

2007

Why Pension Funding Matters

Eric D. Chason

William & Mary Law School, edchas@wm.edu

Repository Citation

Chason, Eric D., "Why Pension Funding Matters" (2007). *Faculty Publications*. 1859.
<https://scholarship.law.wm.edu/facpubs/1859>

New York University Review of Employee Benefits and Executive Compensation — 2007

ALVIN D. LURIE
Chairperson
New York, New York

VOLUME 1

2007

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Originally Published 1943

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Editorial Offices
744 Broad Street, Newark, NJ 07102 (973) 820-2000
201 Mission St., San Francisco, CA 94105-1831 (415) 908-3200
www.lexisnexis.com

MATTHEW  BENDER

(Rel.065S-8/2007 Pub.500)

CHAPTER 10

Why Pension Funding Matters

ERIC D. CHASON

Eric Chason is an Assistant Professor of Law at the College of William and Mary, Marshall-Wythe School of Law. Prior to entering academia, he was a member at the law firm Ivins, Phillips & Barker in Washington, D.C., where his practice focused on employee benefits. He has published articles in the Ohio State Law Journal, the Virginia Tax Review, the Benefits Law Journal, and the Real Property, Probate and Trust Journal. This paper is an extension of his latest article, *Outlawing Pension-Funding Shortfalls*, is forthcoming from the winter 2007 edition of the Virginia Tax Review (volume 26, issue 3).

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§ 10.01 INTRODUCTION

Pension funding matters for obvious and not-so obvious reasons. When a pension plan fails, the burden of the funding shortfall comes down primarily on the Pension Benefit Guaranty Corporation (PBGC). So, participants bear no risk unless their pensions exceed the guaranty cap (equal to an age-65 monthly annuity of \$4,125 in 2007).¹ The employer will not bear any burden if (as is typical) it is bankrupt or insolvent. Funding obviously matters because it ensures that participants receive the benefits promised while minimizing the costs of the PBGC. Without sufficient pension funding, the PBGC itself might fail, inevitably calling on taxpayers to fund a bailout.

But, what is wrong with taxpayer subsidies of the PBGC? To be sure, the PBGC is now subsidizing pension plans by charging an inadequate premium for its guaranty. Perhaps Congress should make this subsidy express and even expand upon it. There are plenty of objections that one can raise. Some would object to the very large increase in government spending paid for by higher taxes. Others would object to the unfairness of large corporations shedding their obligations at taxpayer expense, or even to the benefits received by comfortable pensioners. Without denying the validity of these objections, they are fairly commonplace and have already been leveled at our current pension system. The essence of these critiques is that an inappropriate transfer is occurring, from taxpayers to employers or employees. Yet a very similar transfer already occurs under Internal Revenue Code (Code), which grants enormous tax preferences on qualified retirement plans. Indeed, the *annual* expense of the tax subsidies is far greater than the overall deficit of the PBGC.²

The not-so obvious problem with the current funding and insurance regime is that it produces a malfunctioning and inefficient system by which employers borrow from their employees. As for debt markets in general, their economic function is to match scarce resources—capital itself—to their highest and best uses—capital projects with the highest rates of return. Vibrant and liquid capital markets achieve this matching with interest rates. Efficient and productive firms are rewarded with low costs of borrowing. Inefficient and unproductive firms are

¹ See <http://www.pbgc.gov/workers-retirees/find-your-pension-plan/content/page789.html#2007>.

² The tax subsidy for these plans more than \$100 billion per year. See Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 2005–2009 at 38 (JCS-1-05 Jan. 12, 2005). Perhaps half of that can be attributed to defined-benefit pension plans. In comparison, recall that the expected deficit for all claims the PBGC expects to pay is \$23.1 billion.

punished with high costs. These rewards and punishments work because they ensure that scarce funds go to the best projects and the most efficient firms.

Pension plans are functionally corporate debt. Rather than paying wages today, the employer promises to pay benefits in the future. Ever since SEPPA was passed, this promise is enforceable against the personal assets of employers, just like ordinary debt. Yet, pension debt does not have the punishment/reward system that ordinary debt does. The PBGC guaranty largely immunizes employees from the credit risk of their employers. Employers need not fund their plans fully, and the PBGC cannot impose a sufficient default premium for its guaranty. Thus, pension plans give inefficient and unproductive firms a source of cheap financing.

In short, the problem with the PBGC guaranty is that it insulates employers from the discipline of capital markets when they borrow from their employees through pension plans. Since the tax code encourages financially strong employers to contribute to their pension plans and secure their pension obligations, financially strong firms do not benefit from the PBGC-guaranty subsidy. Financially weak firms are the primary beneficiaries. Because the PBGC-guaranty subsidy undermines capital-market discipline, it allows these weak firms to pursue risky, wasteful projects. Thus, the PBGC-guaranty subsidy can be seen as a form of “lemon socialism”,³ whereby economically weaker firms are systematically aided by a federal loan guaranty at the expense of stronger firms and possibly the taxpayers.

§ 10.02 PENSIONS AS CORPORATE DEBT

Pension plans are deferred compensation,⁴ a way of financing labor costs. Like other debt obligations, pension obligations cannot be avoided unless the issuer of the obligation (i.e., the employer) liquidates or goes bankrupt. Thus, it is inapt to say that corporations can wrongfully evade their pension obligations through the

³ Cf. Timothy A. Canova, *The Transformation of U.S. Banking and Finance: From Regulated Competition to Free-Market Receivership*, 60 Brooklyn L. Rev. 1295, 1338 n.140 (1995) (“If socialism is a system of public ownership of the means of production, ‘lemon socialism’ refers to a system of government purchase and/or subsidy for unproductive or failing sectors of the economy. The government buys a lemon rather than nationalizing a Cadillac.”); George Will, *Hot Tubs and Cold Moralizing*, Washington Post, January 8, 2006, p B07 (equating “lemon socialism” with “tax subsidies for failing businesses that the market says should fail”). The phrase has been attributed to John Kenneth Galbraith. See Paul Stephen Dempsey, *Taxi Industry Regulation, Deregulation & Reregulation: the Paradox of Market Failure*, 24 Transp. L. J. 73, 76 n.8 (1996).

⁴ See John H. Langbein & Bruce A. Wolk, *Pension and Employee Benefit Law* 17 (3d ed. 2000).

PBGC guaranty.⁵ They can evade these obligations (rightly or wrongly) in basically the same way corporations evade other obligations—through bankruptcy or liquidation.

Before ERISA, employers could terminate underfunded plans without incurring any obligation to fund the shortfalls. There was no federal pension guaranty at that time, and participants potentially bore the full loss without any recourse against the employer.⁶ Even in its early days, ERISA still allowed at-will termination of underfunded plans, but protected the employees with the PBGC guaranty of benefits. The PBGC was not completely without recourse upon the termination of an underfunded plan, as termination gave it a claim for up to 30% of the net worth of the employer and its controlled group.⁷ This structure led financial economists to conclude that the employer essentially held a put option, the underlying asset being a combination of the plan assets and a claim on 30% of the firm's net worth.⁸ The exercise price of the implicit put option was the value of pension liabilities. By tendering (i.e., putting) the plan assets and a claim on 30% of the firm's net worth to the PBGC, the firm could unilaterally avoid its pension obligations. Some economists questioned whether pension plans could be characterized as debt at all.⁹

These questions were put to rest in 1986 with the passage of the Single-Employer Pension Plan Amendments Act (SEPPA).¹⁰ After SEPPA, the employer could no longer terminate an underfunded plan at will.¹¹ If an underfunded plan did terminate (typically in bankruptcy), the PBGC would receive a claim for the full balance of the underfunding. This treatment highlights the analogy between

⁵ But cf., e.g., Brannick, *supra* note 73, *passim* (arguing that plan termination is often an abuse of the law used to evade pension obligations).

⁶ See Langbein & Wolk, *supra* note 4, at 910.

⁷ See Dan M. McGill et al., *Fundamentals of Private Pensions* 806–07 (8th ed. 2005).

