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**T**his issue of *The Journal of Retirement* has, as usual, a broad range of subjects. The lead article addresses the subject of the potential role of reverse mortgages in financing retirement. Three of the seven articles (the issue also includes a review) deal with the accumulation phase of retirement financing, and another deals specifically with optimizing the portfolio during that phase. One article addresses the time-honored question of how much to save to be reasonably certain of achieving a target income level in retirement, and the seventh addresses the important issue of the role of 401(k) plan record keepers in rollovers of 401(k) plan balances to IRAs.

Many of the economists who study the economics of retirement believe that a large number of Americans now working will find it impossible to maintain their standard of living in retirement. Others evince some skepticism. The article by Alicia Munnell and others in the Fall 2015 issue of JOR is a good example of the former view, while the article by Sylvester Schieber in the same issue takes a more skeptical view.

Only about 1% of older Americans have taken out a reverse mortgage. Perhaps more reliance on reverse mortgages might alleviate the lot of older Americans whose savings fall short of what they need for an adequate retirement.

In “Retire on the House? *The Possible Use of Reverse Mortgages to Enhance Retirement Security*,” Mark Warshawsky presents the results of a comprehensive empirical investigation of the suitability of reverse mortgages for older Americans in various financial circumstances. In principle, a reverse mortgage seems like a good investment for older Americans. Instead of making payments to a financial institution, as is the case with a conventional mortgage, the financial institution pays the homeowner. Payments can take the form of an annuity, with a term that ends only with the death of the borrower, or his or her moving out of the house.

However, that an older American owns a house is not in and of itself a good reason for taking out a reverse mortgage, as the article explains. The maximum value of a reverse mortgage is limited by the value of the house, so that the value of a reverse mortgage available on an inexpensive house may be too small, given the upfront fees payable, for it to be worthwhile. The author assumes that older Americans with homes worth less than \$100,000 will not find the income they obtain from a reverse mortgage sufficiently attractive, nor will households with little housing equity. The author contends that if a residence has a mortgage greater than 40% of the home’s value, a reverse mortgage will not produce much extra cash.

The demand for a reverse mortgage is affected by the value of a household’s financial assets; households with sufficient financial assets

can buy a conventional annuity from an insurance company on better terms than a reverse mortgage. In addition, a household that lacks LTC insurance may prefer to avoid taking out a reverse mortgage if doing so means it will be unable to fund long-term services and supports for a member of the household. A strong bequest motive also will dampen the demand for a reverse mortgage. To arrive at his final estimate that only 12%–14% of older Americans would benefit from a reverse mortgage, the author assumes that it should produce an increase in what the author terms current annuity income (e.g., the Social Security benefit and income from a DB pension plan) of greater than 10%. About one-third of the current retired population could obtain an increase in annuity income of at least this amount, but demand for reverse mortgages is reduced by the restrictions already noted, and by the assumption that only households in the middle of the distribution of potentially annuitizable assets would find such mortgages attractive. As noted, wealthier households would prefer an annuity, while poorer households would not gain much extra income. Notwithstanding this somewhat disappointing conclusion, Warshawsky concludes his study by suggesting a number of policy initiatives that could increase the demand for reverse mortgages.

Discussions and analyses of people preparing for retirement often focus exclusively on the asset composition of their portfolios, and in particular, on the share of risky assets. Studies of the performance of target-date funds typically take this approach. However, the design of a retirement portfolio requires addressing many different issues. In “The Value of a Gamma-Efficient Portfolio,” David Blanchett and Paul Kaplan identify a set of these issues and estimate the increase in alpha—the return to the portfolio—that exploiting them efficiently can achieve. Their list, formulated as questions, is as follows and starts with a very basic issue:

- Why invest at all?
- In which type of account (i.e., taxable or tax-deferred account)?
- What is an appropriate risk level? (This might be addressed in a more conventional approach.)
- Which asset (or subasset) classes should be considered?

- How does the risk of the investor’s goal affect the portfolio?
- What investment vehicles should be included?
- When should the portfolio be revisited (i.e., how frequently should rebalancing take place)?

One of the article’s innovative features is that it estimates the benefit derived from addressing each of these questions for investors in different circumstances. For example, the benefit from addressing the issue of whether to invest at all will be greater for someone with substantial debt at high interest rates. While they may not realize it initially, those in this position are better off using savings to pay off debt than investing in the market. A mature investor likely would have paid off consumer or other high-interest debt already. This letter will comment on a number of other issues from the authors’ list.

It is obviously important to take advantage of the existence of tax-deferred accounts like 401(k)s and IRAs, and to make an efficient division of assets between them. Many investors hold equities in tax-deferred accounts rather than more highly taxed bonds. Substantial savings are to be had by shifting interest-bearing securities to tax-deferred accounts. Other investors already are allocating their securities in this way, and there is no additional benefit for them.

The authors argue in favor of investing in a broad menu of asset classes and present evidence that the risk–return frontier shifts upward (so that returns increase for a given degree of risk) when that menu is enhanced. Self-directed portfolios do not perform as well as menus created by investment professionals (which can include TDFs). The average difference in returns at a given risk level is estimated to be 20 basis points.

