
The Economics of

Pension Insurance

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PART ONE

____ **Description of the Problem** ____

CHAPTER 1

Overview of Pension Insurance

BACKGROUND

On Labor Day 1974, the *Employee Retirement Income Security Act (ERISA)* was enacted into law. The legislation was designed to improve the security of pension promises made by private firms. Part of this security was attributable to the creation of the *Pension Benefit Guaranty Corporation (PBGC)*. The PBGC ensured that workers would be paid their vested pension benefits on termination of their pension plan. Workers would receive their benefits even if the funding levels in the plan were insufficient to pay benefits and the firm was unable to make up the difference.

The price of the insurance for single-employer plans was set at one dollar per participant per year.¹ This price was set after a 1972 government study showed that insufficient terminations occurred rarely, affecting only 1 in every 10,000 participants per year. Little was known about how to write a controllable pension contract; and there was widespread doubt in the private insurance industry that such a contract could be written. These concerns were articulated in *Guarantee Fund for Private Pension Obligations*, a book published by Dan McGill in 1970.

The McGill book foresaw many of the pitfalls involved in writing pension insurance contracts. He warned of the potential problems if behavioral reaction by insureds (moral hazards) were not taken into account. McGill suggested contract provisions that, if adopted by ERISA, would have gone a long way toward reducing the magnitude of

¹Multiemployer plans were assessed a premium equal to 50 cents per person per year.

the ensuing problems. These provisions included stricter funding rules, lower benefit guarantees, and tougher standards to qualify for insurance payments.

In fact, ERISA incorporated a pension insurance contract much more liberal than that suggested by McGill, one rife with moral hazard problems. These problems were aggravated by regulations issued by the PBGC early in its history that made insurance protection even more generous. Until 1987, no attempt was made by Congress or the PBGC to alter the pricing scheme from a flat rate to one that reflected benefit levels, risk, and funding ratios.

Largely as a result of enacting such a loose insurance contract, the PBGC has become a large insurance company. As of 1986, it had accepted more than 1,300 claims, was paying \$260 million in annual benefits, held almost \$2 billion in assets, and maintained almost a \$4 billion deficit (see Table 1-1). This deficit accumulated during the first 12 years of its history despite a more than eight-fold increase in the per participant premium charge over the same period, which generated revenues of over a quarter-billion dollars per year.

As of 1986, the PBGC estimated that premiums needed to pay for the insurance contract were in the range of \$25 to \$50 per participant, indexed to wages. A study by Jack VanDerhei for the PBGC put the premium at \$65.

Given the experience of the PBGC, there has been widespread interest in revisiting the issues that should have been considered when ERISA was enacted: How to write a controllable insurance contract,

TABLE 1-1 PBGC Facts, 1986 (dollars in millions except average annual benefit)

Category	1986
Insufficient terminations (cumulative)	1,345
Participants in current pay status	90,750
Participants in deferred pay status	100,000
Premium income (during year)	\$201.4
Benefits paid (during year)	\$260.5
Average annual benefit	\$2,870
Assets	\$1,740
Liabilities	\$5,491
Deficit	\$3,826
Claims	
During year*	\$2,895
Average cumulative (\$ 1986)	\$ 329
Per plan (during year)	\$ 8
Average funding ratio at termination (all years)	41%

NOTE: Deficit and claims data for 1986 include the then-pending pension terminations affiliated with the LTV Corporation.

* Includes pending claims at end of fiscal year (September 30).

and how it can be priced to reflect rational insurance principles. This book traces the history of the PBGC problem and the efforts by its staff and Congress to control it and works toward a model of insurance that reflects sound insurance principles.

Premise of the Volume

The lack of sound insurance principles embedded in ERISA suggests to some that the PBGC was not set up to be an insurance firm, that a pricing scheme and insurance contract could have been enacted in 1974 but was not because of a deliberate attempt to effect transfers to workers and shareholders in troubled firms. By creating a generous insurance contract that was not priced in relation to risk and exposure, Congress in effect erected an institution to transfer billions of dollars from workers in well-funded, healthy firms to those in underfunded, troubled firms.

An alternative explanation is that Congress misjudged the effect of creating a simple insurance policy—that at a cost of one dollar per participant, it was not worth creating a more complex policy to reflect sound insurance principles.