⁸ Cf., e.g., William F. Sharpe, *Corporate Pension Funding Policy*, 3 J. Fin. Econ. 183, 185 (1976) (creating model where “[i]f there is a shortfall, the employees will receive only [the plan assets], and the firm will not be liable for the deficiency”).

⁹ See *id.*

¹⁰ Consolidated Omnibus Budget Reconciliation Act of 1985, tit. XI, Pub. L. No. 99-272, 100 Stat. 237 (1986). Recent commentators remain under the misimpression that total liability is 30%. See, e.g., Myron S. Scholes, et al., *Taxes and Business Strategy: A Planning Approach* 270 (3d ed. 2005) (“After the passage of ERISA, firms can now put the pension plan assets plus 30% of the market value of the firm to the Pension Benefit Guaranty Corporation (PBGC) to satisfy the pension claims.”).

¹¹ See McGill et al., *supra* note 7, at 807.

pension plans and secured debt from the perspective of the firm. Even when the employer could terminate the plan, it became subject to a formal debt claim of the PBGC for the amount of unfunded benefits.

SEPPA established three types of plan terminations. If a plan is fully funded, then the employer can essentially terminate it at will after complying with PBGC procedures in a “standard termination”.¹² Of more interest are the two procedures by which underfunded plans could terminate: a “distress termination”¹³ or an “involuntary termination”.¹⁴ A distress termination is available only if the employer and each member of its “controlled group”¹⁵ of related companies satisfy statutory criteria for financial distress, typically bankruptcy or a similar state proceeding.¹⁶ The criteria for involuntary termination are similar.¹⁷ As a practical matter, the two methods arise at the same time—during firm liquidation or Chapter 11 reorganization.¹⁸ The distinction between the two is that the employer institutes a distress termination, whereas the PBGC institutes an involuntary termination. Without termination, the employer will need to contribute funds to the plan according to the funding requirements of the Code and ERISA. Thus, distress and involuntary termination are tantamount to a bankruptcy discharge of funding shortfalls. In other words, employers can avoid pension-funding shortfalls in the same way they avoid other debts.

Following distress or involuntary terminations,¹⁹ the PBGC receives a claim in the amount of any unfunded benefit obligation.²⁰ The plan sponsor and all members of its controlled group are jointly and severally liable on the claim. The

¹² See ERISA § 4041(a) (setting forth exclusive means for plan terminations); § 4041(b) (describing standard terminations).

¹³ See ERISA § 4041(c).

¹⁴ See ERISA § 4042.

¹⁵ The controlled group comprises companies related by 80% or more ownership to the employer. See ERISA § 4001(a)(13) (defining the term by reference to I.R.C. §§ 414(b), (c)); I.R.C. §§ 414(b), (c) (defining the term by reference to I.R.C. § 1563(a)); I.R.C. § 1563(a) (establishing an 80% ownership test for controlled-group membership).

¹⁶ See ERISA § 4041(c)(2)(B).

¹⁷ See ERISA § 4041(a)(1).

¹⁸ See Frank Cummings, *Pension Plan Terminations—Single Employer Plans* 17 (Tax Mgt. Port. No. 357 3d ed. 2002).

¹⁹ Cf. Keating, *Ten-Ton Monster*, *supra* note 73, at 813–15 (describing PBGC claims after plan termination).

²⁰ See ERISA § 4062(b)(1). Similar rules apply where there are multiple, unrelated plan sponsors. See ERISA §§ 4063, 4064.

claim is for the value of *all* benefits (not just those benefits that the PBGC guaranties) under the plan, minus the value of plan assets.²¹ Thus, the claim of the PBGC does not simply represent its own financial exposure to guaranteed benefits.²² It is not a mere guarantor with a right of subrogation against the debtor. It is also a collection agency for participants and beneficiaries, with the authority to seek funds from the employer to pay benefit obligations in excess of those it has guaranteed.²³ Upon a distress or involuntary termination, the PBGC receives a lien in the property of the controlled group, capped at 30% of the combined net worth of the controlled group.²⁴ If termination occurs after bankruptcy, the automatic stay will prevent the PBGC from perfecting its lien.²⁵ The resulting inability of the PBGC to perfect its lien usually leaves it as an unsecured creditor in bankruptcy. Of course, the PBGC will likely recover only a portion of its claim, given its unsecured status. If the termination occurs in Chapter 11, the PBGC may even receive stock in the bankrupt employer to satisfy its claim.²⁶ The ability to perfect a lien is not worthless, even though the PBGC rarely does so. Since the PBGC could perfect its lien outside bankruptcy, few plan sponsors attempt a distress termination outside of bankruptcy.

A distress or involuntary termination is not completely like a bankruptcy discharge. A significant caveat is the power of the PBGC to restore the terminated plan to the former sponsor “in any such case in which the [PBGC] determines such action to be appropriate and consistent with its duties under” Title IV of ERISA.²⁷ Restoration typically occurs when a plan sponsor has a significant improvement in financial health.

A newer distinction between termination and traditional discharge is the surcharge that the PBGC imposes on plans that terminate in Chapter 11 bankruptcy.²⁸ The charge is \$1,250 per participant per year for three years

²¹ See ERISA § 4001(a)(18).

²² Cf. ERISA § 4001(a)(17) (defining “amount of unfunded guaranteed benefit liabilities” to cover only those benefits guaranteed by PBGC).

²³ Cf. ERISA § 4022(c) (stating that PBGC will pay additional benefits attributable to its recovery efforts).

²⁴ See ERISA § 4068(a).

²⁵ See generally Keating, *Ten-Ton Monster*, *supra* note 73, at 827.

²⁶ See Michael Schroeder, *Big Stakes in Ailing Airlines Raise Questions for U.S. Pension Agency*, *Wall St. J.* at A1 (Nov. 3, 2005).

²⁷ ERISA § 4047.

²⁸ See *infra* notes to 49 and accompanying text.

following termination. Thus, employers must actually pay a substantial fee to discharge their pension obligations in Chapter 11. These two caveats (restoration and surcharge) are minor and illustrate that discharging pension debt is actually more difficult than discharging other debt.

A unique feature of pension debt is that it is guarantied by the PBGC, a federally established corporation that guaranties the payment of most private, defined-benefit pension benefits.²⁹ The guaranty protects the employee against underfunding upon an involuntary or distress termination. The guaranty does not directly benefit employers. They are not insured against any loss.

Greater funding clearly reduces the exposure facing the PBGC. However, the PBGC's own claim does not receive the greatest priority upon plan termination. Assets are first allocated to benefits attributable to the employee's own contributions.³⁰ Next, assets are allocated to benefits that commenced (or could have commenced) three or more years prior to termination.³¹ Thus, retirees who are already receiving pension payments often face no loss upon plan termination, even if the plan is underfunded. Any remaining assets will be allocated to the insured benefits.³²

Guarantied benefits are capped by ERISA.³³ For plans with a termination date in 2007, the maximum single-life annuity payable starting at age 65 is \$49,500. The cap applies to all pensions of any one individual. Thus, if someone is a participant in two failed plans, a single cap still applies; the cap is determined at the time of the last plan termination affecting the participant.³⁴ The cap is transformed actuarially if payments are not made in an age-65, single-life annuity.³⁵ Typically, this means that the cap is reduced to reflect early commence-

²⁹ The guaranty does not extend to defined contribution plans (such as 401(k), 403(b), 457 plans and ESOPs); very small plans with 25 or fewer active participants; plans maintained for a select group of management of highly compensated employees; governmental plans; church plans; and welfare plans, such as retiree medical plans. See generally ERISA § 4021(a), (b) (describing inclusions and exclusions from coverage).

³⁰ See ERISA § 4044(a)(1), (2).

³¹ See ERISA § 4044(a)(3).

³² See ERISA § 4044(a)(4).

³³ See ERISA § 4022.

³⁴ See ERISA § 4022B; PBGC Treas. Reg. § 4022B.1(a).

