LGIM America

Challenging the static drawdown paradigm

How a dynamic approach may increase income stream certainty

As people transition into retirement, they naturally want to feel confident that their savings and investments will support their income needs. A common paradigm for pursuing that goal is a drawdown strategy comprised of a defined, annual withdrawal rate, applied over a set number of years, from a portfolio designed to provide an assumed rate of return sufficient to fulfill that objective.

In theory, a "set it and forget it" approach can be very appealing. The retiree can maintain a lifestyle within established income parameters. The financial advisor performs the research, modeling, portfolio construction and implementation upfront with minimal ongoing maintenance. In practice, however, a static drawdown strategy may prove to be a disservice to both the participant and the financial advisor. Portfolio volatility inherently creates a significant dispersion of potential annual returns. That means there is always some chance the retiree's savings will be depleted earlier than expected.

Recognizing and understanding this shortfall risk puts a retiree in a better position to manage it.

The static drawdown drawback

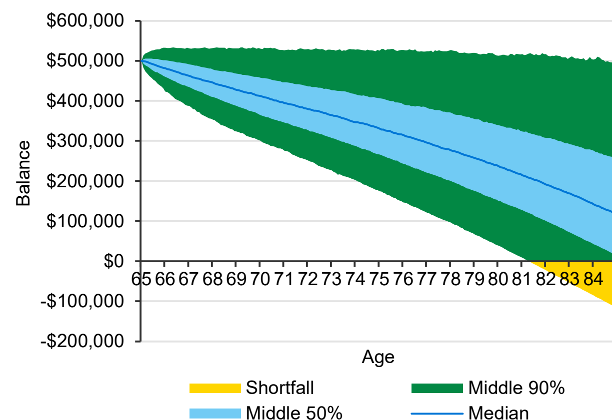
A static drawdown strategy entails one inescapable flaw. That is the potential difference between expected portfolio returns and actual market performance year to year. Withdrawing the same or slightly increasing amounts from a retirement portfolio each year materially increases the uncertainty of maintaining savings over a long retirement period.

Consider this hypothetical example: An individual with $500,000 in savings spend about $31,500 dollars a year from their balance each year for 20 years. Their advisor uses a simple calculation to determine that a 2.4% annual return would be enough to maintain that withdrawal level—and concludes that a moderate balanced fund with a 3.7%[1] expected average annual return provides more than enough growth for a "safe" drawdown strategy.

However, because we can't predict what markets will actually do, we must examine all the possible returns for that portfolio over the next two decades. This analysis is a Monte Carlo simulation that reveals that the individual's outcome is much less certain.

As shown in *Figure 1*, annual returns above or below the projected return would change the balance path over time—and the retiree would have to be prepared for any outcome within this cone of green and blue bars.

Figure 1: Static approach – static drawdown strategy (hypothetical[1])



For illustrative purposes only.

For example, the individual has a 50% chance of experiencing an outcome within the blue band and a 40% chance of ending up within either of the wider green band. In this specific example, almost 1-in-4 would run out of money before the age of 85 (as illustrated by the shortfall in yellow); and almost 1-in-50 would deplete their balance before the age of 80. In the worst cases, assuming their spending patterns didn't change, the retiree would have a shortfall almost equal to a quarter of their starting portfolio value at 85.

Conversely, what if returns are above expectations? The participant may leave income on the table that they could use to support a more comfortable retirement lifestyle. Instead, they could unintentionally leave a larger estate upon death.

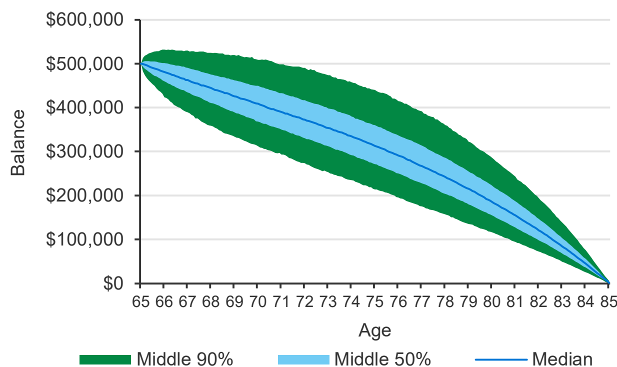
The more efficient approach

A dynamic drawdown strategy of adjusting annual withdrawals up or down based on market conditions and account balances creates a much tighter band of potential balance outcomes. In exchange for small variations in annual income, retirees can reduce the risk of outliving their savings and avoid the need for drastic changes to annual income that would disrupt their retirement lifestyle.

