Who Should Read This Insight:
Financial professionals, annuity manufacturers

Institute Research Agenda Topics:
Annuities, behavioral economics

DERRICK BONYUET *is a Clinical Assistant Professor in the Department of Accounting in the McCombs School of Business at the University of Texas in Austin, Texas. He received his PhD in Business Administration from Oklahoma State University and holds three master's degrees: a Master's degree in Accountancy from Auburn University, a Master's degree in International Management from the Thunderbird School of Global Management, and an MBA in Finance from the University of Houston. He earned his Bachelor of Science in Accounting from Universidad Católica Andrés Bello (Venezuela). He has worked for Dell Technologies since 1998 in a variety of finance roles. Earlier in his career, he spent four years in public accounting with PricewaterhouseCoopers. He holds a CPA license and the CFA and CFP designations.*

Authors, Titles and Publication Dates of the Articles Addressed in the Insight

Giuseppe Cappelletti, Giovanni Guazzarotti, Pietro Tommasino. 2013. "What Determines Annuity Demand at Retirement?" Geneva Papers on Risk and Insurance. 38. 777–802.

Steve Vernon. 2014. "The Role of Annuities in Retirement." Journal of Retirement. 1:3 (Winter).

Jeffrey R. Brown, Alessandro Previtero. 2020. "Saving for Retirement, Annuities, and Procrastination." Working paper.

Insight:

ANNUITY DEMAND AT RETIREMENT: RATIONAL AND BEHAVIORAL PERSPECTIVES AND PROCRASTINATION FACTORS

IDEAS IN THE INSIGHT YOU CAN PUT INTO ACTION

The goal of this Insight is for retirees and their financial advisors to understand what drives the demand for annuities at retirement, under what conditions annuities can serve to enhance consumers' welfare, and what rational and behavioral factors come into play when purchasing annuities. An annuity is an insurance contract where the purchaser (the annuitant), can receive from the insurer a stream of payments in exchange for an upfront premium. The three articles covered in this Insight connect existing research on annuities and extend the findings to help understand why some people do not follow this approach. This is also known as the "annuity puzzle."

PRINCIPAL INSIGHTS

This series of articles provides a path for finance professionals to understand the reluctance of some individuals to annuitize. A review of the existing literature supports the premise that individual welfare improves from annuitizing resources in retirement. Empirical findings are also examined, and these findings indicate that few individuals seem to appreciate the value of annuities, most likely due to psychological biases. Procrastination is also introduced as a factor that affects the annuity decision.

THE DRIVERS OF ANNUITY DEMAND

The first article, "What Determines Annuity Demand at Retirement?" by Cappelletti, Guazzarotti, and Tommasino, is based on the Italian pension system and explores the determinants of the demand for annuities. Economic theory supports that risk-averse people should be more likely to annuitize their wealth. Even though social security programs provide a significant portion of a retiree's wealth in an annuitized form, many people will need additional protected income in retirement. As a result, retirees will need to decide how to manage their retirement plan assets between cashing out and taking a lump sum, developing a draw-down strategy, or annuitizing some or all their pension wealth at retirement.

Because this study was based on the Italian pension system, the article highlights several differences compared to the British, American, and Swiss pension systems. First, the system is based on two main pillars, one that follows a non-contributory plan and still provides a minimum benefit to anyone over age 65 with an annual income under a certain threshold, and the other that is a contribution-based plan where the right to receive a pension depends on a minimum number of years of contributions and/or minimum eligible age.

The study is based on data from the Survey of Household Income and Wealth. This study is conducted by the Bank of Italy every two years and covers a large representative portion of the Italian population. Some of the findings challenge rational convention, including that women and younger people do not seem to prefer annuities more than men and older people though their life expectancy is higher and therefore would benefit from a life-long stream of payments. Likewise, annuity demand is not influenced by marital status and having dependents. Demand should actually be lower because these groups can hedge against longevity risk within their family. Kotlikoff and Spivak (1981) found families, as an institution, provide individuals with risk mitigating opportunities, which may not be available and even at a lower cost based on a degree of trust, information and love.[1] Last, annuity preference did not increase with risk aversion. Other findings were aligned with rational expectations, such as a strong correlation between health status and annuity demand; higher income and higher wealth groups being more likely to annuitize; and people's higher discount rate on future consumption resulting in preferring a lump-sum amount over an annuity.

