

PBGC and the Current Challenges Facing the U.S. Defined Benefit Pension System

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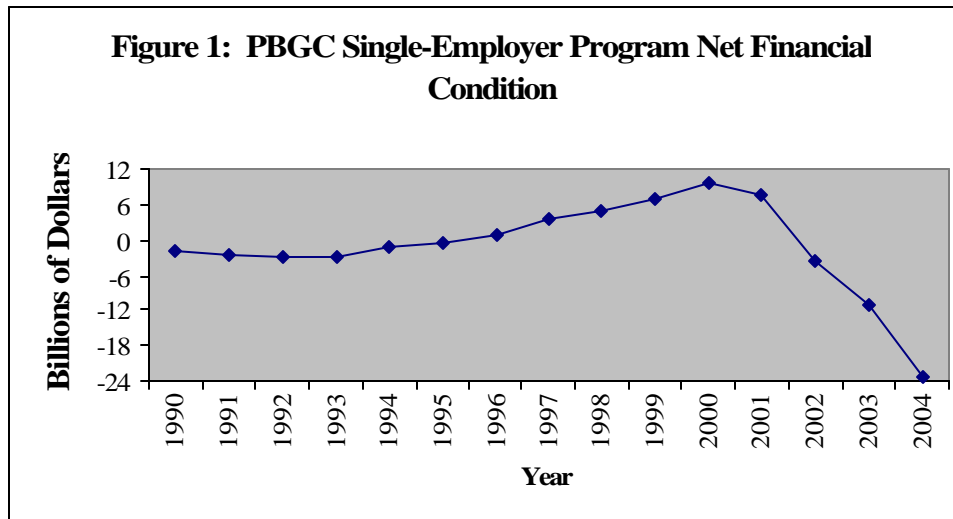
Like the war in Iraq, scarcely a day goes by without the popular press describing the details of the latest casualties of the defined benefit (DB) pension wars. Bethlehem Steel, Polaroid, US Airways, Delta Air Lines, and United Airlines are only some of the well known but financially troubled firms that have either terminated, frozen their DB plans or are likely to do so in the near future. These terminations have led to a serious and rapid financial deterioration of the Pension Benefit Guaranty Corporation (PBGC) single-employer pension program, the government program that insures benefits for over 34 million workers. From showing a \$9.7 billion surplus in 2000, the program's balance sheet has plunged to a \$23.3 billion deficit in 2004¹ (See Figure 1). Although the long-term nature of pension payments means that PBGC is not in danger of going broke immediately, the longer the problem is unaddressed the more costly will be the fix. Further, because PBGC insurance payments are not backed up by the federal government, there is the potential for retirees to lose pension benefits.² This paper will discuss some of the causes of these problems facing PBGC and some proposed solutions. We will also

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¹ This figure represents the excess of the net present value of PBGC's single-employer program's future benefit payments to participants of terminated plans, plus expenses, over the program's assets plus anticipated losses from probable future terminations, as of September 30, 2004.

² Liabilities incurred by PBGC are not backed by the full faith and credit of the federal government, although the agency has the authority to borrow \$100 million from the U.S. Treasury in the event of that it cannot meet its required payments. However, it is likely that there would be very strong pressure on the Congress to provide financial assistance in the event that PBGC became insolvent to avoid having the agency default on benefit payments to participants of terminated plans.

explore some more fundamental problems facing the U.S. DB pension system and the linkage between the short-term and long-term difficulties.



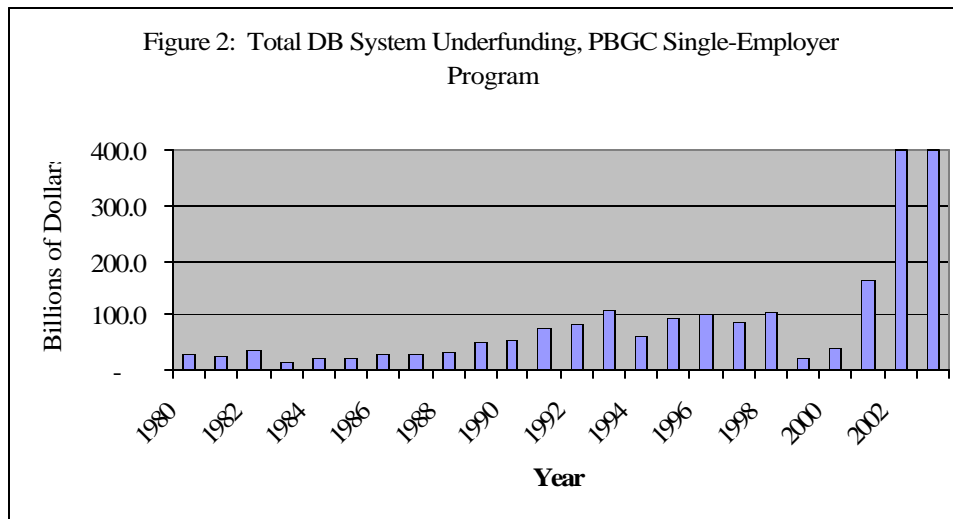
Source: Pension Benefit Guaranty Corporation

