Policymakers should try to strike a balance between imposing excessive restrictions on reversions and allowing excessive withdrawals, either of which could adversely affect the U.S. pension system.

Pension Plan “Surplus”: Revert, Transfer, or Hold?

During the 1980s employers recaptured more than $19 billion through the reversion of excess assets from terminated defined benefit pension plans, affecting about 1.9 million plan participants. This represented about 3 percent of plan assets and 7 percent of plan participants. Reversions have dropped off significantly since their peak in 1985: in 1987 total reversions were $1.92 billion, or 0.3 percent of plan assets and 1.01 percent of estimated excess assets.

Most terminated plans are replaced by a successor plan, usually a defined benefit plan. However, in the first nine months of 1988, defined contribution replacement plans were more prevalent than in earlier years.

Assets recovered in reversions from terminated pension plans can be used to reinvest in plants and equipment, enhance competitiveness, and retain or create jobs. Nevertheless, reversions are perceived by many to have a deleterious effect on retirement security. Opponents of reversions contend that contributions to a pension plan represent deferred compensation and belong to participants. From an employer perspective, however, it is argued that since plan sponsors bear the risks associated with investing plan assets, they should have access to gains in the event of a termination, and that restricting reversions may adversely affect funding, discourage defined benefit plan sponsorship, and penalize companies that sponsor and adequately fund defined benefit plans.

The government also has a stake in asset reversions: there is a potential for tax arbitrage when employers who overfund a plan in years of high profitability later terminate the plan and revert the excess assets when the effective tax rate is reduced. In addition, the replacement of overfunded defined benefit plans by similar plans with reduced security cushions increases the Pension Benefit Guaranty Corporation’s vulnerability. Another public policy concern is the influence of plan reversions on takeover strategy in the financial markets.

Faced with the diversity of objectives represented by these competing interests, policymakers should try to strike a balance between imposing excessive restrictions on reversions and allowing excessive withdrawals, either of which could adversely affect the U.S. pension system.
Introduction

The Employee Retirement Income Security Act of 1974 (ERISA) generally prohibits withdrawals from ongoing pension plans, except to pay benefits. However, employers may terminate their plans and recapture excess assets beyond the amount needed to fulfill current obligations. Following termination, there are no restrictions on employers’ use of recaptured (excess) assets. Recent Department of Labor (DOL) projections estimate that single-employer defined benefit pension plans held approximately $230 billion in excess assets at the end of 1987. Between January 1, 1980, and September 30, 1988, 1,827 reversions in excess of $1 million occurred, removing more than $19 billion in excess assets from these plans and affecting about 1.9 million participants. This represented about 3 percent of plan assets and 7 percent of plan participants. Reversions have dropped off significantly since their peak in 1985: in 1987 total reversions were $1.92 billion, or 0.3 percent of plan assets and 1.01 percent of estimated excess assets.

Despite the fact that reversion activity has declined significantly since its peak in 1985 (chart 1), interest in the impact of reversions on plan participants continues. In August 1988, NBC-TV broadcast an hour-long documentary, “The Pension Cookie Jar,” which focused on retirees and employees of companies in which plan terminations had resulted in reversions. Many interviewees believed that the companies had taken their pension money, and others felt that they would have received increases for inflation had the plans not been terminated. They also expressed concern about the security of the annuities that the companies purchased to pay benefits following the terminations.

Terminations for reversions continue to have the attention of the U.S. Congress. Although the statutory treatment of reversions was substantially modified by the Tax Reform Act of 1986 and the Omnibus Budget Reconciliation Act of 1987 (OBRA ‘87), some members of Congress still find the legal framework undesirable. In 1988 a moratorium on terminations was proposed that would have made it a fiduciary violation for a plan trustee to distribute a terminated plan’s surplus assets to an employer. Trustees would have been required to keep assets in a taxable trust until October 1989. The proposal was intended to provide Congress with an opportunity to develop permanent rules to restrict employers’ access to terminated plans’ surplus assets.

Although some complained that the moratorium would require pension sponsors to pay taxes on funds to which they did not have access, the moratorium would have ensured that the new funding rules introduced by OBRA ‘87 would not inadvertently accelerate reversion activity. The new OBRA ‘87 rules, effective for employer taxable years beginning after December 31, 1987, drastically reduce the maximum amount of deductible pension contributions for some plans and restrict employers’ flexibility in meeting minimum and maximum funding limits. Employers with young workforces will not have the cash flow flexibility to fund smoothly but instead must make larger pension contributions as their workforces and plans mature. The cash flow management effect may persuade some of these employers to terminate their plans.
The moratorium provisions appeared in bills introduced in 1988 by Rep. William Clay (D-MO) and Sen. Howard Metzenbaum (D-OH). Metzenbaum stated that Congress should temporarily suspend employers’ ability to dip into their pension plans as an easy source of capital, before millions of workers and retirees begin to see their future security compromised by companies seeking quick cash. Clay emphasized that the bill was only a first step in confronting this problem, and that the use of pension plans as corporate piggy banks to finance takeovers or other corporate priorities is a serious threat to benefit security.

The moratorium proposal, which was included in H.R. 4783, an appropriations bill for the departments of Labor, Health and Human Services, and Education, was reported favorably by the Senate Appropriations Committee in June 1988. It was dropped the next month in exchange for a separate nonbinding resolution calling for an increase in the excise tax on reversions from 10 percent to 60 percent. Combined with the 34 percent corporate income tax, this provision would have effectively eliminated any recovery of excess assets. In October 1988, the proposal was modified to increase the tax to 15 percent and included in the Technical and Miscellaneous Revenue Act of 1988 (H.R. 4333, P.L. 100-647). Concurrently, the Internal Revenue Service (IRS) was directed by the U.S. Department of the Treasury to delay until May 1, 1989, the issuance of determination letters for terminating overfunded defined benefit plans in cases in which the employer would recover all or a portion of the excess assets. However, since the processing of applications under existing procedures requires several months, DOL officials suggested the postponement would cause only a minimal delay in the issuance of letters.

This Issue Brief describes the nature of the reversion phenomenon, focusing on technical requirements and basic patterns of activity in this area. It briefly analyzes accounting requirements for plan sponsors and assesses their impact on recent trends.

Various reasons for a reversion are then explored, with an emphasis on emerging trends and future implications. The continuing debate over asset reversions is examined by describing issues involved in fiduciary responsibilities, tax preferences, employees’ entitlement, the role of collective bargaining, and the origin of excess assets.

The Issue Brief closes with a review of important public policy implications relating to the economic ownership of pension assets and the magnitude of worker losses suffered in a termination. Empirical findings on the impact of reversions on pension plan funding levels are reviewed and the reversion excise tax is analyzed.

Recapturing Assets

In general, the funds in a qualified pension plan may not be used for purposes other than the exclusive benefit of employees or their beneficiaries prior to the termination of the plan and the satisfaction of all liabilities. However, with the exception of pension plan assets attributable to employee contributions, employers may recapture any residual assets of a terminated single-employer defined benefit pension plan if the following conditions are satisfied:

- all liabilities of the plan to participants and their beneficiaries have been satisfied;
- the distribution does not contravene any provision of law; and
- the plan provides for such a distribution in these circumstances.