For the sake of setting a theme for this volume, I will adopt the second explanation. That is, my working hypothesis is that Congress intended to erect a bona fide pension insurance firm and chose a simple policy and an arbitrary price out of sheer unavailability of good information. This was a new line of insurance, one where no basic research had been done, and barely anything was known about expected claims. Neither the insurance event nor the amount of benefits guaranteed were well defined. Further, little was known about how firms would try to "game" the new insurance system.

Thus the PBGC can be viewed as the embodiment of a national research project designed to accumulate information about claims, moral hazard, and sound premium structures and ultimately leading to the transfer of its functions to the private sector, perhaps with the government remaining in a reinsurance or regulatory capacity.

Initial regulations were issued without the benefit of much information, which greatly increased the PBGC's exposure. The most costly regulatory decision was to guarantee full, unreduced benefits at any age specified in the plan (subject to the PBGC's maximum benefit schedule). Included was the guarantee of shutdown benefits: payment of full benefits to workers as young as age 45 who were affected by a plant shutdown prior to plan termination. The guarantee of full benefits (instead of actuarial reductions from, say, age 62) led to the imposition of hundreds of millions of dollars in additional claims against the PBGC.

As claims arrived, the staff of a newly created agency began

accumulating information about how pension insurance contracts worked. The consequences of various provisions of the insurance contract gradually became apparent (for example, those that permitted the Internal Revenue Service to grant waivers to troubled firms, inadequate funding of plans, and inclusion of shutdown benefits in guaranteed claims). And a series of court cases involved firms dumping losses on the PBGC through either spin-offs of poorly funded plans or attempts to effectively continue terminated plans after receiving a transfer from the PBGC. Reform ideas were developed gradually as more information about pension insurance was accumulated.

The Insured Population

The Pension Benefit Guaranty Corporation insures most participants in *defined benefit plans*.² The nature of these plans is discussed in Chapter 2, but essentially they involve a promise to pay a benefit at retirement. The plan sponsor is responsible for implementing a funding policy and for accepting investment risks. The problem for the PBGC arises when these plans are terminated midstream with insufficient assets accumulated to pay these benefits and with insufficient net worth to make up the difference.

Various data describing the single-employer (private-sector) defined benefit universe are shown in Table 1–2. In 1987, 228,000 plans held over \$900 billion in assets. Twenty-four million workers were covered in these plans. Seven million retirees collected benefits totaling \$47 billion.

In general, plans are well funded. In 1987, corporate defined benefit plans held assets sufficient to pay their collective economic (ongoing) pension obligations. (Economic liabilities account for indexing of pension promises to wages at retirement and partial indexing to prices beyond retirement.) Funding on a termination basis was much higher: plans held \$167 in assets for every \$100 in legal (termination) pension obligations. (Legal liabilities make no provision for indexing to either wages or prices after the date of termination.)

Growth of Defined Benefit Plans

While participation in defined benefit plans has increased dramatically over the post–World War II period, some evidence suggests this growth has slowed over recent years. That is, though employment and the

²Section 4021 of ERISA excludes certain defined benefit plans from coverage. Most of these are professional service plans that cover fewer than 26 participants. ERISA does not cover pension plans administered by federal, state, and municipal governments.

TABLE 1-2 Single-Employer Defined Benefit Plans, 1987

Category	Estimate
Number of plans	
Over 100 participants	23,000
Under 100 participants	205,000
Total*	228,000
Assets	\$909 billion
Active participants	24 million
Retirees	7 million
Pension benefits paid	\$ 47 billion
Funding ratio†	
Legal (termination concept)	167.9%
Economic (ongoing concept)	101.8%

* Only 110,000 plans, however, are insured (see footnote 2 in text).

† Derived from the Wyatt Company, *1986 Survey of Actuarial Assumptions and Funding*, 1987. The mean funding ratio for beginning of plan year is 158 percent, based on an average 7.7 percent interest rate. The ratio is converted to a 8.49 percent interest rate for the legal calculation (Moody's *Aaa*) in January 1987 and to a 2 percent interest rate for the economic calculation. (The interest rate conversion method is discussed in book Appendix B.)

SOURCE: U.S. Department of Labor, unpublished data.

overall number of pension participants in the United States continue to grow, the share covered by defined benefit plans may be falling. Some concern has been expressed since ERISA was enacted that growing regulation has discouraged firms from using defined benefit plans and instead has encouraged a switch toward *defined contribution* plans. In these plans, firms guarantee a rate of contributions, not benefits. They are akin to tax-preferred savings accounts.

