Robust target date glide path

A summary of our updated glide path research and impact on our target date funds

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Over the last decade, driven by the need to accommodate the wave of baby boomers retiring, the research behind retirement spending has materially advanced. Integrating this information along with retiree preferences into glide path design is important in supporting U.S. retirees. As we reflect on the glide path being a solution for clients with varied circumstances and preferences, and juxtaposing this with current studies on spending needs, retirement readiness, product adoption and longevity studies, we feel that shifting to a higher equity allocation in retirement is prudent

A formal strategic review of our target date fund (TDF) glide path generally takes place approximately every four years. As has been our practice for many years, we review our target glide path allocations in light of the regulatory and market environment as well as participant trends. The central characteristics (i.e., salary levels and patterns, savings rates and retirement ages) of participants to the extent that they can be discerned from the Covid-19 backdrop, do not appear to have significantly changed since our previous analysis in 2018. The trends, however, continue to suggest that many participants are not saving enough for their retirement years. Additionally, our previous analyses show that participants are stopping work (not necessarily voluntarily) earlier than a "standard" retirement age, which places added stress on limited retirement resources.

Studies on spending needs and retirement readiness continue to signal an ongoing challenge for many workers to accumulate sufficient retirement savings. The Transamerica Center for Retirement Studies[1] finds that a majority of both employers and employees have low confidence in a financially secure retirement. The World Economic Forum finds[2] that American workers have, on average, saved enough to fund 9.7 years of retirement leaving a gap of 8.3 years for men and 10.9 years for women.

Vanguard shows[3] that the median balance of 401(k) plan accounts they track for those 65 and older is slightly under $90,000. Combining this with the suggestion from Synchrony[4] and others that workers in their 60's should have accumulated 8 to 10 times annual salary indicates that this median employee is most likely trailing the accumulation needed to maintain their standard of living in retirement.

Shifting to a higher equity allocation near and in retirement better supports the needs of retirees and improves the retirement readiness of those who are still working. We will be carefully transitioning to this updated glide path over the next two rolldown points in January of 2023 and January of 2024, avoiding worries of "re-risking" in the face of a potentially recessionary environment. This two-step implementation avoids short-term allocation swings.

Adjusting glide path shape

The shift in the Russell Investments glide path covers the entire range of ages from early in a participant's career

[1] Pandemic: U.S. Employer Benefits and Business Practices, Transamerica Center for Retirement Studies, December 2020.
[2] Investing in (and for) Our Future, World Economic Forum, 2019

[3] How America Saves 2022, Vanguard Investments, 2022
[4] https://www.synchronybank.com/blog/median-retirement-savings-by-age/

through the end of retirement. Like the current glide path, the new glide path begins to become more conservative at approximately 25 years prior to retirement—typically around age 40. During this mid- to late-career period, the new glide path slopes downward more gradually than the current one shifting toward a 49% equity landing point instead of the previous 40% level.

As illustrated in **Exhibit 1**, the glide path can be considered in three segments:

1. Early Career: the allocation for these younger participants covers a period of low account balance and long investment horizon.
2. Mid- to Late-Career: this period typical occurs 25 years prior to retirement. As the account balance grows, a decreasing equity allocation is needed to position continued growth versus drawdown risk on this larger balance, to recognize the declining impact of ongoing savings amounts relative to the accumulated balance and to provide a smooth transition at the landing point into the retirement phase.
3. Retirement: the allocation during this ultimate phase reflects an increase in our equity allocation, from 40% to 49%, with the goal of supporting a wider range of participants in their efforts toward a successful retirement, as discussed in the remainder of this paper.

We consider in greater detail the choices made in the mid- to late-career and retirement segments starting with the retirement allocation.

