



SOCIETY OF ACTUARIES

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WE'RE NOT FINISHED WITH THE MOVE TO DC RETIREMENT PLANS: HOW ACTUARIES CAN HELP

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The move to defined contribution (DC) retirement plans requires participants to be their own investment managers and their own actuaries. As such, they must make three crucial decisions:

1. How much to save while they're working,
2. How to allocate their savings among different investments, and
3. How to make their money last for the rest of their lives in retirement, no matter how long they live and no matter what happens in the economy.

THE BASIC PROBLEM

Unfortunately, this expectation is highly unrealistic; most plan participants don't want to spend the time necessary to learn about the appropriate investing strategies, and many might not have the capability to understand them as well. Behavioral scientist Dr. Richard Thaler expressed this challenge well when he said:

"For many people, being asked to solve their own retirement savings problems is like being asked to build their own cars."

Most people would never want to build their own cars, and they couldn't, even if they tried, but that's not a derogatory judgment on their intellectual capabilities. The same is true of most people when they're asked to be their own investment manager and actuary.

Recent innovations in DC plan design—auto-enrollment, auto-escalation of contributions, and target date funds—have made significant progress toward the first two challenges described above. These innovations still need refinement; plan sponsors must hone the calibration of sufficient contribution rates and the glide paths that are appropriate as participants approach and enter into retirement. But there's not much doubt that the basic concepts have improved retirement security.

The third challenge still needs to be adequately addressed: How can participants use their retirement savings to generate reliable lifetime retirement income? Currently, the most common situation is that retiring employees elect a lump sum payment from their plan, and then they're either on their own to generate retirement income, or they must find a financial planner who can help them. For most plan participants, it's a challenge to find planners who are skilled at generating retirement income and aren't conflicted by the way they're compensated.

THE CHALLENGES WITH GENERATING RETIREMENT INCOME

For participants who manage their own savings in retirement, ideally they'd consider and weigh many quantifiable risks:

- Market/sequence of returns
- Longevity
- Excessively high withdrawal rates
- Inflation
- High fees
- Insurer insolvency
- Liquidity/access to savings
- Inadequate protection for surviving spouse

They would also have the fortitude and discipline to manage considerable behavioral risks:

- Inadequate understanding of the issues that affect income generation
- Temptation to spend more today
- Mistakes, fraud, or cognitive decline
- Poor/biased advice
- Inability to assess and self-execute



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Participants need to make decisions on deploying retirement savings in retirement that reflect the following factors:

- Claiming Social Security
- Existence of defined benefit pension, if any
- Role of continued work
- Expected pattern of living expenses
- Deploying home equity
- Amount of debt
- Level of income taxes
- Threat of high expenses for medical or long-term care
- Desire to leave a legacy

In the real world, it's a rare individual who has both the intellectual capability and the emotional discipline to successfully address these risks and factors. In our modern world, we routinely accept help with complex problems from skilled experts, such as engineers, doctors, lawyers, and accountants, and generating retirement income is an example of such a complex problem.

THREE WAYS TO GENERATE A RETIREMENT PAYCHECK

There are basically three valid ways to generate a retirement paycheck that can be expected to last for life:

1. Invest your savings, and use the investment income—interest and dividends—for retirement income. Principal is left intact.
2. Invest your savings, and withdraw principal and investment income systematically with a method that's intended to make your money last for life, although there's no guarantee, and you might outlive your savings if you live a long time or experience poor investment returns.
3. Buy an annuity from an insurance company, which will guarantee an income

stream for the rest of your life, no matter how long you live.

A fourth method of generating retirement income is to structure an income stream for a specified period of time at the end of which savings are exhausted. With this method, either the specified period is such that there's only a small chance of outliving savings, or another stream of income kicks in after the specified period has elapsed, such as a deferred annuity, a.k.a. longevity insurance.

There are many variations on these four retirement income generators (RIGs), each generating different amounts of retirement income and each having their pros and cons. From the participant's perspective, the most important features of RIGs are expressed by the acronym **A-LIFE**:

- **Amount** of initial retirement income
- **Longevity** protection. Is the income guaranteed for life?
- **Inflation** protection. Is it possible the income will increase to counter the effects of inflation?
- **Flexibility** and potential for a legacy. Can the participant access savings through retirement, and are unused funds available for a legacy after the participant's death?
- **Exposure** to market risk. Is it possible for the income to decrease or stop altogether if investment experience is poor?

There's no "one size fits all" RIG that can successfully address all the above factors, and retirees will need to make tradeoffs between these goals. Retirees will also differ in these areas:

- Tolerance for risk regarding expected investment returns and inflation, depending, in part, on other sources of retirement income as well as the amounts

of nondiscretionary and discretionary living expenses.

- Degrees of optimism or pessimism about the economy and capital market returns.
- Life expectancies based on family history and lifestyle.
- The self-discipline required to manage savings in retirement.

HOW ACTUARIES CAN HELP

Actuaries are ideally suited because of their training and professional characteristics to help plan participants address the risks and factors noted above. Some actuaries have chosen to become financial planners for individuals, helping retirees one-on-one and reflecting their unique goals and preferences.

This article, however, advocates another way that actuaries can help: They can design a program of retirement income that can be offered in employer-sponsored DC plans, more easily referred to as “mass customization” of retirement income solutions.

To continue with the previous car analogy, there’s a wide variety of cars that meet consumers’ varying needs and preferences—think sedan, sports car, minivan, and truck. Most people are able to determine their preferences and buy the car that best fits those requirements without knowing how internal combustion engines work or any of the other science and engineering factors that go into producing an automobile.

Similarly, actuaries can be the engineers of DC retirement plans, designing retirement income packages that meet the different goals and circumstances described above. Actuaries can then work with plan communicators to develop materials that help participants make informed decisions that best reflect their goals and preferences, using simple descriptions of the salient features



of the various options, such as the **A-LIFE** methodology.

HOW THE SOA IS HELPING

The Society of Actuaries (SOA) is currently conducting research to help actuaries design retirement income packages in DC retirement plans. In 2013, the SOA Committee on Post-Retirement Needs and Risks (CPRNR), together with the Stanford Center on Longevity (SCL), published the report, “The Next Evolution in Defined Contribution Retirement Plans: A Guide for DC Plan Sponsors to Implementing Retirement Income Programs.” That paper defined the various RIGs, stochastically modeled six basic RIGs to demonstrate their characteristics, discussed the issues and business case for implementing programs of retirement income, summarized the fiduciary issues involved with this issue, contained checklists for implementing such programs, and included a glossary of relevant terms. This re-

port is a good place for professionals to start their learning about this important issue.

In 2014, the SOA/CPRNR and SCL again teamed up to publish the report, “Foundations in Research for Regulatory Guidelines on the Design and Operation of Retirement Income Solutions in DC Plans.” This report addresses the legal uncertainty and risk that DC plan sponsors currently face when implementing programs of retirement income. In addition, the SOA/CPRNR and SCL are currently working on a project that will help define retirement income solutions that could be considered optimal, using stochastic forecasts together with efficient frontiers.

Initial results of their research should be ready in early 2015. The reports mentioned above can be found on the SOA website.

Until recently, defined contribution plans have been primarily used as capital accumulation plans, without much attention paid to how they’ll operate in retirement. Actuaries have a significant business opportunity to help DC plans evolve into true retirement plans that generate sufficient and reliable retirement income. In essence, actuaries can help “pensionize” DC plans in a modern environment. This will help millions of American workers retire with security and confidence. ■