

PENSION RISK MANAGEMENT: NECESSARY AND DESIRABLE

Susan M. Mangiero

NO BOWL OF CHERRIES

By all accounts, pension investment fiduciaries have been taking it on the chin for a while, with little chance for a break any time soon. Even if investment returns exceed expectations, numerous other issues are fast taking center stage. Younger workers crave mobility and autonomy, attributes not normally associated with a traditional benefits mix. Older employees, seeking to retire early, require plan sponsors to rethink liquidity needs and the merits of cash matching. Global competition, brutal in its intensity and unlikely to disappear, forces companies to find ways to reduce costs by freezing or terminating plans. The prospect of revised financial ac-

Susan M. Mangiero, Ph.D., CFA, AVA and certified Financial Risk Manager is Managing Member of BVA, LLC, a valuation, risk analysis, and litigation support company, and founder of Pension Governance, LLC. Her book, Risk Management for Pensions, Endowments, and Foundations (John Wiley & Sons, 2005), is a how-to primer for investment fiduciaries. She can be contacted by calling 203-261-5519 or sending an email to smm@bvallc.com.

counting rules for post-retirement benefits, expected later this year, has executives jittery about the impact on financial statements. As if that weren't enough, the Administrative Office of the U.S. Courts reports a continued rise in new Employee Retirement Income Security Act ("ERISA") case filings, something described by professional liability insurance underwriters as "startling". Even the Pension Benefit Guaranty Corporation is feeling the pain, reporting a 2005 deficit in excess of \$22 billion. As Executive Director Bradley D. Belt cautions, "the financial health of the PBGC is not improving" and "the money available to pay benefits is eventually going to run out unless Congress enacts comprehensive pension reform to get plans better funded and provide the insurance program with additional resources."

Make no mistake. Regulators, shareholders, beneficiaries, and even taxpayers are starting to wonder about people in charge. If there was ever a time to demonstrate best practices, this is it. In the investment arena, the list of ways to improve things is long and

should include risk management as a top priority. After all, how can an investment fiduciary possibly claim completeness without first being able to identify and measure factors that determine portfolio value and how it changes over time? As shown in Exhibit One, risk comes in many forms and ignoring it, while emphasizing returns, makes little sense.

Long embraced by banks and mutual funds, risk management has proven itself to be a powerful tool for achieving stated goals. Because it is a process that demands continuous review and modification, it gives decision-makers a chance to take corrective action along the way. Interestingly, pension risk management is relatively new and only slowly gaining ground (with a few exceptions). Several reasons account for this phenomenon. First, large plan surpluses and a buoyant equity market made it hard to justify the requisite expense of adding technology, staff and data, without which a risk management effort would flounder. Second, steady demographic trends and stable industry

EXHIBIT 1**Pension Risks**

Accounting
Commodity
Credit
Currency
Demographic
Design
Equity
Funding
Interest Rate
Liquidity
Litigation
Model
Operational
Regulatory
Reputation
Restructuring
Solvency
Suitability
Tax

Copyright © 2006 Susan M. Mangiero.
All rights reserved.

conditions kept pension stories out of the headlines, making it easier to preserve the status quo. Third, the notion of having a dedicated supervisor such as a Chief Risk Officer was still relatively novel and deemed unnecessary. A cynic might ask, "Why reward someone for minimizing costs, streamlining execution or putting the kibosh on higher risk trades in lieu of those able to generate immediate revenue?"

GUIDING HAND

Recognizing a heightened interest in pension risk management and its importance to good plan governance, this new column seeks to

educate with the use of examples, case studies, tutorials and straight-forward narrative. Future articles will address topics such as (a) the nuts and bolts of getting started (b) acquisition of databases and technology (c) tools and concepts such as Value at Risk, stress testing and risk budgeting and (d) a discussion of advantages and disadvantages of various derivatives-related strategies. Comments and suggestions are welcome. Debunking a few myths is a fine place to start.

Myth #1: Risk Management is Hard to Define

A traditional interpretation of the term "risk management" refers to the purchase and administration of property, life and liability insurance policies. An extended version encompasses activities such as reinsurance, self-insurance or use of a captive. A more modern take considers the use of derivatives in managing interest rate, equity or currency fluctuations and the impact on portfolio values. An even broader interpretation looks at the variety of risks that impact enterprise value, including but not limited to financial, operational, legal, and reputation risk.

