays the pension obligations to plan participants up to the amount guaranteed under Title IV of ERISA. PBGC also makes a claim on the employer's assets in bankruptcy proceedings as an unsecured creditor. However, PBGC officials told us that the agency's claims usually amount to only a few cents per dollar claimed.

<sup>27</sup> Termination liability is calculated by using a PBGC interest factor, which is based on a survey of insurance companies and, along with a specified mortality table, reflects group annuity purchase rates.

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The differences in the two types of liability measures are substantial enough that a plan can appear in reasonable condition under the current liability measure that serves as the basis for the minimum funding standard, but not have sufficient resources to settle plan termination liabilities. For example, Bethlehem Steel's pension plan was 97 percent funded on a current liability basis in its 1999 Form 5500 filing. However, when the plan was terminated, in December 2002, it was funded at only 45 percent on a termination liability basis.<sup>28</sup> Plan terminations often result from a plan's sponsor entering bankruptcy, which, according to PBGC officials, cannot usually be predicted more than a few months in advance. Some of the reasons that a plan can have a reasonable ratio of assets to liabilities under the current liability measure but a less than adequate ratio under the termination liability include

- **Different retirement ages.** When companies shut down, many long-time employees retire and begin collecting pension benefits at an earlier age.
- **Different discount rates.** Termination liability discount rates have usually been lower than for current liability in recent years, making the present value of termination liability larger.
- **Different plan provisions.** Terminations may coincide with factory shutdowns, which often trigger provisions that increase retirement benefits.

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### Corporate Financial Statement Information Can Supplement Form 5500 Data

While the information about pensions in corporate financial statements does not serve the same purpose as the information in Form 5500, it can also be useful to the PBGC. This information is useful in two primary ways:

- Its overall measures of the company's financial condition provide indications about the company's ability to meet its pension obligations. According to PBGC officials, most large plans that were terminated by PBGC were sponsored by companies whose debt was rated below

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<sup>28</sup>See U.S. General Accounting Office, *Pension Benefit Guaranty Corporation: Single-Employer Pension Insurance Program Faces Significant Long-Term Risks*, GAO-04-90 (Washington, D.C.: October 2003), pp. 17-19, for further discussion of the failure of the Bethlehem Steel pension plan.



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investment grade for a number of years prior to plan termination.<sup>29</sup> Though plan asset-to-liability ratios are not dependent on the health of the plan sponsor, participants in underfunded pension plans at financially distressed companies face the risk that the plan sponsor will lack the cash resources to meet the ERISA funding requirements. In contrast, a company in a strong financial position is much more likely to be able to make up funding shortfalls.

- It provides the timeliest public data about pension plans, which may be useful if the company sponsors only one pension plan. Within 60 to 90 days from the end of their fiscal years, publicly traded companies must file their financial statements, which provide data based on measurements on the last day of a company's fiscal year.<sup>30</sup>

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## Pension Accounting Disclosures and Methods Have Been Subjects of Debate

Some primary users of corporate financial statements have expressed concerns about the extent to which these reports show how pension plans affect a company's profitability, cash flow, and financial position. This information is particularly important for companies with large pension plans because the greater the value of a company's pension assets relative to the company's market value, the more sensitive its cash flows and profits will be to changes in pension asset values. According to analysis by Standard and Poor's (S&P), a leading corporate debt rating agency, defined benefit pension plans significantly affect the earnings of about half of the companies in the S&P 500 index. As conveyed to us by financial analysts, investors' concerns about financial reporting on pensions have been twofold: First, financial statements have heretofore lacked adequate disclosures about how pension plans affect the sponsoring companies' cash flow and overall risk. Second, some investors believe that current standards for measuring pension expense do not adequately recognize the financial condition of pension plans and distort measures of company earnings. However, others argue that these standards provide a more

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<sup>29</sup> Corporate debt rated below investment grade by the main debt rating agencies (Standard & Poor's, Moody's, Fitch Ratings) pays a higher interest rate to bondholders and is more expensive for companies than if their debt is rated investment grade. A below-investment-grade rating indicates a significant risk that the company will not be able to repay its debt to bondholders. This risk is usually derived from a combination of a company's profitability, cash flow, total debt, and other factors that are reported in corporate financial statements.

<sup>30</sup> In 2002, the SEC adopted accelerated filing dates for 10-K reports for companies with a market capitalization of at least \$75 million. Under these rules these companies must file their 10-K reports within 75 days for fiscal years ending on or after December 15, 2003, and within 60 days for fiscal years ending on or after December 15, 2004.

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appropriate accounting of a company's annual pension costs over the long term.

