MERCER

Retirement, Risk & Finance Perspective

US ■ Second edition ■ May 2011

Desperate Households

"How many days! What desperate turmoil!"

– John Keats

The above quote aptly describes the angst surrounding the choice between managing a portfolio of assets and using a portion to buy an annuity. Retirees who expect to live beyond average life expectancy should be more inclined to purchase an annuity, assuming they understand the implications. Other retirees, based on their health, genetics or access to investment advice, may feel more comfortable receiving a lump sum. This article examines some key issues facing late-career employees who are desperate for information about payout options from defined benefit (DB) and defined contribution (DC) plan assets. In particular, we assess the following three questions:

1. *The annuity dilemma:* Will annuitizing some assets help meet long-term needs?
2. *Buy now or buy later:* When is the best time to annuitize?
3. *Fear of annuitizing:* What prevents a well-meaning retiree from purchasing an annuity?

This article will also discuss the rationale for plan sponsors to offer meaningful solutions to employees who are contemplating retirement.

The annuity dilemma

Given the choice between managing a lump sum distribution and receiving monthly payments for life, most retirees still opt for the lump sum. The annuity option sounds great to retirees from a "can't outlive your money" viewpoint but is less attractive for those who are concerned that an early demise could leave money on the table. Even though annuities can be structured to provide income protection for a spouse or other beneficiary by adding some survivor protection, most retirees still decide

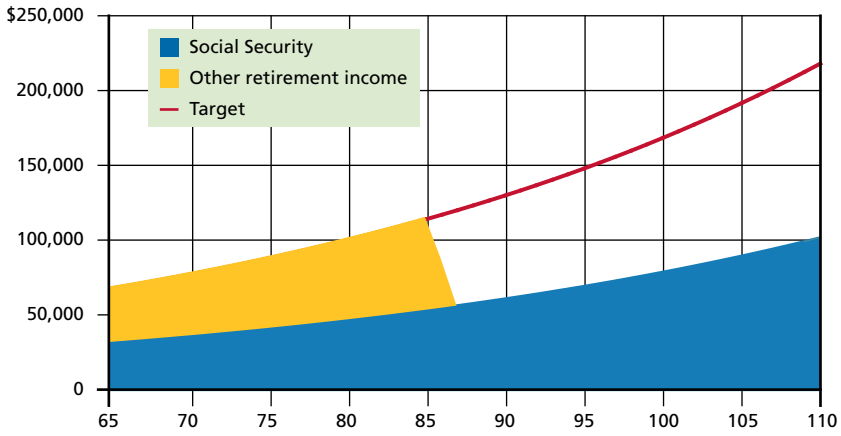
Jerry Levy is a Partner and senior consulting actuary in Mercer's Chicago office. He assists organizations with the development of policies governing the design and funding of retirement programs. Jerry has extensive experience with multinationals and organizations of all sizes and industries. He is a member of Mercer's editorial board. Jerry is an Associate of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries and a Member of the American Academy of Actuaries.

to take the lump sum. In a January 2011 survey, the Society of Actuaries found that only 20% of Americans aged 45 to 70 plan to purchase annuities or other forms of guaranteed lifetime income to protect their assets.

The decision to annuitize a portion of assets is not a one-size-fits-all solution; it involves complex analysis based on specific situations that are beyond the scope of this article. One key aspect to consider, however, is whether accumulated assets can purchase an annuity that will provide adequate retirement income. To illustrate how starting to save early can affect the annuity decision, consider two retirees aged 65: one who started saving at age 30, and another who started saving at age 35. Each employee contributed the same percentage of pay during the savings period and received employer contributions. As Social Security alone does not provide sufficient income to maintain the employees' standard of living, the accumulated retirement assets are used to make up the difference by either drawing down the account balance or purchasing an annuity[1] with the balance.

