Is Retirement an Endangered Species?

by Jim McHale
As employees increasingly bear all the financial risks of retirement, their ability to retire—and not outlive their savings—is questionable. Through plan design, investment innovations, education and employment strategies, employers may be able to help employees moderate retirement risks.

Will your employees outlive their 401(k)s? We all know the main headline in the retirement arena of the last 20 years or so: the decline of defined benefit (DB) plans and the rise of defined contribution (DC) plans as the main tool for financing retirement. But this isn’t another article lamenting that change or arguing that DB plans are more efficient or more effective at delivering retirement security. Regardless of whether that’s true, the fact remains that most employers in many industries, having decided for a variety of reasons that DB plans and the heartburn associated with maintaining them aren’t sustainable, have shifted to DC plans.

The result? Virtually all of the financial risks of retirement have been transferred to employees. And they’re significant: investment risk, longevity risk and inflation risk of managing retirement assets. And, although the risks of financing retirement have been transferred primarily to employees in many industries, if they don’t or can’t manage that risk effectively, workers will find they can’t retire when they want to. While those putting in enduring careers with the same employer can deliver many advantages to the organizations they serve, they also can disrupt effective workforce succession—if they continue to work only because they can’t afford not to.

Where Have All the Savings Gone?

What does this mean for employees as they plan for retirement? Do employers understand the size and shape of the risks they’ve transferred to employees and the impact this might have on their business? Do employees understand how to plan for retirement in this context? Do the many models and tools available adequately measure the risks involved? While it’s generally believed that employees tend to invest reactively and fail to save adequately, what happens to those who follow the guidance and do everything the “right” way? To what extent will they control the risk?

Let’s say a male employee targets 40% income replacement from his 401(k) plan, expecting that Social Security benefits and other savings will provide the balance of spending needs in retirement. To meet this objective, he needs to decide on an investment strategy and savings plan that takes into account the length of his working career and life expectancy. If we settle on a realistically ambitious savings period beginning at the age of 30, retirement at the age of 60, and a life expectancy for a 60-year-old retiree to aged 83, we have an accumulation phase of 30 years and a drawdown period of 23 years.

If we follow a typical retirement glidepath investing approach, which calls for investing heavily in stocks at younger
Even if markets return to their norms, volatility will remain a challenge. Longer life would create the need for significantly more retirement savings. Among a worker’s options for managing risks are saving more, working longer, reducing consumption in retirement, working in retirement and investing in less volatile assets. Hybrid design approaches provide elements of DB and DC plans that balance risks between employees and employers. Many providers are developing retirement income or annuity purchasing options that employers can introduce into their DC programs.

As more employees move into preretirement years with a DC-only portfolio, their ability to manage retirement risk will have a growing impact on employers. Even if markets return to their norms, volatility will remain a challenge. Longer life would create the need for significantly more retirement savings. Among a worker’s options for managing risks are saving more, working longer, reducing consumption in retirement, working in retirement and investing in less volatile assets. Hybrid design approaches provide elements of DB and DC plans that balance risks between employees and employers. Many providers are developing retirement income or annuity purchasing options that employers can introduce into their DC programs.

ages and gradually moving to bonds and inflation-hedging assets to and through retirement age, this retiree could expect to earn 7% to 7.5% annually before retirement and 5.5% to 6% after retirement. Based on these inputs, the employee would have to save just over 10% of earnings annually during his working years to finance 40% replacement through his life expectancy. This amount would include the employer’s matching contribution to a 401(k) plan and could be contributed and accumulated for most workers on a pretax basis.

Sounds like a great plan, right? It may be a good starting point, but the plan assumes that everything will occur just as expected. If the last decade of ups and downs has taught us anything, it’s that things too often fail to turn out as expected. Even if markets return to their norms over a long span of years (and not all experts agree they will), we still have a lot of volatility to deal with along the way.

What risks does the employee in our example bear and how can we measure how these risks could affect his 30-year plan? Before we get started, it’s important to note that we deal here specifically with the financial and longevity risks, but workers deal with many other risks as they near and enter retirement. These include the cost and life issues connected with health care, long-term care, family situation (divorce and death of spouse), living independently, real estate, and securing and maintaining employment. The mathematical models we will use can tell us a lot about the impact of the potential variability of life span and market fluctuations, but they don’t handle these less tangible risks.

