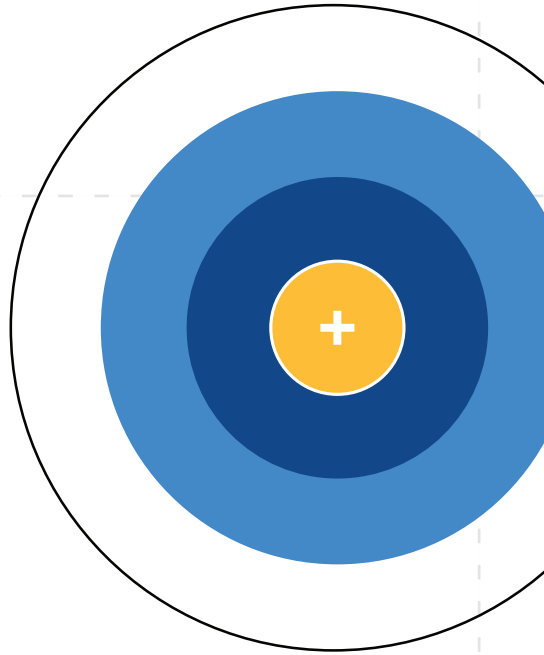


Target Date Analysis

Methodology



As of April 2024

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Important Disclosure

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Target Date Compass is meant to help plan sponsors evaluate TDFs during the due diligence process. Target Date Compass is not meant to replace the fiduciary responsibilities that are inherent in the role of plan sponsor. Target Date Compass should only be used as part of a comprehensive due diligence process. Plan sponsors should not rely exclusively on Target Date Compass to make investment decisions. The plan sponsor bears the ultimate responsibility for choosing an investment option. J.P. Morgan takes no responsibility for the final investment decision. It is important to note that the tool is intended to help highlight the differences between target date funds in order to make informed comparisons.

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Introduction

Framing a more effective conversation

Target Date Compass® is designed to provide a framework for identifying and evaluating target date funds (TDFs) that are appropriate given a plan's overall goals and its participants' needs. It guides plan sponsors through a series of questions that allow them to assess their plans' desired level of equity exposure for participants at the target date and asset class diversification—two of the most important characteristics of TDFs. The program also encourages plan sponsors to understand, and consider, the characteristics and behaviors of their workforce as part of the target date fund selection process. The Department of Labor (DOL) has stated that fiduciaries should take these factors into account when designing the investment menu for a defined contribution (DC) plan.

Making sense of the target date funds universe

After answering and scoring the questions, plan sponsors are directed to one of four Target Date TypeSM quadrants that map the target date suites available in Investment Company Act of 1940 mutual fund vehicles. Each fund family is mapped according to its:

- percentage of equity exposure at the target date (presumed retirement date)
- level of asset class diversification across the target date fund suite

It is important to note

The purpose of the tool is to help plan sponsors understand and compare the differences among target date funds based on publicly available information. Due to lack of data availability, CITs are not available for selection and comparison on the Target Date Compass Quadrant Map. However, CITs can be added to the analysis report via the search functionality or list view within the tool.

The output of the report is generated using data provided by Morningstar, Inc. and obtained directly from the fund companies and regulatory filings.* This process evaluates all fund suites that are identified by Morningstar as open-end target date funds and available for purchase by qualified retirement plans. The tool is not intended to render an opinion on the soundness of any strategy, whether stated or observed. Furthermore, it is not our intent to verify that the strategic and/or tactical holdings of a portfolio align with its stated investment philosophy.

*Due to lack of data availability, JPMCB data is pulled from J.P. Morgan Asset Management data sources.



First criterion

Percentage of equity exposure at the target date (x-axis)

Target Date Compass captures the percentage of equity exposure at the target date to provide plan sponsors with a sense of the target date fund manager's philosophy and goals regarding the fund's asset allocation at this point. Once it is determined using the process described below, the equity exposure for the TDF series is expressed as a percentage and placed along a corresponding point on the horizontal, or x-, axis of the Target Date Compass Quadrant Map.