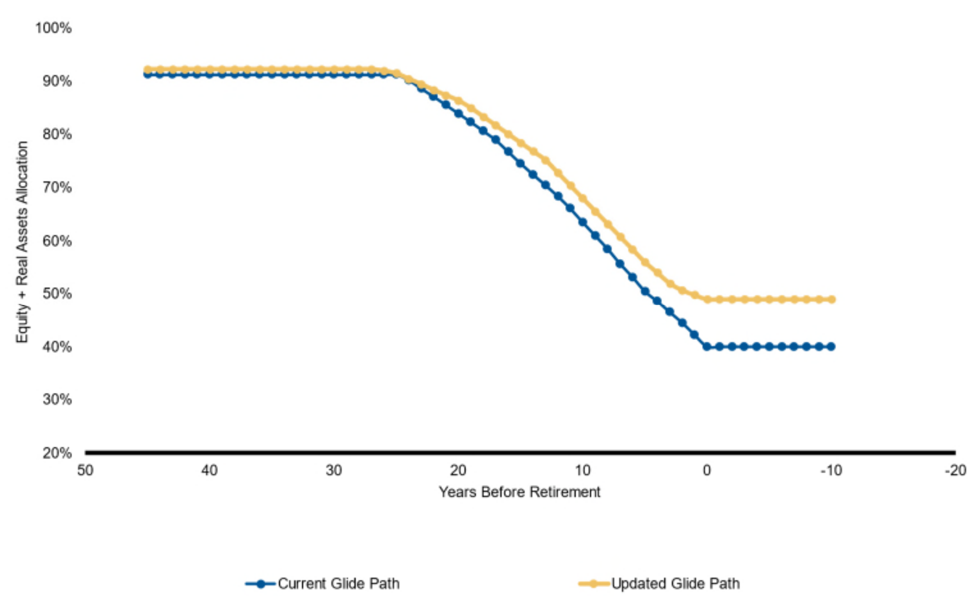
The post-retirement glide path segment sets the tone

It may seem counterintuitive, but it is helpful to start with the end. Ultimately, participants will reach a stage where they no longer are saving for retirement and have shifted into what we call the decumulation years, which occurs at different times for each individual investor. Meantime, retirement may not signal the start of withdrawals from the 401(k) account, but it does typically signal the end of contributions to the plan. Once in retirement, an individual has an ongoing need to balance spending and preservation of assets for an indeterminant future. The answer to this challenge can best be summarized as a spending rate. The retiree's challenge is to identify a spending rate that is sustainable and limits the possibility of running out of money.

Retirees face the highest risk of a bad market shrinking their nest eggs (and impairment of overall retirement spending) when balances are largest, which is at the point of retirement. This leads us to avoid a downward sloping path during retirement and maintain a flat allocation during this period. It is the most effective strategy to support a sustainable retirement.

The level of spending that can be maintained during retirement is dependent on market return and longevity assumptions. The latter is a bit easier in which to recognize trends (as illustrated in **Exhibit 2**) while market forecasting continues to be a difficult and imprecise task.

