

Reallocation Memo

062019

For Financial Professional Use Only
Morningstar Investment Management LLC

Morningstar® Lifetime Allocation IndexesSM

Executive Summary

Morningstar® Lifetime Allocation IndexesSM are celebrating their 10-year anniversary this year. Over the last decade, the family of target-date Indexes has helped investors evaluate the many competing target-date funds available in the marketplace. The glide paths for these indexes reflect Morningstar Investment Management's latest research and insights on how investors should save and invest to help meet their retirement goals, while also considering the range of target-date glide paths in the market. The indexes' glide paths are based on the asset allocation methodologies of Morningstar Investment Management LLC, a registered investment adviser and subsidiary of Morningstar, Inc.

We recently updated the Morningstar Lifetime Allocation Indexes' asset allocations to reflect our latest capital markets research and fundamental analysis of asset classes and target-date funds. The indexes are reconstituted by Morningstar — i.e., the index composition is reset — once annually. These adjustments are performed after the close of markets on the third Friday of June and are effective on the following Monday.

The glide path construction methodology and the assumptions behind our total-wealth approach will remain unchanged this year, though Morningstar is launching the 2065 vintage of the indexes for all 3 glide paths. The updated capital markets research has led to a couple of adjustments to the asset allocation of the Morningstar Lifetime Allocation Indexes. In keeping with our methodology, Morningstar and Morningstar Investment Management work together to adjust the indexes over time to reflect changes in the global markets and our corporate goal of helping investors achieve their retirement goals.

In 2019, driven by our long-term expectations, we made the following changes to the asset allocation of the indexes:

- ▶ Increased the allocations to U.S. Large-Cap Value Equities and to Non-U.S. Developed Equities, and sourced those allocations from U.S. Large-Cap Growth Equities
- ▶ Increased the allocations to Emerging-Markets Sovereign Bonds and lowered allocations to U.S. Core Bonds

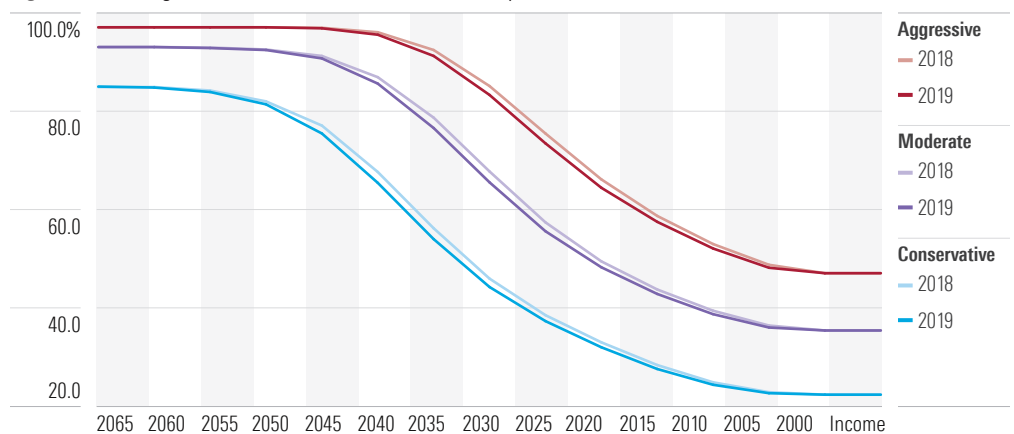
Glide Path Update

Morningstar’s method for creating glide paths builds on the asset-allocation experience of Morningstar’s Investment Management group and applies a total-wealth approach. Within the Morningstar Lifetime Index Funds, we implement our total wealth approach to investing, based on average U.S. demographic data. Our total wealth approach takes a holistic view of an average investor’s assets, which helps us construct an appropriate glide path. We incorporate the total value and risk attributes of an average investor, and use financial assets (e.g., a 401(k) plan balance) as a “completion portfolio” to help ensure diversification.

Our total wealth approach considers assets that are often overlooked, like human capital and pension wealth. Human capital can be thought of as the mortality-weighted net present value of an individual’s future wage income, where pension wealth represents assets like Social Security retirement benefits and defined-benefit pensions. The dynamics between human capital and financial capital, two of the largest assets on an investor’s balance sheet, and the investor’s risk capacity and risk preference determine the shape of the glide path for our three risk tracks: Conservative, Moderate, and Aggressive.