³⁵ See ERISA § 4022(b)(3) (referring to the "actuarial value of a monthly benefit in the form of a life annuity commencing at age 65). Reductions may not always apply if early commencement was due to disability. See PBGC Treas. Reg. § 4022.6(a).

ment before age 65 or the value of survivor benefits. The guaranteed amounts are well below the maximum benefits that a pension plan can provide under the tax laws. For 2007, the maximum amount payable is an annual benefit of \$180,000.³⁶ Very few employees approach this maximum,³⁷ and the PBGC cap will cover most pension benefits payable to employees.³⁸

ERISA contains some limits on employer-gamesmanship undertaken shortly before plan termination. Any plan amendments that increase benefits are subject to five-year phase in.³⁹ For example, a plan amendment might increase benefits from \$1000 to \$1500 per month; if the plan is terminated three years later, then only three-fifths of the increase is guaranteed. Thus, the guaranty would cover only \$1300 per month. The Pension Protection Act of 2006⁴⁰ (PPA 2006) applies this five-year phase-in rule to plant shutdown benefits as well, treating the shutdown event as if it were a benefit-increasing amendment.⁴¹ Benefit-increasing amendments also trigger the need for the employer to post security if the plan is less than 60% funded.⁴² In addition, the PBGC may recover any lump-sum payments made within three years of plan termination.⁴³

To fund its guaranty program, the PBGC collects annual fees (premiums), along with the assets of terminated plans, borrowings from the U.S. Treasury of up to \$100 million, and earnings on these holdings.⁴⁴ The annual premium is the most

³⁶ See I.R.C. § 415(b)(1) (establishing \$160,000 cap); I.R.C. § 415(d) (subjecting the cap to cost-of-living increases); IR-2006-162, October 18, 2006 (stating that the year 2007 cap is \$180,000).

³⁷ Consider a rather rich formula that pays benefits equal to 1.5% percent of compensation times years of service. If a participant had thirty years of service, he would not reach the PBGC cap unless his compensation was \$105,909.07 or more. The Internal Revenue Code places a cap of \$225,000 on compensation that can be used to calculate pension benefits. See I.R.C. § 401(a)(17) (establishing a \$200,000 cap on compensation subject to cost-of-living increases); IR-2006-162, October 18, 2006 (stating that the year 2007 cap is \$225,000). If a participant had \$225,000 or more of compensation, he would not reach the PBGC cap unless he had fifteen or more years of service. So, for participants commencing benefits at age 65, the PBGC cap is relevant only to well-paid, long-service employees.

³⁸ See Langbein & Wolk, *supra* note 4, at 901.

³⁹ ERISA § 4022(b)(7).

⁴⁰ Pub. L. No. 109-280, 120 Stat. 780 (2006) (codified as amended in scattered sections of 26 U.S.C. and 29 U.S.C.).

⁴¹ ERISA § 4022(b)(8) (as amended by PPA 2006 § 403(a)).

⁴² See I.R.C. § 401(a)(29); ERISA § 307.

⁴³ See ERISA § 4045.

⁴⁴ See ERISA 4005; McGill et al., *supra* note 7, at 815.

interesting, as it is the only one that could conceivably reflect the risk undertaken by the PBGC. An annual, flat fee of \$30 per covered employee applies to every single-employer plan covered by the PBGC guaranty program.⁴⁵ The \$30 fee is fixed and applies to every covered plan, regardless of funding quality of the plan, the financial stability of the employer, or even the amount of benefits promised to an employee. The only control an employer has over the fee is the decision of how many employees should receive pension benefits. Otherwise, the fee will have no effect on the employer's financial incentives.⁴⁶

The PBGC also collects an additional fee, called the "variable-rate premium", from some underfunded plans. The variable-rate premium is an annual 0.9% of the "unfunded vested benefits" of the plan.⁴⁷ The 0.9% premium might appear to be a default premium on the corporate pension debt. Yet, the 0.9% default premium is not related to the creditworthiness of the firm. To illustrate the importance of creditworthiness, data for the week ending January 13, 2006 is shown below:⁴⁸

| | |
|-----------------------------------------------|-------|
| U.S. Treasury bond, 10-year constant maturity | 4.41% |
| U.S. Treasury bond, 20-year constant maturity | 4.65% |
| Moody's Seasoned Aaa Index | 5.29% |
| Moody's Seasoned Baa Index | 6.24% |

For the best credit risks, the 0.9% default premium might be appropriate. For the Baa grade and below, it clearly fails.

ERISA does not contemplate a situation where the PBGC would be unable to pay all the claims against it. The federal government has no formal obligation to

⁴⁵ See ERISA § 4006(a)(3)(A)(i).

⁴⁶ One might initially think that low-risk employers with well-funded plans might exit the PBGC system by terminating their plans. Employers that did so would, however, be abandoning the tax benefits described later in this paper. Moreover, the taxation of any amounts the employer receives upon termination is close to confiscatory. Any post-termination reversion will be subject to income taxation. See Dianne Bennett et al., *Taxation of Distributions from Qualified Plans* ¶ 16.02[1] (2004) (citing Rev. Rul. 2003-85, 2003-2 CB 291 (July 1, 2003)). And it will be subject to a nondeductible excise tax of 20% or 50%. See I.R.C. § 4980. If the income-tax rate is 35%, the total reversion tax rate is 55% or 85% plus any state income tax. The excise tax on pension reversions may have actually had a salutary effect on the position of the PBGC. On the one hand, the tax might encourage underfunding, as employers could be less likely to put money into the plan if they cannot take it back out. On the other hand, it does discourage standard terminations of overfunded plans, which pay the \$30 per capita fee with little risk to the PBGC.

⁴⁷ See ERISA § 4006(a)(3)(A)(i), (E).

⁴⁸ Federal Reserve Statistical Release, January 17, 2006

maintain the PBGC's solvency.⁴⁹ Many observers, however, believe that Congress would bail out the PBGC and its covered employees, much as it bailed out the savings and loan industry in the early 1990s. Given this likelihood, this Article proceeds under the working assumption that pension benefits are free of default risk (at least up to the PBGC cap). Of course, the likelihood of a government bailout is not the same as thing as an express Treasury obligation. Nonetheless, this assumption will highlight the financial incentives that employers have in extending and funding benefits.

§ 10.03 A THEORY OF THE FUNDING DECISION

[1] Plan Assets and Funding

Along with pension insurance, mandatory prefunding of pension obligations is central to ERISA.⁵⁰ Because pensions are essentially corporate debt, plan assets will reduce the employer's future obligation to pay benefits. If a plan is underfunded, then additional funding clearly benefits the employer. The additional assets will be used to offset an obligation that the employer would otherwise pay. At first blush, it is puzzling why employers with underfunded plans resist funding at all. Funding confers a benefit—a discharge of future obligations—that appears to be worth the amount contributed.⁵¹ In corporate-finance speak, pension funding is a decision about firm capital structure. A firm could fund its plan at the minimum level, or it could raise outside capital to fund it. So, the firm could fund minimally, keeping its employees as creditors, or it could raise outside funds, taking on outside creditors in place of the employees.

The Modigliani-Miller theorem of corporate finance tells us that choices about capital structure cause no inherent change the value of a firm. If a firm has \$11 million of assets and \$1 million of unfunded pension liabilities, it does not become inherently more or less valuable if the firm borrows \$1 million from outsiders and uses the proceeds to fund the plan. It has simply swapped an employee creditor for an outside creditor. The choice as to the type of debt should have no inherent effect on firm value,⁵² unless one type of financing has advantages due to taxes,

⁴⁹ See ERISA § 4022(g)(2) (“The United States government is not liable for any obligation or liability incurred by the [PBGC].”).

⁵⁰ See Kathryn J. Kennedy, Pension Funding Reform: It's Time to Get the Rules Right (Part 1), Tax Notes, Aug. 22, 2005, p. 907 at 910-11.

⁵¹ Note Ippolito, new article on excise taxes.

⁵² See Richard A. Brealey, et al., Principles of Corporate Finance 448 (8th ed. 2006).

the costs of financial distress, or the existence of some other market imperfection.⁵³ In the real world, however, some employers must be coerced into funding their plans, and some employers must be restrained from overfunding their plans. Part of the goal of this paper is to explain why.