Disclosure concerns, to date, have been of two main types:

- First, according to financial analysts we spoke with, it has been difficult to reasonably estimate a pension plan's claims on a company's cash resources in the coming year and near future. Contributions are determined primarily by ERISA funding requirements, but the plan funding status reported in the Form 5500 is not current enough to be used by financial analysts and investors. Large required contributions to pension plans can reduce the cash available to companies to apply to shareholder dividends or invest in their business so that profits may continue to grow. For industries in which investors are concerned primarily with a company's cash flow, estimates of such future contributions would be critically important, but have been unavailable to date.<sup>31</sup>
- Second, to date it has been difficult to accurately evaluate the risk that pension investments pose to the plan sponsor. The allocation of pension assets can pose additional risk to the company's cash flow and profitability, especially for companies with very large pension plans. Investments in more volatile assets, such as equities, are likely to create a wider range of potential cash contributions for the company in the future, as companies may need to make contributions to meet statutory funding requirements following negative returns on pension assets.

In addition to raising these disclosure concerns, some financial analysts and investors have also expressed opposition to current accounting standards for measuring pension expense, while others support these standards.<sup>32</sup> Pension expense is included in the calculation of corporate earnings, which investors use to track a company's performance, in comparison both with other firms and with a company's own past performance. In order to reduce the potential volatile effect of pension plans on their sponsors' earnings, the accounting standards call for three main smoothing mechanisms to calculate pension expense: (1) expected

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<sup>31</sup>In December 2003 FASB revised its pension disclosure standard (FAS 132) to require disclosure of the employer's best estimate of contributions expected to be paid during the next fiscal year. In addition, companies must disclose each major category of pension plan assets.

<sup>32</sup>See appendix II for an example of how pension expense is calculated in a corporate financial statement.

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return is used instead of actual return on pension assets, (2) the expected return may be based on an average value of pension assets rather than their current fair value,<sup>33</sup> and (3) differences between actual experience and assumptions are recognized systematically and gradually over many years rather than immediately when they arise. Therefore, when the expected return on pension assets significantly differs from the actual return, this difference does not immediately affect a company's reported pension cost or earnings.

As actual experience differs from assumptions on such things as expected rates of return, inflation rates, and plan participant mortality rates, the differences are added to or subtracted from an account for unrecognized gains or losses.<sup>34</sup> When unrecognized gains or losses exceed 10 percent of either the market-related value of pension assets or the projected benefit obligation, whichever is greater, the company must factor a fraction of the excess unrecognized gain or loss (difference between the total gain or loss and the 10 percent threshold) into its calculation of pension expense.<sup>35</sup> For example, a company may experience 3 years of unusually high gains on its pension assets, and at the end of year 3, the cumulative difference between expected and actual returns on pension assets surpasses the minimum threshold for recognition of the difference. The company must record part of its unrecognized cumulative gain in its calculation of pension expense, thereby decreasing the pension expense for the year.

Although actual and expected rates of return may differ sharply in any given year, or even over 2 to 3 years, the variance between them should decrease over the longer term, provided that expected rates of return are reasonably accurate. Table 4 shows the results of our comparison of expected and actual rates of return for 52 companies from our sample of Fortune 500 companies that had data available over the 9 years from 1994

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<sup>33</sup>Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions*, requires companies to determine the expected return on plan assets based on the expected long-term rate of return on plan assets and the market-related value of plan assets. The market-related value of plan assets is defined as "either fair value or a calculated value that recognizes changes in fair value in a systematic and rational manner over not more than five years."

<sup>34</sup>The unrecognized gains or losses account appears in the pension footnote to the corporate financial statement but is not recognized on the plan sponsor's balance sheet.

<sup>35</sup>The excess amount is amortized over the average remaining working years of active plan participants or average remaining life expectancy of retired plan participants if all or most participants are inactive.

through 2002. During this period the average expected rate of return used in the financial statements was 9.29 percent, while the average actual rate of return was 7.56 percent and ranged from a low of –8.85 percent to a high of 22.36 percent in any given year.

**Table 4: Average Expected and Actual Rates of Return on Pension Assets from 1994 to 2002 for a Sample of Fortune 500 Companies**

Year	Average expected rate of return (percent)	Average actual rate of return (percent)	Average difference (actual minus expected)
1994	9.19	0.52	-8.67
1995	9.26	22.36	13.10
1996	9.26	14.21	4.95
1997	9.33	19.04	9.71
1998	9.32	12.55	3.23
1999	9.35	14.26	4.91
2000	9.45	5.07	-4.38
2001	9.45	-6.45	-15.90
2002	8.98	-8.85	-17.83
1997-1999 average	9.33	15.25	5.92
2000-2002 average	9.29	-3.59	-12.88
Nine-year average	9.29	7.56	-1.73

Source: GAO analysis of pension footnotes in corporate financial statements.