The implied glide path is one of the main criteria investors and plan sponsors use to evaluate and select a target-date offering. Investors should select a glide path based on their risk preference (or appetite for risk) and risk capacity (financial ability to take risk). At Morningstar Investment Management, we strive to maintain a stable glide path through time, so changes to the glide path are minor from year to year. Over time we have made small adjustments to the glide path that typically resulted in the equity allocation decreasing by no more than 3 percentage points from the previous allocation. Besides aging the portfolios by decreasing the equity allocation as they approach the retirement year, other factors that result in changes to the glide path are investor demographics, estimates of the asset allocation of the reference portfolio, and the risk profiles of the human capital. We have not made any changes to these factors in 2019. Figure 1 illustrates the 2019 glide paths for the three Morningstar Lifetime Allocation Index series.

Figure 1: Morningstar® Lifetime Allocation IndexSM Glidepaths



Asset Allocation Update

Using our total-wealth approach, we first create the stock/bond allocations for the indexes, then determine the asset-class targets. We use advanced asset-allocation techniques to determine these weights. Examples of our advanced approach include: our proprietary approach to formulating capital market assumptions; and how we incorporate non-normal returns and downside risk in the portfolio optimization routine.

We invest for the long term and have a fundamental, valuation-oriented view that helps investors ride out the market's ups and downs and is designed to take advantage of opportunities when they arise. We believe this enhancement to our investment process can improve the effectiveness of our decision-making and help to serve investors for years to come.

While valuation is a component of our capital markets research, Morningstar Investment Management believes that the asset allocation policy is one of the most important determinant of a portfolio's risk and return characteristics over time. When constructing a multi-asset portfolio, we feel it is critical to seek diversification benefits over the long run. We believe that a diversified selection of asset classes has the potential to offer investors the opportunity to maximize their retirement savings with the appropriate amount of risk. Therefore, the Morningstar Lifetime Allocation Indexes offer exposure to a variety of asset classes, including non-U.S. developed equity, emerging-markets equity, commodities, non-U.S. bonds, and TIPS. Each year, we re-evaluate our expected returns for each asset class represented in the index and analyze additional asset classes for inclusion in the indexes. We aim to keep individual asset allocations consistent over time, with the typical adjustment being 300 basis points or less. In 2019, Morningstar Investment Management is not making any changes to the asset allocation constituents of the indexes.

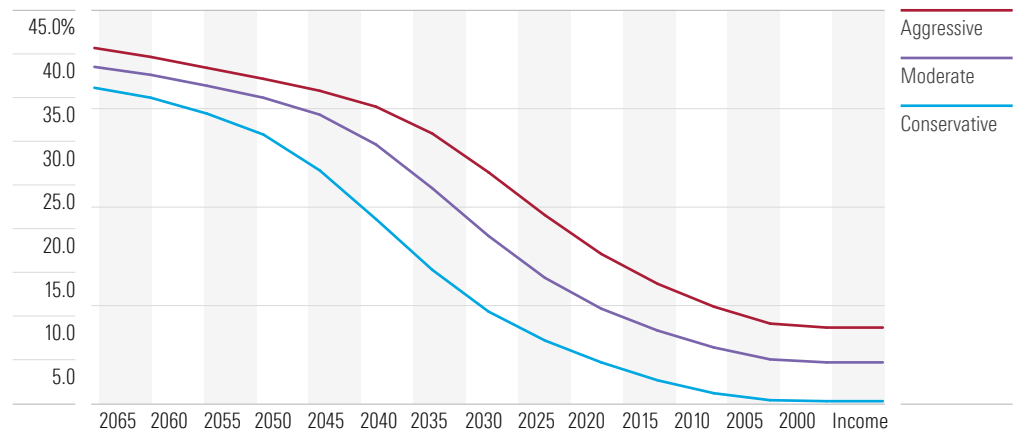
We made a few changes to the U.S. equity portion of the indexes' asset allocation in 2019. Global equity markets staged a significant rebound in the first quarter of 2019, reversing a steep U.S.-led sell-off from fourth quarter of 2018. The gains were broad-based among U.S. stocks, with growth categories generally leading the charge. International stocks followed a similar path.

