Retirement income or investment portfolio?

Looking beyond Modern Portfolio Theory

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This insights brief addresses the important distinction between managing a *retirement income* portfolio versus managing an *investment* portfolio. We propose an evaluation framework that extends the traditional Modern Portfolio Theory (MPT) to account for the specific characteristics of risk/return in a retirement income portfolio. Further, we suggest structural reconfiguration of a retirement plan's default investment for plan participants: evolving the commonly used target date funds (TDFs) to satisfy critical aspects of retirement income, particularly through the incorporation of guaranteed lifetime income.

Use the right analytical framework for the different types of strategies

There is a prevalent misconception that the analysis of a *retirement income* strategy effectively equates to the analysis of an *investment* strategy. These two concepts focus on entirely different outcomes. For example, young investors with a lifetime of investing ahead of them may be willing to take risks in the hopes of substantial returns. By contrast, those who are just entering or are well into retirement are likely to view their retirement portfolios through the lens of capital preservation and income.

The commonly used framework for analyzing investment portfolios is MPT, which states that the simultaneous consideration of an asset's risk and return provides a metric for the benefit an investor can get in exchange for taking on risk. According to MPT, an evaluation of the entire portfolio's risk/return characteristics accounts for the interaction among different components of a portfolio.

We propose that MPT alone is not sufficient to analyze retirement income portfolio strategies. The goals of a portfolio designed for accumulating assets for retirement are not the same as the goals of a portfolio designed to deliver sustainable income during retirement. There are specific risks individuals need to address with a retirement income portfolio (e.g., sequence of returns, longevity, inflation). The use of volatility of returns as the primary risk measure in MPT does not capture the full extent of these risks. We believe the better framework extends MPT by using two, new metrics for risk and reward that reflect two competing objectives for retirement income strategies: satisfying spending goals and preserving financial assets.

Traditional MPT is not sufficient to best analyze retirement income portfolio strategies.

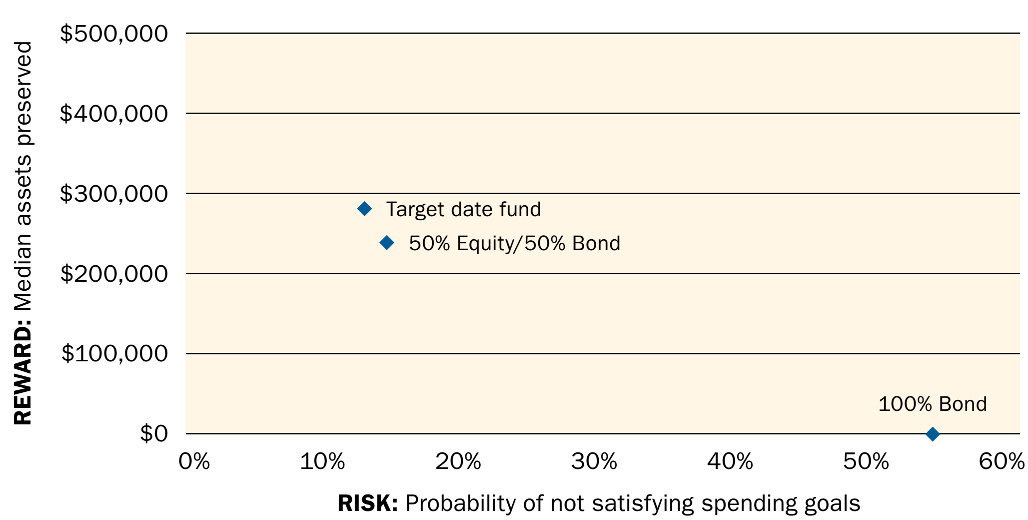
Methodology and metrics

To evaluate portfolio strategies based on these two metrics, we ran thousands of simulations to calculate the risk/reward of virtually any retirement income strategy. The metric we use to measure risk is the probability that the client will not meet income goals. The metric we use to measure reward is median assets preserved. A higher level of reward within this framework means more available assets for a bequest or for discretionary spending during retirement to meet other needs, such as emergencies or gifts.