Before OBRA ‘87, it was legally permissible for a plan sponsor to amend a pension plan to permit reversion immediately before its termination. In a number of situations, it appeared that a pension plan had at one time stated that all excess assets would revert to plan participants on termination, but the plan had been modified by the sponsor before the termination to allow recapture of the excess assets. Two of the most publicized instances of this practice, involving the Great Atlantic & Pacific (A&P) Tea Company and Time, Inc., occurred in the early 1980s.

The timing of the amendment, however, was extremely important. A plan sponsor was not allowed to retroactively amend its terminated plan to provide recapture of plan assets. See Audio Fidelity Corp. v. Pension Benefit Guaranty Corp., 624 F.2d 513 (4th Cir. 1980).
Under a plan termination settlement upheld by the Third Circuit U.S. Court of Appeals, A&P recaptured $275 million in surplus assets. In 1973, a clause was inserted into the plan providing that all excess assets would revert to participants on plan termination. This was done because the company feared it would be taken over by Gulf & Western, which would terminate the pension plan and recoup the excess assets to defray the costs of acquisition. The clause was removed immediately before the 1981 termination announcement (Gillespie, 1984a).

Another appellate court decision upheld the reversion of more than $4 million in excess pension assets from the defunct Washington Star newspaper to Time, Inc. A paragraph in the Washington Star pension trust agreement provided that in the case of a plan termination, “no part of the trust fund shall ever revert to the company or inure to its benefit prior to the satisfaction of all liabilities to employees under the plan.” However, immediately prior to the closing of the newspaper in 1981, an amendment was added that cleared the way for a reversion to the company by providing that “any assets remaining in the trust fund after the full satisfaction of all liabilities of the plan to participants and the beneficiaries shall be returned to the employer” (Gillespie, 1984b).

Within limits, employer contributions to qualified pension plans are tax deductible. The excess assets recouped by the sponsor have always been subject to federal income tax (barring any tax loss carryforwards). However, the Tax Reform Act of 1986 imposed an additional excise tax of 10 percent on reversions from qualified plans. (As mentioned previously, this tax was recently increased to 15 percent.) By exempting sponsors from taxation on distributions of asset reversions to employees (or their beneficiaries), the act provides an incentive for sponsors to share the money. An exception to the tax also existed for certain reversions transferred from a qualified plan to an employee stock ownership plan (ESOP) prior to January 1, 1989.

Types of Reversions

Assets from overfunded defined benefit pension plans can be recaptured in the following four basic ways.

Termination of Existing Defined Benefit Pension Plan with No Successor Plan—This is the simplest of the four methods. The employer simply buys annuities and/or provides lump-sum distributions to satisfy the plan liabilities and then recaptures any residual assets. This effective before the end of the fifth calendar year after such provision or amendment was adopted. A distribution to the employer will not satisfy this rule if the plan has been in effect fewer than five years and originally provided for such a distribution. OBRA '87 also modified the manner in which surplus pension assets from a contributory plan must be shared with participants (or their beneficiaries).2

Within limits, employer contributions to qualified pension plans are tax deductible. The excess assets recouped by the sponsor have always been subject to federal income tax (barring any tax loss carryforwards, or net operating losses carried forward to reduce taxable income). However, the Tax Reform Act of 1986 imposed an additional excise tax of 10 percent on reversions from qualified plans. (As mentioned previously, this tax was recently increased to 15 percent.) By exempting sponsors from taxation on distributions of asset reversions to employees (or their beneficiaries), the act provides an incentive for sponsors to share the money. An exception to the tax also existed for certain reversions transferred from a qualified plan to an employee stock ownership plan (ESOP) prior to January 1, 1989.

The rules governing this type of transaction were substantially modified by OBRA '87. With respect to plan provisions or amendments providing for a reversion adopted after December 17, 1988, plan provisions or amendments that permit reversions, or that specify the amount of money or other assets that may be distributed to the employer, generally may not become

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2 Technically, the portion attributable to employee contributions is determined by multiplying the market value of total remaining assets by a fraction. The numerator is the present value of all portions of participants’ accrued benefits derived from their mandatory contributions. The denominator is the present value of all benefits for which assets are allocated under ERISA section 4044(a)(2)–(6). This rule applies to anyone who is, as of the termination date, either a participant under the plan or an individual who received, during the three-year period ending with the termination date, a plan distribution of his or her entire nonforfeitable benefit in the form of either a single lump-sum distribution (in accordance with ERISA section 203(e)) or irrevocable commitments that the plan purchased from an insurer to provide the nonforfeitable benefit.
method is most commonly used when an original plan is terminated due to an employer’s liquidation, closing of a subsidiary or plant, or adverse business conditions.

Termination of Existing Defined Benefit Plan Followed by Establishment of Defined Contribution Plan for Same Group of Employees—The effect of this type of reversion on individual plan participants depends on the benefit formulas used by the two plans. This termination process may be detrimental to older workers, however, unless special compensatory provisions are made, especially when a defined benefit plan uses a final average benefit formula.3 These workers will lose future benefit accruals, and the benefits they have already earned at the time of the termination will, in all likelihood, be based on a lower average salary. Some firms have attempted to reduce the impact of inflation on retirees by purchasing annuities that incorporate an automatic increase in payment for a limited period.

The impact of a switch from a defined benefit to a defined contribution plan on active participants depends on the relative generosity of the terminated defined benefit and the successor defined contribution plans. Some firms have instituted cash or deferred 401(k) arrangements that are supported solely by employee contributions. At the other extreme, some firms have committed themselves to a contribution level for active employees that exceeds the previous amount contributed under the defined benefit plan.

Termination of Existing Defined Benefit Plan Followed by Reestablishment of New Defined Benefit Plan for Same Group of Employees—In this case, the employer is able to recover the residual assets after satisfying existing liabilities. Unlike the previously mentioned method, however, a successor defined benefit plan may grant past service credit for periods covered under the terminated plan and may provide benefits equivalent to those that would have accrued had the prior plan continued.4

Spin-Off Form of Termination—Under this method, typically the active participants (and their liabilities) are spun off from the original defined benefit plan. Surplus assets are then transferred from the original plan to the new plan in an amount at least equal to active participants’ liabilities. The original plan, which at this point typically covers only retired and terminated employees, is then terminated and annuities are purchased to satisfy the plan’s obligations.

1984 Guidelines

In 1984, the Pension Benefit Guaranty Corporation (PBGC), the U.S. Treasury Department, and DOL issued joint implementation guidelines on asset reversions that are still in effect. Before these guidelines were published, employers faced an uncertain legal environment if they chose to establish new defined benefit replacement plans in spin-offs or termination/reestablishments. The guidelines include the following provisions.

- An employer may not recover any surplus assets until it has fully vested all participants’ benefits and has purchased and distributed annuity contracts.
- If employees are offered lump-sum payments in lieu of future pensions, the amount of the lump-sum distribution must fairly reflect the value of the pension to the individual.
- Spin-off/terminations for reversion will not be permitted unless the employees receive timely notice of the event and the following conditions are satisfied: (1) the benefits of all employees must be fully vested and nonforfeitable as of the date of termination (this also applies to the benefits covered by the ongoing plan); and (2) all benefits accrued as of the date of termination in the ongoing plans must be provided for by the purchase of annuity contracts.

