Reallocation Memo

06 2018

For Financial Professional Use Only
Morningstar Investment Management LLC

Morningstar® Lifetime Allocation Indexes℠

Executive Summary

In 2009, Morningstar, Inc. launched the Morningstar® Lifetime Allocation Indexes to help investors evaluate the many competing target-date funds available. The glide paths for these indexes reflect Morningstar's latest insights on how investors should save for retirement, while also considering the range of target-date glide paths in the market. These indexes can provide a strong foundation for target-date strategies and are a valuable benchmarking tool for investors. 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 to reflect our latest capital markets research and fundamental analysis of asset classes and target-date funds. The indexes are reconstituted—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. Our updated capital markets research has led to some adjustments to the asset allocation of the 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 2018, driven by our long-term expectations, we made the following changes to the asset allocation of the indexes:

- Introduced allocations to emerging-markets debt
- Increased the allocations to real estate investment trusts (REITs)
- Maintained an overweight to non-U.S. equities relative to U.S. equities
- Lowered growth-style equity relative to value across the capitalization spectrum
- Increased allocations to short-term bonds

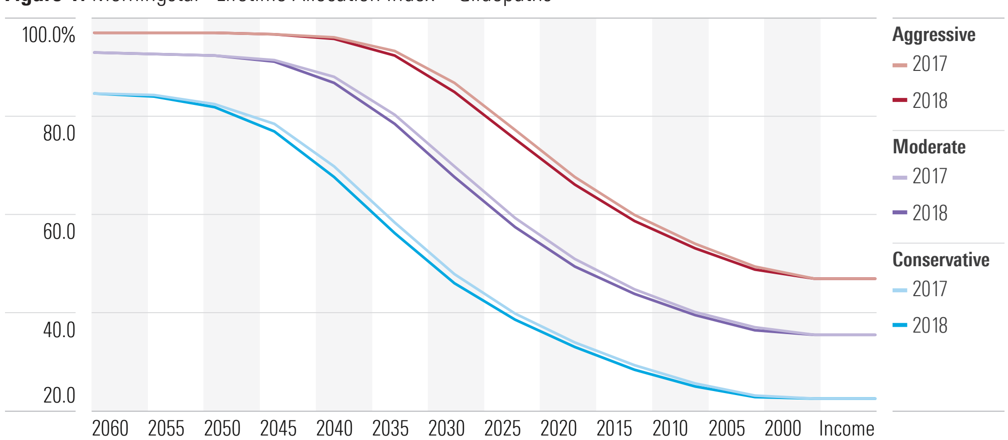
Glide Path Update

Morningstar's method for creating glide paths builds on the asset-allocation experience of Morningstar's Investment Management group (of which Morningstar Investment LLC is a part) and applies a total-wealth approach. When determining the optimal portfolio for investors, we take a holistic view of a person's total wealth so we can construct the most appropriate glide path based on the total value and risk attributes of the different assets owned by that investor.

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 2018. Figure 1 illustrates the 2018 glide paths for the three Morningstar Lifetime Allocation Index series.

Figure 1: Morningstar® Lifetime Allocation Index℠ Glidepaths



Asset Allocation Update

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

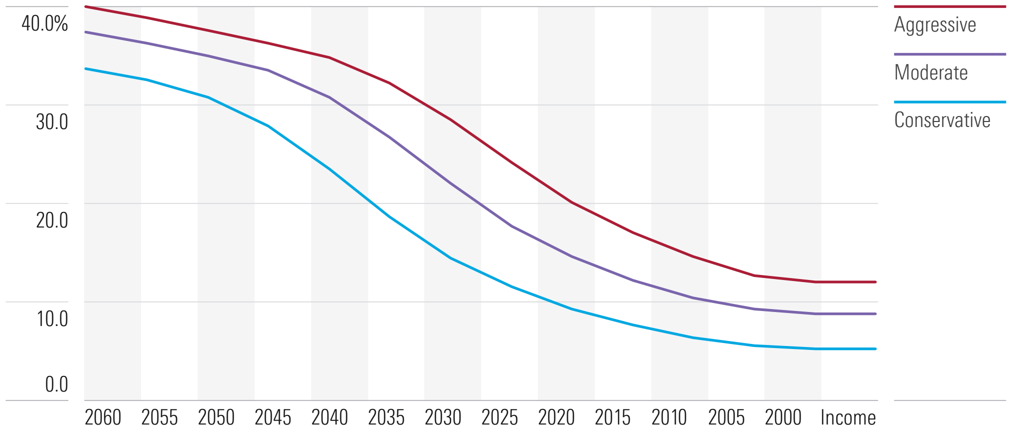
Recent improvements to our approach for formulating expected returns include introducing a supply-side model so we can more accurately incorporate valuations into our forecasts. We invest for the long term and have a fundamental, valuation-oriented view that helps investors ride out the market's ups and downs and take advantage of opportunities when they arise. We believe this enhancement to our investment process will 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 the most important determinant of a portfolio's risk and return characteristics over time. When constructing a multi-asset portfolio, it is critical to take advantage of diversification benefits over the long run. We believe that a diversified selection of asset classes offers investors the greatest 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 portfolio 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.