Note: The average rates of return for multiyear periods in table 4 are geometric means, which are used to calculate the compound average, or the average annual return that would yield the same total change in asset values over a multiyear period. 52 companies in our sample had data available for this entire 9-year period.

In comparison with the results of our analysis, a study by one investment bank revealed an average actual return on pension assets of greater than 12 percent between 1985 and 1998.<sup>36</sup> Therefore, average actual rates of return will vary according to the time period being measured. For example, for the companies in our sample, the average actual return on pension assets was 15.25 percent from 1997 through 1999 and –3.59 percent from 2000 through 2002.

<sup>36</sup>Goldman Sachs, *Global Economics Weekly*, “US: Pension Costs—Another Hit to Cash Flow,” November 13, 2002.

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Opponents of current methods of accounting for pension expense argue that the smoothing mechanisms lack transparency because reported pension expense (1) does not reflect the current financial condition of pension plans and (2) distorts measures of corporate earnings. Under the current methodology for calculating pension expense, the cumulative net effect of pension asset gains or losses may not be reflected in reported pension expense for a few years, if at all. While alternating years of gains and losses may keep reported pension expense relatively smooth from year to year, consecutive years of gains or losses can eventually result in significant changes in reported pension expense. Many companies that reported pension income in 2001 and 2002, while their pension assets were in fact decreasing in value, benefited from the use of the market-related value of pension assets (the average asset values over not more than the previous 5 years) rather than the lower actual value of these assets. For example, of the 97 companies in our sample, 26 reported net pension income in 2002, but only one of these companies saw an increase in the value of its pension assets. Conversely, it is likely that many of these companies will report net pension expenses in the next few years, even if their pension asset values rise, because their market-related values of pension assets will reflect, in part, the decline in the stock market between 2000 and 2002.

In contrast, employer contributions, which are only indirectly related to pension expense, may better reflect the current financial condition of pension plans. Employer contributions to pension plans are determined by a complex set of factors, including the tax deductibility of contributions, minimum funding requirements, the employer's expected cash flows, and PBGC premiums. In 2002, when most large companies saw declines in their pension asset values, many were required to make contributions to their pension plans to meet the statutory funding requirements. The 93 Fortune 500 companies in our sample with available financial statement data reported aggregate contributions to pension plans of \$10.1 billion in 2002, while their aggregate pension expense totaled \$622.6 million. Financial analysts pay close attention to companies' cash contributions to pension plans because large contributions to plans represent resources that companies will not have available to use for other purposes, such as expanding their businesses.

Investors have also been concerned about the extent to which defined benefit pensions contribute to a company's total profits. According to one

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investment bank study, 150 of the 356 Fortune 500 companies with defined benefit plans reported net pension income (negative expense) in their financial statements in 2001.<sup>37</sup> However, the value of pension assets for 313 of these companies actually declined in 2001. To try to address these apparent inconsistencies in the financial reporting on pensions, many financial analysts and investors try to strip out the effects of pensions to determine a “true” measure of a company’s earnings that reflects its performance from ongoing operations. For example, Standard and Poor’s issued a proposal in 2002 to standardize measures of corporate earnings that excludes several items from the earnings calculation, including investment returns on pension assets.

Proponents of current pension accounting standards argue that the smoothing mechanisms are beneficial because (1) pension obligations are long-term liabilities that do not have to be funded all at once and (2) sponsoring pension plans and investing plan assets are not the primary business activities of plan sponsors. Pension obligations are normally paid out over a long period of time; therefore, pension assets have a similar time period to meet those obligations. The smoothing mechanisms allow plan sponsors to gradually and systematically attribute portions of the long-term cost of pension plans to each year. Without smoothing mechanisms, companies would potentially face year-to-year fluctuations in their reported pension expense that some investors may also consider misleading given that unexpected losses on pension assets in one time period may be offset by unexpected gains in another.

The Financial Accounting Standards Board adopted the smoothing mechanisms in part to reduce the volatility of reported earnings caused by investment returns on pension assets. Because investing pension plan assets is not the primary business activity of plan sponsors, FASB determined that earnings volatility caused by immediately recognizing all changes in the value of plan assets and liabilities as they occur would be misleading to investors. Furthermore, such volatility could make comparisons of earnings more difficult when looking at different firms, some of which may not sponsor defined benefit plans.

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<sup>37</sup>Credit Suisse First Boston, *The Magic of Pension Accounting*, September 27, 2002.