Causes of PBGC's Financial Difficulties

Much of the conventional explanation for PBGC's and pension plans' woes has focused on several cyclical economic factors contributing to the underfunding of pension plans. The punctured stock market bubble of 2000 sharply reduced asset values for many DB plans. Meanwhile, historically low interest rates increased plan liabilities.³ Since 2000, the stock markets have dropped approximately 20 percent, while long-term interest rates used in calculating pension liabilities have dropped fairly steadily for the last decade, sending total DB system underfunding soaring to \$400 billion in 2002 and 2003 and to an estimated \$450 billion for 2004 (See Figure 2). Intense economic competition in some DB-laden industries, most notably steel and airlines, has led to several bankruptcies of sponsors of severely underfunded pension plans, which would likely worsen PBGC's imploding financial condition. While the long-term nature of pension payment and PBGC's accumulated assets preclude immediate insolvency, postponing action will deepen the agency's financial hole. This accumulated deficit, if not reversed through

³ While interest rates do not affect the future payments a plan will make to participants, lower interest rates raises the present value of these payments, all else equal, because a plan would have to have more cash today to fund them.

increased PBGC revenues or lower claims, seems likely to lead to the agency's insolvency, requiring federal assistance or a reduction in benefits to the insured participants of terminated plans. Even if markets and interest rates turn around, as recent trends indicate, there are concerns that PBGC's accumulated deficit is too big and plans simply do not have enough money in the system to back up the long-term promises many employers have made to their workers. (COFFI, 2004)



Source: Pension Benefit Guaranty Corporation

Since PBGC's insured plans lie disproportionately in industries that are facing intense global competition (or have already been decimated, as in the case of steel), PBGC's balance sheet is likely to worsen drastically in the near term. Models by PBGC and by the Center for Federal Financial Institutions (COFFI) reflect this. PBGC's Pension Insurance Modeling System (PIMS) projected a median program deficit of \$16.2 billion in 2013, but this estimated started with the 2003 deficit figure of \$11.2 billion, not the current \$23.3 shortfall. COFFI's model gives plausible scenarios involving a program bailout today of \$56 to \$100 billion by 2020, depending on the level of net claims from terminated plans.

The declining state of pension finances has provided evidence that the DB pension system's funding rules and premium structure do not adequately protect pension balance

sheets or PBGC during difficult economic times. Despite the description of the unfavorable cyclical economic conditions as a “perfect storm”, and the hopes that the system will regain its footing once the storm passes, meaningful long-term reform in funding and premium policies remain perhaps the only chance at future long-term stability.

Recent Congressional action on DB pensions has taken incremental steps, focusing more on sponsor relief than on longer-term fixes for the system. The Pension Funding Equity Act of 2004 primarily provided short-term help in the form of discount rate reform, replacing the 30-year Treasury bond benchmark for calculating current liability with a corporate bond rate. Because long-term corporate rates are typically 100 to 200 basis points above Treasury bond rates, the replacement rate allows for a higher discount rate and hence reduced current liabilities.⁴ This measure is in effect only for 2004 and 2005, however, so Congress will need to revisit this issue soon, if only to implement another temporary extension or measure. Congress also granted sponsors of underfunded plans in the airline and steel industries the option of skipping so called “deficit reduction contributions”, additional contributions that the funding rules require of certain underfunded plans, in 2004 and 2005, relief estimated to be worth \$1.6 billion (Ippolito, 2004).⁵ While the rationale for such immediate relief is understandable -- huge required pension contributions could possibly bankrupt some embattled sponsors, sinking both the company and the pension plan -- such short-term measures targeted towards industries with long-term systemic problems (e.g., the ascendancy of low-cost airline carriers or restructuring of the global steel industry) seem almost assured to worsen the long-term pension funding problem and PBGC’s fiscal imbalances. Impending terminations by United, US Airways, and Delta suggest that relief has simply allowed these sponsors to offload more of their unfunded pension liabilities to PBGC.