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3 A final average benefit formula bases plan benefits on an average of the employee’s earnings during a brief period of time that is near the normal retirement date (or plan termination date, if earlier). A typical final average benefit formula would base benefits on the employee’s earnings averaged over the last three or five years of employment, or over the three or five consecutive years in the 10-year period immediately prior to retirement (or termination) during which the employee’s earnings are the highest.

4 The successor plan is exempt from the five-year phase-in of PBGC benefit guarantees that apply to newly established plans. PBGC benefit guarantees are usually phased in at the rate of 20 percent per year until a plan or benefit is fully covered (ERISA section 4022(b)(1)).
In the case of a spin-off/termination and a termination/reestablishment, reversions are not permitted unless the funding methods for the ongoing plans provide for faster amortization of unfunded liabilities. The changed amortization periods and the required IRS approval are apparently intended to prevent employers from stretching out funding periods and consequently reducing the minimum funding standard. This requirement is intended to counter threats to benefit security resulting from reduced funding levels following reversion.

An employer may not engage in either a termination/reestablishment or a spin-off/termination transaction more frequently than once every 15 years.

5 The modification must be in accordance with Internal Revenue Code (IRC) section 412(b)(4). Details of the modification are provided in PBGC news release 84-23.

### Empirical Evidence

The relative importance of each of these types of reversions since 1984 can be illustrated in terms of participants and expected reversion amounts in charts 2 and 3. Chart 2 demonstrates that, on a participant-weighted basis, more than one-half of all reversions in excess of $1 million involved defined benefit replacement plans for the active participants until 1987. In 1988, however, the likelihood that a participant involved in a reversion of this size would no longer continue in a defined benefit plan was over 57 percent.

6 The primary source of data is IRS Form 5310, Notice of Intent to Terminate. The actual reversion received often differs from those predicted at the time of the filing.

7 There appears to be some confusion concerning the accuracy of the spin-off numbers before 1986 (U.S. General Accounting Office, 1986b).
The slight increase in the defined benefit successor plan percentage in 1985 may be attributable in part to the pent-up demand for this type of reversion prior to the 1984 guidelines. It is quite likely that sponsors desiring to retain the defined benefit plan structure but at the same time access the excess pension assets would have viewed the May 1984 guidelines as the necessary catalyst to begin the termination process, resulting in a termination sometime during the 1985 calendar year.

Chart 3 shows that reversions with defined benefit successor plans accounted for more than 80 percent of total reversions until 1987, at which point the proportion fell to below 61 percent before increasing to 70 percent for the first nine months of 1988. There are several possible explanations for this decrease.

First, as explained in the next section on accounting requirements, sponsors who otherwise would have terminated their overfunded pension plans solely to improve their corporate financial statement no longer needed to terminate the pension plan after 1986 to accomplish this goal.

Second, the PBGC immediate annuity rate declined from 9.0 percent at the end of 1985 to 7.5 percent at the end of 1986. This decrease in the interest rate caused a significant increase in the present value of pension liabilities, creating the potential for a decrease in excess pension assets unless investment income offset this influence. Thus, sponsors considering reversions solely for the cash flow impact on the firm would have had fewer excess assets to recover in 1987 and less incentive to incur the administrative costs and potential for employee misunderstanding.

Finally, the impact of the October 1987 stock market decline obviously reduced the amount of excess assets in the fourth quarter of 1987. Findings from the Employee Benefit Research Institute (EBRI)/Federal Reserve Board pension investment data base indicate that private trusteed pension funds suffered net losses of $135 billion, or 10.4 percent of total assets, during the fourth quarter of 1987 (EBRI, 1988d).

A logical presumption regarding spin-offs and termination/reestablishment activity is that the plan sponsor is satisfied with the relative advantages of a defined benefit plan but has a short-term need to recapture the excess assets for corporate use. Thus, one would expect to see this type of reversion primarily when the amount of excess assets is relatively large. Conversely, sponsors wanting to switch to defined contribution plans or to discontinue retirement benefits for their employees altogether would be expected to be relatively indifferent about the dollar amount of the reversion. PBGC figures confirm this theory (chart 4). Since 1985 the average recovery for reversions in excess of $1 million has been at least twice as large for plans that are succeeded by defined benefit plans as it is for those that are succeeded by either defined contribution plans or no plans.

However, the absolute amount of expected excess assets does not appear to be the only determinant of the type of successor plan in a reversion. Chart 5 gives the results of a 1986 U.S. General Accounting Office (GAO) survey of 432 plans involved in reversions in excess of $1 million between January 1, 1980, and June 30, 1985.

The survey indicated that plan sponsors that did not undergo a recent change in corporate structure (within three years of plan termination) were almost twice as likely, on a participant-weighted basis, to exclusively adopt a defined benefit successor plan as sponsors that had changed their corporate structure (U.S. GAO, 1986a). This was due primarily to the increased preference for either a defined contribution successor plan or a combination of a defined benefit and a defined contribution successor plan among sponsors whose corporate structure had changed. The relative magnitude of reversions that were not followed by successor plans was small regardless of whether or not the corporate structure changed (5 percent with a change versus 3 percent without).

When a union is involved, replacement plan decisions may be part of a collective bargaining process. Union members have a strong preference for a guaranteed level of retirement income and are more likely to receive a successor defined benefit plan than their nonunion counterparts (chart 5).

The percentage of terminated plans replaced by defined benefit plans increased significantly after the guidelines were issued. According to the GAO survey, officials of 29 terminated plans (representing more than 10 percent of all participants in the post-guidelines sample) said that their plans were replaced by defined benefit plans because of the guidelines. They said that the plans would not have been replaced at all or would have been replaced by defined contribution plans had the guidelines not been issued (GAO, 1986a).

**Accounting Requirements**

Under accounting practice prior to the mid-1980s, the impact of a reversion on a sponsor’s financial statement varied according to the type of successor plan that was chosen. If the benefit provisions of the new plan were substantially similar to those under the terminated plan, it was not considered appropriate to immediately recognize any gain or loss. Instead, the gain was generally spread over a 10- to 20-year period. However, the Financial Accounting Standards Board (FASB) had specifically approved the immediate recognition of the gain when a sponsor left the defined benefit system and sponsored a successor defined contribution plan or created no new plan. The sponsor had the right to recognize the resulting reversion as extraordinary income in the current year’s operation.8

Although accounting requirements for reversions with defined contribution successor plans have not changed (except that the gain generally should not be extraordinary), the adoption of FASB Statement No. 88, *Employers’ Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits*, has had

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a major impact on reversions with a successor defined benefit plan. Specifically, the gain is determined not by the amount of assets that revert to the company but by a complicated formula based on previously unrecognized gain or loss, gain or loss arising from the annuity purchase, and unamortized transition credit (Decker and Murray, 1988). Although many observers warned that the new accounting treatment for this type of reversion would accelerate the trend toward reversions, it soon became apparent that companies interested in a reversion solely for its impact on the income statement and/or balance sheet could attain the same objective by merely settling the obligation through the purchase of annuities without terminating the pension plan. Although sponsors would not realize the actual cash flow from the excess assets, they would avoid the various governmental filings and bypass the vesting of nonvested benefits (EBRI, 1988b).

During the first half of the 1980s, it was commonly thought that the increasing incidence of reversions was primarily a function of increased overfunding in the defined benefit plan universe.