I do not intend a thorough review of the funding or deduction rules in this paper. Also, I do not intend any kind of review of the accounting treatment of pension expenses. They are obviously important, but quite outside the scope of this project. The point I do want to convey is that the current rules do not require full funding by any employer. Nor will the changes of PPA 2006 bring about full funding. Of course, the failure of current law was manifest to all. We hardly need to study I.R.C. § 412 or the 300s of ERISA to know that they were inadequate. The failure of large pension plans (primarily of bankrupt airlines) and the dire warnings of PBGC insolvency were sufficient evidence of a major problem. However, a brief review of the funding rules is necessary, allowing us to see that the problem of underfunded plans is not likely to go away.

Each year, employees earn additional benefits coming from an additional year of service under the plan. Employers must generally ensure funding for these benefits (the “normal cost” of the plan).⁵⁴ So, funding shortfalls do not come from the accrual of benefits in the ordinary course. Instead, funding shortfalls come primarily from employer-initiated benefit increases and from mismatches between plan assets and liabilities.

Employer-initiated benefit increases are easy to explain. The employer might amend a plan to increase the level of benefits, creating a “past service liability.” For example, an employer might amend a plan to give employees a richer formula because of labor negotiations. The old formula might have given employees \$50 per month for every year of service performed, starting at age 65. The new, amended formula might increase the benefit to \$60 per month for every year of service performed—including service performed before the date of the amendment. The amendment triggers a large increase in benefit liabilities, because employees are now promised an extra \$10 per month for all the service they performed in the past. Unlike the normal cost, however, this past service liability need not be immediately funded. Current law allows for a 30-year amortization,⁵⁵ subject to the special deficit reduction contributions of I.R.C. § 412(l).

The mismatch of plan assets and liabilities is a bit more arcane. The economic

⁵³ See *id.* at 495.

⁵⁴ See I.R.C. § 412(b)(2)(A).

⁵⁵ See I.R.C. § 412(b)(2)(B)(iii).

performance of plan assets and liabilities might diverge, causing the plan to incur an “experience loss,” amortized over five years under current law.⁵⁶ The economy of the early 2000s offered declines in the equity markets (causing plan assets to decline) and declines in long-term interest rates (causing plan liabilities) to rise. Experience losses are controllable, because they are a function of plan investments. A plan invested wholly in long-term bonds would have weathered the so-called “perfect storm” of the early 2000s quite well, as the fall in interest rates would drive up plan liabilities *and* plan investments.

Employers know that long-term bonds are safer and better matched to pension liabilities than are equities. Yet, they persist in investing plan assets in equities, because they offer higher expected returns. Upon closer examination, this persistence is somewhat puzzling, at least for plans maintained by publicly traded companies. A publicly traded company confers no value on its shareholders by investing plan assets in equities rather than bonds. If shareholders want the higher returns of equities, they can do the investing themselves. Some commentators have called for greater limits being placed on plan investments to ensure a better match between assets and liabilities.⁵⁷ My own view is that reform should come through the funding rules, forcing employers to bear the consequences of experience losses immediately, rather than deferring them through smoothing and amortization.

Because of PPA 2006, the funding rules are currently in a state of transition, but they will not force employers to bear the immediate consequences of past service liabilities and experience losses. Ultimately, most funding shortfalls will be amortized over a seven-year period, subject to a typical array of special exceptions and transitions.⁵⁸ As under prior law, the funding rules take a long-term view of funding, not forcing employers to fund their plans fully as shortfalls arise. I have previously argued that a system of full and immediate funding should replace the

⁵⁶ See I.R.C. § 412(b)(2)(B)(iv).

⁵⁷ See, e.g., Zvi Bodie, “What the Pension Benefit Guaranty Corporation Can Learn from the Federal Savings and Loan Insurance Corporation”. *Journal of Financial Services Research*, Vol. 10, No. 1, January 1996 Available at SSRN: <http://ssrn.com/abstract=271328> or DOI: 10.2139/ssrn.271328. Dr. Bodie is associated with the Pension Finance Institute, a group of scholars and actuaries who support more conservative pension investing and tighter funding rules. For a lively exchange of papers amongst those who (like I) sympathize with the Pension Finance Institute and those who do not, see *The Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics Symposium*, <http://library.soa.org/library-html/m-rs04-1_tableofcontents.html>.

⁵⁸ See I.R.C. § 430 (added by PPA 2006 § 112(a)).

current system of deferred funding and governmental guaranty.⁵⁹ Deferred funding is inevitably partial funding, as funding shortfalls will continue to arise and be left unfunded at the time of termination.

Carryovers from current law will further dilute the strength of the new funding rules. In valuing liabilities, employers may continue to use corporate-yield interest rates, rather than the more conservative 30-year Treasury yields. The corporate rates were initially enacted as a temporary relief provision by the Job Creation and Worker Assistance Act of 2002,⁶⁰ but have now been made permanent in an act supposedly aimed at tightening funding.⁶¹ Financially weak employers may continue to receive funding waivers,⁶² although financially weak plans are subject to tighter funding requirements. Finally, the “smoothing” of changes in asset and liability values will continue to obscure the true value of funding shortfalls.

I have not given anywhere near a complete overview of the funding rules, but I have instead tried to make a simple point. PPA 2006 changes the funding calculations and might even lead to better funding. However, it will not lead to full funding. The ultimate question I want to pose is whether we should care. As I said before, we might care about the cost to the public if it needs to bail out the PBGC, and we might also care about benefits being bestowed in private companies and pensioners at taxpayer expense. These concerns, however, are the same ones we should raise about the staggering tax subsidy granted to pension plans. I will continue on with an attempt to answer this ultimate question by looking at the incentives to fund and not to fund a pension plan.

[2] Tax Incentives for Funding

Conceivably, funding might be necessary to respond to the demand of employees (or their bargaining representatives) who participate in the plan. The PBGC guaranty will make these types of demands weak and rare. Taxes are the remaining—and thus predominate—reason that an employer has to fund its plan beyond the statutory minimum. Code section 404 denies the employer any deduction for the pension expense until funding actually occurs, allowing a

⁵⁹ See Eric D. Chason, *Outlawing Pension-Funding Shortfalls*, 26 Va. Tax Rev. __ (forthcoming 2007).

⁶⁰ Pub. L. 108-218, § 101(b)(1)(A) (amending I.R.C. § 412(b)(5)(B)(ii) for the 2003 and 2004 plan years).

⁶¹ See PPA 2006 § 301(b)(2).

⁶² See PPA 2006 § 111(a).

deduction only for actual contributions to a pension trust.⁶³ This rule essentially puts pension accounting on a cash basis. After funding does occur, the employer pays no tax on the earnings of the pension trust. Extending the debt analogy in a rough way, we can think of the initial contribution to a pension trust as representing the wages that an employee defers and the earnings on that amount as the interest that the employer must pay. Ordinary debt itself gives the employer an interest deduction—a significant tax advantage.

By withholding the deduction until funding, section 404 effectively withholds the tax advantages normally afforded to debt until the plan is funded. Consider the following example in a world without compulsory funding. Suppose that an employer establishes a pension account for an employee in the amount of \$10,000 on January 1, 2006.⁶⁴ The employer promises to credit the account with interest at an annual rate of 5%, which I will assume to be the rate of interest on all borrowing and investing. Assume that the employee will withdraw the account in ten years, at which time the account will be worth \$16,289.⁶⁵ Let us compare two methods of paying for this obligation. First, the employer borrows to fund the plan today. Second, the employer simply waits for ten years and pays the employee directly at that time. We will assume that the employer is subject to a 35% tax rate.

Under the first approach, the employer needs to borrow only \$6500 currently in order to fund the plan at \$10,000. The remaining \$3500 is financed by the value of the employer's tax deduction. The employer invests the \$10,000 of plan assets at 5% (matching the rate at which the employee's account is credited), and the employer has effectively discharged its obligation under the pension plan, taking on a new obligation to repay the outside creditor. Because the employer can deduct its interest obligations to the creditor, it is essentially borrowing at a rate of 3.25%.⁶⁶ Using this rate and a balloon repayment, the liability would grow to \$8950⁶⁷ in ten years. Thus, the borrow-and-fund approach produces a negative cash flow of \$8950 in ten years.