⁴ Rules regarding the current liability measurement specify an allowable “corridor” of discount rates a certain percentage above and below the legal benchmark rate. The upper-end of the corridor has changed many times in the past decade, rising to as high as 120 percent of the 30-year Treasury bond rate. Because the Pension Funding Equity Act reduced the upper-end to 100 percent of the corporate bond rate, this limits the benefits of using a corporate rate as a benchmark discount rate, in terms of lowering plan liabilities.

⁵ Deficit reduction contributions are additional contribution requirements for certain plans whose funding falls below 90 percent of current liabilities.

Options to Stabilize PBGC and DB Funding

Some pension experts, congressional members, and the administration have now concluded that more fundamental reform is necessary if the system is to be placed on a sound financial footing.⁶ Most of these reforms fall into two broad areas, funding rule reform and the restructuring of insurance premiums to PBGC. They are not mutually exclusive and elements of each could also be considered with other programmatic changes.⁷

- *Liability Measurement and Funding Rule Reform*

DB pension funding rules tend to be designed for long-term flexible financing in order to minimize volatility of contributions. For most plans, which represent ongoing and long-term entities, this is not a concern, and the rules allow sponsors to treat their plans as long-term obligations. However, recent large terminations of severely underfunded plans by once-strong sponsors suggests that funding rules that treat all plans as healthy and ongoing places too much risk to PBGC and participants. Improving plan funding would likely mean shifting away from accounting and actuarial methodologies that smooth funding and toward more market-based measures. Such changes could mean stronger plan funding but likely would increase measurement and contribution volatility.

Measurement of plan assets and liabilities under ERISA minimum funding rules may be a primary source of chronic plan underfundedness. The funding rules allow, and in some cases dictate, plans to use smoothed actuarial measurements of assets and liabilities, with the result that reported plan funding has only an indirect foundation in market values. On the asset side, plans can report actuarial values rather than market values to determine minimum funding. While actuarial valuations by law must approximate market values over a multi-year period, in any given plan year actuarial assets values may fall to as low as 80 percent of market valuation. Further, gains or losses in asset values may be

⁶ GAO placed the single-employer program on its list of “high-risk” federal programs in July 2003 (see U.S. GAO, GAO-03-1050SP), and the Administration has informally announced pension reform proposals in several speeches and testimonies. See U.S. Treasury (2003) and Warshawsky (2004).

⁷ For example, reforms have been suggested that would improve the transparency of information about a plan’s financial status to plan sponsors, their representatives, investors and others. Although such measures would be an important part of DB pension reform, they are outside the scope of this essay.

amortized over a five-year period, driving an additional wedge between the current asset values and those determining plan funding.

For funding purposes, reported assets are compared to “current liability”, a measure that sounds like it represents the present value of benefits but is actually more of a statutory construct than a market measure. Because it mandates the use of a 4-year weighted smoothed interest rate in discounting future benefits,⁸ the measurement is assured *not* to reflect current market rates used by insurance companies to settle annuity contracts. In practice, many plans simply use the highest allowable statutory rate, which produces the lowest current liability measure. Discounting instead at a current rate reflecting a duration matched to the timing of the plan’s benefit payments, and using current asset valuations without amortization, would move us in the right direction toward getting a more accurate picture of plan funding. Discounting payments scheduled for far in the future with a long-term rate and nearer payments with a short-term rate would provide even more accuracy, but may add volatility and complexity to funding requirements. Additionally, liability measurement rules would have to ensure that actuarial assumptions, such as retirement age and mortality, reflect current realities.

Even if liability measurement improved, minimum contributions rules would also need to be revised to keep plans closer to their funding targets. Through an annual accounting of funding standard account (FSA) charges and credits, minimum contribution rules are designed to allow for adequate funding over the long run. One thing minimum funding rules do not do, however, is mandate that sponsors contribute cash to their plans, even underfunded ones, on an annual basis. For example, the plan can save and accrue (with interest) contributions above the minimum in prior years as a “credit balance” on the plan’s FSA; in many cases, the credit balance is enough to satisfy minimum funding rules in subsequent plan years. Similarly, other FSA credits, such as amortization credits for stock gains or contributions above the full-funding limitation, also help satisfy minimum funding obligations, just as contributions do, and therefore these credits can substitute for

⁸ The currently liability reference rate was previously based on the 30-year Treasury bond rate and, as of plan year 2004, is based on an index of rates on long-term high-quality corporate bonds. See U.S. GAO (GAO-03-313.).

cash infusions. These rules apply even to underfunded plans, in which rules allow for the application of accrued or concurrent FSA credits toward funding obligations, with the result that even some firms owing a deficit reduction contribution do not have to make annual cash contributions.