Exhibit 1: Current and new glide paths including transition



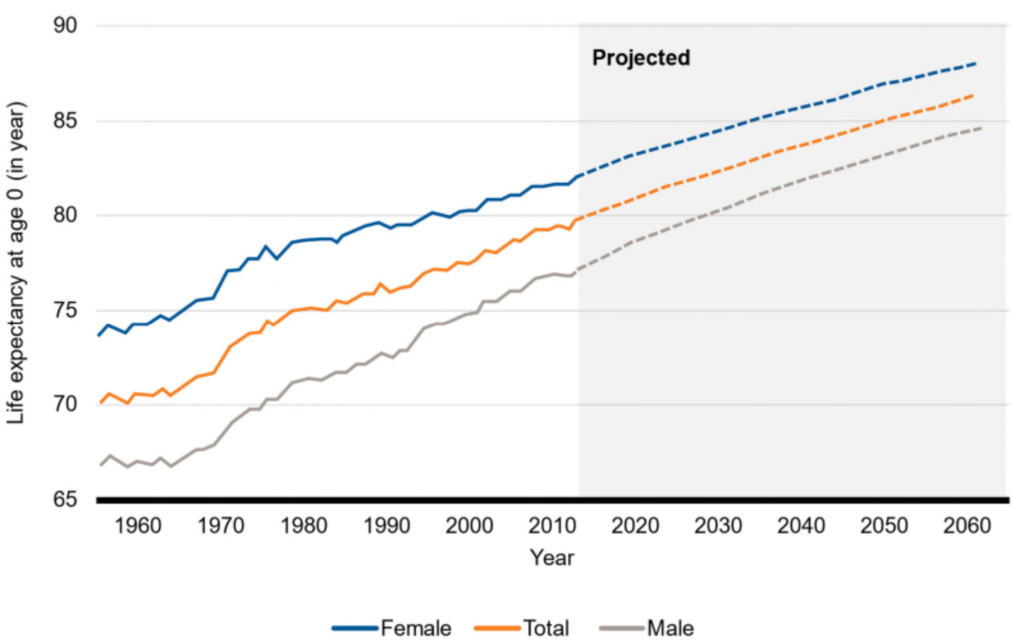
Source: Source: Russell Investments

There isn't a single choice of spending rate that is clearly the "right answer." A 4% spending rule was identified by Bengen in 1994[5] using a 50% stock/50% bond portfolio evaluated on market data from 1926 to 1976. Bengen has revised this spending rate in later discussions[6] suggesting 3.7% for taxable portfolio and more recently[7] increasing his recommendation to the neighborhood of 4.4% or 4.5%. A recent Morningstar study[8] recommends a 3.3% initial spending rate and Wade Pfau the Professor of Retirement Income at the American College of Financial Services has recommended a 3% spending rate.[9] The analysis summarized in **Exhibit 3** and **Exhibit 4** covers a range of spending rates[10]. These results are based on flat post-retirement glide paths and suggest that sustainable inflation-adjusted spending rates generally are less than 5% of the balance at the point of retirement a finding that is consistent with the work of other researchers.

There is a convenient scaling in this analysis that allows a spending rate to be an effective proxy for how challenging a retiree's investment problem is. The level of spending will vary among participants, but the rate that is sustainable for a $100,000 nest egg is the same level that is sustainable for a $1 million nest egg. The amount of spending at a sustainable rate will simply be 10 times larger for the $1 million participant.

Exhibit 3 illustrates the likelihood[11] of exhausting one's nest egg in retirement for different allocation strategies and spending rates.[12] Spending rates less than 3.5% can be supported with a minimal chance of spending the entire asset base before death. Spending rates from 3.5% to around 4.5% are associated with a low chance of failure, and spending rates above 6% are very unlikely to be supportable for any allocation strategy for the retiree's lifetime.

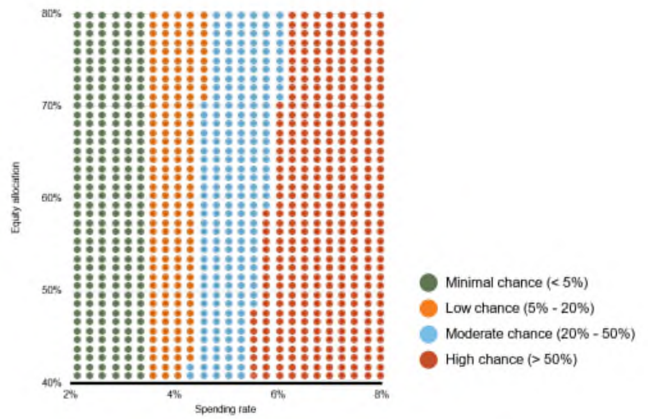
Exhibit 2: Lifespans are projected to continue increasing in the future



Source: Living Longer: Historical and Projected Life Expectancy in the United States, 1960 to 2060, Current Population Reports, U.S. Census Bureau, Feb. 2020. Available at: https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1145.pdf