Next consider second approach, under which the employer simply waits for ten years and pays the employee directly. The employer must pay the employee

⁶³ See Section 10.03[2].

⁶⁴ Although the example is intended only to illustrate the tax incentive for funding, it is fairly representative of a cash-balance plan.

⁶⁵ $\$10,000 \times (1 + 0.05)^{10}$.

⁶⁶ $0.05 \times (1 - 0.35) = 0.0325$.

⁶⁷ $\$6500 \times (1 + 0.0325)^{10} = \8950 .

\$16,289 at that time, but the after-tax cost of this payment is only \$10,588.⁶⁸ Thus, the wait-and-pay approach produces a negative cash flow of \$10,588 in ten years. The first approach (borrow-and-fund) is clearly superior. The difference in the two approaches is explained by the fact that the employer can deduct interim interest expenses when it borrows from the outside creditor but not when it borrows through the plan.

In short, underfunded pension plans face a tax penalty. If the employer borrowed money from an outside creditor to pay current wages to employees, it could deduct the compensation and interest expenses even before repayment to the creditor. In contrast, employers who implicitly borrow from their employees through a pension plan cannot deduct any expenses before actual contribution to the plan. Not all employers will respond to this tax incentive to fund, however. As I will discuss next, financially weak employers may not want to turn to outside borrowers, who will demand risk premiums and restrictive covenants.

[3] Credit Incentives for Underfunding

[a] Hidden Action and Employee Monitoring

A pension plan is essentially debt that the PBGC guarantees, up to a cap. The employees are creditors, but are largely indifferent to the level of funding and to the investments made by the pension plan. Thus, the employees covered by the guaranty have a greatly reduced incentive to monitor or bargain over plan funding. Indeed, the whole point of ERISA was to safeguard employee pensions from loss arising upon default or forfeiture. The effect of these protections is the employer's funding decision will not be constrained by the employees' desires.⁶⁹

This presents the classic problem of moral hazard. In *Game Theory and the Law*, the authors note,

Insurance contracts must also take into account a moral hazard problem, a

⁶⁸ $\$16,289 \times (1 - 0.35) = \$10,588$.

⁶⁹ Professor Keating makes a similar point. He says, "While the ability of employers to affect pension funding is fairly clear, the role of the employees in avoiding the risk of underfunding should not be overlooked. In the LTV Supreme Court case, the PBGC stressed how employees can influence the funding levels of their promised pensions. One of the reasons the PBGC does not completely cover all pension benefits is that employees will have some incentive to insist to their employers that pension plans be adequately funded—the so-called "co-insurance feature" of the system." Keating, *Moral Hazard*, supra note 73 at 75. Indeed, some empirical evidence supports the notion that the PBGC guaranty actually reduced funding quality. See Ippolito, *Pension Insurance*, supra note 73, at 95; 125–29.

problem of hidden action. An insurer is not able to learn exactly how an individual behaves once the insurance contract is purchased. Hence, the contract cannot be written in a way that protects the insurance company from individuals taking actions they would not take if they did not have insurance.⁷⁰

Other standard works state that hidden action is the essence of moral hazard.⁷¹ This Article will adopt this formulation, although it is not uniform among scholars.⁷² The essential problem of moral hazard is that it is conduct that cannot be cost-effectively controlled by contract or regulation.

The employees have a clear moral hazard problem. Without the PBGC guaranty, they or their representatives might demand more funding or perhaps higher benefits to compensate for the risk of loss. They have much less reason to do so because of the PBGC guaranty. Moreover, the PBGC cannot regulate or monitor the actions that employees take to demand better funding. These actions are hidden, fitting squarely within the definition of moral hazard just given.

In contrast, the employer is not plagued by moral hazard.⁷³ The PBGC guaranty

⁷⁰ Douglas G. Baird et al., *Game Theory and the Law* 153 (Paperback ed. 1998).

⁷¹ See Andreu Mas-Colell et al., *Microeconomic Theory* 477 (1995) (referring to moral hazard as the case of hidden action); David M. Kreps, *A Course in Microeconomic Theory* 577 (1990) (referring to moral hazard as the problem where “one party to a transaction may undertake certain actions that (a) affect the other party’s valuation of the transaction but that (b) the second party cannot monitor/enforce perfectly”); Hal R. Varian, *Microeconomic Analysis* 298-99 (stating that the problem of moral hazard in insurance contracts would disappear if insurers could observe the level of care taken by their insureds).

⁷² Judge Posner calls moral hazard “The tendency of an insured to relax his efforts to prevent the occurrence of the risk that he has insured against because he has shifted the risk to an insurance company.” Richard A. Posner, *Economic Analysis of Law* 121 (5th ed. 1998). This formulation is close to hidden action, although it would cover precautions that might be controlled by contract (such as a home-insurance discount for the use of sprinklings). Professor Richard Ippolito gives a broad definition that moral hazard occurs “when mispricing arises in a buyer-seller contract.” See Richard A. Ippolito, *Economics for Lawyers* 350 (2005). Professor Keating calls it “[t]he problem . . . that those who are insured against certain risks have an incentive to use less than optimal care to avoid those risks.” Keating, *Moral Hazard*, *supra* note 73 at 67-68. For a detailed examination of moral hazard, see Tom Baker, *On the Genealogy of Moral Hazard*, 75 *Texas L. Rev.* 237 (1996).

⁷³ Prior commentators have focused on how the PBGC guaranty might lead to this fiscal impact, asserting that the guaranty leads to “moral hazard”. In their view, moral hazard arises as any losses suffered by private pension plans are absorbed by a guarantor. See GAO, *The Pension Benefit Guaranty Corporation and Long-Term Budgetary Challenges* 13 (GAO Report 05-772T June 9, 2005) (asserting that employers have moral-hazard problems). Richard A. Ippolito, *The Economics of Pension Insurance* 5 (1989); Daniel Keating, *Pension Insurance, Bankruptcy and Moral Hazard*,

relieves it of no liability, and its decision to fund a pension plan can be observed and regulated. What the subsidized PBGC guaranty does, however, is give the employer access to cheap credit to finance its labor costs. Ordinarily, creditors demand default premiums, covenants, and security for the debt. However, employees fail to do so with respect to pension debt because it is guarantied. Thus, the moral hazard is on the part of the employees, because the PBGC could not possibly require employees to make those demands.

One can envision a hypothetical world without the PBGC guaranty. Presumably, employers and employees would (at least implicitly) bargain over the monitoring and funding of pensions. Employees would be far more sensitive to the level of funding in their plans and the credit risk of their employers. The employer might expose the employees to greater default risk in exchange for greater benefits and compensation, or it might fund the plan in a way that allays employee concerns. One can take this vision further and assume, exogenously, that employees refuse to accept any pension unless it has very low default risk.

I am not claiming that employers and employees would actually agree on risk-free pensions were they able to do so under ERISA. The failure of Studebaker and other pre-ERISA pension plans seriously undermine any assertion that they would. Perhaps employees are willing to accept a certain amount of risk in their pensions, and ERISA thwarted their ability to do so. Or, perhaps employees have no ability to monitor risk on a cost-effective basis or actually have no concept of risk that they could monitor. The resolution of this issue is not, however, critical, if we accept as given that pensions should be largely free of risk (for whatever reason). The hypothetical bargain must then be examined subject to this constraint. How would the parties go about achieving pensions without default risk? One would expect to see a plan that is fully funded plan holding low-risk, fixed-income securities.