The problem with this system is that FSA credits do not necessarily reflect the current value of underlying assets: a contribution above the minimum from years past may continue to appear as an FSA credit, even if those excess assets have been subsequently wiped out. An alternative system might eliminate the use of FSA credits and charges to determine funding and instead base requirements on current plan fundedness, with assets and liabilities measured using market values as best as possible. While this would undoubtedly worry plan sponsors who are concerned about contribution volatility, a plausible compromise might be to measure plan funding by marking assets and liabilities to market, while providing some buffers to dampen contribution volatility.

Even with measurement that marks to market and more meaningful minimum funding rules, a risky portfolio can create funding unpredictability and quickly turn a healthy plan into a risk. According to surveys, large pension funds on average hold over 60 percent of their assets in stocks.⁹ Although it is well known that stocks do not provide a hedge against changes in plan liabilities (Bodie 1996), sponsors hold them in their pension accounts to take advantage of higher returns, given the long-term time horizon of many plans' benefits. The problem is that downturns in the stock market can quickly and drastically shorten this funding horizon. As the 2000s have illustrated, sponsors (and PBGC) cannot always count on having many years for asset performance to rebound and improve plan finances. Further, economic downturns do not represent the best time for a struggling sponsor to make large cash infusions into a suddenly underfunded plan. Therefore, some argue that the funding rules need to better ensure that sponsors keep plans well-funded before economic trouble eliminates all feasible options to save the

⁹See 2002 U.S. Investment Management Study, Greenwich Associates, Greenwich, CT, and 2003 Pension Fund Survey, Milliman USA, New York.

plan. Regulations or incentives for sponsors to more closely match their assets to their plan benefit cash flows and to plan duration would help achieve that goal.¹⁰

- *PBGC Premium Reform*

PBGC's recent losses reflect the reality that premium revenues and investment income are rapidly losing ground on claims against the single- and multi-employer programs. In addition to improving plan funding in order to prevent the need for massive plan takeovers, policy makers could also decide to raise premiums to improve PBGC's finances. After all, the single-employer program's per-head premium of \$19 has not risen since 1991, and the variable-rate premium of \$9 per \$1,000 of underfunding has been in place since 1996. Consequently, the program's total premium revenue fell steadily from 1996 to 2002, even as total participation grew slightly and underfunding exploded. Simply adjusting the premium for inflation would increase it to \$27 per participant in 2004 dollars. A significant rate hike, however, might be a losing strategy, particularly in the flat rate, as this would risk driving healthy sponsors out of the system. The long-term decline in DB plans suggests that PBGC should not expect a big turnaround in participation and premiums in the future.

Rather than trying to increase premium revenue through a higher flat rate, PBGC and Congress would likely improve revenue, and funding, by instead revamping the premium structure.¹¹ Because PBGC's insurance does not incorporate the full risk that each plan places on the agency or the DB system, the premium structure inherently contains massive price distortions, with plans and sponsors on strong footing and, implicitly, taxpayers, subsidizing weaker sponsors and plans. Boyce and Ippolito (2002) estimate that this subsidy is worth approximately \$1 billion per year. Only the variable-rate premium component considers the size of a potential claim on PBGC and provides some incentive for firms to fund their pension above 90 percent of current liabilities. Two major pieces of information that affect PBGC's loss exposure, and that should be

¹⁰In 2004, the Bush administration publicly discussed the concept of a yield curve that would more closely link the duration of plan assets with liability durations and is expected to present a formal pension reform proposal incorporating this concept in 2005. See U.S. Treasury Department (2003) and Warshawsky (2004).

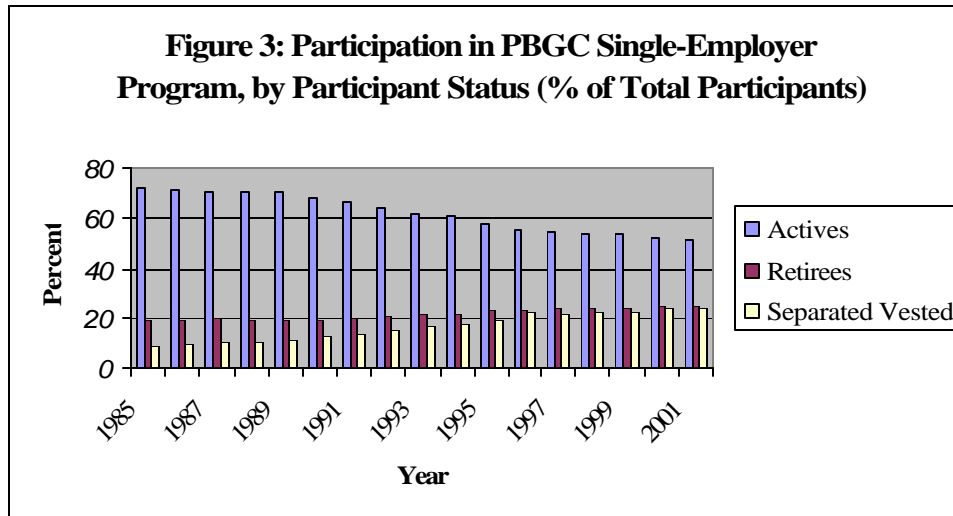
¹¹ See U.S. GAO (GAO-04-90).