Sizing Up Retirement Risks

To arrive at some answers, we used a Monte Carlo methodology to generate the results over 10,000 alternate lifetimes; this is basically a type of computerized coin flip that looks at the market results each year from aged 30 to death and the chance that a retiree will live or die in each year of retirement. After running these random trials, we tabulated the results, looking at each simulated lifetime and determining if the employee was successful in funding his retirement target.

Note that we recognize that the debate over what constitutes an appropriate target is not universally agreed upon and is a personal matter that’s based on an employee’s family situation, health, prospects for working in retirement and many other factors. The focus here is on looking at the chances that a selected goal will be met and the variability of results; we should see similar variability of results if we decided that, say, a 50% goal was a better objective.

So, how did things turn out for our sample employee and his 9,999 alter egos? For starters, remember that a male employee who retires at the age of 60 is expected to live to the age of 83 on average, but that happens only about 4% of the time. There is an almost 20% chance that he could live past the age of 90 and a more than 5% chance he could make it to 95. While this is a nice problem to have, longer life would create the need for significantly more retirement savings.

Moreover, average returns over the working years also varied significantly. Although the average 30-year return in the build-up period was 7.1%, there is a 20% chance the employee would earn less than 4.6% and a 1% chance that the average 30-year return would actually be negative. Of course, there’s an upside to taking risk: 20% of the time, the employee earned 9.5% or more, and in the jackpot top 1% scenario, the portfolio returns 14% or more per year.

All this adds up to a wildly varying result in retirement: In some cases, the employee ends up with hundreds of thousands of dollars to leave to his heirs (if he is “lucky” enough to have strong investment results while working but then die young); in others, the retirement income objective is not even close to being achieved. The bottom line: 55% of the time, employees end up outliving their savings, despite following a disciplined retirement savings regimen over their lifetime and following industry rules of thumb about sound retirement investing.
Managing Retirement Risks

As bleak as this outlook sounds, employees can avail themselves of many options to manage this risk. We looked at some of these and noted what our sample employee would have to do to improve his chances of making the retirement savings last. Note that these options have to be initiated ahead of time; if a retirement nest egg is depleted at the age of 85, at that point the retiree will have few avenues for rethinking strategy. Here are some things employees can do to hedge their retirement risks:

- **Save more.** Increasing the 30-year savings rate to 15% could reduce the chances of outliving savings to 30%—still a risky proposition. Risk management processes often look at targeting the 5% worst case, so we follow a strategy that will allow us to weather 95% of outcomes and so be exposed to only the worst 5%. To budget for all but 5% of outcomes, a retiree would have to save close to 30% of income for a 30-year period, which would not be feasible for most workers.

- **Work longer.** If an employee is beset with sudden market drops near retirement, he or she often is forced to work longer than expected. This can help in a small percentage of cases, but what if the market drop comes after retirement? An employee may hedge the risk by planning to work longer ahead of time in order to accumulate a “reserve” for potential longevity and poor market performance. Our analysis shows that working five more years past the age of 60 could reduce the chances of outliving savings from 55% down to 25%. Our retiree would have to work to the age of 70 to meet the 5% standard.

- **Reduce consumption in retirement.** If the market is not kind to an employee, he or she can also realign expectations to draw down savings more slowly in retirement, based on the size of the 30-year nest egg. Financial advisors often suggest an annual rate of withdrawal from savings that is set conservatively to allow a cushion for longevity or down markets. For instance, reducing the annual withdrawal in retirement by 20% would reduce the chances of outliving savings to 35% in exchange for the belt-tightening. To get to that 95% confidence he would not outlive his nest egg, the retiree would have to live without 60% of the expected income.

- **Work in retirement.** Instead of living with 20% less income, a retiree could consider supplementing income with a part-time job to make up the difference. Note that this is more realistic in the early years of retirement (and under better economic circumstances).

- **Invest in less volatile assets.** In just about any current 401(k) plan, employees can choose to allocate their retirement savings to assets that are expected to be less risky. Conventional wisdom says that less risk comes in exchange for a lower expected long-term return. If they go this route, employees need to do so in conjunction with one of the other hedges described earlier (save more, work longer or consume less to make up the difference).

