Who Should Read This Insight:
Retirement plan advisors, academics, policymakers

Institute Research Agenda Topic:
Understanding differences in consumer behavior and decision-making.

Definitions of **bolded key terms** are at the end of this article.

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Authors, Titles and Publication Dates of the Articles Addressed in the Insight
Robert Gazzale, Sandy Mackenzie, and Lina Walker. 2012. Do Default and Longevity Annuities Improve Take-Up Rates? Results from an Experiment. Washington, DC: AARP Public Policy Institute. https://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/annuities-take-up-rates-experiment-AARP-ppi-econ-sec.pdf.

Insight: CAN AN EXPERIMENT SHED LIGHT ON THE DECISION TO ANNUITIZE?

IDEAS IN THIS INSIGHT YOU CAN PUT INTO ACTION

Its basic insight relates to a key feature of the design of defined-contribution plans: namely, the appropriate default setting that determines what beneficiaries receive when they retire.

PRINCIPAL INSIGHTS

Lifetime annuities or simply life annuities—either immediate or deferred—sold by life insurance companies have never been popular with Americans. There is now a huge literature on the subject of this lack of popularity, which economists often refer to as the **annuity puzzle**. Some research has focused on possible behavioral biases that may tip the choice away from **annuities**. One source of bias could be the reaction by would-be **annuitants** to the way the decision to **annuitize** is presented or framed. For example, when the decision is presented as an investment decision, **annuitization** is less popular than when it is presented as a way of insuring against the financial consequences of an unexpectedly long life. Another important source of bias, one that arises when participants in a retirement plan have a choice between taking their savings out as an **annuity** or as a l**ump sum**, is the plan's default setting. Thus, if annuitization requires the conscious decision to reject the plan's standard of a lump-sum distribution, fewer participants may end up with an annuity than would be the case if participants had to opt in favor of a lump sum when an annuity was the default setting.

The 2012 article by Robert Gazzale, Sandy Mackenzie (the author of this Insight), and Lina Walker reports on an experiment that examines the potential role of the default setting, and also addresses the potential attractiveness of a **deferred-income annuity** or **longevity annuity**. Experiments are a relatively new development in empirical economics.

The experiment described in this article involved about 220 participants aged 22 to 70 who were working either full time or part time. The experiment was designed to have a working-life phase and a retirement phase. In the working-life phase, participants earned tokens by performing various tasks on their computers. The total number of tokens each earned was his or her retirement nest egg. The retirement period was divided up into four subperiods, with "survival" from one period to the next being determined randomly.

The experiment's subjects were split into three groups. One group was offered a lump sum as the default setting with the option of switching to an **immediate annuity**; another was offered an immediate annuity as the default with the option of switching to a lump sum; and a third group was offered a lump sum that could be partially converted to a deferred-income annuity or a longevity annuity. The lump-sum arrangement was set up so that participants could choose to allocate their tokens across the four retirement periods as they pleased. They made their allocation decision at the beginning of the retirement period with the aid of a calculator supplied to them.

The results of the experiment suggest that the default setting does matter, as does the option to choose a deferred-income annuity. When the lump sum was the default and the option was choosing an immediate annuity, only 28% of the group chose the annuity. When the immediate annuity was the default, however, 51% chose the annuity. Interestingly, when the deferred-income annuity was the option, 60% of the group chose it rather than the lump sum. These differences were statistically significant.

These results could have reflected the demographic and psychological makeup of the different groups. Among other characteristics, different degrees of **risk tolerance** as well as patience or the willingness to defer receipt of income could have influenced the results. To test for this, participants were asked two questions: (1) Would you be willing to give up a steady income for an income that is uncertain but higher, on average, than the steady income? (2) How willing would you be to wait for a lottery payment? A statistical analysis revealed that there was a positive and statistically significant association between the willingness to choose the annuity option and a "yes" answer to the first question and the degree of willingness to wait for a lottery payment.

The positive association between willingness to take a risk and an interest in annuities might reflect the perception that annuities involve a gamble. On the other hand, risk-averse people might be attracted to the insurance against **longevity risk** that annuities provide if they are worried about the privation that could be entailed if they were to live a long life and run out of money. Deferred-income annuities might be perceived as attractive because they do not require as large an up-front investment compared to an immediate annuity to obtain the same income late in life. Deferred-income annuities require that the annuitants provide income for themselves or their household over the period until the deferred-income annuity kicks in, however. The reason a deferred-income annuity—for example, a deferred-income annuity where the premium is paid at age 65 but payments to the annuitant do not begin until age 80—is less expensive than an immediate annuity is that the chances of dying before even a single payment is made are large, whereas the chances of a long string of payments assuming the annuitant does reach age 80 are small.

The basic takeaway from this experiment is that default settings matter, a finding that is of special importance for **defined-contribution plans** like 401(k) plans, which typically do not encourage annuitization at the distribution stage. In addition, the apparent popularity of the deferred-income annuity is of special relevance when a plan member's annuity budget—the amount of money he or she is willing to commit to buying an annuity—is not particularly large. In such circumstances, an immediate annuity does not provide much income later in life—what is known as **tail insurance**—while a deferred-income annuity does. The correct default setting can increase the chances that a plan contributor will not face privation in old age. Advanced age can have its own problems, problems that are unnecessarily compounded by financial insecurity.

To learn more, visit the Retirement Income Institute at
www.allianceforlifetimeincome.org/retirement-income-institute

KEY TERMS ARE SOURCED FROM THE ALLIANCE FOR LIFETIME INCOME'S ANNUITIES LANGUAGE GLOSSARY AND INVESTOPEDIA.

annuitants: *A person who will receive the income payments from an annuity. (They could be the direct owner of the annuity or another person chosen by the direct owner, and they are the person whose lifetime the payments are based on.)*
annuitization: *The process of converting an investment into a series of periodic income payments by buying an annuity.*
annuitize: *When you turn part of your liquid assets into a series of periodic income payments, either for a specific period of time or for your whole life.*
annuity: *A financial product that can offer protected lifetime income and even potentially increase your wealth.*
annuity puzzle: *The annuity puzzle refers to the fact that few people choose to annuitize even a portion of their accumulated savings even though most economists think that they have many rational reasons to do so.*
deferred-income annuity: A type of annuity that delays payments until some time after the annuity is actually purchased.
defined-contribution plan: *A defined-contribution plan is a retirement plan that's typically tax-deferred, like a 401(k) or a 403(b), in which employees contribute a fixed amount or a percentage of their paychecks to an account that is intended to fund their retirements.*
frame, framing: *Framing is how financial products are presented to consumers.*
immediate annuity: *An annuity that begins paying out guaranteed income shortly after the date of purchase, either for life or for a specific time period.*
lifetime annuities, life annuities: *A lifetime annuity or life annuity is an investment vehicle that can function as a personal pension plan. Sometimes referred to as "single life," "straight life," or "non-refund," these are a form of immediate annuity that provides income for the remainder of your life. The payments can be increased to cover a second person. This is called a "Joint and Survivor" annuity.*
longevity annuity: *Annuity with delayed payments starting in the future. Another term for a deferred annuity.*
longevity risk: *The chance that you may live longer than your income will last.*
lump sum: *A lump sum is a single payment of money, as opposed to a series of payments made over time.*
risk tolerance: *The level of market risk you're comfortable with.*
tail insurance: *Insurance provided by a deferred annuity against longevity risk.*

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