incorporated into premiums, are the riskiness of the plan's asset portfolio, and the financial strength of the sponsor. A risk-based premium system based on plan size, funding status, asset risk, and sponsor health would better hedge PBGC's exposure risk, and improve incentives for plans to fund their plan.

Restructuring the American Retirement Security System: Prospects for DB Plans and Retirement Income Security

Despite the arguments in favor of funding and premium reform, some sponsor groups have characterized them as the final straws that will cause the death of the DB system.¹² Indeed, such reforms, even if carefully crafted, will likely result in some sponsors terminating or freezing their DB plans. Further, funding and premium reform will likely not be able to reverse the established long-term trend in the U.S. private pension system: the single employer DB plan is a fading institution in the American economy. The number of single-employer plans insured by the PBGC has declined steadily since the mid-1980s, from over 42,000 plans to under 30,000 in 2003; multi-employer plans have also dropped steadily over that period. While total participation has grown very slowly since the 1980's, the number of active employed participants has declined in absolute terms and comprised only half of all participants by 2002 (See Figure 3). The percentage of the active labor force that is covered by a DB pension has declined steadily from 37 percent in 1980 to approximately 21 percent in 2003. Perhaps most tellingly, one must think long and hard to name any major U.S. corporation that during the last 10 years has formed a new traditional tax qualified DB plan that covers a substantial portion of its workforce. Despite substantial tax expenditures, legislative and regulatory changes to minimize volatility and recent interest rate fixes and DRC relief, the DB system continues to decline. At this point, it seems unlikely that incremental incentives would restore the DB system and encourage new plan formation in any significant way. The current DB system would therefore appear to be on a trajectory of insolvency, with the eventually government stepping in financially to protect the benefits of millions of American workers.

¹² One trade group representing sponsors described DB reform as "incoming missiles" in a recent report.



Source: Pension Benefit Guaranty Corporation, *Pension Insurance Data Book 2003*.

This pessimistic projection, however, does not necessarily make reform a futile exercise. Sensible reform now will likely lead to some plans leaving the system but could place it on a sounder financial basis for the long term. It could also force the key stakeholders to sit down and decide the parameters of a more stable DB system that can meet its promises to its participants. Reform that permits an orderly exit of those firms who wish to leave the system but ensures the adequate funding of those firms that choose to stay might be the best chance to preserve the core of a traditional pension system and minimize the damage to PBGC, taxpayers, participants, and sponsors. Some well-funded plans may decide to stay in the system, particularly if the rules for funding reform also include some incentives to do so. Collectively bargained plans cannot exit the system as easily as non-union plans, allowing the opportunity to negotiate improved financial stability. Reform may also create the conditions where government, employers and the labor community can make an explicit commitment to this remaining core of viable DB plans, which can compare very favorably in several ways with defined contribution (DC) plans of equivalent value.

Further, pension policy does not necessarily need to choose between the two polar options of revitalizing the existing system (through continued concessions to sponsors) or the alternative of a total DC world. Even as the pension world appears to move

inevitably toward a DC-dominant universe, especially if Social Security reform contains some provision for private accounts, DB advocates can improve the income security provided by DC plans by working to graft some of the advantages of DB pensions onto the DC system. DC plans offer appealing advantages over DB plans to both employers (no complex funding rules, no investment risk) and employees (benefit portability, easy-to-understand benefits), but often fail to provide several major components of retirement income security that DB's offer, such as automatic participation, no investment risk, and the option to annuitize benefits.¹³ DB advocates might therefore effect meaningful pension reform by encouraging DC participation, annuitization, and sound investment strategies, as well as improved policing of sponsors and investment managers to reduce risk and fraud.

¹³ For further reading on pension disposition options at retirement, see U.S. GAO (GAO-03-810). The lump-sum feature is also a trait of cash balance plans, which are DB plans that express benefits in terms of a lump cash amount, like a DC plan does.

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