Unlike the problem of employee monitoring, the problem of employer funding

1991 Wis. L. Rev. 65, 66 [hereinafter Keating, Moral Hazard]; Daniel Keating, Chapter 11's New Ten-Ton Monster: The PBGC and Bankruptcy, 77 Minn. L. Rev. 803, 804 (1993) [hereinafter Keating, Ten-Ton Monster]; Nicholas J. Brannick, Note: At the Crossroads of Three Codes: How Employers Are Using ERISA, the Tax Code, and Bankruptcy to Evade Their Pension Obligations, 65 Ohio St. L.J. 1577 (2004). "A second flaw is 'moral hazard.' A properly constructed insurance system has mechanisms for encouraging responsible behavior and discouraging risky behavior. The federal pension insurance program lacks these basic checks and balances. There are no risk-based underwriting standards and few consequences for not funding pension promises. If a company promises more than it is able to afford, it can shift the cost of the benefits to other companies, including competitors, through the insurance program." PBGC 2004 Annual Report at 9 <http://www.pb.gc.gov/docs/2004_annual_report.pdf>.

is not intractable. Since the employer's funding decision is not hidden, one cannot correctly claim that the employer is itself plagued by moral hazard (at least under the standard definition).⁷⁴ Employer funding is already monitored and regulated under current law. The issue then is whether the current law is correct. One can simply compare ERISA's goals and ERISA's implementation. The goal of ERISA was to minimize default risk on pensions. This goal could have been implemented by requiring full funding of pension plans, leaving only a minor role for the PBGC when actuarial error, employer malfeasance, or volatile financial markets produce an underfunded plan. Instead, the goal was substantially implemented by creating a public guarantor that charges below-market rates for its coverage.

ERISA has instituted a policy of dramatically curtailing the default risk of pension plans, and employees need not to obtain this result through private bargaining. Thus, employees have a classic moral-hazard problem, because their levels of precautions against default are hidden. Employers do not, because their actions are not hidden. The primary precaution that an employer could take against default is plan funding, which could be monitored and regulated on a cost-effective basis.

[b] Avoiding Default Premium of Debt by Underfunding

The fact that employees have no reason to demand full funding shows only that the employer's funding decision is likely unconstrained by its employees. Employers are liable for pension debt, just as they are for other debt. They must pay it unless they liquidate or go bankrupt. Moreover, they have a powerful tax incentive to prefund their pension obligations: until they fund, they do not receive any of the tax benefits of debt. In light of these two facts, one might ask why it is that employers do not fund their plans to the maximum allowed by law.

If they do not have the funds on hand to fund the plan, then they could borrow the funds from third parties. Borrowing to fund the pension plan merely replaces one creditor (the employees) with another (the third-party lenders). The tax incentives of prefunding suggest that this replacement should always occur. To simplify matters, I will assume that plan funding always comes from outside lenders. Of course, the firm might also issue new equity or use working capital. Those decisions are about the firm's capital structure, which, according to the Modigliani-Miller theorem, should not affect firm value before controlling for

⁷⁴ Such claims are often made. See, e.g., GAO, The Pension Benefit Guaranty Corporation and Long-Term Budgetary Challenges 13 (GAO Report 05-772T June 9, 2005).

taxes and transactions costs.⁷⁵ So, focusing on outside borrowing simplifies the analysis, which still has a general application to all sources of funding.

If a plan is funded using outside debt, then the outside creditors will be concerned about being repaid. Thus, they will try to protect themselves from default by demanding security, covenants, and the like. These measures do not eliminate the risk of default. They will demand an interest premium to compensate them against any risk of default not eliminated by covenants and the like.⁷⁶ These default premiums increase the cost of capital to the employer.

In contrast, if a plan is underfunded, then the employee-creditors are largely unconcerned with repayment. Thus, the firm need not pay much (if any) default premium to the employees.⁷⁷ ERISA neutralizes the employees' interest in avoiding potential default by the employer. ERISA does, however, substitute the market-based default premium with a mandated insurance premium which is supposed to pay for the PBGC guaranty. The PBGC premium does not reflect the market principles of risk pricing.⁷⁸ Most of the PBGC's premium collections come from the flat-rate premium.⁷⁹ This premium is \$30 per year per participant.⁸⁰ Thus, it has only the slightest relation to the riskiness of the plan or the employer. Indeed, it is an insurance premium in name only. In reality, it is a user fee, which employers must pay for the mere privilege of establishing a pension plan.⁸¹

The variable-rate premium does better. That premium is an annual 0.9% of a plan's unfunded vested liabilities. Thus, it does have some relation to default risk. Yet, it has problems as well. Neither the 0.9% amount nor the concept of "unfunded vested liabilities" comes from the market. They are statutory creations that may not accurately reflect the true status of the plan, which is further distorted

⁷⁵ See Posner, *supra* note 72, at 476.

⁷⁶ See Frank J. Fabozzi & T. Dossa Fabozzi, *Handbook of Fixed Income Securities* 716 (4th ed. 1996).

⁷⁷ Professor Keating makes a similar same point. He says, "Employers do not receive direct payments from the PBGC, they too are beneficiaries of the PBGC's insurance coverage. By offering insured pension benefits to their employees, businesses are able to devote fewer resources to current wages." Keating, *Moral Hazard*, *supra* note 73 at 72.

⁷⁸ See Ippolito, *Pension Insurance*, *supra* note 73 at 38–39.

⁷⁹ PBGC 2004 Annual Report.

⁸⁰ See *supra* note 45 and accompanying text.

⁸¹ Of course, 401(k) and other defined-contribution plans offer the same tax benefits but are not covered by the PBGC guaranty.

by smoothing of asset and liability valuations. Moreover, the variable-rate premium is based solely on the level of funding (unfunded vested liabilities) rather than overall default risk (which would include the creditworthiness of the firm).

Underfunded plans represent an employer's borrowing from its employees. Unlike outside creditors, employees do not need to demand default premiums from the employer. The PBGC protects the employees from the risk of default but does not charge employers a market-based premium for its coverage. Thus, employers have a credit incentive to keep their plans underfunded and not take on the burdensome default premiums imposed by outside creditors.

[c] ERISA's Implicit Regulation of the Pension Discount Rate

I just noted that outside creditors demand default premiums from risky employers, thus driving up the costs of borrowing from what employees would demand. However, we do not even need to worry about employee demands for funding and default premiums. It will be sufficient to show that risky employers will find it expensive to discharge their previously incurred pension obligations by borrowing from outside creditors.

Assume that an employer can borrow only at 10% interest rate, while the risk-free rate is 5%. Also, assume that an employer must make a pension payment (currently unfunded) of \$1,050,000 in one year. To discharge its obligation, the employer must obtain \$1,000,000 and invests the funds for one year at the 5% risk-free rate. Now, if the employer invests in a higher risk, higher return instrument (e.g., at 10%), it has not really discharged its pension obligations, because such investments must carry some risk of default. So, the employer is forced to invest in the risk-free instrument if it wants to discharge its obligation right now. Thus, if it borrows to obtain \$1,000,000 today, it will need to repay \$1,100,000 in one year. Thus, the employer faces a choice between two options. It could simply wait and pay the \$1,050,000 to its employees in one year. Or, it could borrow funds for the plan, taking on the obligation to pay \$1,100,000 to its creditor in one year. Obviously, the employer is better off by simply waiting out the one year and paying its employees then, rather than borrowing to fund the plan.

If pension debt were ordinary debt, then the employer may well be able to buy back the debt using its own 10% rate cost of borrowing. An obligation of \$1,050,000 in one year discounted using a 10% rate results in a current payment

of \$954,545.⁸² Even if the employee were willing to accept this lower payment, ERISA would not allow it. ERISA prohibits the assignment or alienation of pension benefits.⁸³ An employer could, however, discharge its pension obligations piecemeal by offering lump-sum distributions. ERISA does allow pension plans to pay benefits in lump-sum distributions before an employee ends employment.⁸⁴ Such options are increasingly common, especially in cash balance plans.⁸⁵ The yield used to discount the lump-sum payment is, however, regulated. It is currently the rate on 30-year Treasury securities,⁸⁶ but PPA 2006 allows employers to transition into a higher (and thus cheaper) corporate-bond rate.⁸⁷ The corporate bond rate, while higher than the risk-free rate, will still be lower than the borrowing costs of many employers.

