

# WORKING PAPER

## *Executive Summary*

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## WHY ARE COMPANIES FREEZING THEIR PENSIONS?

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Defined benefit plans in the private sector are on the decline. The proportion of the workforce covered by these plans has dropped by more than half (from more than 40 percent to less than 20 percent) since 1980. The early 21st century produced an uptick in the pace of decline driven by the financially devastating impact of the ‘perfect storm’ of plummeting stock prices and low interest rates, legislation that will require underfunded plans to increase their contributions, and accounting changes that will force fluctuations in pension finance onto the earnings statement and will likely eliminate the smoothing available under current rules. These changes could introduce significant additional volatility in reported earnings.

Such volatility is not acceptable to corporate managers and may, in large part, explain why large healthy companies have taken steps to end their defined benefit plans. The fact that these steps have taken the form of freezes rather than terminations simply reflects the fact that with underfunding caused by the perfect storm and very low interest rates, firms could not afford to pay off all their liabilities immediately. Freezing their plans provided the option to terminate gradually.

### **Analysis of Why Companies Freeze Their Plans**

In an attempt to identify factors that led specific companies to freeze their plans, the paper explores the relationship between the probability that a plan was frozen and characteristics of the plan, the firm, and the industry. The analysis focuses on the largest 5,000 firms in terms of revenue using financial information from the 2005 Compustat data and plan information primarily from the Department of Labor’s Form 5500 for 2004.

The probability of a plan being frozen was assumed to depend on three factors: the potential damage that the plan could do to the firm’s financial results, the cost to the firm of closing the plan, and the competitive environment in which the firm operated.

Potential damage to the firm’s financial results was measured by four variables.

- 1) *Credit balance as a percent of net income.*
- 2) *Plan is underfunded.*
- 3) *Difference between actuarial liability and current liability as a percent of market capitalization.*
- 4) *Credit risk.*

Three variables were included to gauge how easy or difficult it would be for a firm to freeze a plan:

- 1) *Active participants to total firm employees.*
- 2) *Collectively bargained.*
- 3) *Hybrid plans.*

Finally, four variables were included to represent the competitive position of the firm.

- 1) *Ratio of retirees to total participants.*
- 2) *Market capitalization of the firm.*
- 3) *Percent of competitors with defined contribution plan only.*
- 4) *Research and development intensity in the industry.*

To explore the impact of these variables on pension freezes, a regression model was estimated. The results for financial factors suggest that credit balances increase the probability of freezing a plan. Without the ability to use credit balances to offset minimum required contributions, plan sponsors are exposed to sudden increases in contributions, which could increase the volatility of earnings. The results indicate that plans with large credit balances are likely to freeze, although the coefficients are marginally significant.

The funding variable suggests that underfunded plans are being frozen. Sponsors of these plans will see a significant increase in contributions under the Pension Protection Act of 2006 and will experience a hit to their balance sheet and earnings statements under new FASB rules. Employers would find it particularly difficult to terminate these plans, since they would have to raise cash to pay off benefit commitments, so a freeze is a logical way to head towards termination.

The financial health of the firm also appears to be driving hard freezes. An increase in the scale of risk – going from BBB+ to BBB, for example – increases the probability of freezing by more than 1 percentage point. The financial gains from freezing a plan, however, do not seem to be motivating freezes. The coefficient for the difference between actuarial and current liability is not statistically significant under the proposed specifications.

In terms of the difficulty of freezing the plan, employers appear to be following the path of least resistance. Plans that cover relatively few employees are more likely to be frozen and collectively bargained plans are less likely, at least in the short term. Freezing plans for white collar workers, however, may mean a freeze in the union plans down the road. In fact, press releases from some of the firms in the process of freezing their plans indicate the desire to freeze union plans upon negotiation with the union.

Finally, the nature of the industry appears to matter. Firms with large legacy costs, as measured by the ratio of retired participants to total participants, are more likely to freeze their plans. Scale effects exist: firms with large market capitalization are more likely to freeze their plans. If defined contribution plans are prevalent in the industry, employers are more likely to freeze their defined benefit plans. Industries with high R&D intensity are less likely to freeze their plans. Other industry characteristics are also most likely relevant, so a second set of equations were run with an indicator variable with broad industry categories. Adding the industry variables enhances the explanatory value of the equations, but does not affect the coefficients on any of the other variables in the equation.

## **Implications for the Future of Defined Benefit Plans**

The results of this study imply that plans where credit balances are high relative to income, legacy costs are substantial and funding ratios are low have a higher probability of being frozen. That makes sense in that plans with these characteristics are likely to have the most impact on future earnings under FASB's expected reporting requirements. It is reasonable to expect more plans with these characteristics to freeze in the future.

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