The article has an insightful discussion of the potential merits of what it refers to as liability-relative optimization. It explains why a strategy that maximizes return for a given risk level but considers only the asset side of an investor’s balance sheet may be inferior to a strategy that maximizes the surplus return of assets over liabilities for a given average deviation of assets from liabilities. The two strategies have different asset allocations. There is also an interesting discussion of rebalancing that shows how infrequent rebalancing can

have a substantial cost. Another discussion illustrates the excess trading to which the typical investor is prone. The additional return from hanging in there is quite substantial.

A standard exercise in personal finance is determining the probability that a given withdrawal rate, such as 4%, would cause a retiree to run out of money before a given period of time, such as 30 years, had elapsed. The more conservative the withdrawal rule, however, the greater the chance of a large unintended bequest. In “Maximum Withdrawal Rates: *An Empirical and Global Perspective*,” Javier Estrada addresses a somewhat different question: how have maximum withdrawal rates (MWRs) varied across time, countries, and different asset allocations, and how can MWRs be used to evaluate a retirement strategy?

The author explains that an MWR must be calculated after the fact, based on a series of historical asset returns. It is defined as the constant withdrawal rate that will exactly exhaust an asset portfolio over a specified period, taking account of any bequest motive. An MWR cannot be known at the outset of the retirement period. The article presents calculations of the MWRs for overlapping 30-year periods, beginning with 1900–1929 and ending with 1985–2014. These calculations are repeated for asset allocations ranging from 100% stocks to 100% bonds and are shown for the United States, the world, and the average country.

Taking a look at the United States, the median MWR over the 86 rolling periods is 5.5%; an MWR at the 1% probability level is 3.8%, implying that the MWR fell below 4% in only 1 of the 86 30-year periods. Estrada estimates that a retiree with a 60–40 asset allocation who withdrew 5.5% of the initial value of the portfolio each year would confront a probability of failure of 50%; accepting a withdrawal rate of 3.8% would substantially reduce the probability of failure. Using MWRs in this way does require the assumption that their distribution will remain more or less unchanged. The author raises the question of whether MWRs should be recalculated periodically as new data become available, which could lead to revised withdrawal rates. This clearly written article raises interesting questions.

In “Optimal Longevity Risk Management in the Retirement Stage of the Life Cycle,” Koray Simsek,

Min Jeong Kim, Woo Chang Kim, and John Mulvey develop a stochastic multi-period optimization model that addresses the standard problem of retirement financing—balancing income gains against the risk of an income shortfall if markets are disappointing. Their article analyzes the problem confronted by a couple (husband and wife) who invest in life insurance as well as stocks and bonds. Complicating their decision-making is the fact that although the husband receives a pension, it has no survivor feature (an assumption that is subsequently relaxed). Consequently, his death deprives the wife, if she is still alive, of a basic income source. Their personal expenditure is fixed, and it is assumed that they may borrow to make up a shortfall should one occur. They are assumed to maximize a utility function whose arguments are expected final wealth and expected lifetime borrowing. The coefficient on expected lifetime borrowing is negative. Aggressive (risk-loving) couples place a relatively high weight on wealth, and a low weight on the (negatively signed) lifetime borrowing measure. Aggressive couples are less concerned than risk-averse couples by the consequences of a disappointing investment performance on indebtedness.

The article explores the consequences of differing attitudes to risk and changes in life expectancy of each member of the couple for their portfolio allocation and demand for insurance. Longevity risk increases with declines in the husband’s life expectancy and increases in the wife’s, because in both cases the number of years the wife is a widow without pension income increases. The authors find that risk-averse couples do not change their asset allocation or their allocation to insurance much when the life expectancy of either husband or wife changes, but the aggressive couple will increase its allocation to stocks when the husband’s life expectancy increases or the wife’s life expectancy decreases.

The authors also explore the consequences of an increase in the price of insurance and a complete lack of insurance. Perhaps somewhat counterintuitively, more expensive insurance or its complete absence increases the share of risky assets in a couple’s portfolio regardless of their attitude to risk. The intuition behind this is that a more aggressive stance is the only way to have a chance of maintaining consumption.

Default settings have become a well-known feature of 401(k) plans at the accumulation phase. Automatic enrollment is a default setting, as is the qualified default investment that the plans offer (typically a target-date fund). Defaults are usually not found at the decumulation phase. In “Blending Growth, Income, and Protection to Create Default Post-Retirement Solutions for Australia and Hong Kong,” Lesley-Ann Morgan, Paul Marsden, Clement Yong, and Sean Markowicz explore the possibility of introducing defaults at this stage in the retirement financial systems of Australia and Hong Kong, two countries where distributions of the second pillar are usually lump-sum.