About the exhibits: *The format of each of the exhibits is the same. The top line in each exhibit represents the amount needed at each age to meet retirement expenses (the target income). The shaded areas show the sources of retirement benefits from ages 65 to 110 including Social Security and other retirement income (the amount attributable to employee savings and employer contributions). In the cases where an annuity is purchased, income in excess of the target amount in earlier years is invested and used to make up the shortfalls in later years – this is denoted as accumulated surplus on the exhibits. The Appendix summarizes the retirement plans and assumptions used for these illustrations.*

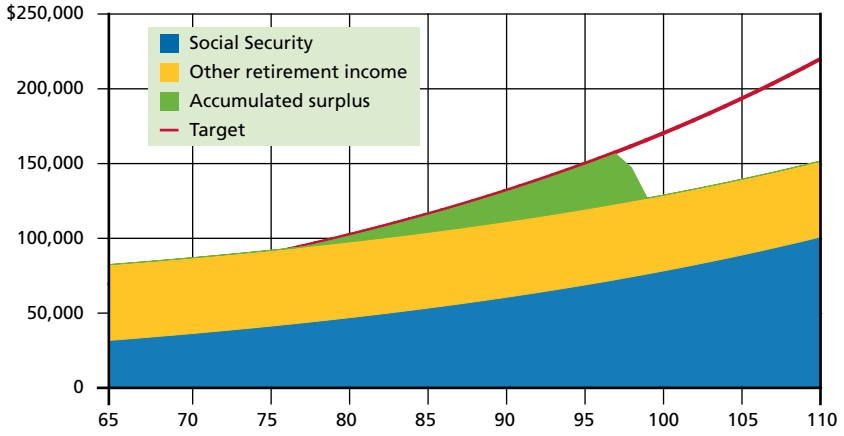
Employee starts saving at age 30, maintains an account balance



Account balances are insufficient to meet target income at age 86. A large percentage of those who retire at age 65 are expected to live beyond this age.

[1] To avoid undue complexity, we focus on the simplest form of annuity – a single premium immediate annuity that provides level payments for life. While a variety of annuities are available in the marketplace, most include some form of life income.

Employee starts saving at age 30, purchases an annuity

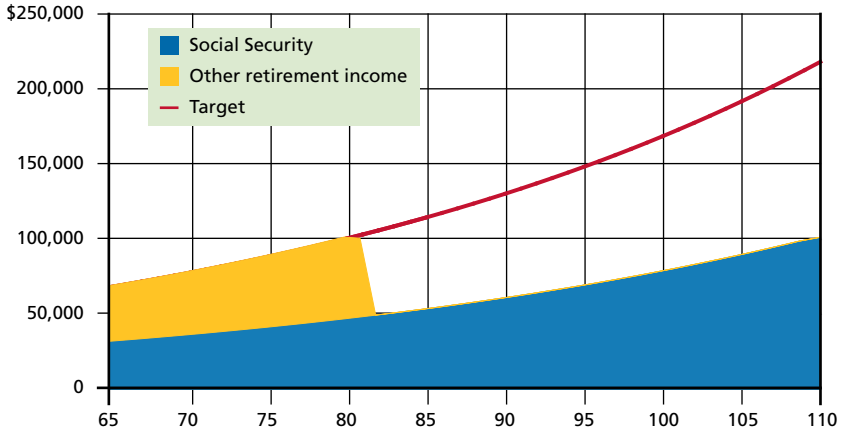


Early on, total income exceeds the target and a surplus is accumulated. At age 98, annuity income plus the draw down of the surplus is no longer sufficient to meet the target.

By purchasing an annuity, this retiree adds 12 years to the period during which enough income is received to meet the target. Where do the extra payments come from? The answer lies at the very heart of what insurance is all about – the pooling of assets and risks. The annuity purchase rates anticipate that some retirees will die before attaining life expectancy, while others will live beyond their life expectancy. By pooling these outcomes the insurance aspect utilizes the excess assets of those who die at younger ages to provide lifetime payments for those who live longer. While individual circumstances may vary, the additional 12 years of income adequacy illustrates the potential advantage of converting account balances to annuity income.

So will the annuity option extend the target income period for everyone? Let us consider a second employee who did not begin saving until age 35.