To determine the percentage of equity exposure at the target date for each target date fund series, if the fund company provides the level of equity exposure at their target date in its prospectus, that value is used to plot a corresponding point for the target date fund suite on the Target Date Compass Quadrant Map.

If the level of equity exposure is not clearly stated in the prospectus, Morningstar may reach out to the fund company for clarification and confirmation of the exposure.

We believe our methodology can potentially provide a more accurate and up-to-date representation of a series' strategic equity allocation at the target date when compared with either a methodology that uses the allocation of the fund closest to its target date or one that relies on the historical exposure of funds that have passed their target date. Furthermore, we believe that by updating Target Date Compass on a quarterly basis, we can capture and include any changes that managers make to their fund's strategy. This allows us to capture fundamental changes to glide path and glide path design (e.g., if a series increases their broad equity exposure or increases their international equity exposure).

Please note that since target date funds were first launched, many fund families have included commodity exposure in their glide paths. Consistent with industry practice, the commodity allocation is included in our calculation of equity exposure at retirement.



Second criterion

Asset class diversification (y-axis)

The goal of determining the level of asset class diversification is to provide plan sponsors with a sense of the TDF manager's philosophy regarding the fund's risk-adjusted return potential and/or risk and volatility management. Once the level of diversification is determined using the process outlined below, this level is expressed as a number and plotted on a corresponding point for the series along the vertical, or y-, axis of the Target Date Compass Quadrant Map.

To determine a TDF's level of asset class diversification:

- Strategic allocations are captured.

A focus is placed on looking only at strategic allocations to asset classes used by the TDF's portfolio manager, while attempting to avoid illustrating allocations that reflect tactical shifts or changes in exposure due to drift. A two-part process is used to determine the asset class exposure of a TDF series. First, a qualitative review of the Morningstar categorization of each of the underlying investments in a series is conducted. If the underlying investment represents one of the 12 asset class categories we have included in our Target Date Compass, then the TDF series receives credit for including that asset class in its exposure breakdown. Second, a quantitative review uses a 5.0% allocation threshold to further determine whether a TDF gets credit for including an asset class.

- Asset classes that do not reflect distinctions among TDFs are excluded.

Among the excluded allocations are growth and value. J.P. Morgan's research reveals that equity allocations in target date funds generally include both growth and value styles. Our research also finds that every target date fund has historically maintained an allocation to cash and/or cash equivalents. Therefore, cash allocations are also excluded because it can be difficult to determine whether a target date fund portfolio manager is actively using cash and/or cash equivalents for a purpose other than liquidity.

Asset classes included in Target Date Compass

Currently, the level of diversification is determined by assessing exposure to 12 distinct asset classes within four broad areas:

- U.S. equity: large cap, mid cap, small cap
- international equity: non-U.S. developed markets, emerging markets
- fixed income: U.S. and non-U.S. developed markets, emerging markets, high yield, U.S. TIPS (Treasury Inflation-Protected Securities)
- real estate or tangible assets: REITs and commodities

It is worth noting that currently there is no industry-wide consensus on the number or types of asset classes necessary to achieve effective diversification. Our research findings, however, indicate that the 12 asset classes listed above represent a broad range of commonly used asset classes and provide a framework for clear differentiation across the TDF universe. As TDFs continue to evolve, we will continue to adjust the number of asset classes included in this analysis, as appropriate. Asset classes may be added in the future after criteria for consistent data collection have been established.



Determining asset class exposure

The exposure to the 12 asset classes discussed previously is primarily determined through data provided by Morningstar. We believe that using data from a third-party provider such as Morningstar provides a consistent, high-quality framework for determining portfolio composition across products and time frames.

As mentioned above, evaluating exposure within a TDF series employs a two-part process:

1. The qualitative process

The Morningstar categorization of each of the underlying investments in a given series is reviewed.

If one of the 12 asset class categories included in Target Date Compass is represented by an underlying investment, the series is given credit for that asset class in its final asset class exposure. That credit will be extended regardless of the outcome of the quantitative process outlined below and there is no threshold.