Based on today's peak earnings, U.S. stocks look fully valued. Profit margins set multi-year highs in 2018 and are now coming under pressure as global growth slows. On a cyclically adjusted basis, U.S. stocks are particularly expensive, with growth sectors such as technology and consumer discretionary looking especially dear. Within the U.S., our asset allocation model favors value areas of the market and we see less drawdown risk in large-caps, when compared to small- and mid-cap stocks. Better relative valuations exist overseas and our valuation-driven process continue to unearth higher expected returns for both non-U.S. stocks and emerging-markets stocks. Our return expectations for U.S. stocks remain low, and we continue to find more value in international developed stocks. Among U.S. stocks, we are reducing our exposure to Large-Cap Growth in favor of Large-Cap Value stocks.

We increased the allocations to international developed equities and maintained the overweight to emerging-markets stocks as we continue to find more relative value in equity markets outside the U.S. The Developed non-U.S. Index has close to 50% allocation to Japan, U.K., and Germany, three countries with high conviction level based on our fundamental investment research.

The indexes favor U.S. equities relative to foreign stocks especially for the close-to-retirement portfolios, though the allocation to foreign stocks has increased over time. In addition to improving returns, foreign stocks provide a valuable diversification benefit to a multi-asset portfolio that can help long-term investors better weather fluctuations in the domestic equity markets. Given current corporate profit margins, we believe valuations appear to be stretched in the U.S. and that returns are likely to be challenged in an environment of lower growth. Figure 2 below illustrates the allocations to total non-U.S. equities across the three glide paths.

Figure 2: Morningstar® Lifetime Allocations to Non-U.S. Equities

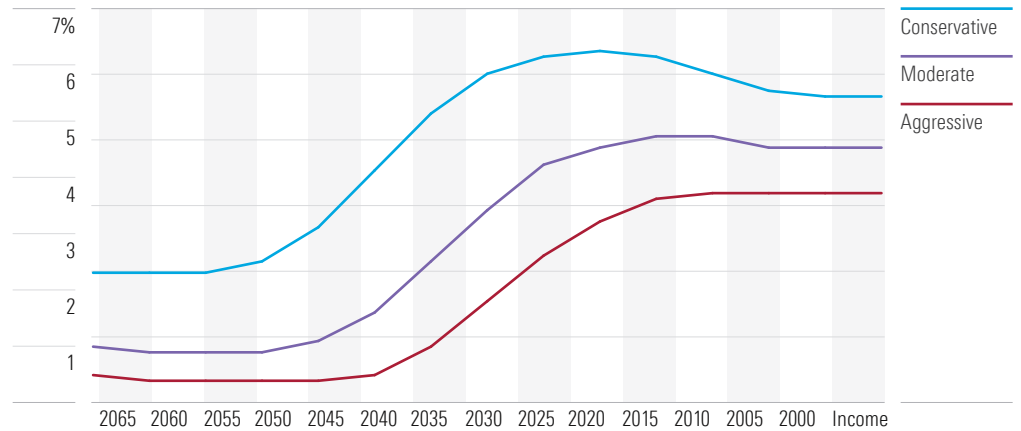


Increased Allocations to Emerging-Markets Sovereign Bonds

Within the fixed-income portion of the indexes, we introduced exposures to emerging-markets bonds in 2018. This year, we are slightly increasing the allocations to the asset class due to attractive forward-looking returns compared to other credit asset classes. Our spreads estimate for emerging-markets bonds remain around fair value.

Regarding emerging-markets fundamentals, we continue to see improvements in fiscal positions and growth rates, as well as positive reform movements. A key risk for emerging-markets bonds remains the normalization of global interest rates. In addition, the increase in debt issuance in recent periods along with the potential for increased dollar strength gives us caution and limits the amount we allocated to the asset class at this time.

Figure 3: Morningstar® Lifetime Allocations to Emerging Markets Bonds



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Indexes are unmanaged and not available for direct investment.

Asset allocation and diversification are methods used to help manage risk. They do not ensure a profit or protect against a loss.

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