Cutting Longevity Tail Risk Down to Size

By Kerry Pechter *Thu, Mar 7, 2013*

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Longevity tail risk is expensive, regardless of who has to finance the beast. Save for it, hedge against it, or pool it, it can be a heavy burden for individual retirees, for pension plans and even for national governments to bear.

Uncertainty about life spans is an age-old problem for which a bunch of new solutions have been suggested lately. One of the most recent proposals comes from a team of actuaries at Milliman, the global consulting firm.

In *Longevity Plan*, a white paper published last month, Milliman actuaries describe a design for a mini defined benefit plan that a plan sponsor could tuck inside a defined contribution plan like a donut tire in the trunk of a car.

Running parallel to a DC plan, this new type of plan would resemble a DB plan. But it would be cheaper and less risky than a traditional DB plan because accrual wouldn't start until age 45 or so and payouts wouldn't start until age 80 or 85.

This "unit-accrual design" is still just a concept, not a product. But the authors of the white paper think the only thing that prevents it from widespread adoption is an outdated ERISA regulation against delaying pension payouts past age 65.

"Everyone's talking about this and lots of new products has been proposed," said Bill Most, a Milliman principal who worked on the paper with principals Zorast Wadia and Daniel Theodore and consulting actuary Danny Quant.

"But we don't need new products, we need changes from government. And the results will hopefully give us something that employers might embrace. We're not kidding ourselves. We don't deny that there's a lot of bad faith toward defined benefit plans. But from a cost perspective, this makes sense."

How it works

Milliman offers the following example for how such a plan would work. The plan sponsor would start contributing to a fund on behalf of an employee when the employee reaches age 45, and stop contributing at age 65. The pension would pay out about two-thirds of the participant's final salary at age 80.

If the employee died after retiring but before age 80, a lump sum death benefit of three times the pension would be paid. If a married employee died after starting payments, the spouse would receive a 75% continuation.

The plan would be much cheaper than a traditional DB plan, and not merely because of the long deferral period. Because of the career plateau effect, salary paths after age 45 become much less variable. Also, the distribution of life expectancies after age 80 is narrower than at age 65. Less variability means lower risk and therefore lower cost for the underlying fund.

How much lower? According to Milliman, it would cost an employer about 10% of pay for a lifetime pension paying out two-thirds of final salary starting at age 65, with a 75% spousal continuation. The same pension based on career-average earnings would cost about 6.5% of pay.

But under Milliman's longevity plan, the cost for the final-salary pension, including death benefit and spousal continuation would drop to 2.9% of pay. Without the death benefit, the plan would cost 2.4% of pay; without the death benefit or spousal continuation, the cost would drop to 2.1% of pay.

Between retirement age and age 80, the employee would presumably rely on Social Security and either systematic withdrawals from the defined contribution plan account or rollover IRA, or perhaps on a 15-year period certain annuity purchased with tax-deferred assets or personal savings.

Outside perspective

The Milliman actuaries don't pretend that these concepts originated with them, as outside observers pointed out to RIJ. "All of the actuarial consulting firms have got some of their so-called 'thought leaders' imagining the ideal pension plan that combines the best of all worlds and universes," said Moshe Milevsky, professor at York University in Toronto.

Milevsky wonders who will underwrite such plans. "Most of these ideas have been thrashed in the academic pension and economics literature, which few practitioners ever read. In general, I think everyone agrees that retiring with a 'random variable,' which is the amount of money in your DC plan, isn't the way to finance a random lifetime. We all need more certainty. But who is going to provide that certainty? Who will back it?"

Wade Pfau, Ph.D., who is about to begin teaching advisors about retirement income planning at the American College in Bryn Mawr, Pa., likes the Milliman proposal. "I generally think that deferred income annuities (DIAs) have a lot of potential for helping to reduce longevity risk at a reasonable cost. That is what this proposal is about," he told RIJ.

"[Milliman] takes the discussion in an interesting direction by talking about how to get something more sustainable for employers. One issue about DIAs, though, is that there are not currently any inflation-adjusted versions. Even a small difference between actual and assumed inflation can make the real value of future spending quite different than planned after 20 years of compounding."

Currently, plan sponsors could not put the Milliman concept into practice even if they wanted to. Pension regulations, written decades ago to protect plan participants, don't allow the deferral of defined benefit payouts past age 65.

"They've relaxed certain rules related to required minimum distributions starting at age 70½, but they have not made changes in the terms of defined benefit plans," said Zorast Wadia. "If you're no longer working, you must begin payments from a defined benefit plan no later than age 65. If you're still working past age 65, they won't force you to take benefits. But ERISA won't let the company purposely delay payments beyond 65 if you're retired."

Milliman believes, as many retirement income experts now do, that self-insuring for retirement is too expensive, and that it's going to take a revival of some form of defined benefit pension with mortality pooling to finance longevity tail risk.

"It's not even disputable [that people will be able to save enough for a retirement of us to 30 years]," said Most. "It's not going to happen, though 401(k) pp will tell you differently. Even if you save a substantial amount, you still don't know when you're going to die."