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## Changes to Pension Accounting and Regulatory Reporting Have Been Implemented or Proposed

Both in this country and abroad, changes have been proposed—and in a few cases, implemented—to make information about defined benefit plans more transparent or complete. These changes relate to information associated with both Form 5500 and corporate financial statements. The administration has proposed augmenting current Form 5500 information by making available certain data that currently are not made public, such as measurements of termination liabilities. The Financial Accounting Standards Board has recently amended one of its accounting standards to require, among other things, that companies provide more information about the composition and market risk of their pension plan assets and their anticipated contributions to plans in the upcoming year. Outside the United States, proposals are being discussed that would move toward eliminating or reducing the use of smoothing mechanisms in calculating pension expense.

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## The Administration Has Proposed Making Additional Information Available Relating to Pension Risk

In July 2003 the Department of the Treasury announced “The Administration Proposal to Improve the Accuracy and Transparency of Pension Information.” The proposal presented four areas of change, and one of them would broaden the public’s access to pension information currently available only to PBGC.<sup>38</sup> The proposal would expand the public’s access to pension information in two main ways:

- **Reporting termination liability.** Under the proposal, information about a plan’s termination liability would be included in ERISA-required summary annual reports to workers and retirees. The annual reports, which are based on data from the Form 5500 reports, now report the plan’s financial condition based on the plan’s current liability. Termination liability information is reported to PBGC by companies whose plans are collectively underfunded by more than \$50 million.
- **Public disclosure of underfunding of at least \$50 million.** Section 4010 of ERISA requires companies with more than \$50 million in aggregate plan underfunding to file annual financial and actuarial information with the PBGC. This information is reported separately from Form 5500 information and must generally be filed no later than 105 days after the end of the company’s fiscal year. PBGC uses this information to monitor plans that may be at greater risk of failure, but under current law, PBGC

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<sup>38</sup>The four areas to improve pension security for Americans were (1) the accuracy of the pension liability discount rate, (2) the transparency of pension plan information, (3) safeguards against pension underfunding, and (4) comprehensive funding reforms.

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cannot make the information public. According to the administration, the information is more timely and better in quality than publicly available data. Under the proposal, the market value of assets, termination liability, and termination funding ratios contained in these reports would all be publicly disclosed.

Since the announcement of the administration's proposal, no further action has been taken by either the administration or Congress to implement these proposals.

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### FASB Has Changed U.S. Pension Disclosure Standards; Other Changes Being Considered Abroad

In regard to corporate financial statements, one change designed to address users' concerns about pension-related information has recently been enacted. In December 2003 FASB issued a revision to its accounting standard on pension disclosures.<sup>39</sup> The revised standard incorporates all of the disclosures required by the prior standard and requires more informative pension disclosures.<sup>40</sup> FASB added the new disclosures because users of financial statements, such as financial analysts, requested additional information that would assist them to evaluate, among other things, the composition and market risk of the pension plan's investment portfolio and the expected long-term rate of return used to determine net pension costs. As a result, some of the new disclosure requirements include listing the percentage of pension assets invested in major asset classes such as equity securities, debt securities, real estate, and other assets. Companies must also provide a narrative description of the basis used to determine the overall expected rate of return on assets assumption. The FASB believed that this new information would allow users to better understand a company's exposure to investment risk from its pension plans and the expected rate of return assumption. Another required disclosure is the employer's estimated contribution to pension plans in the following year. However, the revised standard does not change the general approach used in the financial statements of aggregating this information across all pension plans.

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<sup>39</sup>See Statement of Financial Accounting Standards No. 132 (revised 2003), *Employers' Disclosures about Pensions and Other Postretirement Benefits*.

<sup>40</sup>In GAO's response to the FASB's exposure draft for new pension disclosures, we supported the initiative to enhance disclosures for pension and other postretirement benefits. We believe that improved transparency in plan funding and funded status, investment strategies, and market risk could reduce the risks to the federal government's pension insurance programs and promote the retirement security of workers and retirees.



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Outside the United States, other standard-setting boards have been addressing issues related to the use of smoothing techniques designed to smooth out the volatility of reported pension expense. One of these boards is the International Accounting Standards Board (IASB), an independent accounting standard-setting organization. Many countries require publicly traded companies to prepare their financial statements in accordance with IASB's financial reporting standards. IASB's current pension accounting standard is very similar to the current standard promulgated by FASB, in that both allow a smoothing mechanism to reduce the volatility of pension expense. However, IASB is considering a revision to its current standard to allow companies to calculate pension expense using actual investment returns instead of expected returns, on a voluntary basis. According to the IASB manager in charge of the project, the exposure draft will be issued in 2004, and a final standard is expected in March 2005. Separately from the IASB action, the United Kingdom's Accounting Standards Board has already issued its own accounting standard that would require companies to report the differences between actual and expected returns on pension assets in their financial statements.<sup>41</sup> Full adoption of this standard has been delayed out of concern that the changes made by firms to comply with the Accounting Standards Board standard might need to be modified again in subsequent years to meet a potentially different IASB standard.