Employee starts saving at age 35, maintains account balance



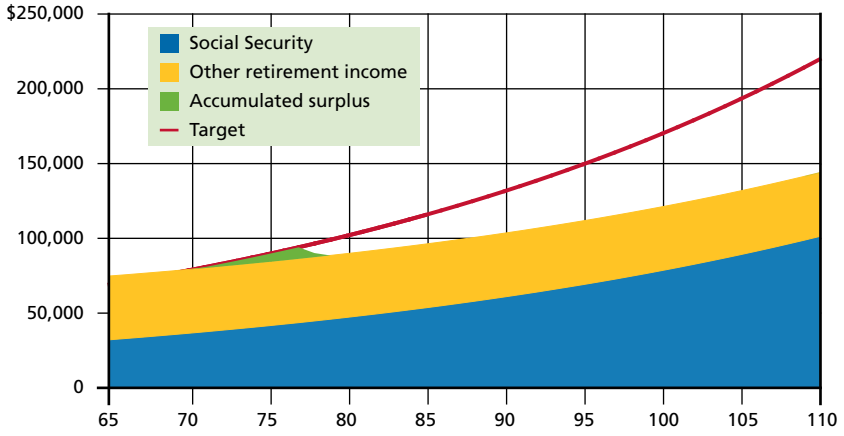
Account balances are insufficient to meet the target at age 81, five years earlier than the employee who started saving at age 30, and before the average life expectancy of an age 65 retiree.

Craig Rosenthal is a Partner and senior consulting actuary in Mercer's New York office. In this capacity, he is responsible for providing overall consulting services to a broad range of companies. In addition to his consulting responsibilities, Craig is a frequent contributor to Mercer's intellectual capital development and has also testified in front of Congress on retirement matters. Craig is a Fellow of the Society of Actuaries, an Enrolled Actuary, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries.

"... timing should also be given serious consideration when deciding whether to purchase an annuity."

"While retirement is an individual decision, employers may want to forecast changes in the workforce due to retirement so that they can determine future hiring needs ..."

Employee starts saving at age 35, purchases an annuity



For this employee, purchasing an annuity shortened *the period of time during which target income is generated. However, after age 81, income under this scenario exceeds that received under the account balance scenario.*

Faced with the second retiree's dilemma, some may prefer the first scenario, where the account balances are expected to last until age 81, hoping that actual investment income would exceed the assumed 6% return. The downside to that approach is the prospect of having to rely solely on Social Security for an extended period of time.

These illustrations are directional and are not meant to be broad recommendations in lieu of analyzing specific situations. For simplicity, we have assumed that there are no spousal benefits, as would be provided by Social Security, or supplementary assets, as might be available to draw upon (for example, a reverse mortgage).

Buy now or buy later

The discussion above illustrates the advantage that annuities can often provide. However, timing should also be given serious consideration when deciding whether to purchase an annuity – should the annuity be purchased immediately upon retirement, or should the retiree wait until a later date? Some research suggests that it may be advantageous to wait until a later retirement age. Delaying the annuity purchase may appeal to some retirees because it might provide a higher level of expected benefits.[2] The downside is that it exposes retirees to market risk in the interim.

[2] See Dus I, Maurer R, and Mitchell OS. *"Betting on Death and Capital Markets in Retirement: A Shortfall Risk Analysis of Life Annuities versus Phased Withdrawal Plans,"* Pension Research Council, 2004

To test this assertion against recent and past economic conditions, Mercer analyzed the effect of delaying a decision to annuitize for the decades starting in 1980, 1990 and 2000. For this purpose we assumed a retiree aged 65 used the entire account balance to purchase an immediate life annuity based on the rates in effect at the beginning of the decade. As an alternative for comparison, we assumed a second identical retiree deferred purchase of the annuity for 10 years. During this deferral period, the retiree invested the account balance and withdrew monthly amounts equal to what the first retiree was receiving.

The effect of deferring the annuity purchase by 10 years differed dramatically by decade. For the retirees who deferred their annuity purchase by 10 years during the 1980s and 1990s, monthly income had increased by 19% and 3%, respectively, at age 75. This was the direct result of favorable market conditions. However, monthly income fell by 72% for the retiree who deferred purchase of the annuity during the 2000s, as investment returns were far below those for the other two decades.

