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Does Freezing a Defined-Benefit Pension Plan Increase Company Value? Empirical Evidence

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Abstract

This study empirically tests whether freezing or closing a defined-benefit (DB) pension plan increases the sponsoring company's market value. The database used for this study consists of 82 publicly traded U.S. companies that announced freezes/closes in 2003–2007. On the basis of this extensive sample and through a set of parametric and nonparametric tests under the event study methodology, the study finds generally negative or insignificant abnormal returns in stock prices that can be associated with the freeze/close events. Little evidence supports the hypothesis that freezing or closing a DB plan increases company value.

In recent years, pension coverage in the private sector has been shifting from defined-benefit (DB) plans to defined-contribution (DC) plans. Some employers have closed their DB pension plans to new hires (“close”) or frozen the plan benefit accrual for some or all existing plan participants (“freeze”). The commonly cited motivations for such changes include cost and volatility reduction, consistency with industry-competitive practice, and employee desires and satisfaction. Many have wondered whether and to what extent a DB freeze/close alters the market value of the corporate plan sponsor. Research on this topic, however, is scanty.

This empirical analysis tests the hypothesis that freezing or closing DB pension plans increases the sponsoring companies’ market values. The premise for this hypothesis is that DB plan freezes/closes depress the growth of pension liabilities and thus allow more funds to be directed to profit-generating corporate businesses or to other forms of compensation that are less risky or less costly to the company. Our tests, however, found generally insignificant, often negative, abnormal returns in stock prices associated with the freeze/close events and, therefore, yield little evidence to support the hypothesis.

Our study contributes to the literature in several ways. First, we constructed a large database comprising 82 publicly traded U.S. companies for the 2003–07 time period in various sectors. Identified simply by the availability of specific freeze/close announcement dates, these companies can be considered random draws and are thus fairly representative of the population of corporations that have frozen or closed their DB plans.

Second, on the basis of this extensive sample and through a set of parametric and nonparametric tests under the event study methodology, our analysis provides general and robust evidence on the tested hypothesis. In the benchmark test, stocks of 46 companies exhibited negative market-adjusted returns in the wake of the announced DB plan changes. The median value of price change is −0.41 percent, which can be attributed to the announcement. The majority of the DB events generate a statistically insignificant impact on stock price. Similar results are obtained by using alternative assumptions that consider sector-specific portfolios, time variations in events, and possible information leaks or delayed market responses.

Third, we explored what factors might help explain the market price reactions following the DB freeze/close announcements. The regression results (e.g., negative coefficients on company size and plan-funding risk) seem to suggest a “signaling” interpretation. That is, companies’ decisions to freeze/close their DB plans might have induced investors to question the financial health of the whole corporate entities beyond the pension plans. This reaction dominated the prospect of potential reductions in pension cost or volatility (if applicable), for which the market might cheer.

Our empirical tests generally reject the expectation that freezing a pension plan would deliver an immediate boost to the company's market value. Several factors may play a role. First, whether the DB plan freeze/close would substantially cut corporate costs is unclear because employers often need to enhance the existing 401(k) plans in the benefits package in order to facilitate the transition and workforce management. Second, any positive financial impact of the plan freeze/close may be outweighed by negative effects on employee morale, productivity, attraction, retention, and optimal retirement patterns. Third, the freeze/close events are often partial and gradual. Many companies sponsor multiple pension plans, have frozen/closed some plans while keeping others open, and have left the retirement benefits intact for many workers covered by the frozen/closed plans (e.g., union members or those fulfilling requirements of age and/or service years). Finally, company management may have viewed DB freezes/closes as useful responses to short-term financial challenges, but the market appears to have been more cautious about the effects and implications of such DB plan events.

Note: The views expressed in this article are the authors' alone and do not necessarily reflect the views of Watson Wyatt Worldwide.
