WHEN DIVERSIFICATION FAILS

ALTERNATIVES FOR PENSION-FUND Risk MANAGEMENT

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Pension funds—public and corporate—are suffering volatility, both in funded status and annual expense, and a lot of that is being driven by the volatility of the assets they hold. For the past 10 or 20 years, the concept of risk management for pension funds has been focused on diversification. But the problem is that diversification doesn't work when everything falls at the same time. That's what we saw in the financial crisis, and that's one of the reasons why so many funds are where they are in their funded statuses today.

Especially right now, the concept of trading equity exposure for bond exposure as a means of risk management poses problems. If interest rates rise, you stand to lose a lot of money on those bonds. Again, that could be quite unappealing for a lot of plans: you'd lock in higher contributions and still potentially lose some of that asset pool if interest rates rise.

ACTIVE VOLATILITY MANAGEMENT STRATEGIES: AN ALTERNATIVE TO DIVERSIFICATION

Looking for an alternative approach, we looked to the variable-annuity industry. The variable-annuity promise is economically equivalent to the promise of a pension plan. It promises a guaranteed lifetime income stream and it backs it with a pool of assets that are equities and bonds. Pension plans also have promised guaranteed lifetime income streams and back it with a pool of equity and bond investments. Even the average allocation of a variable annuity to equity is very similar to the average allocation of a pension plan to equity, around 60%. The problem economically that we're trying to solve is very similar.

Starting in the early 2000s, life insurance companies began using sophisticated risk management techniques in order to offset the liability of the guarantees that they promised their policyholders. These hedging programs have been highly effective. They were 93% effective during the financial crisis, and saved the insurance industry $40 billion.

How do we translate what the variable-annuity writers are doing into the pension plan space? It involves two sophisticated risk management techniques: volatility management and a capital protection strategy.

The concept behind the capital protection strategy is that you're trying to create a cushion of protection inside your portfolio by creating an inversely correlated asset that will guarantee an increase if the market falls. So it's not trying to diversify, it's not trying to get something with low correlation; it's inversely correlated. When the portfolio falls, that asset rises.

The concept of volatility management also goes beyond diversification. The common concept of using asset allocation to manage risk is just a proxy for the actual risk of the allocation. A fund with 60% equity exposure is seen as moderately risky, but that can vary from year to year. In 2005 that was a very stable allocation: The volatility was about 8%. In September 2008, that same 60/40 fund had a volatility of 30%.

Rather than choosing a 60/40 asset allocation mix because the average long-term volatility of a 60/40 fund is 11%, volatility management actually adopts a long-term volatility target, then looks at the market to assess whether we are in a high- or low-volatility environment, and adjusts the asset allocation in response.

It's human nature to buy stocks when the equity market is booming and then sell them after a crisis, when everything has collapsed. That kind of strategy will destroy value in your portfolio. A protection strategy can get you out of that pattern of selling out after equities crash. Appropriately managed, it can lock in market gains as you achieve them. Then, after the market crashes, you have a cushion of protection. You can use the gains from that in order to reinvest in the portfolio.

When you combine these techniques, you end up with a dynamic choice of how much protection you have. If the market's stable, you don't need much protection so you don't have to sacrifice much upside. When the market is in crisis, you need more protection ... and that's also when the market is likely to be going down, so you get that protection at the least cost in terms of sacrificing the upside.

When you look at your expected average return on a cumulative basis, the way you would with a pension expense or with a discount rate, the difference in the average is virtually nothing, because even though you have a lower annual average return, you can have the same cumulative return if you don't have the really bad scenarios that force you to climb back out of the hole. ■