We made a few changes to the U.S. equity portion of the indexes in 2018. Equity markets rallied in 2017 with both U.S. and international stock markets posting gains in excess of 20%. Growth outperformed value, and emerging markets outperformed developed markets. Our return expectations for U.S. stocks remain low, and we continue to find more value in international developed and emerging-markets stocks. Among U.S. stocks, we are reducing our exposure to growth in favor of value stocks across the market-capitalization spectrum. Following the strong performance of growth in 2017, the valuation and heavy weighting in tech stocks of the growth indexes lead us to dislike the reward for risk picture for the asset class. We expect higher prospective returns from value stocks.

We maintain our overweight to international and emerging-markets stocks as we continue to find more relative value in equity markets outside the U.S. 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 2017, we slightly lowered the U.S. equity allocation relative to non-U.S. equities, as our long-term expectations suggest greater returns overseas. 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 gradual interest rate increases. 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

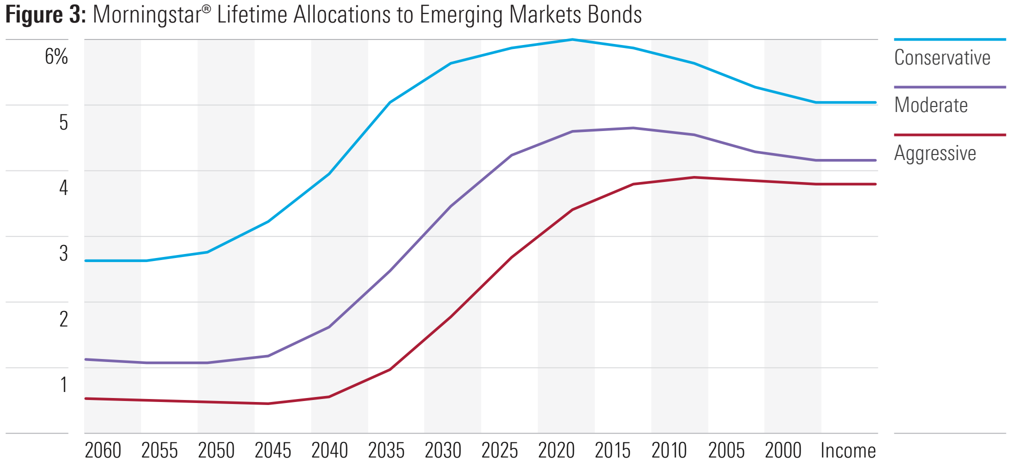


Addition of Emerging-Markets Bonds to the Portfolios

Within the fixed-income portion of the portfolios, we introduced exposures to emerging-markets bonds. As is the case with any risky asset, the time to hold an asset in a portfolio is when we believe its return will adequately compensate for its risk, taking into account the potential diversification benefit with other asset classes that are already in the portfolio. We believe the current valuation-implied returns for emerging-markets debt look attractive when compared to other credit assets on a relative basis. In an environment where credit assets are overvalued across the board, emerging-markets bonds are priced around fair value, especially when compared to lower quality assets.

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



Disclosures

Morningstar's Investment Management group includes subsidiaries of Morningstar, Inc. that are authorized in the appropriate jurisdiction to provide consulting or advisory services.

The information contained in this document is the proprietary material of Morningstar Investment Management. Reproduction, transcription, or other use, by any means, in whole or in part, without the prior written consent of Morningstar Investment Management, is prohibited.

Opinions expressed are as of the current date; such opinions are subject to change without notice. Morningstar Investment Management shall not be responsible for any trading decisions, damages, or other losses resulting from, or related to, the information, data, analyses or opinions or their use.

This commentary is for informational purposes only. The information, data, analyses, and opinions presented herein do not constitute investment advice, are provided solely for informational purposes and therefore are not an offer to buy or sell a security. Please note that references to specific securities or other investment options within this piece should not be considered an offer (as defined by the Securities and Exchange Act) to purchase or sell that specific investment.

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.

This commentary contains certain forward-looking statements. We use words such as "expects", "anticipates", "believes", "estimates", "forecasts", and similar expressions to identify forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially and/or substantially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason. Past performance does not guarantee future results.