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## Concluding Observations

Form 5500 reports and corporate financial statements both provide key pension financial data, but they serve different purposes and, as a result, provide significantly different information. To date, neither report in isolation provides sufficient information for certain users to fully determine the current financial condition of an individual pension plan or how pension obligations could affect the financial health of the plan sponsor. While particular concerns have been raised about differences between expected and actual pension asset rates of return reported on corporate financial statements, expected rates of return do not have a significant effect on the actual financial condition of plans.

Continued concerns about the financial condition of plans and how this information is disclosed have been highlighted by the administration's proposal to provide information about funding in the event of plan termination to plan participants and regulators. We have previously

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<sup>41</sup>The United Kingdom's Accounting Standards Board issued Financial Reporting Standard 17, *Retirement Benefits*, in November 2000, and it was amended in 2002.

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reported that an essential element of pension disclosure should include requiring plans to calculate liabilities on a termination basis and disclosing this information to all participants annually. Likewise, we recommended that Congress consider requiring that all participants receive information about plan investments and the minimum benefit amount that PBGC guarantees should their plan be terminated.<sup>42</sup> While such new requirements could help improve the transparency of pension plans' financial condition, there are other challenges to be addressed as well. For example, plan participants and regulators continue to need more timely information. However, there appear to be few opportunities to improve the timeliness of Form 5500 information under the current statutory reporting requirements. One challenge to improving the timeliness of this information on pensions will be to find a solution that does not impose undue burdens on plan sponsors. Resolving this challenge will prove crucial to providing policy makers, plan participants, and investors with more timely and transparent information on the financial condition of defined benefit plans.

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## Agency Comments

We provided a draft of this report the Department of the Treasury, the Department of Labor, the Pension Benefit Guaranty Corporation, the Securities and Exchange Commission, and the Financial Accounting Standards Board. We received technical comments from each agency that we incorporated as appropriate.

We are sending copies of this report to the Secretary of Labor, the Secretary of the Treasury, the Executive Director of the Pension Benefit Guaranty Corporation, the Chairman of the Securities and Exchange Commission, the Chairman of the Financial Accounting Standards Board, appropriate congressional committees, and other interested parties. We will also make copies available to others on request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

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<sup>42</sup>See [GAO-04-90](#).

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If you have any questions concerning this report please contact me at (202) 512-7215 or George Scott at (202) 512-5932. Other contacts and acknowledgments are listed in appendix III.

Sincerely yours,

A handwritten signature in black ink that reads "Barbara D. Bovbjerg". The signature is written in a cursive style with a large, looped initial "B".

Barbara D. Bovbjerg  
Director, Education, Workforce,  
and Income Security Issues

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# Appendix I: Scope and Methodology

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To explain the two sources of pension financial information, we interviewed federal agency officials from the Pension Benefit Guaranty Corporation (PBGC) and the Department of Labor (DOL). These federal agencies use Form 5500 information in performing their oversight and monitoring responsibilities. In addition, we reviewed the Form 5500 instructions, form, and schedules to understand the information they provide. For the financial statements, we reviewed relevant accounting standards from the Financial Accounting Standards Board, which sets standards for financial statements, and spoke with board officials. We also reviewed many financial statements of large domestic companies.

Our work also included analyses of a sample of corporate financial statements of Fortune 500 companies and the corresponding Form 5500 filings for those companies with available data. We chose to sample from the universe of publicly owned Fortune 500 companies with defined benefit plans because (1) the pension plans sponsored by these firms represent a large percentage of the total private defined benefit pension plan participants, assets, and liabilities in the United States; (2) these firms tend to have the largest defined benefit plans, and if these plans fail they would create the largest burdens for PBGC and possibly the government; and (3) most of these firms are publicly traded, so their corporate financial statements are publicly available.

We drew a systematic random sample of 100 of the 2003 Fortune 500 companies with defined benefit plans, after excluding government-sponsored entities. The sampling process accounted for the companies' revenues in 2002 and the distribution of expected rates of return on pension assets. This distribution was available in a Compustat database for approximately 290 of the 329 companies in the population. From the initial sample of 100 companies, 3 companies were removed because one is not publicly traded, another is European and filed its financial statements in euros, and the third changed its end-of-fiscal-year date in 2001, which made it more difficult to compare with other firms. For the 97 remaining companies, we obtained as much as 10 years of pension data from these companies' corporate financial statements using the Securities and Exchange Commission's Electronic Data Gathering, Analysis, and Retrieval System (EDGAR), depending on data availability. Data were available from 1993 through 2002 for 68 companies. However, others did not have 10 years of data available because, for example, they were formed, or only began to publicly trade their stock, at some time between 1993 and 2002. Nine companies in our sample reported more than one expected rate of return for their pension plans and a weighted average could not be determined accurately. Most of these companies sponsor

pension plans for employees outside the United States and provide separate assumptions for domestic and international plans. These companies did not report the weighted average expected rate of return that was used to calculate their expected return on pension assets.