The study also challenges the assumption that households are able to make the annuitization decision as annuity demand drops in low income and less educated groups. In addition, these groups show a higher price elasticity of annuity demand, which suggests that governments should promote competition among insurance companies to drive lower prices. Public policy should promote financial education and help these vulnerable groups understand the benefit of annuities and increase demand for annuitization.

THE INFLUENCE OF RATIONAL AND BEHAVIORAL FACTORS

The second article, "The Role of Annuities in Retirement" by Vernon, compares the existing research on annuities, which indicates these products contribute to improving individuals' welfare, with the empirical evidence, which suggests consumers appear not to value these products. Economic theory states that individual welfare can be improved as financial risks associated with outliving retirement savings are mitigated by providing a more stable lifetime income. The article references a study which found that, in the absence of bequest motives, risk-averse people should annuitize 100 percent of their wealth. However, empirical evidence suggests people behave as they do because they do not perceive the value of annuities as highly as theory would predict. The paper cites the small market of annuities as evidenced by standard household data sets, which track annuity ownership. The study shifted the focus to the social security system as the only primary source of annuitization in the U.S., and refers to an experimental study which found most people would prefer to receive their benefit as a lump-sum payment.

The article goes on to examine how rational models can help explain the limited demand for annuities. First, adverse selection and high prices are reflected by annuity prices (payouts) being higher (lower) than actuarially fair levels. This, in turn, is driven by the fact that annuitants' mortality rate is well below that of the general population. Second, there is preexisting annuitization, which is reflected by high levels of preexisting annuitization from Social Security and may result in low demand for additional annuitization. Third, there is risk sharing with couples because they can capture greater gains from a formal annuity market by pooling their resources. Fourth, there is the bequest motive, which may drive individuals' interests from annuitizing their wealth. Last, there are incomplete annuity markets, which leaves people exposed to other risks.

1. Kotlikoff, L.J. and Spivak, A. (1981). "The family as an incomplete annuity market," *Journal of Political Economy* 89(2): 372–379.

The paper then presents several hypotheses on behavioral biases. First, there is complexity and lack of financial literacy, which may result in the average person's inability to make a fully informed decision on payouts and the value of annuitization. The second involves mental accounting and loss aversion, where people most likely evaluate annuities under a narrow frame rather than as part of an overall optimization investment strategy. Third are misleading heuristics, where people may view living a long time as a good or high-utility outcome-that may then result in their foregoing the annuities. Fourth, there is regret aversion because people may end up regretting the annuity purchase and the loss of a lump sum of wealth in exchange for the purchase of an annuity. The article references to previous research where it was found that events that are easily to be imagined (e.g., dying right after purchasing an annuity) are heavily weighted in the decision process. Fifth is the "illusion of control," or losing control of assets, one of the most commonly cited disadvantages of annuitization by individuals.

The article proposes future developments on annuity products that could alleviate some of the individual biases against annuitization, including deferred payouts, guaranteed minimum withdrawals for life, and annuities with liquidity. The article concludes with the need to understand whether consumer aversion is due to well-informed and rational motives or is mostly driven by complexity, confusion, or psychological biases. Regardless of the answer, resources must be invested in financial education or in the creation of products and policies to promote annuitization.

THE ROLE OF PROCRASTINATION

The third article, "Saving for Retirement, Annuities, and Procrastination" by Brown and Previtero, examines how procrastination can help explain the gap between retirement wealth and an interest in annuitization. A procrastinator is a person who waits until the last day of their health care open enrollment period to make a plan election. By using data from over 154,000 employees from 27 defined-contribution plans, the study found procrastinators take two months longer to start saving for retirement, save 0.5 percent less of their annual income once they do begin saving, and have 10 percent more of their retirement wealth invested in the default asset allocation. Procrastinators also retire nine months earlier than non-procrastinators and are five percentage points more likely to choose a lump-sum distribution over an annuity. The article estimates that as a result, procrastinators could experience a reduction of between 15 percent and 20 percent of consumption after retirement.

The authors conclude that their findings are relevant to policy makers and those who design retirement plans. Plan architects may want to implement tools to address procrastination and address their biases directly by forcing choices (defaults), changing incentives regarding deadlines, highlighting noticeable features of future payoffs, or presenting benefits as retirement income.

CONCLUSION

There is no doubt that annuities can contribute to an individual's welfare because these products can mitigate numerous risks, such as outliving retirement savings and providing a more stable cash flow. These articles discussed in this Insight highlight both the rational and behavioral factors affecting consumers when deciding whether to buy annuities. Policy makers should take note in order to improve the system and enhance retirement by ensuring greater transparency and making better education programs available to consumers.