In addition to investment performance, the general decline in interest rates and the resulting increased price of annuities over these three decades contributed to the third retiree's reduction in income. When interest rates are low, annuities are relatively more expensive to purchase compared to periods when interest rates are high. This is because insurance companies invest assets primarily in bonds to help meet future payment obligations. If the bonds pay less interest, then larger initial investments are required, resulting in higher annuity purchase prices.

Fear of annuitizing

Our third question assesses the non-financial reasons that may underlie a retiree's decision not to convert an account balance to an annuity. Aside from the financial implications discussed above, there are other roadblocks not based on financial outcomes. The relatively small percentage of retirees who opt for annuity payments suggests a deep-seated bias against annuities. The rationale may be explained by behavioral finance principles:

- Fear of leaving money on the table
  - A premature death could result in monthly payments that, in total, are less than the account balance used to purchase the annuity.
  - A locked-in annuity payment may result in a missed opportunity if the account balance had been maintained during a period of rising markets.
- Overlooking the risks of volatile markets
  - Retirees are overconfident in the ability of advisers – or themselves – to manage their investments.
  - Potential outcomes may be framed in such a way as to stress the prospect of increased wealth rather than the risk of investment losses.
- Fixation on the large account balance
  - Monthly annuity payments may seem undervalued in comparison.
  - Account balances seem like they will always generate more retirement income.
  - Retirees hope that markets will rebound to make up past losses.

"The combination of deep-seated fears, inadequate risk assessment, and confusion over lump sums and annuity income may leave the desperate retiree with too many unanswered questions."

"...organizations [may] have their own desperate need for information – How will future retirements affect the workforce and the ability to meet forecasted revenue targets?"

Research in behavioral finance continues to grow and helps explain why retirees have favored lump sums. Some recent studies include the following insights:

- Retirees are more likely to select a lump sum option if the stock market has had recent increases.[3]
- Retirees consider annuity income to be riskier than a lump sum if the annuity is positioned as an investment.[4]

The combination of deep-seated fears, inadequate risk assessment, and confusion over lump sums and annuity income may leave the desperate retiree with too many unanswered questions. As a result, the possibility of making a wrong decision leads many to make no decision at all (the "inertia" effect).

The employer perspective

At the same time, employees are seldom presented with annuity purchase options in the workplace. Most sponsors of DC plans remain reluctant to offer annuity options or to recommend specific insurance products. Anecdotal discussions suggest that plan sponsors see little value in offering such options due to low demand, administrative expense and concerns about fiduciary responsibility. Assuming that demand existed and fiduciary issues were manageable, what's the appeal to the employer? Perhaps the most compelling incentive is to facilitate workforce planning. Other incentives we hear about from plan sponsors include:

- Assisting late-career employees to determine if they have sufficient resources to retire
- Helping retirees to manage the spend-down of assets
- Providing access to group annuity pricing
- Improving the benefit program's brand by delivering a complete retirement solution

The age at which people are able to retire may be a concern for employers as well, particularly those with aging populations and positions that require unique skillsets. While retirement is an individual decision, employers may want to forecast changes in the workforce due to retirement so that they can determine future hiring needs in order to meet the demand of goods and services in the future. Helping employees select an appropriate retirement vehicle may be one way of gaining a clearer picture of retirement patterns.

[3] Previtero, Alessandro, *"Stock Market Returns and Annuitization,"* SSRN, 2009

[4] Bernartzi, S., et al, *"Behavioral Finance and the Post-Retirement Crisis,"* Allianz of America, 2010

What's next

From a retiree's viewpoint, using retirement assets to purchase an annuity has not been a popular decision. In part, this may be due to behavioral roadblocks that create a bias for maintaining the account balance. Depending on how long they live during retirement, in some situations, annuitizing may actually result in a lower standard of living for at least a portion of retirement (see "The Annuity Dilemma" section). In those situations for which an annuity would seem appropriate, it is not clear when the annuity should be purchased to optimize retirement income. It is therefore no wonder that retirees are desperate for solutions that require complex analysis of individual situations, and assumptions about what might happen to markets, interest rates and their own lives.