We also obtained the corresponding Form 5500 filings for the companies in our sample from PBGC for plan years 1993 through 2001.<sup>1</sup> To identify these filings, we matched the sample of 97 Fortune 500 companies to their pension plans on the basis of their employer identification number (EIN). An EIN, known as a federal tax identification number, is a nine-digit number that the IRS assigns to organizations. We developed a list of EINs reported on the companies' financial statements and provided this list to the PBGC. PBGC matched the EINs to their Form 5500 database and provided information to us. However, in several cases, PBGC did not find matches to our list of EINs, either for all 10 years or for just some of the years. Based on the number of companies with data available in any of the 10 years, we decided on a threshold of 7 years' worth of data in order to achieve a sample size that would allow us to compare data over most of the 10-year period. In other words, to be included in this analysis, a company must have at least 7 years of Form 5500 data. One hundred and fifty plans had at least 7 years of Form 5500 data.<sup>2</sup> The years in which data were missing were spread sporadically among the 10-year period covered in this analysis.

Before deciding to use the Form 5500 data, we investigated its reliability. Prior to plan year 1999, the Internal Revenue Service was responsible for keypunching Form 5500 information into a database, and DOL officials explained that some of the data contained errors. DOL officials explained that since plan year 1999, Form 5500 data have been recorded with optical scanning devices and have been subject to edit and validity tests. In 1999, some Form 5500 filings were not captured because many plan administrators did not send forms on the correct paper and the scanner could not capture some information. However, DOL officials explained that this problem has not occurred since. We obtained the Form 5500 data from PBGC's Corporate Policy and Research Department. PBGC officials explained that as errors surface in their use of the Form 5500 data, corrections are made to PBGC's database. In the past hard copies of

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<sup>1</sup>Because of the filing requirements of Form 5500, no data were available for 2002 during the course of our study.

<sup>2</sup>Some of the 97 companies in our sample sponsor more than one pension plan.

original Form 5500 filings were obtained for making corrections. Today PBGC can view electronic images of the actual plan filings. As PBGC receives the data on Form 5500 Schedule B, it screens the data for errors, particularly in the asset and liability fields. Information we received from pension actuaries corroborates the data we used from Form 5500 filings and the data on expected rates of return, as presented in figure 1, show consistency from year to year. Taking all these factors into consideration, we feel that the data we used were sufficiently reliable for the purpose of differentiating between expected rates of return reported in Form 5500 filings and corporate financial statements.

In obtaining financial information for the sample companies, we had to account for companies that had merged with another company during the 10-year period under review. In the event of a merger between a company with a defined benefit pension plan and a company without a defined benefit plan, we selected the company with the defined benefit plan. In the case of a merger between two companies that both had defined benefit plans prior to the merger, we selected the company indicated by the EDGAR database as the predecessor company.

While our sample is designed to represent our population for calendar year 2002, it is not representative of any population in prior years. The makeup of the Fortune 500 changes from year to year, and our method of tracking the same companies across several years precludes us from making specific statements about any larger population prior to 2002. Thus, while we believe that the trends identified in our sample could be indicative of trends in the population of large firms with defined benefit plans and that this supposition is supported by other studies, we do not claim these trends are representative of past populations of Fortune 500 companies.

To explain the usefulness and limitations of the information from the two information sources, we interviewed expert users of pension information in Form 5500 reports and corporate financial statements, including federal officials from DOL, PBGC, and SEC; pension actuaries; corporate debt rating agency officials; financial analysts; and Financial Accounting Standards Board officials. Some experts explained the uses of information available in the Form 5500 reports and limitations of these reports. Other experts described and shared documentation about how they analyze financial statements to understand the impact of pension plans on the plan sponsors' financial statements. Some experts explained the need for additional pension information in companies' financial statements. As part of our review of pension information in corporate financial statements, we used several research reports published by different investment banks. We

reviewed the methods used in these studies and found them to be sufficiently reliable for the purpose of corroborating our own data analysis and illustrating trends in pension accounting.

To explain the recent and proposed changes to the current information sources, we interviewed officials from the International Accounting Standards Board and the Financial Accounting Standards Board. These boards set standards for financial statements for international companies and United States companies, respectively. We also reviewed the recently revised accounting standards issued by the Financial Accounting Standards Board. We also reviewed congressional testimony regarding the administration's proposal for more transparency of pension data.

We conducted our work between January 2003 and January 2004 in accordance with generally accepted government auditing standards.