Some data are consistent with this point. For example, data from the form 5500 annual pension plan reports submitted to the Internal Revenue Service show virtual stability in participation over the 1976–84 period (column 3, Table 1–3). Other data suggest continued growth. For example, the number of PBGC premium payers has grown steadily over the 1976–86 period (see column 2); and from 1976 to 1986, assets in defined benefit plans increased in real terms by 150 percent (column 1).

Data in Table 1–4 also suggest stability in defined benefit plan coverage. In columns 1 and 2, the ratios of defined benefit to defined contribution formations and terminations are shown over the period 1975 through 1987. These ratios have been relatively stable during that period.

Part of the impression that defined benefit plans are losing popularity is attributable to an unusual amount of reversion activity during the 1980s. A reversion occurs when a firm terminates a defined benefit plan that has excess assets beyond those needed to pay legal pension liabilities. Columns 3 and 4 of Table 1–4 show that between 1980 and

TABLE 1-3 Growth in Defined Benefit Plans, 1976-1986 (absolute numbers in millions)

Year	Assets* (\$1986) (1)	Premium Payers† (2)	Partici- pants* (3)	Employment in Large Firms		DB Participation by Firm Size ‡		
				Firm‡ (4)	Plant§ (5)	Small (6)	Medium (7)	Large (8)
1976	\$364,000	25.6	25.9	48.2%	14.7%	5.7%	36.4%	54.1%
1978	402,000	25.2	27.8	47.4	14.2	5.2	34.3	49.6
1980	472,000	28.1	29.6	48.0	14.3	5.6	33.7	50.3
1982	541,000	29.7	30.0	47.5	13.9	5.8	35.4	53.7
1984	640,000	30.2	29.3	46.6	13.3	5.5	33.6	55.1
1986 (est.)	909,000	31.0	—	—	—	—	—	—

NOTE: Single-employer plans only.

* Data from annual 5500 pension plan reports, U.S. Department of Labor.

† Data from PBGC Form 1.

‡ Data from U.S. Small Business Administration, unpublished; large firms ("enterprises") are those with more than 1,000 employees.

§ Data from U.S. Census, *County Business Patterns, Annual Summary*, 1986; large plants ("establishments") are those with more than 1,000 employees.

|| Estimates are made by comparing premium payers in small, medium, and large plans with employment in small, medium, and large firms. Small is defined as 1-99 workers, medium as 100-999, and large as 1,000 or more.

TABLE 1-4 Pension Termination and Formation Data

Year	Ratio of DB to DC Formations	Ratio of DB to DC Terminations	Reversions*	
	(1)	(2)	Plans (3)	Amount (4)
1975	.9	1.3		
1976	.2	1.3		
1977	.2	.5		
1978	.2	.4		
1979	.4	.4		
1980	.4	.5	9	\$ 18
1981	.4	.5	35	159
1982	.5	.5	82	404
1983	.5	.6	166	1,608
1984	.5	.8	331	3,564
1985	.6	.9	580	6,666
1986	.5	.7	263	4,287
1987	.4	.7	169	1,426
Total	.4	.7	1,635	\$18,134

* Amounts in millions; includes reversions of \$1 million or more. Data not available prior to 1980.

SOURCE: See book Appendix A, Tables A-4 and A-9.

1987, over 1,600 plans that had at least \$1 million in overfunding terminated and received \$18 billion in reversions (these plans had 1.8 million total participants). While these data appear to suggest the abandonment of defined benefit plans, studies have shown that in the majority of these cases, the plan sponsors that obtained reversions reestablished defined benefit plans identical to the ones terminated.³

Even if some drift toward defined contribution plans has occurred during the 1980s, this is not necessarily attributable to growing pension regulation. Another explanation may be the slow growth in employment in large firms (see Table 1-3, columns 4 and 5). Large firms offer defined benefit plans more often than small firms (columns 6 through 8 in Table 1-3). The shift in employment toward small firms could imply lower participation in defined benefit plans owing to a firm-size compositional effect.

There is no conclusive evidence that defined benefit plans have lost their popularity since ERISA. Nevertheless, it is important to recognize that defined benefit plans, though potentially valuable to firms and workers, presumably can be replaced with defined contribution plans. The nature of the pension system in the United States could be altered if the government—through premiums, regulations, and changes in tax law—makes the relative cost sufficiently high for defined benefit plans.