Reasons for Reversions

During the first half of the 1980s, it was commonly thought that the increasing incidence of reversions was primarily a function of increased overfunding in the defined benefit plan universe. This overfunding is evident in surveys by private consulting firms. For example, in 1988, 83 percent of the plans with more than 1,000 active participants surveyed by The Wyatt Company had assets equal to 100 percent or more of the present value of accrued benefits. This percentage has increased dramatically since 1980, when it was only 31 percent (table 1). However, actual reversions were not constant as a proportion of the excess assets available (table 2). Indeed, the percentage of excess assets taken as reversions increased from 0.07 percent of total excess assets available in 1980 to a peak of 4.82 percent in 1985, then decreased to only 1.01 percent in 1987. Therefore, other explanations must be explored.

Table 1
Percentage of Plans with Assets Equal to 100 Percent or More of the Present Value of Accrued Benefits

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Plans</th>
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<tbody>
<tr>
<td>1980</td>
<td>31%</td>
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<tr>
<td>1981</td>
<td>45%</td>
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<tr>
<td>1982</td>
<td>55%</td>
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<td>1983</td>
<td>64%</td>
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<td>1984</td>
<td>73%</td>
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<tr>
<td>1985</td>
<td>78%</td>
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<tr>
<td>1986</td>
<td>79%</td>
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<tr>
<td>1987</td>
<td>84%</td>
</tr>
<tr>
<td>1988</td>
<td>83%</td>
</tr>
</tbody>
</table>


The estimate of excess assets in table 2 represents year-end values and assumes that the funding ratio distributions in the Wyatt study are representative of the entire single-employer defined benefit private trusteed fund universe. The asset values exclude private insured assets ($460 billion in 1987) to assure consistency between the funding distributions and the asset levels. Based on preliminary evidence from IRS Form 5500 filings, it appears that most reversions involve noninsured plans. Although this suggests only a minor upward bias in the measure of the percentage of assets taken as reversions, the calculation of excess assets ($190 billion in 1987) would be expected to be significantly smaller than the DOL estimates ($230 billion in 1987), which do not exclude insured assets.

Table 2
Percentage of Plans with Assets Equal to 100 Percent or More of the Present Value of Accrued Benefits

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<td>1983</td>
<td>64%</td>
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<td>1984</td>
<td>73%</td>
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<tr>
<td>1985</td>
<td>78%</td>
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<tr>
<td>1986</td>
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<tr>
<td>1987</td>
<td>84%</td>
</tr>
<tr>
<td>1988</td>
<td>83%</td>
</tr>
</tbody>
</table>

9 FASB Statement No. 88 was required to be adopted no later than fiscal years beginning after December 15, 1986. Special transition rules were introduced for reversions prior to adoption.

10 The estimate of excess assets in table 2 represents year-end values and assumes that the funding ratio distributions in the Wyatt study are representative of the entire single-employer defined benefit private trusteed fund universe. The asset values exclude private insured assets ($460 billion in 1987) to assure consistency between the funding distributions and the asset levels. Based on preliminary evidence from IRS Form 5500 filings, it appears that most reversions involve noninsured plans. Although this suggests only a minor upward bias in the measure of the percentage of assets taken as reversions, the calculation of excess assets ($190 billion in 1987) would be expected to be significantly smaller than the DOL estimates ($230 billion in 1987), which do not exclude insured assets.

Apparently, the only other statistic for excess assets is from GAO, which found $57 billion in excess assets in its 1983 sample of 66 percent of large plans (GAO, 1986b). Assuming a random sample, this would result in an estimate of $86 billion (c.f., $78 billion in table 2). However, plans were not included in the sample if the 1983 IRS Form 5500s had not been filed and processed by November 1985 or if the reports did not contain one or more of the data items needed to compute plan funded status. It would appear that both of these conditions are more likely for smaller plans. Thus, the $86 billion extrapolation appears to be artificially inflated.
### Table 2

| Year | Portion of Assets Recoverable on Termination | Assets in Single-Employer Defined Benefit Private Trusteed Plansb (in billions) | Actual Reversionsc (in billions) | Excess Assets Taken as Reversions (1) x (2) (in billions) | Percentage of Excess Assets Taken as Reversions (3) || (4) |
|------|---------------------------------------------|--------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------|-------------------------------------------------|------|
| 1980 | 6.4% | $353 | $0.02 | $22.59 | 0.07% |
| 1981 | 11.4 | 389 | 0.15 | 44.34 | 033 |
| 1982 | 14.5 | 399 | 0.40 | 57.85 | 0.69 |
| 1983 | 17.6 | 445 | 1.60 | 78.32 | 2.04 |
| 1984 | 23.1 | 457 | 3.55 | 105.56 | 3.31 |
| 1985 | 25.3 | 541 | 6.67 | 136.87 | 4.82 |
| 1986 | 27.4 | 602 | 4.29 | 164.94 | 2.54 |
| 1987 | 30.9 | 615 | 1.92 | 190.03 | 1.01 |

Source: Employee Benefit Research Institute calculations of private-sector and government data.

1. The portion of the assets available for reversion represents a weighted average of unity minus the inverse of the excess asset ratio. The excess asset ratio for a plan is the greater of zero or unity minus the termination funding ratio. Frequency distributions for the termination funding ratio are based on data from The Wyatt Company, 1985 Survey of Actuarial Assumptions and Funding: Pension Plans with 1,000 or More Active Participants and 1987 Survey of Actuarial Assumptions and Funding: Pension Plans with 1,000 or More Active Participants (Washington, DC: The Wyatt Company, 1986 and 1988, respectively).


**Trend toward Defined Contribution Plans**

Perhaps the most prevalent reason for terminating an overfunded defined benefit plan in the early part of the 1980s (particularly before the release of the 1984 guidelines) was the sponsor’s desire to switch to the defined contribution approach. The release of proposed regulations for cash or deferred arrangements in November 1981 provided a catalyst for many sponsors to reexamine the relative merits of defined benefit pension plans.11 More than 50 percent of a small group of randomly sampled companies involved in reversions in 1983 and 1984 established a defined contribution plan after terminating their overfunded defined benefit plan, and all of these companies established a cash or deferred 401(k) arrangement as part of the successor plan (VanDerhei, 1985).

Aggregate data from the universe of qualified pension plans add support to this notion, at least as it applies to the short term. Among primary pension plans with more than 100 active participants filing IRS Form 5500, the proportion that were defined contribution plans increased from 22.2 percent in 1977 to 28.7 percent in 1983 (table 3). The relative growth in terms of participants is even more impressive, increasing from 10.3 percent to 16.9 percent (table 3). However, the absolute number of defined benefit plans continued to grow during this period, and additional information would be required to confirm the connection between relative defined contribution plan growth and sponsors’ actions upon terminating a plan.