While true that risk management can mean different things to different people, it nevertheless represents a disciplined approach to business decision-making and should be incorporated as part of both strategy and tactics. Applied to pensions, risk management reflects a systematic process to identify, properly measure and control any variable that prevents a sponsor from keeping its promises or providing proper guidance to defined contribution plan participants.

Importantly, there is no perfect solution to any problem. Context is everything. For example, creat-

ing an interest rate hedge and frequently re-balancing may be ideal for one fund. In contrast, another fund might be more long-term in nature and require less intervention. These differences from one organization to the next are exactly why it is vital to create, document, implement and monitor a plan-specific risk management process that independent parties would characterize as reasonable, cost-effective, practical, flexible and verifiable.¹

Myth #2: Risk Management is Complicated and Expensive

People typically look at the direct costs associated with taking action of some sort instead of considering the flip side, doing nothing. Fiduciary work is serious business and neither ignorance nor lethargy provides cover in the event of loss or sub-par performance. Fiduciaries who label risk management as expensive err in realizing that doing nothing exposes them to personal and professional damage. In the case of derivative instruments, a cornerstone of risk management when used properly, regulators are clear. Fiduciaries have a responsibility to be proactive.

According to a 1996 PWBA letter, "plan fiduciaries are required to engage in the same general procedures and undertake the same type of analysis that they would in making any other investment decision. This would include, but not be limited to, a consideration of how the investment fits within the plan's investment policy, what role the particular derivative plays in the plan's portfolio, and the plan's potential exposure to losses. While derivatives may be a useful tool for managing a variety of risks and for broadening investment alternatives in a plan's portfolio, investments in

EXHIBIT 2

Over-the-Counter Derivatives

CATEGORY	NOTIONAL AMOUNTS OUTSTANDING
Foreign Exchange Contracts	\$31.075 Trillion
Interest Rate Contracts	\$204.393 Trillion
Equity-Linked Contracts	\$5.145 Trillion
Commodity Contracts	\$1.693 Trillion
Total	\$242.306 Trillion

Source: *BIS Quarterly Review*, December 2005, Table 19

certain derivatives, such as structured notes and collateralized mortgage obligations, may require a higher degree of sophistication and understanding on the part of plan fiduciaries than other investments. Characteristics of such derivatives may include extreme price volatility, a high degree of leverage, limited testing by markets, and difficulty in determining the market value of the derivative due to illiquid market conditions.²

Myth #3: Derivatives are a Fad

Derivatives are instruments that take (or derive) their value from the value of an underlying security, index or otherwise specified variable. For example, the price of a U.S. Treasury bond futures contract is based on the price of a specified U.S. Treasury bond itself at a given point in time. The price of IBM stock is a determinant of the value of an IBM call and so on. Derivatives are used for a variety of reasons and by a variety of different types of organizations such as financial institutions, corporations, non-profits and governments. Popular applications include risk minimization (hedging), yield enhancement, cash flow transformation and asset class exposure.

Derivatives have been around for hundreds of years in various forms. Interest rate derivatives are a more recent phenomenon, dating from the 1970s for exchange-traded contracts and 1980s for over-the-counter equivalents. Since then, growth has been meteoric with no indication of diminution. Putting things in perspective, a \$240 trillion plus global market size for over-the-counter instruments, as shown in Exhibit Two, dwarfs 2005 estimated global domestic product of roughly \$44 trillion and U.S. national debt of approximately \$8 trillion.^{3, 4} Used with care, derivatives can open up an entire world of financial possibilities on behalf of pension plan beneficiaries and are considered a mainstream risk management tool for both assets and liabilities.

Myth #4: Risk Management Only Applies to Defined Benefit Plans

According to the U.S. Department of Labor statistics, defined contribution plans have been steadily growing in number over the last decade and now account for more than ninety percent of all private pension plans.⁵ Though the debate over optimal plan design is left to others, it's impossible to ignore the growing importance of 401(k)

plans and similar programs which require employees to take more of an active stance with respect to financial planning.