2. The quantitative process

Morningstar's returns-based style analysis (RBSA), which compares a fund's total return with the total returns of indices chosen to represent various asset classes (e.g., style-based indices), is reviewed.

If the RBSA determines a 5.0% or greater allocation to an asset class within a fund, the series is given credit for that asset class.

RBSA has been widely adopted among financial professionals, as its input data (e.g., monthly returns) is both accurate and readily available.

By design, target date funds shift their asset allocations over time as they progress along their glide path. Differences in asset allocation among funds within a target date fund series will most likely reflect the changing risk/return profiles of the funds as they approach their target date. For example, portfolio managers may decide emerging markets exposure is appropriate for funds with more distant target dates, but may deem the asset class too risky for inclusion in funds near or post the target date. By evaluating the target date fund suite in its totality, we can more accurately reflect the level of diversification across the strategy.

It is important to note that we rely on the number of underlying asset classes to illustrate the level of diversification that a TDF series utilizes to achieve its goals. While the Target Date Compass methodology currently assesses exposure to 12 major asset classes, it is possible that these 12 asset classes may not represent 100% of the assets of a TDF. We believe, however, that our methodology accurately highlights the differences in diversification philosophy among TDF series.



Placement on Target Date Compass[®]

A TDF suite's placement on Target Date Compass is determined by its percentage of equity exposure at the target date (the x-axis) and the value representing the level of asset class diversification (the y-axis).

Based on the current mutual fund universe of target date funds available in the Target Date Compass tool, the median percentage of equity at retirement is 45%. As of December 31, 2023, no single fund within this universe had an equity allocation of less than 25% at the target date and none had an equity allocation of greater than 60% at the target date. Additionally, the median number of asset classes was 10, and none of the funds within the universe had exposure historically to fewer than four of the 12 asset classes; current methodology limits exposure to a maximum of 12 asset classes.

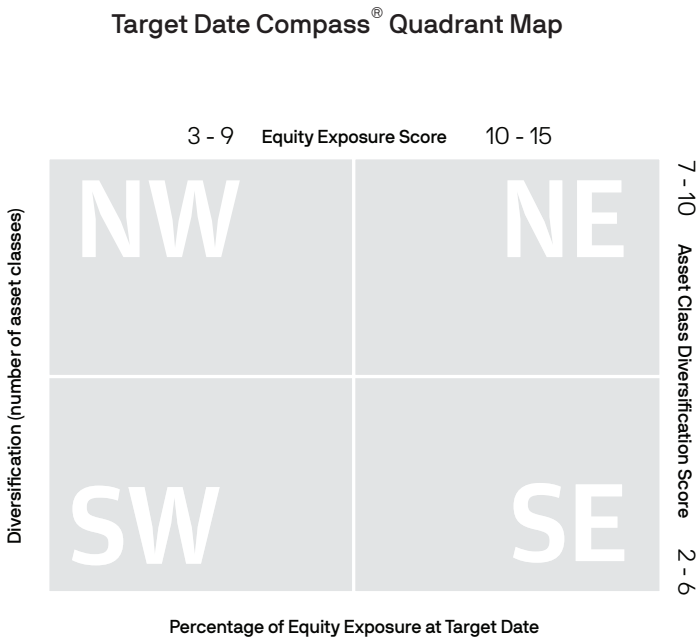
Updating Target Date Compass to reflect changes in the target date fund universe

The data and calculations used to determine each company's TDF placement on the Target Date Compass Quadrant Map will be updated on a quarterly basis. Additionally, as the target date fund universe continues to evolve, we will modify and update Target Date Compass accordingly. These modifications may include the addition of new funds and new asset classes as new data and/or a more accurate process for identification and evaluation become available.

Modification of scale of x- and y-axes

Going forward, we will assess and modify the scale of the x- and y-axes according to how the funds are distributed on the Target Date Compass Quadrant Map, which will be determined by the maximum and minimum ranges of equity exposure at the target date and the number of underlying asset classes of the funds.