Employers’ reasons for changing from defined benefit to defined contribution plans include:

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11. Cash or deferred arrangements, commonly referred to as 401(k) plans, allow employees to contribute a portion of compensation (otherwise payable in cash) to a qualified defined contribution plan. Typically, the contribution is made as a pretax reduction in salary. Defined benefit plans are not able to benefit from this salary reduction feature. See VanDerhei (1988) for more detail.
Table 3
Distribution of Primary Pension Plans and Active Participants, by Plan Type, Selected Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Defined Benefit</th>
<th>Defined Contribution</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1977</td>
<td>77.2%</td>
<td>22.2%</td>
<td>0.6%</td>
</tr>
<tr>
<td>1980</td>
<td>74.8</td>
<td>24.4</td>
<td>0.8</td>
</tr>
<tr>
<td>1983</td>
<td>70.4</td>
<td>28.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Participants</td>
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<td>1983</td>
<td>81.9</td>
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</tr>
</tbody>
</table>


- the wish to adopt a cash or deferred arrangement;
- economic uncertainty for the defined benefit pension plan sponsor; the contribution stream may be heavily influenced by factors beyond the sponsor’s control, such as investment returns and inflation-induced pressures on salaries;
- PBGC liability and premiums;
- actuarial burdens of sponsoring defined benefit plans;
- accounting consequences of FASB Statement No. 87, including, but not limited to, the possibility of a volatile annual pension expense item on the sponsor’s income statement (EBRI 1988b); and
- a desire on the part of the sponsor to give a higher proportion of the pension contribution to young participants, which is actuarially difficult in a defined benefit plan.

It is important to differentiate the trend toward defined contribution plans from the other reasons for termination because the effectiveness of any regulatory or legislative proposal to slow reversions or terminations is generally likely to be quite different for plan sponsors that simply wish to change from a defined benefit plan to a defined contribution plan.12

Altering Financial Ratios

Voluntary terminations for reversion could involve the desire to alter financial ratios such as working capital requirements, interest coverage, and minimum net worth (VanDerhei, 1987). In this scenario, a firm would borrow from the plan because it is facing bond covenant restrictions13 that are imposing costs, given its current investment opportunities. If a reversion is less costly than renegotiating the covenants, repurchasing the debt, or operating within the constraints without alteration, firms have an incentive to temporarily recoup the excess assets to relax these constraints.

The accounting treatment of reversions that are not followed by the adoption of a defined benefit successor plan results in an increase in net income, thus increasing both the retained earnings and the shareholders’ equity. These effects decrease the book value of leverage, which may improve a firm’s ability to issue new debt, pay dividends, merge, or lease.14

Optimal Borrowing from Pension Plan

Another rationale for voluntary terminations for reversion is that they represent optimal withdrawal of funds by firms (given the general prohibition on borrowing plan assets) without violation or renegotiation of promised benefits. This is often dismissed because of the tax advantages of funding plans to the maximum extent legally permissible.15

However, a theory developed in Harrington and VanDerhei (1987) suggests that asymmetric information in credit markets (a situation in which the borrowing firm possesses an informational advantage over the lender regarding the likelihood of its bankruptcy) will lead to a preference for internal financing by high-quality borrowers. This preference results from the unfavorable terms offered in the credit markets when

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12 For example, a change in ERISA section 4044(d) that allows employers to recapture the excess assets (however defined) without actually terminating the original defined benefit plan would have a limited impact if the primary cause of most overfunded plan terminations is federal legislation or other forces that favor defined contribution plans relative to defined benefit plans.

13 A bond covenant limits certain actions a company may otherwise wish to take during the term of the loan.

14 Smith and Warner (1979) examined public issues of debt in 1975 and found that 91 percent of the bond indentures included covenants that restricted the issuance of additional debt, 23 percent restricted dividends, 39 percent restricted mergers, and 36 percent limited the sale of assets.

15 See Ippolito (1986a).
Corporations have been known to use recapitulated plan assets to finance corporate takeover and antitakeover activities.


Corporate Finance

With the advent of the 1984 guidelines, the focus of reversion activity appeared to shift. The desire to change from defined benefit to defined contribution plans no longer seemed to be the primary motivation for a reversion. Instead, reversions were often seen as a manner of accessing excess pension assets without radically modifying the structure of the retirement benefit. A GAO study that sampled all reversions through June 30, 1985, found that a change in corporate structure (for example, the sale of a company) and employers’ desire to use excess plan assets for nonpension related purposes (for example, to alleviate adverse business conditions) were cited most often as primary reasons for plan terminations. These two reasons accounted for 66 percent of the sample plan reversions, 65 percent of the participants involved in reversions, and 77 percent of the excess assets recovered (U.S. GAO, 1986a).

Favorable Stock Price Reaction

Research by Alderson and Chen (1986), VanDerhei (1987), and Haw, Ruland, and Hamadallah (1988) indicates that another potential reason for reversions is that, under appropriate conditions, the financial markets view reversions as an advantageous redeployment of assets. Each of the foregoing studies reported a positive reaction by stockholders to reversion announcements made from 1979 to 1984, where significantly positive abnormal returns were involved. These results suggest that shareholders considered surplus plan assets to be newly obtained wealth that was unavailable to the firm before the reversion.

Renegotiating a Wage Contract

Ippolito (1986a) hypothesized that financially troubled firms may find it optimal to terminate a defined benefit plan as part of renegotiating a wage contract. Assuming that a firm’s short-term competitive position has deteriorated, a reversion may be part of a new contract between the firm and the workers. The new contract would presumably call for various wage concessions on the part of the workers while the firm agrees to undergo a revitalization program with the proceeds of the reversion. As mentioned earlier, in 1981 A&P undertook an aggressive revitalization program that involved a capital write-off amounting to $200 million. The company claimed that it would have defaulted on loan agreements if the reversion had not gone through.

Lenders are unable to recognize the potential profitability of borrowers’ future investments. Since firms ultimately control pension assets that are subject to certain legal restrictions, there is no asymmetry of information if firms borrow pension plan assets to finance investment.

The current prohibition on plan borrowing forces firms to terminate their plans to obtain plan assets for investment. Other things being equal, terminations for reversion would become more likely whenever it would actually be optimal to borrow or withdraw funds from the plan if that were allowed. If asymmetric information would otherwise cause a firm to forgo positive financial opportunities, borrowing from the plan through a termination would be optimal provided that (after adjusting for risk) the benefits derived from the difference between the after-tax rate of return on the investment and the tax-free rate of return on the plan assets were greater than the attendant costs of a reversion (including the 15 percent excise tax, legal costs, and costs of labor relations effects).
hostile takeovers and wanted to prevent excess plan assets from being used as possible sources for financing the takeovers.

◆ Reversion Issues

Continuing debate over asset reversions centers on fiduciary responsibilities, tax preferences, employees’ entitlement, the role of collective bargaining, and the origin of excess assets.¹⁶

Fiduciary Responsibilities

The applicability of fiduciary responsibilities in reversions is a contentious issue when the corporate officers making the decision to terminate a plan are also the plan’s fiduciaries. ERISA states that a fiduciary “shall discharge his duties with respect to the plan solely in the interest of plan participants and their beneficiaries . . . for the exclusive purpose of providing benefits to participants and their beneficiaries . . . with the care, skill, prudence and diligence” that a prudent man, similarly situated, would exercise.

While legal decisions have held that the decision to terminate a retirement plan is exempt from ERISA’s fiduciary standards,¹⁷ the determination that the termination of a given overfunded plan is in the best interest of plan participants is often debatable (Stone, 1984). If the employer is experiencing financial difficulties and the recapture of excess assets provides the necessary working capital for the company to continue operations, a fairly strong case can be made that plan termination may be in the best interest of the employees because it saves their jobs. However, the case is less persuasive when the employer is not in financial distress and does not need the excess assets for survival.

Why Don’t All Overfunded Plans Revert?