[5] Bengen, William. "Determining Withdrawal Rates using Historical Data," Journal of Financial Planning, October, 1994.
[6] Bengen, William. "Asset Allocation for a Lifetime," Journal of Financial Planning, August 1996
[7] https://www.barrons.com/articles/the-originator-of-the-4-retirement-rule-thinks-its-off-the-mark-he-says-it-now-could-be-up-to-4-5-51611410402
[8] https://www.morningstar.com/articles/1068684/is-33-the-new-40
[9] https://www.barrons.com/articles/retirement-4-percent-rule-downturn-strategy-51642806039
[10] Required minimum withdrawals are not include in this analysis
[11] The chance of exhausting the nest egg is a combination of the possibility of low investment returns that are unable to support withdrawals and the possibility that the investor reaches an advanced age. That is, mortality probabilities are incorporated into this calculation.
[12] The analysis is based on a mix of equities with an inflation-adjusted expected return and standard deviation of 5.6% and 14.7%, respectively, per year, and bonds with an inflation-adjusted expected return and standard deviation of 1.2% and 4.6%, respectively. The assumed correlation between the stock mix and the bond mix is 0.003.

Exhibit 3: Likelihood of experiencing a spending shortfall during retirement

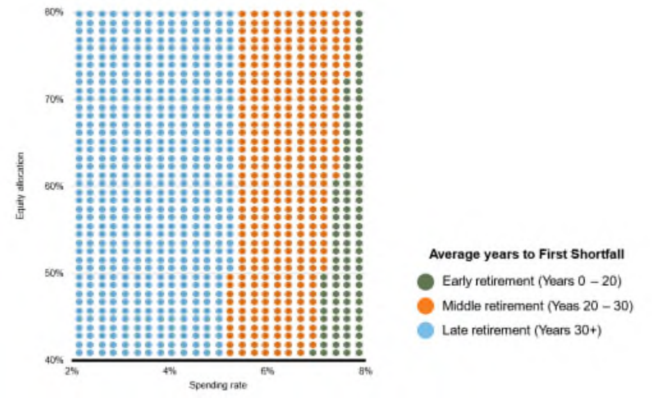


Source: Russell Investments

Further, it is apparent from Exhibit 3 and Exhibit 4 that higher equity allocations support modestly higher spending rates. It is important to recall, however, that an investment solution can't solve a spending problem. For the 4.4% premium of the stock mix over the bond mix in this example, a shift of 10% toward stocks increases expected returns by approximately 0.44%, suggesting that a 4% spending rate might be stretched to 4.44% if the stock allocation is increased by 10%. Recognizing the small range in which the equity allocation and, hence, spending rates, could be increased, this is still a very useful lever for those who are not quite where they would like to be for retirement spending. An increase of spending rate from 4% to 4.44% is an 11% increase in total spending with an increased chance of exhausting the account balance.

As investors realize, the higher equity exposure brings with it additional volatility of the account balance, so increasing the stock allocation is not without a downside. However, we feel that a modest increase allows our glide path to support a broader range of participant situations without meaningfully disadvantaging those who are able to spend at a lower rate.

Exhibit 4: Average years until first shortfall occurrence



Source: Russell Investments

Some retirees will live longer than their peers, so it is helpful to understand when assets might be exhausted. Exhibit 4 illustrates the timing when the asset base may begin to fail in its mission to provide retirement spending. High spending rates may cause this to occur early in retirement while lower rates have a good chance of postponing this event well into retirement if it happens at all.

Participants with sustainable spending rates who experience shorter lifespans will likely succeed with any allocation in the range of 40%-60%. Although more conservative allocations do reduce risk given a shorter lifespan, the risk of running out of money using a sustainable spending rate given a short lifespan is still low. On the other hand, participants who win the draw of a longer life will want to have more growth to build wealth to fund these years beyond the median lifespan. This longevity risk may be best mitigated by an annuity, but research shows[13] that very few individuals are choosing to buy an annuity. Moreover, if the retiree purchases (bond-like) annuities to cover retirement expenses, we would increase the growth allocation in the remainder of assets. As we consider how our glide path serves the different longevity experiences of investors, we think that increasing equity modestly will enhance outcomes for those who live longer with little impact to those with shorter lifespans.