Unlike defined benefit plans, there is no de facto pension liability to fund. Nevertheless, employers are asked to make appropriate investment choices available to employees and should consider their age, salary and other relevant determinants of post-employment income requirements. In deciding on investment alternatives, an employer might offer any number of products such as lifestyle funds, guaranteed return products or traditional mutual funds, equity, fixed income or a combination thereof. What they have in common is that derivatives are frequently integral to such products. Embedded derivatives cannot be stripped out and sold separately but nevertheless influence, sometimes dramatically, the value of a particular security or portfolio. They are ever present.

In other situations, an outside manager could be using derivatives to reduce risk or boost performance. For example, an equity mutual fund manager sells a call option to offset a possible decline in the value of a long stock position. The provider of an aggressive growth-oriented product enters into a total return swap type of derivative to exploit market momentum. A fixed income fund manager buys convertible bonds and mortgage-backed securities and hedges them with futures and so on. As discussed in the section that follows, oversight and risk management go hand in hand.

Regardless of the number of investment choices made available to employees, defined contribution plan decision-makers cannot ignore derivative-like features

nor can they turn the other way when evaluating the outside money managers assigned to care-taking employees' savings. Risk is everywhere and knowing how it behaves is both necessary and desirable. Fiduciaries are not allowed to abide by different standards when it comes to defined contribution plans.

Myth #5: Outsourcing the Risk Management Function Eliminates Fiduciary Responsibility

The use of external money managers is a common practice and comes with its own set of costs and benefits. Comparing return data across managers is sometimes difficult, even after controlling for similar strategies. Fees confound performance information. Hiring, firing and monitoring outsiders can be both time-consuming and tedious. Yet oversight remains the lifeblood of a fiduciary's job. This includes constant vigilance vis-à-vis third party vendors, including managers and consultants who directly or indirectly influence a plan's exposure to bad news in the guise of loss, unacceptable price points or diminished liquidity.

Once again, the guidance is clear. According to the U.S. Department of Labor, "If the plan is investing in a pooled fund which is managed by a party other than the

plan fiduciary who has chosen the fund, then that plan fiduciary should obtain, among other things, sufficient information to determine the pooled fund's strategy with respect to use of derivatives in its portfolio, the extent of investment by the fund in derivatives, and such other information as would be appropriate under the circumstances." Moreover, "if the investments are made by outside investment managers hired by the plan fiduciary, that fiduciary should consider whether the investment managers have such personnel and controls and whether the plan fiduciary has personnel who are competent to monitor the derivatives activities of the investment managers."⁶

MOVING FORWARD

Much more can and will be said in subsequent articles. For now, suffice it to say, whether plan fiduciaries decide to employ derivative instruments, outsource financial risk management or adopt a passive approach, they are obliged to first understand enough about the process to know if, how and when to proceed. On the plus side, a risk review that focuses on the make up of assets and liabilities, or how money is managed, can yield countless benefits, not the least of

which is a more enlightened and empowered investment committee. Hopefully better information leads to improved decision-making and heightened protection for beneficiaries, shareholders and taxpayers alike. Either way, the argument that fiduciaries have a duty to identify, measure and manage risk is compelling. As Abraham Lincoln aptly stated, "You cannot escape the responsibility of tomorrow by evading it today".

■ **Disclaimer: The information provided by this article should not be construed as financial or legal advice. The reader should consult with his or her own advisors.**

NOTES

1. Mangiero, Susan M. "Pension Risk Management: The Importance of Oversight", *Risk Review*, March/April 2005.
2. The full text of the 1996 PWBA letter about derivatives can be found at <http://www.dol.gov/ebsa/programs/ori/advisory96/driv4ltr.htm>. Note that, after early 2003, the U.S. Department of Labor changed the name of the Pension and Welfare Benefits Administration ("PWBA") to the Employee Benefits Security Administration ("EBSA").
3. CIA, *The World Factbook*, 2005.
4. Visit the site of the U.S. National Debt Clock, http://www.brillig.com/debt_clock/.
5. See the Employee Benefit Research Institute website, www.ebri.org.
6. The full text of the 1996 PWBA letter about derivatives can be found at <http://www.dol.gov/ebsa/programs/ori/advisory96/driv4ltr.htm>.