Risk/reward characteristics for different retirement strategies

We can show three different retirement strategies for an individual who:

- Starts saving for retirement at age 35
- Makes contributions to a retirement portfolio until retiring at age 65
- Withdraws money to pay for retirement expenses from this retirement portfolio until death



100% Bond: high risk and low reward

In a considerable number of Monte Carlo simulations, once the individual reaches retirement age, there are likely not enough assets to satisfy spending goals. There is a high probability that the accumulation will not generate enough income to meet retirement expenses.

50% Equity/50% Bond: potentially lower risk and higher reward than 100% bond

The balanced fund strategy maintains a 50% equity allocation and can both reduce risk and increase reward when compared with the 100% bond allocation. A balanced fund is also eligible to be a Qualified Default Investment Alternative based on the Pension Protection Act of 2006.

Target date fund: potentially lowest risk and highest reward of the three retirement strategies

The TDF strategy is marked by a high equity allocation at the outset, which declines over time as the participant nears retirement. This retirement strategy has been found to be the most effective of the three approaches—potentially offering the lowest risk and highest reward when participants take withdrawals for retirement income.

The illustration validates the view of most retirement plan sponsors using TDFs as the default investment for employee retirement accounts. At the same time, it exposes the fact that gaps remain in how well they are able to serve participants in retirement since even this approach leaves a risk that retirees will run out of money in retirement.

Finding the right role for TDFs

TDFs rapidly grew in popularity as a plan's default investment when the Pension Protection Act of 2006 enabled plans to use these funds as an eligible Qualified Default Investment Alternative. However, the SECURE Act of 2020 put more emphasis on providing for guaranteed lifetime income throughout retirement, and traditional TDFs that focus exclusively on investments do not address this demand, as we can see from the gap in spending sustainability in this modified approach to MPT.

As investment vehicles alone—not retirement income strategies—TDFs leave participants with work to do once they reach retirement. Most TDFs do not provide guaranteed lifetime income like Social Security or other guaranteed income products. This is news to many: In the 2019 Lifetime Income Survey sponsored by TIAA, 64% of respondents believed TDFs provide lifetime income.

The fact is that a guaranteed stream of income has a distinct and valuable role in retirement. Even though it may be missing from most TDFs, consumer surveys demonstrate that it is an appealing feature to participants. According to the 2021 TIAA Lifetime Income Survey:

6 in 10
workers are highly interested in an annuity that provides lifetime income if it is offered through their employer's retirement plan.

57%
agree that employers have a responsibility to provide employees a way of getting lifetime income in retirement.

For more information, contact TIAA.org/contact-tiaa-dcio.

A fresh look at MPT shows us how a TDF structure helps workers meet their goals in retirement but is unable to replicate the benefit of guaranteed income during retirement. Retirement experts and academic research consistently show that guaranteed income can yield better outcomes and provide peace of mind to retirees. Add to this the fact that many participants already believe they can expect to receive guaranteed income in retirement. The time is right to reconsider the role an income guarantee plays in retirement, especially for those who are invested in the default.

Conclusion

MPT is a valuable framework for assessing *investment* portfolios but is not adequate for addressing *retirement income* portfolios. We propose that the framework be extended by revising the risk/reward metrics based on competing objectives for retirement strategies: satisfying spending goals and preserving financial assets. We further propose using this framework to evaluate the use of TDFs as the default option for retirement plan participants, noting that TDFs do not *de facto* provide a highly valued outcome: guaranteed income for life. This modified approach to MPT exposes the gap that remains even with TDFs in solving for income through--not simply to--retirement. As such, it supports the premise that guaranteed lifetime income is necessary to better meet the needs and expectations of plan participants.

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