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# Appendix II: Expected and Actual Returns in Financial Statements

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This appendix shows two things: (1) how a company may experience an actual loss on its pension assets while reporting income from its pension plans in the same year and (2) how a change in the expected rate of return affects other items in the financial statement. The information is based on numbers taken from the corporate financial statement of a real company from its 2002 fiscal year.

Company X's pension assets lost \$512 million in value during its fiscal year, yet Company X still reported pension income of \$90 million. This apparent inconsistency is possible because the expected return on assets is used in place of actual returns to calculate net periodic pension cost.

The second column of table 5 shows the effect of changing the expected long-term rate of return on pension assets from 9.8 percent to 8.5 percent. The figures affected by this change are in bold text. All of the changes caused by the change in the expected rate of return are related to measurements of Company X's pension expense and measures of overall profitability. The change has no impact at all on measures of pension assets and liabilities.



**Appendix II: Expected and Actual Returns in  
Financial Statements**

**Table 5: Corporate Financial Statement Example—Elements of Pension Footnote  
and Statement of Operations for Company X for Different Expected Rates of Return**

Dollars in millions except earnings per share

<b>Item</b>	<b>Key pension footnote elements</b>	<b>2002</b>	<b>2002</b>
<b>Change in benefit obligation</b>			
A	Benefit obligation at beginning of year	\$7,382	\$7,382
B	Service cost	115	115
C	Interest cost	529	529
D	Plan amendments	0	0
E	Actuarial losses	395	395
F	Benefits paid	(611)	(611)
G	Benefit obligation at end of year	\$7,810	\$7,810
<b>Change in plan assets</b>			
H	Fair value of plan assets at beginning of year	\$7,431	\$7,431
I	Actual return on plan assets	(512)	(512)
J	Employer contributions	135	135
K	Participant contributions	0	0
L	Benefits paid	(611)	(611)
M	Fair value of plan assets at end of year	\$6,443	\$6,443
Rate assumptions:			
N	Expected long-term rate of return on plan assets	9.8%	<b>8.5%</b>
O	Discount rate	7.0%	7.0%
P	Expected rate of compensation increase	4.0%	4.0%
<b>Components of net periodic cost of defined benefit plans</b>			
Q	Service cost	\$115	\$115
R	Interest cost	529	529
S	Expected return on plan assets	(783)	<b>(679)</b>
T	Amortization of prior service cost	50	50
U	Amortization of net actuarial (gain) loss	(1)	(1)
V	Total (benefit) cost included in results of operations	\$(90)	<b>\$14</b>
<b>Not reported in pension footnote</b>			
W	Market-related value of plan assets	\$ 7,990	\$ 7,990
X	Total sales and revenues	\$20,152	\$20,152
Y	Total operating costs	18,833	<b>18,947</b>
Z	Operating profit	1,319	<b>1,205</b>

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**Appendix II: Expected and Actual Returns in  
Financial Statements**

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<b>Item</b>	<b>Key pension footnote elements</b>	<b>2002</b>	<b>2002</b>
AA	Consolidated profit before taxes	1,114	<b>1,000</b>
BB	Provision for income taxes	312	<b>280</b>
CC	Net profit	802	<b>720</b>
DD	Earnings per share	\$2.33	<b>\$2.09</b>

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Source: GAO analysis.

An explanation of the pension elements in table 5 follows in table 6.