Undoubtedly, the most important factor preventing the majority of overfunded defined benefit pension plans from terminating is the tax-deferred investment income enjoyed by pension assets. If the sponsor recoups the excess assets, the investment income earned on this amount—reduced by both the 15 percent penalty tax and normal corporate income tax (barring any tax loss carryforwards)—will be subject to taxation. Although a reversion will improve the cash position of the firm in the short term, it will increase future plan contributions unless the level of benefits is reduced. Moreover, companies can gradually recover the excess assets without paying the penalty tax by decreasing or eliminating contributions for several years.¹⁸

Other factors that may prevent the sponsor of an overfunded defined benefit plan from terminating include:

- employee relations;
- cost of immediate full vesting for all active participants;
- cost of purchasing annuities, as opposed to the investment yields that could be attained by pursuing other approaches;
- design and cost of a successor plan; and
- concern for benefit security (Dankner, 1985).

Participant Entitlements

Although until recently it appeared that there were no legal challenges threatening the reversion phenomenon, two recent cases have created concern among those considering such a transaction. In a 1987 decision, the 11th U.S. Circuit Court of Appeals held in Blessitt v. Retirement Plan for the Employees of Dixie Engine Company that participants in a terminated retirement plan are entitled to receive their promised unaccrued forfeitable benefits before the employer can take residual assets.¹⁹ After initially placing a temporary hold on issuing determination letters to employers in eight states, IRS refused to be bound by the decision, contending that an employee’s benefit expectations are not fixed or contin-

¹⁶ Portions of the following discussion draw heavily from VanDerhei (1985).


¹⁸ Indeed, plans with excess assets that represent more than 33 1/3 percent of total plan assets will have this strategy imposed on them by the new full-funding limitations under OBRA ’87. Other plans may accomplish this through a change in actuarial cost methods. See Brownlee (1986) for a case study of this approach.

¹⁹ It was reported that Blessitt only received 38 percent of the amount he would have received had he worked until age 65.
gent liabilities that must be satisfied prior to any reversion of pension plan assets to an employer. In July 1988, the court essentially reversed itself, holding that the law “does not require that employees receive a benefit [based] on anticipated future years of service which have not actually been worked as of the termination date” (EBRI, 1988a).

In a similar case, B.E. Tilley et al. vs. The Mead Corporation, the 4th Circuit ruled in 1987 that participants in a single-employer defined benefit plan were entitled to unaccrued early retirement benefits before there could be any reversion of surplus assets. In October 1988, the Supreme Court announced its decision to review the case; arguments began on February 22, 1989.

Collective Bargaining

There are a variety of interrelated issues involved in a collective bargaining situation. Of primary importance is whether the same rationale for limiting a participant’s rights to excess assets in a nonnegotiated defined benefit plan applies when the plan is a result of collective bargaining.

In one case involving binding arbitration of a dispute over a collectively bargained plan, it was decided that excess assets should be used to provide additional benefits for the participant rather than be returned to the employer. The arbitrator’s decision was based partly on the assumption that “one cannot suppose that the employer’s payments into the fund were made without a quid pro quo in the form of [union] concessions concerning other matters.”

The issue of bargaining with a union over the right to terminate arises when a company remains in operation. In one documented case, the plan sponsor terminated only the defined benefit plans for its salaried employees, even though the plans for hourly workers were also overfunded. The executive vice president and chief financial officer of the GAF Corp. indicated that terminating the hourly employees’ plans could involve negotiations with more than a dozen unions (Sahgal, 1982).

In the case of Western Airlines, Inc., the company obtained permission of the Airline Pilots Association (the union representing the pilots) to terminate one of its pension plans in 1983 in exchange for certain concessions, including agreement to provide for union membership on the investment committee of the pilots’ other pension plan, not to seek waivers of its minimum contribution to the remaining plans, and to substantially increase benefits in the remaining plans (Chernoff, 1983).

Factors Leading to an Overfunded Position

Excess assets in a pension fund can be accumulated as a result of favorable annuity purchase rates, the choice of an actuarial cost method for funding purposes, higher-than-assumed rates of turnover, choice and application of other actuarial assumptions (for example, interest rate assumptions), and strong gains in the pension fund portfolio.

Favorable Annuity RatesThe extent to which each of these factors contributes to the accumulation of excess assets in a particular case is important, because each factor may have different policy implications, depending on whether it is a long-run problem or a short-term aberration (for example, an unexpectedly high turnover rate).

Favorable Annuity Rates—The unprecedented high interest rates on annuity contracts offered by life insurance companies in the mid-1980s were a major factor in the accumulation of excess assets for many of the plans involved in reversions. Insurers were clamoring for cash and were, therefore, reducing their previous prices at a time when many terminating plans were buying annuities to satisfy their obligation to participants. It was through a purchase of an annuity, for example, that A&P was able to turn a surplus of $80 million into a surplus of more than $200 million at the time of the termination announcement (Gillespie, 1984a).

Actuarial Cost Method—The choice of an actuarial cost method for funding purposes can contribute to the

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20 General Counsel’s Memorandum 39665.
The smoothing process is subject to limitations. Currently, the smoothed value can be neither less than 80 percent nor more than 120 percent of the true market value. Prior to OBRA '87 it was also permissible to use a smoothed value that was within a 15 percent corridor of the moving average of market values.

A simple numerical example of this process is provided in EBRI (1986). For a detailed discussion of the various actuarial cost methods available for funding purposes, see Allen, Melone, Rosenbloom, and VanDerhei (1988).

Several commentators have recommended that companies be limited to recapturing only those assets in excess of the present value of projected plan benefits. These proposals would include projected future service and salary in determining the plans' liabilities. As a result, the "excess assets" of many otherwise overfunded plans would be substantially reduced.

Turnover Rates—Higher-than-assumed rates of turnover, through substantial layoffs or the sale of portions of a business, can contribute to a pension plan's excess assets. For example, a portion of GAF's excess assets was attributable to the loss of pension fund participants resulting from the sale of parts of its business during a recession in the construction industry (Gillespie, 1983). This factor's overall effect depends on employee turnover rates before the full vesting requirements are met, the plan's turnover assumptions, the number of years that elapse between the date of the layoff or sale and the termination of the plan, and the approach used to modify annual contributions to reflect these unexpected gains and losses.

High rates of return on pension assets in relation to actuarial interest assumptions were cited most often in the GAO study as major contributors to excess plan assets.

Interest Rate Assumptions—Because of the uncertainty over future investment returns, interest rate assumptions used for determining annuity purchase rates at plan termination are higher than those used to determine funding on an ongoing basis. Increasing the interest rate assumption will decrease the expected value of the pension liabilities and increase the expected value of the excess assets.

Gains in Pension Fund Portfolios—High rates of return on pension assets in relation to actuarial interest assumptions were cited most often in the GAO study as major contributors to excess plan assets. Strong short-term unrealized capital gains in a pension fund portfolio also contribute to the presence of excess assets on termination because of the basis used to value the assets of a defined benefit pension plan. The most common approach is to use a moving average of year-end market values for a specific period, typically five years. This process smooths out any abnormally high returns on the pension portfolio for funding purposes. The true market value of the assets would be realized by the sponsor if the plan were terminated.