A final way for an employer to discharge its pension obligations is to terminate the plan. Participants typically receive either lump-sum distributions or annuity contracts purchased by the plan from an insurance company. The regulation of lump-sum distributions has already been discussed. The discount rates used to purchase annuities are more complex to address, as they include administrative fees and the like. However, the yields published by the PBGC to value annuities are typically equal to or lower than the long-term risk-free rate.⁸⁸

When retiring ordinary debt, firms usually get to use their own costs of borrowing. When retiring pension debt, however, employers must use a discount rate that may be much lower (and more expensive) than their own costs of borrowing. Depending on the method by which the pension debt is retired, the

⁸² $\$1,050,000 \div (1 + 0.10)$.

⁸³ ERISA § 206(d)(1); I.R.C. § 401(a)(13).

⁸⁴ Pension payments before termination are generally prohibited. See Treas. Reg. § 1.401-1(a)(2)(i).

⁸⁵ See GAO Report, *supra* note 74, at 11 (describing increasing prevalence of lump-sum distributions from defined benefit plans).

⁸⁶ See Treas. Reg. § 1.417(e)-1(d)(3)(i). Mortality assumptions are regulated as well. See Treas. Reg. § 1.417(e)-1(d)(2).

⁸⁷ PPA 2006 § 302(b).

⁸⁸ The IRS reported rate of interest on 30-year Treasury securities for November 2005 is 4.73 percent. Notice 2005-96, 2005-52 IRB 1209 (Dec. 15, 2005). The PBGC interest rates for valuing annuity benefits for the month of November 2005 are 3.70% for the first 20 years following the date of plan termination and 4.75% thereafter. PBGC Interest Rate Update (Oct. 15, 2005) <http://www.pbgc.gov/practitioners/interest-rates/content/Month2005/ir15126.html>. Cf. also GAO Report 04-90, *Single-Employer Pension Insurance Program Faces Significant Long-Term Risks* at 49-52 (comparing termination interest rates with 30-year Treasury interest rates).

pension obligation might be valued by the risk-free rate, high-quality corporate-bond yields, or commercial annuity rates. Thus, many employers will find it expensive to borrow funds externally (at a high interest rate) and then use those funds to discharge pension obligations (discounted at a low interest rate). We now have two competing effects driving the funding decision. Employers want to fund to get the tax benefits of debt, but employers do not want to fund because they will lose the credit benefits of the PBGC guaranty.

[4] Comparing the Tax and Credit Effects

I previously described the tax incentive for funding a plan and the credit incentive for not funding a plan. Now, I will try to describe how an employer would reconcile these incentives.⁸⁹ Ultimately, the decision turns on the cost of borrowing when an employer funds versus when an employer does not fund. When an employer does fund, it (by my assumption) borrows to obtain the funds. It pays a default premium but gets a tax advantage. When an employer does not fund, it borrows from its employees. It pays no default premium but gets no tax advantage. Thus, profitable firms will be more likely to fund, because they are subject to higher taxes and lower default premiums. For them, the benefit of funding is high, and the cost is low. In contrast, unprofitable firms will be less likely to fund, because they are subject to lower taxes and higher default premiums. For them, the benefit of funding is low, and the cost is high.

Unlike traditional creditors, employees who loan money to their employers through their plans face a reduced risk of default. To simplify the analysis, I have assumed that employers can borrow from their employees at the risk-free rate using an unfunded pension plan. This borrowing receives no tax benefits. I will also assume that employers can borrow from third parties at a market rate and use the borrowed funds to discharge its pension obligations. Since this outside debt gets a tax preference, its cost must be determined after taxes. Ultimately, the funding decision comes down to a comparison between the risk-free rate and the after-tax cost of borrowing funds.

Suppose that a firm must pay \$1,050,000 in pension benefits in one year. The risk-free rate is 5%. The firm is subject to an effective marginal tax rate of 35%, and it can borrow funds at a before-tax market rate of 10%. The after-tax market rate is therefore 6.5%. The firm should not borrow in order to fund its plan,

⁸⁹ Cf. James L. Bicksler & Andrew H. Chen, The Integration of Insurance and Taxes in Corporate Pension Strategy, 40 J. Fin. 943 (1985) (identifying the “tax effect” and the “insurance effect” as the two main determinants of a corporation’s funding strategy).

because the after-tax market rate of 6.5% is higher than the risk-free rate of 5%. Computationally, we can compare the two choices. The firm can contribute \$1,000,000 today, obtaining the funds by borrowing \$650,000 and getting a tax deduction worth \$350,000. In one year, it will need to repay a net of \$692,250 (after accounting for the income tax deduction on its interest payment).⁹⁰ If the firm simply waits, its cost in one year is \$682,500 (after accounting for the income tax deduction on the \$1,050,000 payment).

The superiority of not funding in this example can be explained by comparing the after-tax market rate (6.5%) with the risk-free rate (5%). When the two are equal, the firm is indifferent to paying today or in the future. If the after-tax market rate is lower, the firm would want to fund its plan currently. For example, if the firm could borrow at a nominal rate of 7%, its after-tax market rate is 4.55%—lower than the risk free rate. In this case, the balance of the competing incentives would tip in favor of funding the plan. This account supports the common-sense view that strong firms fund (because of high taxes and low borrowing costs) and weak firms do not (because of low taxes and high borrowing costs). Empirical research has confirmed a relationship between higher pension deficits and lower credit ratings.⁹¹

§ 10.04 LEMON SOCIALISM AND THE SUBSIDIZED GUARANTY

Previously, I tried to show that the PBGC guaranty gives employers access to cheap financing for their labor costs. Employers willing to give up the tax benefits of debt can borrow from their employees at low interest rates. Such employers can remove themselves from the discipline of capital markets. By subsidizing the borrowing of financially weak firms, the PBGC guaranty encourages gambling and risk taking that benefit shareholders at the expense of the PBGC. Thus, the PBGC guaranty can be seen as a form of “lemon socialism”, by which the weakest firms are propped up by the government and encouraged to waste their resources.

Criticisms of the PBGC guaranty often take the form of a claim of moral-hazard problems. Charges of moral hazard, however, tend to reify the purely financial claims that pensions represent. One example where reification is proper is moral hazard and casualty insurance. If someone’s house is destroyed by fire, the

⁹⁰ $\$650,000 \times (1 + 0.065)$.

⁹¹ See Watson Wyatt Insider, *Cashing In: Do Aggressive Funding Policies Lead to Higher Credit Ratings?* <<http://www.watsonwyatt.com/us/pubs/insider/showarticle.asp?ArticleID=15305>>; GAO, *Recent Experiences of Large Defined Benefit Plans Illustrate Weaknesses in Funding Rules* (Report 05-294) at 4 (May 2005).

destruction is a true loss of wealth to society. Insuring against that loss may result in the destruction of houses that could have been avoided by exercise of ordinary care. The failure of a pension plan, being a financial event, does not present such a clear social cost. The PBGC guaranty program potentially allocates the financial cost of that failure to other parties (e.g., stronger employers and perhaps eventually the taxpayers) rather than to the participants themselves. Perhaps the participants would have demanded greater funding, security, etc., if they were exposed to the loss. Even assuming that the firm fully complied with these demands, it would have simply shifted the loss elsewhere (e.g., to other creditors of the firm). Unlike the homeowner, the participants are not guarding society's store of wealth. Instead, they are guarding their claim against the firm.

As noted before, the moral-hazard problem is that the insured employee has no incentive to protect his pension. Absent the guaranty, the employee might demand better funding or more conservative investment of what funding there is.⁹² A commercial lender would demand covenants with respect to other business decisions of the employer, and it is conceivable that the employee would as well.⁹³ An insured employee has no incentive to take these precautions and allows his pension to be "destroyed". Yet, it is hard to see the immediate loss to society. Nothing representing real wealth, like a car, has been destroyed. The employee's claim is a purely financial one. Any loss, therefore, must be of a financial nature—namely the misallocation of scarce resources to capital projects.