These approaches can be effective in reducing the risk employees take for their retirement, but they all involve a significant adjustment to lifestyle or workforce participation. Because we started with what can be called a reasonably ambitious expectation for what a worker can save over a working life, it would be difficult for many workers to make these kinds of adjustments. They might, therefore, remain exposed to these risks as they enter or consider entering the retirement years.

How Employers Can Help

Many employees retiring today have some form of defined benefit annuity guarantee, even if it comes from a frozen plan. But as more and more employees move into their preretirement years with a DC-only portfolio, the difficulty...
that employees have in managing retirement risk will have a growing impact on employers. Employers may find they need to offer their people more tools to manage this risk. This can be done through:

**Plan Design**

Innovations in plan design, such as automatic enrollment, have helped incent more employees to save sooner. If employers can gain a better understanding of the choices employees are making, additional innovations may also help. For instance, would providing a smaller employee match percentage on a larger dollar base incent more employees to save at higher rates? How high should the automatic enrollment rate be?

Are 401(k) plans the most effective and overall efficient vehicle for delivering retirement benefits? While they certainly will be the choice of many employers going forward, some employers may want to consider hybrid design approaches that balance risks in a different manner between employees and employers. These plans provide elements of DB and DC plans within the employer’s retirement program. Market-rate cash balance plans can operate in a nearly identical manner to a DC plan in the build-up phase, but operate as a DB plan in the drawdown phase. Would such designs strike a more realistic balance for some employers?

**Investment Innovation**

The conventional wisdom on retirement investing is constantly evolving as practitioners understand the risks better and experience the limitations and pitfalls of discarded past paradigms. Many employees want (or need) less of the freedom offered by self-direction and more ways to purchase (for a reasonable cost) lifetime income opportunities. Employees and retirees historically have avoided traditional annuities because of perceived high cost and reluctance to commit a large part of their savings irrevocably.

To address some of these concerns, many providers are developing retirement income or annuity purchasing options that employers can introduce into their DC plans. These include bulk purchasing of annuities through a DC investment choice option and managed account alternatives that target and maintain a stated income level from the account.

**Education**

Building financial literacy and investment education are important objectives, but employees somehow will need to understand the risk management challenges of retirement. How do their investment and life choices interact with their long-term financial health? What’s a reasonable cost or investment return trade-off for reducing investment risk and longevity risk in retirement? Right now, employees may have a pretty good idea of the upside and downside of market risk based on their experiences of the past several years. But it will become increasingly difficult to make informed decisions as the range of choices continues to expand.

Moreover, just because employees are educated about how investment works, even if it helps comply with regulations and avoid lawsuits, it doesn’t mean the employees will apply the knowledge consistently or that they are equipped with feasible options to control their risks.

**Evolving Workforce Paradigms**

Currently, the average retirement age in the United States is around 62, which has been decreasing for decades. As longevity increases, this means that most workers will be spending over 20 years in retirement. Couple that with declining birth rates and we will be expecting an ever-shrinking workforce to support growth and productivity. Is this sustainable? Alternate approaches to managing the transition to retire-
ment, such as phased retirement, have been widely discussed but rarely implemented. Can employers better tap the skills of retirees or preretirees?

**Imagining a Better Way Forward**

What happens to the workforce and long-term sustainability and viability if employees can’t retire and employers can’t compete? If workers are thrown to the whims of forces far beyond their control, how is succession planning not also thrown into turmoil?

In today’s environment, it’s hard to imagine how most employees will have the resources necessary to reliably manage the risks of financing retirement. How will this impact broader society, the economy and the financial markets? In moving forward to a better state for employers and employees alike, greater availability of appropriate tools (some of which have yet to be developed) must help bridge this gap.

Employers may well find a competitive advantage to equipping their people with such tools and the knowledge and insight that will enable them to make good use of them—and their retirement years. But first, organizational leadership will have to come to grips with the very real consequences of failing to take action today.

*Author’s note:* David Cantor of PricewaterhouseCoopers LLP contributed to this article.

**Endnote**

1. The expected returns used in the Monte Carlo simulation are based on the 2011 capital market assumptions published by Callan Associates.