



SOCIETY OF ACTUARIES

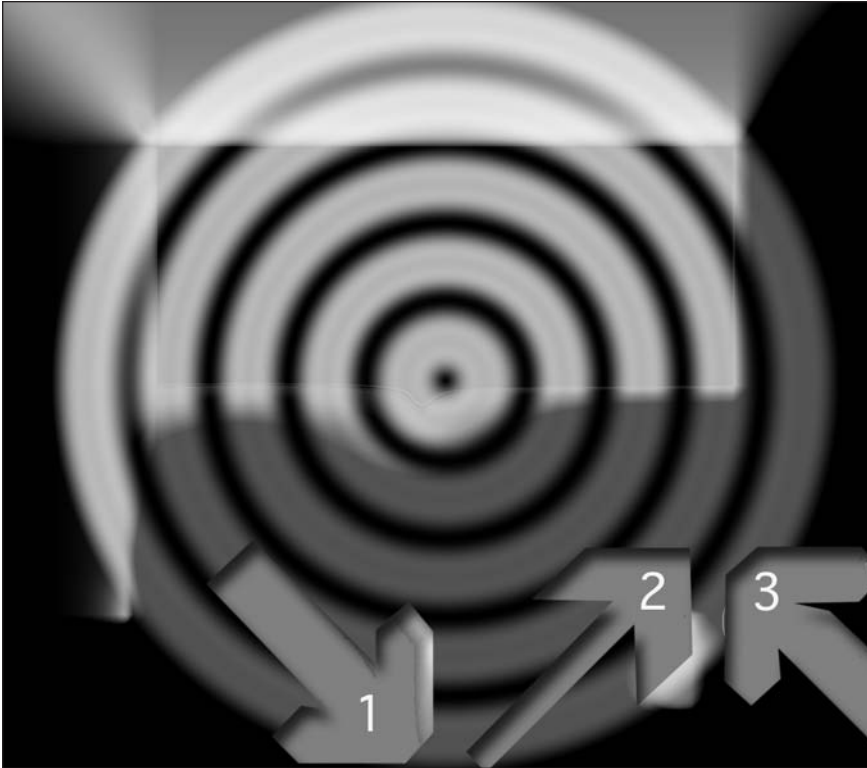
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# The Third Way: Building New Retirement Systems

by Emily Kessler



The *Economist* article, “Actuaries and the pensions crunch: When the spinning stops” (Jan. 26, 2006) certainly has created quite a stir within the pension community. For those who haven’t read it, it outlines the pensions “crisis” in the United Kingdom and talks about the mistakes made by “old actuaries” (the traditional actuarial paradigm), the insights brought by “new actuarial thinking” (the teachings of pension finance, a.k.a., financial economics), and what that might mean for the future of pension plans. The last paragraph of the article sums up the authors’ premise very well.

[T]he insight that pension schemes need more security is becoming well established in Britain and in America. Ultimately, the old actuaries failed because they did not properly anticipate, calculate and communicate the rising costs of retirement provisions, especially once inflation slowed and real interest rates fell from the mid-1990s onwards. The promise of the new actuaries is that, as their

ideas spread, such mispricing will never happen again. *If that has come too late for many defined-benefit schemes, at least it might offer a bit more certainty when planning for the next generation’s old age.*

We can respond to the article on several levels. Certainly there are inaccuracies, and many misunderstandings of the roles pension actuaries typically play in the United Kingdom and the United States. We know the reasons for the decline of the defined benefit (DB) plan are far beyond the effort of any single plan sponsor and are wrapped into changing economic and business models. So we can challenge what happened, and why, on factual grounds. But another way to respond is to take up the challenge that is offered, probably unwittingly, in the last sentence. Can we take our understanding of the global economy, business models, shareholder expectations, employee expectations, employment risks, pre-retirement risks and the emerging retirement paradigm and create a new retirement system?

What would that mean to us? Is that about the revival of the defined benefit plan, using the new financial paradigms taught to us by the financial economists? Is that about strengthening the defined contribution system to make it work better? Or can we envision a third way: a whole new generation of retirement systems created from these lessons, and others. The third option provides the most challenge, and opportunities, to actuaries.

## Where We are Today

The *Economist* article talks about the “new actuarial thinking” derived from the lessons of financial economics as the right financial framework. And the lessons of financial economics are attractive to the markets right now because it fits better with global marketplace and current shareholder expectations. What else has changed that we need to think about going forward? How does that change what society will expect from future retirement systems?

### *Global Competition, Shorter Business Lifespans.*

As noted, we’re working in a global marketplace. Global competition has made increased competition, decreased

costs but increased volatility. Companies have to constantly reinvent themselves to stay in business. This creates increased risks for shareholders, who demand increased transparency and better understanding of risks taken by corporations.