**Appendix II: Expected and Actual Returns in  
Financial Statements**

**Table 6: Definitions of Pension Footnote Items in Table 5**

<b>Item</b>	<b>Definition</b>
A	The projected benefit obligation is the present value of all future retirement benefits earned and not yet paid to date, including estimates of salary growth over time. Measurements of the projected benefit obligation are provided for both the beginning and the end of the year.
B	The service cost represents the actuarial value of benefits earned by employees during the year. It is used to show the change in benefit obligation from the beginning to the end of the year and in the calculation of net periodic pension cost.
C	The interest cost represents the increase in the company's projected benefit obligation as a result of the passage of time. The deferred compensation arrangement of pension plans entails a time value of money aspect. It is used to show the change in benefit obligation from the beginning to the end of the year and in the calculation of net periodic pension cost.
D	Plan amendments include the initiation of new plans and provisions that grant increased benefits based on services rendered in prior periods.
E	Actuarial losses (gains) reflect changes to any assumption that increase (decrease) the value of the projected benefit obligation. Assumptions include the discount rate, salary inflation, mortality, retirement age, and other factors.
F	Benefits paid represent the amount of cash payments from the pension plan to retired plan participants. These payments are cash outflows primarily from the pension plan(s). Benefits paid reduce the outstanding value of total pension obligations to plan participants.
G	See Item A.
H	The fair value of assets is the market value of the stocks, bonds, real estate, and other assets held by the company's pension plan(s) on the measurement date. Values of pension assets are provided for both the beginning and the end of the company's fiscal year.
I	The actual return on plan assets is the change in the value of pension assets from changes in market prices on the assets held by the plan(s). The actual return includes dividends and interest income. Company X's pension plans lost \$512 million.
J	Employer contributions are the total contributions (usually cash) made by the company to its pension plan(s). Employer contributions are not the same as the net cost to the company sponsoring the pension plans.
K	Participant contributions are the total amount of cash paid into the pensions plan(s) by employees. The employees of Company X did not contribute to their defined benefit pension plans in this year.
L	Benefits paid—this is generally the same as in Item F. Benefits paid reduce the value of assets held by the company's pension plan(s).
M	See Item H.
N	The expected long-term rate of return on plan assets is the company's assumption about the long-term average rate of return on its pension plan assets. The rate disclosed in the current year is used to calculate the expected return on plan assets (Item S) in the components of net periodic cost of defined benefit plans.
O	The discount rate should reflect the interest rate on high-quality corporate bonds. It is used to the measure the present value of the projected benefit obligation in the current year and will be used to calculate the service cost and interest cost in the following year.
P	The expected rate of compensation increase is used to calculate the projected benefit obligation and service cost when benefits take future salary into account.
Q	See Item B.
R	See Item C.

**Appendix II: Expected and Actual Returns in  
Financial Statements**

<b>Item</b>	<b>Definition</b>
S	The expected return on plan assets is an estimate of what the company expects to earn from the investment of pension plan assets; it reduces the company's periodic pension expense and is used to keep this expense relatively smooth over many years. It is calculated by multiplying the expected rate of return (Item N) by the "market-related" value of plan assets (Item W). The expected return is reported as a negative number because it reduces the overall periodic pension cost.
T	The amortization of prior service cost is the periodic cost recognized by the company for pension benefits credited to employees for service prior to their enrollment in a pension plan.
U	Amortization of net actuarial (gain) loss is used when the cumulative difference between actual experience and assumptions reaches a threshold of 10 percent of either the market-related value of total pension assets or obligations, whichever is greater. Company X is recognizing \$1 million in this year for past actual gains that exceeded expected gains. This amortization reduces its pension cost by \$1 million for this year.
V	The total (benefit) cost included in results of operations is the total of Items Q – U and may also be called the net periodic pension cost. It is the amount included in the company's labor costs, which are reported in the consolidated statement of operations (income statement).
W	The market-related value of plan assets is not required to appear anywhere in the financial statement but is used to calculate the expected return on plan assets (Item S). The market-related value of plan assets can either be the fair market value of plan assets or an average value of the assets over a period not exceeding 5 years. It is possible to closely estimate the market-related value of plan assets by dividing the expected return on plan assets by the expected long-term rate of return on plan assets.

Source: GAO analysis.

A company's total operating costs include its labor costs, which include the net periodic pension cost. Therefore the net periodic pension cost is factored into the calculation of total operating costs, which affects operating profit, consolidated profit before taxes, the calculation of tax to be paid, and net profit (Items Y—CC in table 5).

Changing the expected rate of return on plan assets from 9.8 percent to 8.5 percent has the following effects:

In the components of net periodic cost of defined benefit plans, the expected return on plan assets (Item S) falls from \$783 million to \$679 million.<sup>1</sup> This increases the total periodic pension cost by \$114 million, which is enough to turn Company X's periodic pension income of \$90 million into a cost of \$14 million.

The increase in net periodic pension cost of \$114 million increases the companies total operating costs (Item Y) and decreases the operating profit (Item Z) and consolidated profit before taxes (Item AA) by the same

<sup>1</sup>The expected return on plan assets of \$679 million was calculated by multiplying the market-related value of plan assets (Item W) by the new expected long-term rate of return on plan assets (Item N) of 8.5 percent.

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**Appendix II: Expected and Actual Returns in  
Financial Statements**

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amount. Because taxable income is reduced, Company X pays less in corporate income tax (Item BB). Last, net profits (Item CC) decline from \$802 million to \$720 million, which for Company X's shareholders of approximately 344 million shares of common stock would have meant a drop of about 24 cents in earnings per share (Item DD).

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# Appendix III: GAO Contacts and Staff Acknowledgments

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## Contacts

George A. Scott, Assistant Director (202) 512-5932  
Richard L. Harada, Analyst-in-Charge (206) 287-4841

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## Staff Acknowledgments

In addition to those named above, Joseph Applebaum, Kenneth Bombara, Richard Burkard, David Eisenstadt, Elizabeth Fan, Michael Maslowski, Scott McNulty, Stan Stenerson, Roger Thomas, and Shana Wallace made important contributions to this report.

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