Since the cost imposed by pension insurance is placed only on defined benefit plans, the insurance system has a potential role to play in these decisions. This is a fundamental motivation behind policymakers' concerns that the pension insurance system is losing control of its claims and thus imposing an unreasonable and growing burden on well-funded defined benefit plans.

In the remainder of this chapter, I outline the main content and results of the book. The detail supporting the rather sketchy remarks made here is found in the ensuing chapters.

THE PENSION CONTRACT

The volume begins with a development of the pension insurance contract. The fundamentals derived in Chapter 2 are used throughout the book. It is impossible either to evaluate the current insurance system or to formulate systems that might work better without understanding the pension contract implicitly agreed to by workers and firms and how the insurance policy is related to these promises.

Workers pay for and expect pensions indexed to final wages (even if benefits are stated in flat dollar terms). The difference between expected benefits and insured benefits is the amount workers lose if

³See Hay-Huggins Company, 1986. All references are found in Appendix F.

their plan is terminated. This tells us about the coinsurance factor implicit in any pension insurance system, including the one administered by the PBGC.

Because the PBGC insures nominal pension benefits and workers pay for and expect real benefits, a significant coinsurance factor is present in the current system. The problem, however, is that this coinsurance can vary from 10 percent to 90 percent of expected pension benefits, depending on the interest rate and the worker's age.

While the great variation and volatility of the coinsurance factor are shortcomings of the PBGC insurance policy, it nevertheless is important that some significant coinsurance factor be incorporated. This explains why the PBGC historically has worked to prevent ongoing firms from offsetting losses incurred by workers following an insufficient termination.

Chapter 2 also discusses the market for voluntary insurance. In an unregulated environment, do firms/workers want to insure against underfunding attributable to asset value volatility and/or against systematic underfunding over the long run? On the supply side, what kinds of policies can be written to protect the insurance company? If pension insurance is offered, can the contract be written to insure that claims will be paid regardless of investment returns earned by the carrier? Does the potential for catastrophic claims make it necessary for the government to play a role in this market?

EXPERIENCE OF THE PBGC

Changing Claims Expectations

The market for insurance discussed in Chapter 2 has little to do with the policy written and enforced by the PBGC. Chapters 3 and 4 discuss the policy that has been in effect and consequent claims experience.

There are many problems with the way PBGC's insurance system is structured. Prices essentially are unrelated to exposure and risk elements. In addition, except for a maximum payable benefit and phase-in rules, benefit guarantees are almost unrestricted. For example, if a pension provides for full benefits at age 50, the PBGC also pays these benefits (subject to the maximum benefits limit). And the system is rife with moral hazard: funding levels were seemingly unaffected by ERISA; defunding prior to termination has been routine; and firms have terminated plans and made claims even though they have continued as ongoing entities.

It is not hard to understand that the availability of insurance in almost any amount that costs potential claimants almost nothing will generate lots of claims. And this describes the short history of the PBGC. Initial studies of terminations suggested that a premium equal to one dollar per participant would pay for expected claims. This, in fact,

was consistent with initial claims in the first year or two of the corporation's existence.

With time, however, as firms learned to use the system, claims escalated. Chapter 6 describes a series of PBGC studies to update estimates of its exposure and to recalculate its premium requirements. These calculations persistently were wrong by orders of magnitude, as claims grew much faster than PBGC expectations. By 1986, the PBGC's evaluation of premium needs were 25 to 50 times higher than they were in 1974.

Reform Efforts

Claims experience over time provided information to the agency upon which reform ideas were based. Chapter 5 discusses various insurance principles put in place through either regulation, litigation, or new legislation. An important early decision was to interpret ERISA language conservatively so that the maximum guarantee as of age 65 (established in ERISA) reflected full (not subsidized) actuarial reductions for earlier ages of receipt. This became important in light of the generous early benefits available in the majority of large plans that made claims against the PBGC.

Litigation efforts were made to vigorously enforce the control group concept, which prevented firms from terminating insufficient plans in subsidiaries while, at the same time, trying to avoid the PBGC's claim against 30 percent of the employers' net worth. Strong efforts were made in negotiations and in court to prevent firms from establishing follow-on plans designed to evade the coinsurance for workers. Legislation was enacted to constrain the insurable event to meet various distress criteria.