The smoothing process is subject to limitations. Currently, the smoothed value can be neither less than 80 percent nor more than 120 percent of the true market value. Prior to OBRA '87 it was also permissible to use a smoothed value that was within a 15 percent corridor of the moving average of market values.
Withdrawals from Ongoing Plans

The postguideline increase in spin-offs and termination/reestablishments fueled numerous recommendations to allow for some withdrawals from ongoing plans as an alternative to terminations. Realizing that prohibiting plan termination is inconsistent with the voluntary nature of the pension system, and that firms are able to withdraw money gradually from overfunded plans simply by reducing contribution levels, the Reagan administration in 1987 put forth its own withdrawal alternative as part of its proposal on the funding and termination of defined benefit pension plans.

The proposal was not designed to allow sponsors to withdraw all of a plan’s assets in excess of the termination liability, because the absence of a “cushion” of assets reduces participants’ future benefit accrual security and may also discourage employers from granting ad hoc benefit increases or cost-of-living adjustments for retirees. Moreover, permitting firms to withdraw all excess assets from a pension plan is not identical to a reversion, because in the latter case the firm is required to purchase annuities to satisfy all legally specified pension promises. Once annuities are purchased, PBGC is protected against reductions in the market value of plan assets for benefits accrued before termination. Future accrual security is contingent on future contributions and returns.

The Reagan administration perceived another limitation of current law: that it does not require employers who recapture assets of one of their plans to adequately fund their remaining plans. The administration decided that it was poor policy to allow an employer who has both well-funded and underfunded plans to benefit from reversions or withdrawals from tax-favored retirement funds while the company’s other plans remain underfunded.

The proposal attempted to correct these limitations by allowing an employer to withdraw assets from an ongoing plan if the plan is maintained with an appropriate cushion and all of the employer’s other plans, in the aggregate, exceed the cushion. The appropriate amount for the cushion was determined to be the greater of 125 percent of the termination liability or the (pre-OBRA ’87) full-funding amount of the plan. Benefits funded by annuity contracts, however, would require a substantially reduced cushion.

A major problem with the proposal was that the withdrawal rules were not consistent with the reversion rules. Continuing current practice, the proposal would have allowed sponsors with no other underfunded defined benefit pension plans to recoup the entire amount of the excess assets, including the cushion. However, if, after all income and penalty taxes are considered, a firm can obtain significantly more assets through a reversion, the availability of withdrawals may be of little practical significance.

Using Excess Assets to Fund Retiree Medical Benefits

Recently, attention has focused on employer liability for retiree health benefits. A new FASB ruling is expected to require employers to report unfunded liability for retiree health benefits in corporate financial statements by 1992. Preliminary estimates of the present value of private employers’ liability for retiree health insurance obligations, adjusted for expanded Medicare benefits enacted in 1988, is approximately $169 billion (EBRI, 1988c). Unfortunately for the employers that offer these benefits, the tax code no longer offers tax incentives to prefund these obligations.

A bill that would permit employers to prefund retiree health benefits (H.R. 5309) was introduced in September 1988 by Rep. Rod Chandler (R-WA). The Retiree Health Benefits and Pension Preservation Act would permit defined benefit plan sponsors to prefund a retiree’s medical or long-term care premiums in amounts of up to $2,500 per year. Special rules permitting transfers from overfunded plans to fund accounts for retiree health and long-term care benefits were also included in the bill. It proposed that employer reversions not be included in an employer’s gross income and be exempt from the excise tax to the extent that the amount is immediately transferred to plan participants’ section 401(h) accounts. Transfers would not be allowed to reduce the pension plan assets below 125 percent of

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25 Under the proposal, sponsors with other underfunded defined benefit plans would be required to allocate the previously defined cushion among the remaining defined benefit plans.
The bill would also repeal the full funding limitation of 150 percent of current liability for defined benefit plans. The excise tax on asset reversions would be increased to 100 percent.

This type of legislation apparently would offer several potential benefits: it would allow prefunding of retiree health benefits to permit employers to take advantage of tax-sheltered investment income, provide a basis for pension assets to be used for retirement benefits, and allow continued employer involvement with the assets.

**Public Policy Implications**

Several aspects of the reversion phenomenon have important public policy implications. Perhaps the most important concern is the economic—as opposed to the legal—answer to the question: who owns pension assets? A closely related issue deals with the relative losses suffered by workers as a result of the reversion and how their loss varies by type of successor plan. Changes in funding levels after the excess assets are removed have important implications to both plan participants and PBGC. The proper level of the reversion excise tax is also an important consideration.

**Who Owns Pension Assets?**

With the exception of contributory plans, there appears to be little challenge to pension plan sponsors’ legal right to recover excess assets under a termination. However, many have questioned the propriety of the transaction, taking the position that pension funds represent deferred compensation and belong to plan participants.

As mentioned earlier, the dramatic rise in long-term interest rates in the mid-1980s significantly improved the funded status of most defined benefit plans. Pesando (1984) points out that nominal interest rates were high at least in part because they contained a substantial inflation premium. This fact provides an important perspective on sponsors’ ability to attain assets in excess of termination liability. To value liabilities in this manner presumes that the nominal benefit due under the formal terms of the plan will be eroded in real terms at the anticipated rate of inflation.

A crucial question is whether this is the understanding of all parties to defined benefit plans that are based on the employee’s salary (career average and final average plans). One hypothesis holds that employees defer wages (through implicit or explicit wage concessions) in exchange for a defined benefit pension at a rate that assumes the sponsor will terminate the plan at the end of the current year and freeze the salary level associated with accrued benefits. Under this scenario, employees always receive the actuarial value of their deferrals on termination and are not penalized by the transaction.

The empirical evidence gathered by both Ippolito (1985) and Pesando (1985) strongly refutes this notion, however. Instead, these analysts postulate the existence of implicit contracts in which the rapidly rising cost of benefit accruals for an employee under a defined benefit plan are spread out over his or her career with the sponsor. Thus, employees begin by deferring more than the cost of their annual accrued benefits for several years in order that their deferrals remain at a reasonable level later in their careers. A reversion with a successor plan that does not replicate the benefit provisions of the original plan (that is, insufficient past service credits) may violate the implicit contract if employees receive benefits with an actuarial value smaller than the accumulated value of their deferrals, because the benefits are based on their salaries at the time of termination.

**Worker Losses**

While the preceding section dealt with worker losses on a retrospective basis (that is, the partial loss of previous years’ wage deferrals), another policy concern is the total impact of reversion on the employee’s retirement benefit, including differences in future benefit accruals as well as those that had been earned at the time of the reversion.

Although the potential for worker losses from a reversion has been extensively documented (Ippolito, 1986a), the only empirical evidence on this effect appears to be a DOL study conducted in 1986 by Hay/Huggins.
Company, Inc. The study was based on a review of 97 representative terminations processed by, or pending at, PBGC between 1984 and 1986. In each case actuarial estimates of the effect on individual benefits were performed. The effects were quantified by comparing the benefit under the replacement plan with the benefit that would have been paid under the original plan had it remained in effect. The impact of each of the changes was measured on the same hypothetical participant group. Benefits were determined both at retirement and termination, and the percentage gains or losses were averaged for each plan.

Almost all plans had an average gain at termination due to the fact that shorter-service employees received full vesting of all accrued benefits at the time of termination (table 4). In no case did a hypothetical plan participant suffer a loss at termination. This was true regardless of the type of successor plan, if any.

Note that the study was conducted prior to the IRC section 411 modifications by the Tax Reform Act of 1986. Gains from unanticipated vesting would be expected to decrease after 1988.