Setting a default at the distribution phase poses a challenge. Presumably the institution with which a retiree has saved would also be responsible for distributions. Investments at the distribution stage can take the form of an annuity, deferred or immediate, or a more conventional portfolio of assets, or a combination, possibly with a systematic withdrawal rule. In Australia’s case, the authors assume that the annuity would make up 15% of the retiree’s assets and simulate the investment of the rest in various combinations of equities and bonds. They take the case of a male retiree with enough assets to finance what has been estimated to be a comfortable standard of living. They do not carry out simulations over a range of income or wealth levels. A similar approach is followed for Hong Kong. In Australia, they find that a dynamic asset allocation approach, where asset composition is allowed to change, performs the best; it achieves the desired income level with the least risk of shortfall.

This conceivably could be the default asset allocation at retirement in Australia, although it would give financial institutions the responsibility for carrying out the investment strategy. In Hong Kong, a 60–40 strategy is found to perform relatively well. It would be important for retirees in both countries to understand that they are not required to go with the default setting if they did not wish to, particularly given the discretion that a particular investment strategy gives to the responsible financial institutions.

Investors who are planning for retirement ideally would like to be able to determine the saving rate they would have to achieve to be assured of a financially

secure retirement. Coming up with an estimate of that rate is far from an easy task, especially given the uncertainty that surrounds the behavior of asset prices. A number of researchers have estimated what they have termed the safe savings rate—the rate at which a target replacement rate will be achieved (or will have a very high probability of being achieved).

This work tends to assume that real earnings grow at a constant rate throughout a worker’s career. However, this is not how earnings actually behave. In “Life-Cycle Earnings Curves and Safe Savings Rates,” Derek Tharp and Michael Kitces use a dataset of wages and salaries from the Social Security Administration that better reflects the way earnings behave at different income levels and ages. The rate of growth of earnings is in fact higher for the better paid, although growth slows down in middle age.

The authors describe the results of a baseline simulation based on both historical market returns and forecasted returns that assumes a 40-year career followed by 30 years of retirement. The target replacement rate (Social Security benefits are not taken account of initially) is 100%, which is definitely on the high side of replacement rates used in empirical work. The baseline scenario calculates a minimum savings rate of 10.6%, a median rate of 13.1%, and a maximum rate of 15.4%. Pre-retirement income that is saved is not replaced. Simulations by income decile find that the higher the lifetime income, the higher the safe savings rate. This basically reflects the faster growth of incomes that are high to begin with and the fact that individuals with more rapid income growth have to replace more income. This assumption might overstate needed savings if individuals are content to replace an average of income over the last years of work, perhaps five to seven years.

The simulations were repeated for shorter saving periods, and unsurprisingly, safe savings rates were substantially high. Taking account of Social Security benefits makes a big difference. For individuals in the first and second deciles of lifetime earnings, the safe savings rate is actually zero. The basic point the article makes is that assuming constant earnings growth may understate true safe savings rates for all but the highest-income earners. The actual profile of earnings should matter to advisors, given the way the profile affects the safe

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savings rate. The authors recognize that there are reasons for the savings rate to vary across the life cycle, but they also note the advantages of a simple rule, like a constant savings rate. Modifications to the model underlying the simulations could include varying longevity with lifetime earnings and decreasing spending rates in retirement.

More money is held in IRAs than in 401(k)s, mainly because of the large volume of rollovers that IRAs absorb from the 401(k) plans of retiring workers, or from workers changing jobs who do not wish to keep their savings in their current 401(k) plan and are not rolling the funds over into the 401(k)s of their new employer. Most 401(k) plans have an external record keeper who performs various functions. Record keepers typically offer IRAs, and about 40% of the funds rolled over into IRAs are managed by the record keeper of the 401(k) plans that originally held them.

In “Regulating Financial Advice: *The Conflicted Role of Record Keepers in Pension Rollovers*,” John Turner explains that a conflict can arise between what is profitable for the record keeper—a rollover to its IRA—and the best investment for the retiring (or job-changing) worker. A rollover to an IRA is only one option for a retiring 401(k) plan member. The balance of a 401(k) plan can be left there by the separating employee, or it can be rolled over into the 401(k) plan of the member’s new employer. It is not always obvious that a rollover

into an IRA is in the best interests of a 401(k) plan member. Turner notes that fees can be, and on average are, generally higher for IRAs than they are for 401(k) plans, and IRAs are outside the jurisdiction of ERISA.

Record keepers with their own IRAs have an obvious interest in attracting rollovers out of the plans for which they provide services. The author, based on his own experience with a major record keeper, concludes that these institutions make a substantial effort to encourage rollovers by communicating with the 401(k) plan member. An important question arises with these efforts: do they constitute advice? Regulations drafted by the previous administration treat any direct effort at persuasion as advice. The status of these regulations under the current administration is uncertain. In any case, Turner argues that whether a communication is construed as advice depends upon its wording. In practice, this may mean that a communication that is tantamount to advice is not treated as such, raising the possibility that a 401(k) plan member is being persuaded to take a step that is not in his or her best interest.

Finally, I invite readers to take a look at my review of an important publication from the U.S. Government Accountability Office on the nation’s retirement system.

**George A. (Sandy) Mackenzie**  
Editor