#### *Increased Longevity*

People are living longer and (generally) living healthier. Most people can and will work longer than their parents and grandparents, although this will vary significantly by industry and individual.

#### *Stabilizing or Declining Working Age Populations*

Until very recently, each generation has been larger than the last. Now, with declining birthrates worldwide, many countries are starting to see smaller generations into the future. This puts strains on traditional social insurance models that rely on the transfer of wealth from one generation to another for their sustainability.

How has society reacted? We've seen these stresses play out several ways in current markets, including a move away from defined benefit plans. If we look at why this is happening, we can learn valuable lessons for our future.

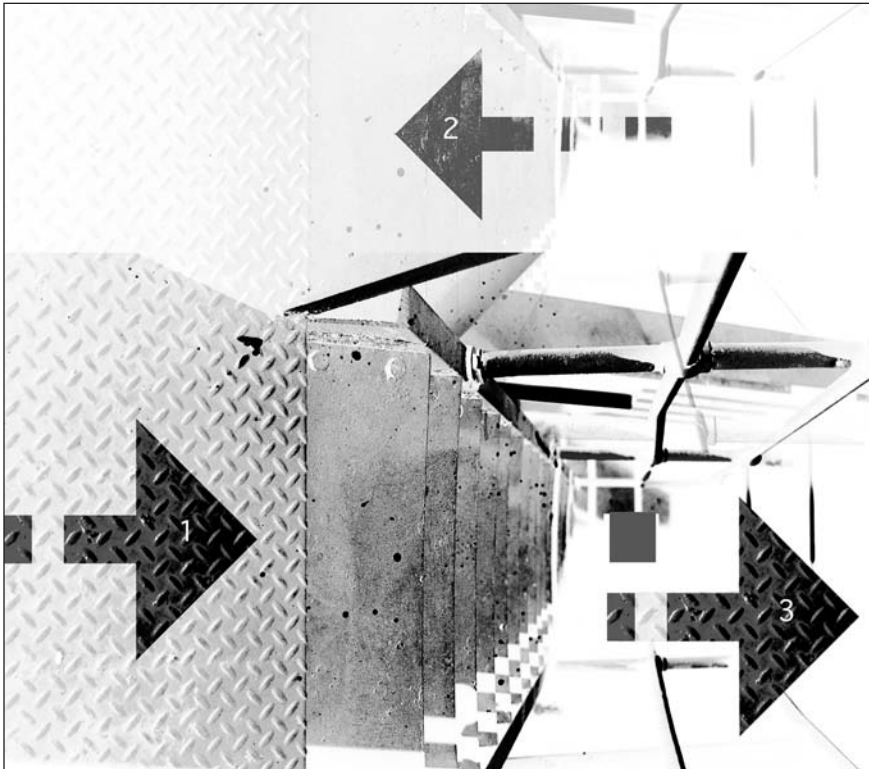
Much of what characterizes the traditional final-pay DB plan is not attractive in the 21st century global economy. And this is not being driven primarily by the demands of multiple careers. One reason why these plans have fallen out of favor at this moment is that the markets have reevaluated their cost and determined the cost of these plans has been set too low. The traditional actuarial funding models assumed long stable companies that could support the risks of equity investments in their DB plans because the company's lifespan was deemed infinite. The financial economists would argue that was never the case—and they're correct (nothing is forever and it's never proper to ask future generations of shareholders to pay for the mistakes of prior generations)—but that's not the point. Companies were perceived to have infinite lifespans, so plans were designed, priced and funded as if there was always time to make up for past mistakes. This model of the ongoing plan influences ERISA and current FAS 87 accounting standards. In my early career, a wise actuary described it as “a trip to the moon but you never actually get there, and you have opportunities to make infinite course corrections along the way.” But we realize now that's not the case; great companies crumble and die. Worse, they shrink, in the light of

global competition, to a fraction of their prior selves. If you've not prepared for that day, your shareholders are left with a core business dragged down by a pension plan (British Airways is referred to as “a large hedge fund with a struggling airline attached.”). If you were an investor, and you'd seen what you interpret as DB plans dragging down the steel, auto and airline industries, would you find them attractive in the company you're purchasing? Remember it's not the plans themselves, but the way markets first got used to thinking about their cost and risk. They were sold to corporations and their shareholders based on certain cost and risk structure. To come back today and readjust that cost/risk structure, however appropriate, simply doesn't work. It's still a tomato—and not even a bigger or tastier tomato—and why would I pay more or risk more for the same tomato?