Spin-offs produced virtually no impact on expected benefit at retirement, although 2 of the 30 cases had slight gains due to enhancement of annuities and/or prior service credits. The results for termination/reestablishment were more varied, with 16 percent of the plans actually showing average losses of benefits at retirement. Although retirees and separated vested participants were unaffected in each case, there is nothing to prevent a plan sponsor from establishing significantly different definitions and formulas in the replacement plan.

The impact of a defined contribution successor plan is virtually impossible to measure accurately and, as shown in table 4, varies tremendously with the assumptions used in the calculations. Based on reasonable assumptions of sponsor and participant contribution rates and typical private-sector actuarial assumptions (4 percent interest and 6 percent salary growth), the average effect at retirement was evenly divided between losses and gains. However, the distribution was much less favorable when the federal retirement study actuarial assumptions were used (6.1 percent interest

### Table 4

Average Benefit Effect of Reversion, by Type of Successor Plan

<table>
<thead>
<tr>
<th>Type of Successor Plan</th>
<th>Effect at Retirement</th>
<th>Effect at Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage Change in Benefit</td>
<td></td>
</tr>
<tr>
<td>Spin-off</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Termination/reestablishment</td>
<td>2.3%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Defined contribution (private)a</td>
<td>16.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Defined contribution (federal)b</td>
<td>55.5%</td>
<td>33.3%</td>
</tr>
<tr>
<td>No successor</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>


aBenefit effects are calculated under typical private-sector assumptions in effect at the time of termination (4 percent interest and 6 percent salary growth).

bBenefit effects are calculated under federal retirement study assumptions based on the Social Security II-B moderate economic assumptions (6.1 percent interest and 8.5 percent salary growth).
and 8.5 percent salary growth), with nearly 89 percent of the plans indicating average losses. When a reversion occurred with no successor plan, all plans recorded average losses at retirement, as expected. The average declines in the sample ranged from 33 percent to 70 percent.

An additional aspect not tested in this study is the probability that employers will enhance benefits in the future. In particular, where the employer has regularly or periodically granted cost-of-living adjustments prior to termination, it is possible that the likelihood and/or magnitude of future increases will decrease if the funding ratio is cut back to 100 percent as a result of a reversion. Estimates of this effect would need to model the relationship between a plan’s funding status and the sponsor’s propensity to provide cost-of-living adjustments.

An additional caveat needs to be considered when interpreting these results (Policy Center on Aging, 1986). The use of the average effect on benefits to measure worker losses is very sensitive to the distribution of worker characteristics. The inclusion within the hypothetical participant group of a larger number of retirees, separated vested participants, and short-service workers would mask the magnitude of potential negative effects on plan participants.

Funding Levels

The funding level of a successor plan after a reversion is critically important to PBGC. As long as the market value of a plan’s assets exceeds the level of guaranteed benefits, PBGC’s exposure in the case of sponsor bankruptcy is zero. However, a reversion with a successor defined benefit pension plan will reduce the cushion to a negligible level. Even if future benefit accruals are adequately funded, there is a distinct possibility that, unless all benefits are annuitized, the market value of plan assets may decline to a point where PBGC is potentially at risk in the case of a distress termination.

In an attempt to quantify the impact of this effect, Ippolito (1986c) investigated data for the 31 largest reestablishments and spin-offs for pending transactions in 1985. Prior to the termination, the average funding ratio on an ongoing basis in these firms was 104 percent. Assuming no worker losses or gains, the ongoing funding ratio for the average firm’s successor plan fell to 62 percent. This poses a significant future economic burden on firms that must ultimately pay these benefits out of future profits.

Assuming a positive rate of return, pension assets will obviously increase more rapidly if a plan is not subject to investment income taxes at the corporate tax rate.

Reversion Tax

A final public policy concern is the extent to which excess assets are generated by the tax shelter on investment income for pension assets. Assuming a positive rate of return, pension assets will obviously increase more rapidly if a plan is not subject to investment income taxes at the corporate tax rate. However, this valuable tax advantage is extended to pension plans under the assumption that the assets will be used to pay for participants’ retirement benefits. In a provision similar to the one that applies to individuals who access their individual retirement accounts before retirement, the current tax code imposes a penalty when pension funds are recovered, in part to offset the tax advantages enjoyed by the portion of funds used for nonretirement purposes.

The major problem involved in creating an appropriate recovery tax is that no single rate is appropriate in all

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27 Technically, a reversion will not completely eliminate PBGC’s cushion due to the maximum limit on the amount of benefit insured per participant.

28 As opposed to a termination basis, this calculation assumes that benefits are indexed to projected salaries at retirement and that firms will typically make voluntary ad hoc inflation adjustments to workers after retirement.
situations. Chart 6 shows the results of a series of calculations that assume a gradual accumulation of excess assets at different periods of accumulation and with different minimal interest rates. If IRS pursued a reversion tax policy designed to deny pension tax advantages to reversions, it would set the penalty tax rate on reversions in these ranges. While the required rate is relatively large in some cases, this methodology determines the excess assets independently of the level of liabilities. Under the new full-funding limitations imposed by OBRA ‘87, the maximum ratio of excess assets to liabilities will eventually decrease to approximately 50 percent. As a result, the portions shown in chart 6 will decrease over time.

29 See Ippolito (1986a, p. 247) for the general algorithm. All calculations have been recomputed to incorporate Tax Reform Act of 1986 tax bracket modifications.

◆ Summary

There are a number of reasons for a plan sponsor to terminate an overfunded defined benefit pension plan. Given the diversity of objectives that exist among plan sponsors, employees, and the U.S. Treasury, it is unlikely that any single set of recommendations concerning this issue will be universally palatable. The $20 billion in reversions taken during this decade, however, is perceived by many as having a deleterious effect on retirement security and government revenue. Suggestions for alternatives to the status quo are likely to resurface.

Asset reversion termination policy must not neglect the forces that shape plan sponsor behavior. From the employer’s perspective, it can be argued that since the sponsor bears downside risk from investing the plan assets, access to upside gains should be allowed in the event of a termination. Moreover, restricting reversions may discourage sound funding, discourage defined benefit plan sponsorship, and penalize companies that sponsor and adequately fund defined benefit plans. Amounts recovered in reversions may be used to reinvest in plants and equipment, enhance competitiveness, and retain or create jobs.

However, widespread reversion activity could seriously affect the confidence of participants in the defined benefit system. Some opponents of reversions contend that all contributions to a pension plan are deferred compensation and belong to participants. From the employee’s viewpoint it is therefore necessary to determine whether, or to what degree, a reversion without a successor defined benefit plan sponsorship is, as some claim, an implicit wage contract violation. Whether employers should grant inflation protection to pension plans after excess assets have been removed is also relevant to this public policy discussion.

The government must be concerned with the potential for tax arbitrage from employers who overfund a plan in years of high profitability only to terminate the plan and revert the excess assets when the effective tax rate is reduced. It must also be attentive to PBGC’s position as the cushions for the security of replacement defined benefit plans are reduced from their original levels.
Another issue of concern is the influence of plan reversions on takeover strategy in the financial markets. To a certain extent it appears that some of the potential for reversion activity may be diminished as the new OBRA ’87 full funding limits eventually reduce the maximum percentage of most plan’s excess assets to 50 percent of its termination liability or less. A future Issue Brief will provide preliminary EBRI estimates of the impact of this new requirement on defined b

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