Higher equity exposure brings with it additional volatility of the account balance. **Exhibit 5** shows the expected return and standard deviation of different stock/bond mixes as well as the probability of a negative return in any given year as an illustration of the risk for each mix. According to this exhibit, volatility slowly increases with higher equity exposures and the probability of a negative outcome is only marginally affected. We feel that a modest increase allows our glide path to support a broader range of participant situations without meaningfully disadvantaging those who are able to spend at a lower rate.

[13] Benartzi, Shlomo, Alessandro Previtero, and Richard H. Thaler. "Annuitization Puzzles," Journal of Economic Perspectives, 25(4), p143-64, 2011

Exhibit 5: Average return, standard deviation and 1-year probability of loss

STOCK/BOND ALLOCATIONS	AVERAGE RETURN	STANDARD DEVIATION OF RETURN	PROBABILITY OF NEGATIVE 1-YEAR RETURN
30%/70%	2.5%	6.1%	35.2%
40%/60%	3.0%	7.1%	35.5%
50%/50%	3.4%	8.3%	35.9%
60%/40%	3.8%	9.5%	36.3%
70%/30%	4.3%	10.7%	36.7%
80%/20%	4.7%	12.0%	37.0%

Source: Russell Investments

Again, a modest increase in equity allocation can help retirees defer the exhaustion of their assets without leading those with lower spending rates to face additional risk of failure. Of course, they will face slightly more volatility in their account balances, as seen in the fourth column of the exhibit.

This post-retirement analysis allows us to narrow the collection of potential solutions to the range of 40% to 60% equity allocation in retirement. We are adjusting the landing point of our base glide path from the current value of 40% to a new value of 49.

Partnership between pre- and post-retirement glide paths

During one's working career, the task is to accumulate sufficient resources for a sustainable retirement spending rate to support the targeted retirement lifestyle. There are a couple paths to estimating this accumulation target. One is to determine the cost of an inflation-adjusted annuity that provides the desired retirement spending amount. This represents the risk-free solution for the retirement problem. We recognize that very few participants elect to follow this risk-free strategy, but it is still a useful planning target. The second route to an accumulation target estimate is to divide the desired annual retirement spending level by a sustainable spending rate.

The pre-retirement portion of the glide path is responsible for creating sufficient growth to achieve the accumulation target. There is a partnership between the pre- and post-retirement glide path segments to provide the coordination needed to plan for a successful whole-life retirement saving and spending plan. The coordination depends on other features, such as availability of a defined benefit (DB) plan, salary levels, and social security benefits.

The landing point for the pre-retirement segment is established in our choices of the post-retirement exposure to equities. As the glide path shifts from the aggressive allocation of early working years to a declining allocation as retirement approaches, we depend on the post-retirement analysis to define the allocation at the point of retirement.

The characteristics of a typical participant are not meaningfully different than in 2018, though we recognize that long-term trends in longevity, defined contribution (DC) availability, DB availability and medical costs are putting greater responsibility on DC plans for a successful retirement. We know that many participants will have savings rates and accumulation amounts lower than the typical characteristics and we need to be mindful that any investment strategy is limited in its ability to solve a savings problem.

The more aggressive glide path choice improves sustainability of retirement spending and also the ability of the pre-retirement strategy to provide the necessary accumulation amount. It accomplishes this with limited additional risk among those participants who can also be successful with a more conservative strategy.

Increase in equity exposure supports broader range of DC participants

Given the increasing volume of research over the past decade that recommends higher savings, lower spending and hedged longevity risk for annuities, data show that many participants are still not on this path. Therefore, we are shifting to a more aggressive glide path.

As the body of knowledge supporting retirement investing has advanced, and as we consider the range of investor needs and outcomes using our glide path, we are taking a step to make our glide path more robust with a higher equity allocation in retirement.

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