Should we have readjusted our thinking sooner? Maybe. Possibly. But were shareholders and the financial community ready? Early in my career, my employer tried, when presenting asset/liability modeling studies, to use the “economic” cost as the true cost of the plan on which to base decisions, measuring economic cost using a 30-year Treasury rate. Their argument was that the economic cost was the true cost of the plan, regardless of what accounting or statutory contributory standards told you. But the stock markets were booming, companies were focused on what the accounting standard said or what the statutory body required as minimum contribution, and the economic cost of the plan quickly came out of our asset/liability presentations. Maybe the clients weren't sophisticated enough, but I don't agree with that either; one client was a prominent investment trust company sophisticated enough to adjust the correlation matrix in the asset projection model. The time simply wasn't right.

Many other traditional features of defined benefit plans also are no longer attractive, and in fact will soon be counter to good work force management. Consider the early retirement subsidy and its cousins, the early retirement supplement and open window. All features designed to encourage and easily move workers out of the workforce and into retirement. These features were added to benefit plans in large numbers in the 1970s and 1980s. But in tomorrow's retirement landscape, they simply aren't needed and in fact work against good work force management. Simply put, most companies are going to want to encourage at least some of their workers

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to stay and work later than retire early. And society in general will encourage this trend, as longer working careers take pressure off of overburdened social insurance systems.

### The Road We Don't Have to Take

So what's the solution? Are defined contribution (DC) plans the answer? Of course not. Should we work harder to revive the DB system? Maybe. But neither of these solutions picks up the challenge left to us in the *Economist* article.

DC plans are a great way of encouraging retirement savings. They're easy, convenient and they can provide investment opportunities more cost effectively than mutual funds. But they don't make a retirement system. This may be obvious to actuaries, but most people don't have our understanding of risk. How many people understand longevity risk? Inflation risk? Investment risk? Risk from death of a partner? These are just a few of the risks retirees face. And what about retirement timing risk, the risk that you may have to retire earlier than expected? DC plans as they are today, and as most people use them in retirement, protect against none of these. Proper annuitization can solve many of these issues, but our annuity market is not yet well enough developed to handle all

these needs (as compared to the United Kingdom, for example, where, due to tax incentives, most people annuitize at least some portion of their benefit). And annuitization only covers some of these risks.

Should we work to revitalize DB plans? We know that DB plans, when benefits are properly annuitized, do much for society and the individuals who benefit from them. But I'm not sure pouring energy into widespread DB revitalization is worth it. There was an article in *Pensions and Investment* ("A new era needs new technology", January 23, 2006) that compared the DB plan to the mainframe computer and the 401(k) plan to the PC. The author used this analogy to show how outdated DB plans are: the mainframe was how computing was done, the PC is how computing is done today, and into the future.

Like it or not, conventional wisdom has it that the DB plan has seen its day. It's not that we won't still continue to see DB plans; mainframe computers, after all, are still more powerful, and more reliable, than the PC, but they are no longer the primary computing engines. DB plans are no longer going to be the primary source of retirement income for most people. But they will still survive, for some private companies and for state and government plans and for unionized workers (particularly multi-employer plans). And they may come back in certain situations.

The mainframe/PC computer analogy points out a few other factors for us to consider.

#### *DB Plans are Too Blunt an Instrument*

Part of the reason the traditional DB plan is outdated is it's too blunt of an instrument. Just as the mainframe is just right if you have high-powered computing needs, it's too much if all you want to do is calculate your taxes. Retirement systems may have to unbundle, streamline and customize for the future. Note that's still not the 401(k) model, either. It's something else entirely that hasn't been invented, at least not yet.

#### *DC Plans Don't Work That Well*

Do you remember the PC of 1986? That's where the DC plan is right now. Could your PC "talk" to another PC? How much data did it hold? What about the graphic capabilities? The 1980 era PC had green screen monitors, DOS, floppy disks and you couldn't print from your PC unless you had a rickety dot matrix printer attached. What has made the PC revolution work is linking PCs.

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Office networks, e-mail and the Internet all turned the PC from a box that sits on your desk to a communication tool. In some respects, similar improvements will happen to DC plans: they'll get better at doing what they need to do. We've seen some of it already; lifecycle accounts and auto-enrollment are the equivalent of color monitors and network printing.

But even then ... do you keep all your data on your hard drive? Do you trust your PC never to crash? Of course, mainframes can crash too, but less often. The risk when they do can be catastrophic. The point is any computer is only as good as its backup. In other words, you wouldn't run the **risk** of losing all your data by only storing it on your PC hard drive. So why are we encouraging millions of individuals to **risk** their retirement through a DC-only strategy?