The discussion in Chapter 7 shows that these efforts were insufficient to stop the growing flow of claims into the PBGC. One reason was the ineffectiveness of minimum funding rules after ERISA. Despite these rules, funding ratios among the most underfunded plans in the pension system became even more underfunded. And it was demonstrated that firms could engage in rapid defunding over time and yet be in compliance with minimum funding requirements. It was not unusual for plans to arrive at the PBGC with funding ratios of less than 20 percent.

Many avenues were used by plan sponsors to accomplish defunding, including increasing benefits prior to termination, paying out lump sums to workers otherwise affected by the PBGC maximum, establishing "springing" shutdown benefits that provided generous pensions to very young workers (with no provision for pre-funding), obtaining contribution waivers from the Internal Revenue Service, changing actuarial assumptions, and simply not making required contributions.

THE PENSION PROTECTION ACT OF 1987

In December 1987, as a part of the Omnibus Budget Reconciliation Act (OBRA), perhaps the most significant single-employer pension insurance legislation since ERISA was enacted into law. The legislation within OBRA that amends Title IV of ERISA (pension insurance rules) is known as the Pension Protection Act and is the subject of Chapter 8 in this volume. This legislation was the culmination of debate centered around the growing deficit of the PBGC, which amounted to \$4 billion by 1986. Because the PBGC financial situation is indirectly reflected in the U.S. budget, the need to make larger benefit payments from the insurance program was beginning to cause perceptible increases in the overall U.S. budget deficit. This is why reform was included in the budget law.

The hallmark of the legislation was the introduction of stricter minimum funding standards for all large plans less than 100 percent funded on a termination basis.⁴ Except for underfunding existing at the time of the legislation, which was subject to transitional rules, all new underfunding is to be amortized at faster rates. Simulations showed that, had the rules been in effect during the post-ERISA period, underfunded plans would have posed significantly lower exposure to the PBGC.

The new law is far reaching and could have an important impact on PBGC claims. However, owing to transitional rules and exemptions for large integrated firms in the steel industry, the full impact of the new rules will not be felt for perhaps 20 years, though measurable effects ought to be observed sooner.

In addition, the legislation for the first time abandoned a strict flat rate premium structure. Premiums were altered to reflect at least some portion of exposure given to the insurance company.

The law also changed other rules that could reduce future claims to the PBGC. For example, liens now arise when firms do not pay required contributions, and the law changed the criteria in Chapter 11 bankruptcy proceedings (reorganization). To make a claim on the PBGC in Chapter 11, the bankruptcy court must find that in the absence of a PBGC transfer, the firm will be unable to successfully reorganize.

While the new law addresses many problems that have plagued the PBGC, from an insurance perspective, the solution is not ideal. Chapter 6 discusses pricing solutions that would reduce cross-subsidies in the system much more dramatically than the solution enacted into law. Chapter 8 discusses gaming potential still in the system and areas

⁴One of the new funding rules [the deficit reduction contribution rule in the Internal Revenue Code, Section 412(L)] does not apply to plans with fewer than 100 participants.

where the new, stricter rules may be less effective than Congress envisioned.

Ironically, though the new law was intended to affect underfunded pension plans, perhaps its biggest impact was felt by the best-funded plans. A separate section of the Omnibus Budget Reconciliation Act enacted new maximum funding laws that were much stricter than those specified in ERISA (and subsequent amendments). In the past, the Internal Revenue Code permitted full funding of ongoing pension benefits. The new law restricts trust assets to no more than 150 percent of termination liabilities. (Ongoing and termination liabilities are discussed at length in Chapter 2.)

The new maximum funding rule prevents over half of all pension plan sponsors from contributing anything to their plans until their funding levels fall within the new limits.⁵ It can be shown that by preventing firms from fully funding their pension plans on an ongoing basis, the new law effectively imposes a special tax on many defined benefit plans that easily can amount to 5 to 10 percent of benefits paid.

EFFICIENCY ASPECTS OF THE NEW LAWS

Chapter 9 discusses the efficiency aspects of various pension insurance systems. In this section, the economic efficiency implications of the Pension Protection Act (PPA) are evaluated and compared to alternative reform ideas. The potential distortions created by the new maximum funding rules in the Omnibus Budget Reconciliation Act (OBRA) are also considered in some detail. Because this tax change attaches an extra corporate tax assessment against defined benefit plans, a tax bias is created in favor of defined contribution plans.