From a plan sponsor's perspective, how much time and resources should be expended to offer solutions for which there may be no measurable return on investment? In our opinion, better solutions need to be more readily available before plan sponsors will see the value in offering annuity options.

Although some time may pass before sponsors feel compelled to offer viable solutions, a recent legislative proposal – The Lifetime Income Disclosure Act (S. 2832) – would require 401(k) plan sponsors to provide participants with estimates of projected monthly retirement income based on current account balances.

The trend away from DB plans to DC plans has placed investment risk on the shoulders of plan participants who are desperate for information about spend-down options. According to a survey published by AARP in 2011,[5] most people contemplating retirement are concerned about outliving their assets (a concern second only to access to affordable health coverage). As such, plan sponsors may feel an obligation to provide illustrations of annuity income, particularly in conjunction with retirement planning.

This analysis will help determine the strength of the current program as a retirement vehicle and identify deficiencies, if any, that can be addressed through changes in employee understanding and behavior. It can also be a critical first step for organizations that have their own desperate need for information – "How will future retirements affect the workforce and the ability to meet forecasted revenue targets?"

[5] *"Voices of 50+ America: Dreams and Challenges,"* AARP Research and Strategic Analysis, 2011

Appendix

The Annuity Dilemma – exhibits in this section are based on the following assumptions:

- 3% of pay – automatic contributions (not dependent on savings) starting at age 30
- 5% of pay – employee contributions starting at age 30 (and alternatively starting at age 35)
- 4% of pay – matching contributions starting at age 30 (and alternatively starting at age 35)
- Account balances (automatic, employee and match) earn 6% interest p.a.
- Starting salary of $30,000 at age 30, increasing 3% p.a.
- Account balances are converted to annuities using 5% interest and standard female mortality without projection for future improvements.
- Post-retirement need at age 65 is based on 82% of final salary, increasing by 2.6% p.a.; 28% marginal tax bracket.
- Primary Social Security (no spousal benefits)

Buy Now or Buy Later – the analysis in this section is based on the following assumptions regarding the annual rate of return on invested account balances:

- The proportion of account balances invested in equities is 50% at age 65, decreasing ratably to 37% at age 75. The remaining allocation is assumed to be invested in fixed income.
- Annual rates of return are based on weighting the Wilshire 5000 index and the Barclays Capital Aggregate Bond Index for each year from 1980 to 2009, by using the equity and fixed income allocations as noted above.
- The historical annuity purchase rates are based on those offered by a major carrier.

MERCER

US Retirement, Risk & Finance Perspective is published by Mercer
1166 Avenue of the Americas
New York, NY 10036

***Perspective* editorial board members:**

Steve Alpert
steve.alpert@mercer.com

Ryan Cox
ryan.cox@mercer.com

Andrew Kramer
andrew.kramer@mercer.com

Jerry Levy
jerrold.levy@mercer.com

Bill McClain
bill.mcclain@mercer.com

Matt McDaniel
matt.mcdaniel@mercer.com

Margie Mills
margie.mills@mercer.com

Arthur Noonan
arthur.noonan@mercer.com

Craig Rosenthal
craig.rosenthal@mercer.com

Scott Tucker
scott.tucker@mercer.com

For further information, please contact your local Mercer office or visit our website at:

www.mercer.com

Editorial policy

Mercer's *Retirement, Risk & Finance Perspective* series contains articles written by senior Mercer consultants that reflect their unique insights and observations on a variety of important topics affecting retirement and benefit programs. The views expressed do not necessarily reflect the views and policies of Mercer.

This contains confidential and proprietary information of Mercer and is intended for the exclusive use of the parties to whom it was provided by Mercer. Its content may not be modified, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's written permission.

The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed. Past performance does not guarantee future results.

This does not contain investment advice relating to your particular circumstances. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances.

Information contained herein has been obtained from a range of third party sources. While the information is believed to be reliable, Mercer has not sought to verify it. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in the data supplied by any third party.

This does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities and/or any other financial instruments or products.

Copyright 2011 Mercer LLC. All rights reserved.

04340-RE

Consulting. Outsourcing. Investments.