### **It Doesn't Have To Be A Binary World**

Right now we have a binary system. DB plans were born, codified in ERISA, then someone figured out how to set up DC plans. We have a binary system because that's all we've needed up to now, so that's all that is enshrined in our tax code. But it doesn't have to be that way. There are more retirement systems in heaven and earth than are dreamt of in our tax code, to paraphrase Shakespeare. We just have to set ourselves to dreaming.

### **The Third Way**

So, what makes a retirement system? First, a way to systematically, cost-effectively ensure that large numbers of people have sufficient income to cover their basic needs in retirement. Traditional Social Security, whether you agree with the current design or not, has done that extremely cost-effectively for prior generations and, with minor tinkering, could do it for many generations to come. It provides most of their retirement income needs for the bottom quartile of the income distribution, and very necessary, foundational income for the middle two quartiles. Individual savings, through DC plans, adds another layer of security and protection and gives people something beyond basic needs, and is important to supplement income for the middle quartiles of the income distribution and to maintain lifestyle for the upper quartile. But most people, those who are neither very poor nor very rich—the middle two quartiles of the income distribution—need an additional layer of protection.

So how can we provide this? We have to think of new models of risk sharing and risk pooling that replace the DB plan. What form these models will take is unclear today. We do know that putting all the risks on the shareholders (the DB model) is as unsatisfactory a solution as putting all the risks on the employees (the DC only model). That doesn't mean that shareholders couldn't take some risks—for example, shareholders will always be exposed to employment risks (termination, disability and retirement timing) and they could possibly continue to take some of those risks. But some risks may have to be pooled, insured or passed to others.

If we agree that we need to pool risks, the old models won't work for our new challenges. Just as the financial economists have presented us with new financial models, there are other challenges being put to actuaries to solve:

- *Not everyone can work longer.* Some people won't be able to because their primary career—e.g., heavy manufacturing—is physically strenuous and after 30 years, they can't work any longer than they're able to work today. There will probably need to be differentiated retirement patterns by industry and type of job. In addition, if the working career is extended, then individual disability risk increases. Models will have to be constructed that support individual risks of having to retire earlier than the new norm.
- *Current systems don't address systematic risk.* Pooling mechanisms work well for idiosyncratic risks, but fail for systematic risks. One example of systematic risk is generational longevity improvement. Past generations have been able to pass on the costs of their longevity improvement to future generations, which works well with large families and growing nations. That forward risk transfer doesn't work if future generations are of equal or smaller size. Mechanisms must be built to share risk within generations, not just between them. For example, the Swedish social security system adjusts benefit payments based on the actual mortality experience of the birth cohort. If the cohort lives longer than expected, all payments to that cohort decrease proportionately (or, more practically, they don't go

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up in line with GDP growth). Could similar mechanisms be used by private plans?

- *Current systems don't support phased retirements and other work into retirement schemes.* DC plans can be used for this, but can employers use them to encourage some workers to stay and others to leave? Some of this can be done through cash compensation and may be more properly done through compensation. But as retirement changes from an event to a process, what programs can be designed to help employers and their employees manage this process?
- *As noted earlier, systems will have to be highly differentiated, between employers but also between different classes of employees at the same employer.* A major manufacturer might need to bridge its hourly workforce from the age at which they can no longer work (in their 50s or early 60s) to full Social Security age and at the same time that employer may want to encourage key salaried employees—not necessarily executives—to keep working into their 60s through work/leisure programs.
- *We live in an unbundled world.* The traditional DB plan bundled a bunch of protections into one instrument. It may be cost effective, but probably doesn't meet the transparency needs of markets or covered employees. New systems may have to differentiate more carefully between risks and show employees and employers what protection they're buying.

These are a few of the challenges facing the new retirement system. Clearly the DC plan doesn't meet these challenges, so there is room for a new and improved model. Not your same old tomato, but something different: a kumquat or passion fruit. These are the challenges to be solved by the third way.

It's my understanding that, if you're flying on a trapeze and you want to go from one bar to the next you have to let go of the first bar before you grab the second bar. It makes sense: you have to let go so the momentum carries you forward to the second bar without being pulled back by the first. If we're going to move to the third way, we have to be ready to let go of the DB/DC binary

model as the only model for a retirement system. We have to let ourselves swing on another trapeze. It's not being disloyal, or abandoning the DB plan; it's exploring new possibilities, a third way. A third way that might better meet the challenges of the 21st century, the challenges posed to us in the *Economist* article. It's using our unique insights on risk and retirement to find another solution. Are you ready to find the third way? ♦

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*Author's Note: The Pension Section Council has launched the Reenvisioning Retirement Project to work toward the third way. To find out more about the project, read the Chairperson's Corner on page 2.*



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