Under prior law, a minority of firms were taking advantage of the lack of insurance principles in Title IV of ERISA, thereby imposing a small but growing burden on other defined benefit plan participants. The PPA restricted many of these distortions. At the same time, the law itself imposes new distortions. For example, the law works in the direction of reducing pension plan underfunding regardless of the risk of default. This may impose inefficiencies on financially sound firms for which underfunding may be optimal.

Chapter 9 shows that in addition to (or perhaps partly in place of) past reform, the problems created by the lack of insurance principles enacted under ERISA could be greatly reduced by taking two modest actions: (1) reducing the guarantee of basic pension benefits to a level not exceeding the average of all insureds, payable beginning at age 62;

⁵Some of these firms might also have been constrained by the old funding limits as well. This cannot be determined from information provided in the Form 5500 annual reports.

and (2) introducing meaningful pricing reform that reflects exposure and risk posed by insureds, subject to a "reasonable" maximum price (say, in the range of \$200 per participant per year). In combination, these changes would greatly reduce the subsidies inherent in the current scheme and therefore reduce the resource cost imposed by efforts to control losses.

In light of the problems that have plagued the insurance system and the ever-growing distortions that the system (and attempts to fix it) has imposed, it is interesting to step back to rethink the entire structure of pension insurance. The last chapter of the book goes through this exercise, taking advantage of all the information accumulated to date. This exercise takes the form of a proposal for an entirely new insurance system.

The proposal incorporates many of the insurance principles discussed throughout the book. The policy incorporates two congressional mandates: that any insurance reform retain the mandatory nature of pension insurance and that premiums be constrained by some maximum permissible charge.

In a nutshell, the insurance proposal is characterized by free market prices, except an assigned risk pool would be available for all plans that could not find protection for less than some predetermined maximum allowable premium charge. Once in the pool, special procedures would go into effect, including the reduction of benefit levels to the average of the defined benefit universe, payable in full no earlier than age 62. The details of the proposal are discussed in Chapter 10.

CHARACTERISTICS OF THE VOLUME

Before proceeding to Chapter 2, it is useful to describe a few characteristics and assumptions in the volume. First, except by way of illustrating comparisons for reform, the book deals with the single-employer (private-sector) defined benefit universe. Multiemployer defined benefit plans, which are insured through a separate program characterized by different rules, generally have not exhibited deficits.

Defined contribution plans are fully funded by definition and hence are not subject to the insurance provisions (Title IV) under ERISA. Finally, plans administered by federal, state, and municipal governments are not subject to ERISA and therefore are not discussed in the volume.

The book generally presents data through 1986, which means that the termination of the pension plans sponsored by the LTV Corporation in 1986 are reflected in much of the data. In fact, the PBGC restored these plans in 1987. That is, in 1986, LTV filed for Chapter 11 bankruptcy. Owing to a failure to meet the minimum funding standards, the PBGC initiated termination of four of LTV's plans, which

resulted in a claim in excess of \$2 billion.⁶ Essentially, the plans were "restored," or given back to LTV, because: (1) LTV created a "follow-on" plan that virtually offset the losses in the terminated plans and (2) LTV became profitable during bankruptcy proceedings and thus was able to resume contributions to its plans. At the time this book went to press, these matters were still in litigation.

I could have rewritten the book to excise these LTV restorations from the data. My primary reason for retaining these 1986 events is that they played a role in the debate and, ultimately, the new legislation enacted in 1987. This claim manifested the reality that the PBGC "problem" could become much larger if a few large claims were made. Its inclusion in the data is representative of large claims that could be accepted by the PBGC in the future, and therefore it helps us understand more visually why reform efforts have been focused on the PBGC.

Finally, the book often presumes some knowledge of the PBGC and surrounding insurance and pension data. To make this information available without interrupting the natural flow of the discussion, several appendixes to the book are included. These include various statistical tables (Appendix A); methods to adjust liabilities in common interest rates (Appendix B); description of the method used to generate PBGC interest rates (Appendix C); description of the largest PBGC claims, including LTV (Appendix D); and a listing of the provisions of the Pension Protection Act of 1987 (Appendix E). Complete citations for references used in the book are found in Appendix F. Thus, a reference to VanDerhei (1988) in the text has a full citation in this appendix.

⁶Under certain circumstances, the PBGC is authorized to initiate termination rather than await the filing of a claim by the plan sponsor. See Section 4042(a) and (c) of ERISA.