This approach to managing retirement income is similar to the individual's experience during their working years, when annual income may move up and down in small amounts from year to year, but rarely disappears completely.

As shown in *Figure 2*, under the same range of market scenarios as the previous illustration, this strategy increases likelihood that the retiree's savings will last the full 20 years to nearly 100%.

Figure 2: Dynamic approach – dynamic drawdown strategy (hypothetical[1])



For illustrative purposes only.

Managing a dynamic drawdown strategy

The key to adopting a dynamic drawdown strategy is developing a rules-based approach to adjusting annual income based on past portfolio performance, account balance, and forward-looking capital markets assumptions.

Like a static drawdown, a dynamic strategy begins by identifying an optimal balance between the desired level of income and an investment portfolio that provides the greatest certainty of maintaining that income level for a specific length of time.

Returning to our previous example, an individual has $500,000 saved and wants $31,500 in annual income. Working with a financial advisor, they can select the efficient drawdown portfolio that offers a 75% chance of being able to maintain that income level for 20 years.

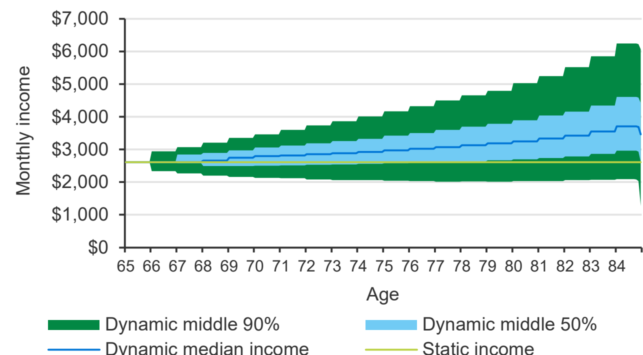
Each year, the portfolio's asset allocation and account balance are reviewed to maintain an efficient drawdown frontier. The process should also include a review of their desired income to ensure it's still a safe withdrawal level.

For example, if the portfolio's realized returns were lower than expected and forward-looking capital markets assumptions are down, they could reduce the annual income level and maintain their desired 75% probability of success[2]. On the other hand, if realized returns were higher than expected, and capital markets assumptions are unchanged or up, they could increase the annual income level without necessarily increasing shortfall risk.

Establishing a threshold for acceptable variation from the targeted shortfall risk can help minimize changes to annual income. For example, this strategy might only call for changes to the annual withdrawal rate if the retiree's shortfall risk has increased or decreased from the target rate by 10%.

This carefully managed, rules-based approach helps create smaller annual increases or decreases in withdrawal levels. By tightening the account's balance path, the individual reduces the chance of experiencing a shortfall. What's more, they can translate favorable market returns into higher levels of income.

Figure 3: Income path (hypothetical[1])



For illustrative purposes only.

A clear benefit

Dynamic drawdown combined with a drawdown portfolio helps to address one of the key retirement concerns most people express: Ensuring that their savings can support their desired retirement lifestyle. By accepting variations in annual income, retirees gain greater confidence in their ability to maintain their income stream for longer, while reducing the risk inherent in a static drawdown strategy — the potential for abrupt and substantially reduced income in order to avoid depleting savings due to poor market performance.

1 Source: Legal & General Investment Management America, Inc. For illustrative purposes only. Simulations assume a hypothetical allocation to 40% Global Equity/60% Credit investment. Simulations are based on a stochastic analysis applying 6/30/21 LGIM capital market assumptions and the LGIM TRESAA Economic Scenario Generator for 3000 scenarios. The range of outcomes reflects the 90th & 50th Percentile Confidence Interval. Additional assumptions and details about methodology available upon request.

2 Source: Probability of success" is a forward-looking measure used to risk-balance the income targets by adjusting for the potential that the overall strategy does not meet its objectives and therefore does not generate sufficient capital for income payment. Success probability rates are estimated and utilized in our model calculations and strategy construction for risk management purposes, but they are not a guarantee of results.

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For further information about LGIM America, find us at www.lgima.com

Important disclosures

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The hypothetical simulations presented apply LGIM TRESAA Economic Scenario Generator assumptions as well as other assumptions which are available upon request. Hypothetical results are for illustrative purposes, not actual performance of any product or its underlying strategies.

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