The economic cost of the PBGC guaranty can be explored by inquiring into the consequences of a hypothetical, federal guaranty of ordinary corporate debt. Suppose that the risk-free rate of interest is 5% and that investors are risk neutral. Risk neutrality does not imply that firms can borrow at the risk-free rate. Corporate shareholders enjoy limited liability, and creditors would need more than 5% interest to offset the risk that they would not be repaid.⁹⁴ For example, a risk-neutral creditor that loans a corporation \$1 million for one year needs to have an expected payment of \$1,050,000 in one year. Suppose that only two events can occur—either the creditor is paid in full or the creditor receives nothing. The interest rate that the creditor will demand depends on the likelihood of full

⁹² Cf. Keating, *supra* note 73, at 76–77 (noting the diminished ability of the PBGC to curtail risk-taking when compared with private lenders).

⁹³ Cf. Posner, *supra* note 72, at

⁹⁴ Even without formal limits on liability, there would still be a risk of default. Without formal limits, borrowing equity holders would probably not engage in very much gamesmanship. If they could not repay the debt, they would face personal bankruptcy or worse (debtors' prison or broken kneecaps).

repayment. For example, if the likelihood is 50%, then the creditor will require an interest rate of 110%, giving the creditor a 50% chance of receiving \$2.1 million in one year. Thus, the expected payment in one year is \$1,050,000.

Chart #1

| Risk Neutral Lender Demanding Expected 5% Return (w/o Guaranty) | | |
|-----------------------------------------------------------------|--------------------------|---------------|
| Year 1 | | (\$1,000,000) |
| Year 2 | 50% Chance | -\$0- |
| | 50% Chance | \$2,100,000 |
| | Expected Value in Year 2 | \$1,050,000 |

If the federal government were to guaranty the corporation's debt, the creditor would demand only 5%, regardless of the risk of default. Guarantying this debt is not a wise policy, even if we were to ignore the problem of funding the guaranty through higher taxes or government borrowing. The guaranty allows the corporation to take on capital projects with expected payoffs of under 5%. The corporation may well take on manifestly wasteful projects with expected *negative* payoffs.

For example, suppose that investors are considering the creation of a corporation for a single project. The project requires a \$1 million investment, has a 50% chance of complete loss of the \$1 million and a 50% chance of a return of the \$1 million plus an additional \$900,000.

Chart #2

| Cash Flows from Project | | |
|-------------------------|--------------------------|---------------|
| Year 1 | | (\$1,000,000) |
| Year 2 | 50% Chance | -\$0- |
| | 50% Chance | \$1,900,000 |
| | Expected Value in Year 2 | \$950,000 |

No firm would actually undertake the project if it had to raise all of the funds from the market. From an economic point of view, it is good that firms do not, because it is a wasteful project. To see how market forces impose the discipline to prevent the funding of this project, note the calculus of the creditors. Faced with a 50%

chance of nonpayment, creditors would demand 110% interest. This would require a payment of \$2.1 million if the project succeeded, which is more than the \$1.9 million the project would actually yield, especially since this project has a negative payoff. Thus, one should conclude that it is not one worth undertaking, and market forces will keep it from being started.

In contrast, suppose the federal government guarantied the debt. As a result, the corporation would need to pay only 5% interest, and the shareholders would take on the project. The creditors receive a certain \$1.05 million in one year. The shareholders receive the following:

Chart #3

| Cash Flows to Shareholders with Federal Guaranty | | |
|--------------------------------------------------|--------------------------|-----------|
| Year 1 | | -\$0- |
| Year 2 | 50% Chance | -\$0- |
| | 50% Chance | \$850,000 |
| | Expected Value in Year 2 | \$425,000 |

By making the negative yield project profitable, the federal guaranty has distorted investment decisions. This is simply a variation of the well-known incentive that limited liability equity holders have to shift risk to their creditors.⁹⁵

Creditors usually have a keen interest in pricing risk and curtailing their debtors' incentive to shift risk to creditors. These tasks are large parts of what capital markets do, and we have reason to suppose the markets do these tasks quite well. We should be skeptical about how well the PBGC could price and curtail risk, even if it had the authority to do so. Recall that every employer pays \$30 per year per participant, regardless of risk. Plans also pay an additional, yet inadequate, variable-rate premium equal to 0.9% of the "unfunded vested benefits" of the plan.⁹⁶

The PBGC's ability to curtail risk is similarly weak. Private lenders often demand collateral. Yet, the ERISA funding mandate does not require funding of benefits as they economically accrue, and the rules are subject to manipulation.

⁹⁵ See Frank H. Easterbrook & Daniel R. Fischel, *The Economic Structure of Corporate Law* 50 (1991).

⁹⁶ See ERISA § 4006(a)(3)(A)(i), (E).

Private lenders also demand covenants, which prevent actions that prejudice creditors, such as extraordinary dividends and additional leveraging.⁹⁷

ERISA does, however, constrain the ability of employers to take on wasteful risks using plan assets. Anyone responsible for plan investments is an ERISA fiduciary.⁹⁸ The ERISA fiduciary must discharge its investment duties pursuant to ERISA's exclusive-benefit rule⁹⁹ and ERISA's duties of prudence¹⁰⁰ and asset diversification.¹⁰¹ ERISA also thwarts plans from directly investing in the employer's business activities. ERISA generally prohibits plans from engaging in "prohibited transactions"—investments in the economic activities of the employer and other parties with a close relationship to the plan.¹⁰² The riskiness and wastefulness of such investments would be particularly difficult to measure. ERISA imposes a per se ban on prohibited transactions, unless the transaction is expressly exempted from prohibition. A notable exception allows a plan to hold 10% of its assets in "qualifying employer securities"¹⁰³ and "qualifying employer real property".¹⁰⁴ Qualifying employer real property is real property that the plan owns and leases back to the employer for a fair market rental. Such an investment is unlikely to be of the risky, wasteful type that needs to be curtailed. Qualifying employer securities are employer stock or marketable debt obligations of the employer. Such investments are, in reality, a partial waiver from the funding requirement. An unfunded plan represents a debt claim against the employer. This claim is hardly more secure if it is funded with the debt or equity of the employer itself.

However, ERISA does very little to curtail wasteful risk taking with respect to non-plan assets. The closest is its reportable-event system. Reportable events are events that potentially increase or trigger PBGC's assumption of plan liabili-

⁹⁷ See Fabozzi & Fabozzi, *supra* note 76, at 1001.

⁹⁸ See ERISA § 3(21)(A) ("[A] person is a fiduciary with respect to a plan to the extent (i) he exercises . . . any authority or control respecting management of plan assets, [or] (ii) he renders investment advice for a fee or other compensation, direct or indirect, with respect to any moneys or other property of such plan . . .").

⁹⁹ ERISA § 404(a)(1)(A).

¹⁰⁰ ERISA § 404(a)(1)(B).

¹⁰¹ ERISA § 404(a)(1)(C).

¹⁰² See generally ERISA § 406 (listing "prohibited transactions" in which the plan and any "party in interest" may not engage); see also ERISA § 3(14) (defining "party in interest" to include the employer, the employer's shareholders, and other enumerated related parties).

¹⁰³ ERISA § 407(d)(5).

¹⁰⁴ ERISA § 407(d)(4).

ties,¹⁰⁵ triggering at most an obligation to report the event to the PBGC, before or after the event depending on the circumstances.¹⁰⁶

§ 10.05 CONCLUSION

The presentation and examples of this paper are admittedly stylized and somewhat artificial. When dealing with such complex creatures as pension plans, dramatic simplification is required in order to gain understanding about core issues. Nevertheless, I hope I have shed light on why pension funding matters beyond the obvious reasons of minimizing burdens that would otherwise be placed on the PBGC, taxpayers, and employees. The not-so obvious reason is that pensions are essentially debt yet removed from the usual (and beneficial) restraints of capital markets. Financially weak firms are not forced to internalize the full cost of their borrowings from employees because the PBGC guarantees the borrowings at below-market rates. Thus, the PBGC guaranty is a form of lemon socialism, helping to maintain weak firms at the expense of strong firms and—perhaps one day—at the expense of taxpayers.

¹⁰⁵ McGill et al., *supra* note 7, at 230.

¹⁰⁶ Compare PBGC Treas. Reg. § 4043.20 (describing post-event filing obligations) with PBGC Treas. Reg. § 4043.61 (describing advance reporting obligations).