We make every effort to ensure that we provide the most accurate and comprehensive representation of the TDF universe. However, we exclude certain target date funds because publicly available information on the TDF series is either unavailable or lacks sufficient clarity to allow us to determine accurate placement.



Quadrant characteristics

Northwest

Quadrant Characteristics:

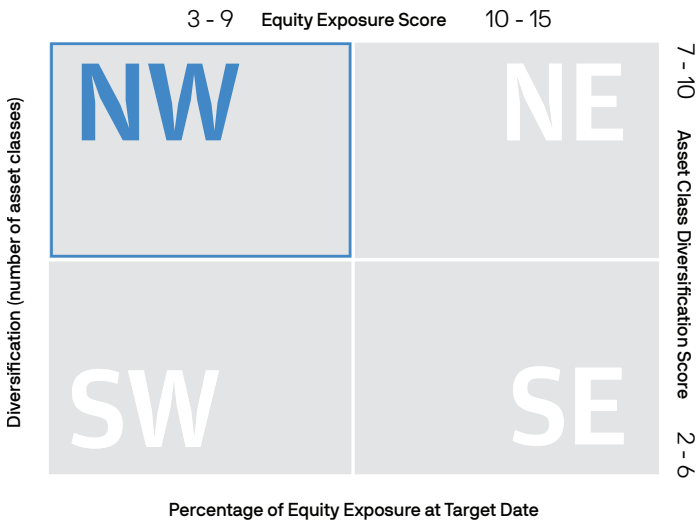
- Lower level of equity exposure at the target date
- Higher number of asset classes—tends to include both traditional and extended asset classes

Investment Orientation:

- Focus on ensuring income replacement at retirement
- Focus on managing volatility more efficiently
- Believes higher diversification can potentially create more optimal portfolios

Plan Profile:

- Seeks to help meet participants' income replacement goals at retirement
- May have participants who exhibit typical savings behavior
- Prefers target date funds that seek to manage downside risk
- Believes broad diversification is likely to improve portfolio outcomes
- Believes diversification can be achieved by extending beyond traditional asset classes



Northeast

Quadrant Characteristics:

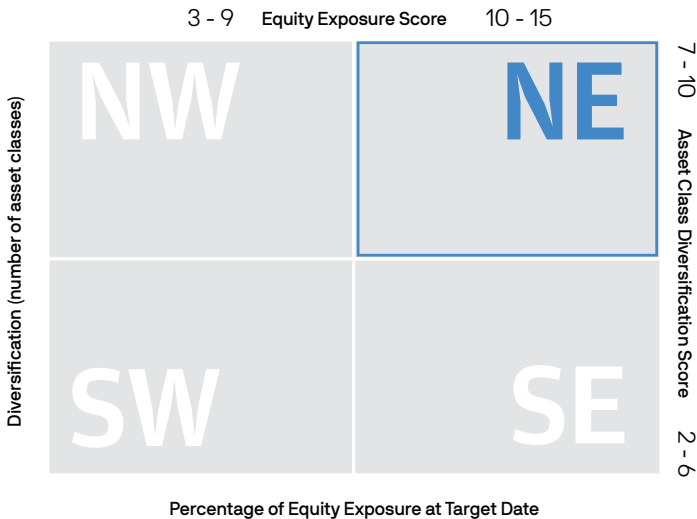
- Higher level of equity exposure at the target date
- Higher number of asset classes—tends to include both traditional and extended asset classes

Investment Orientation:

- Focus on managing longevity risk post-retirement
- Focus on managing growth more efficiently
- Believes higher diversification can potentially create more optimal portfolios

Plan Profile:

- Seeks to help maximize participants' savings throughout their lifetimes
- May have participants who more closely exhibit optimal behavior
- Prefers target date funds that seek to maximize upside return potential
- Believes broad diversification is likely to improve portfolio outcomes
- Believes diversification can be achieved by extending beyond traditional asset classes



Southwest

Quadrant Characteristics:

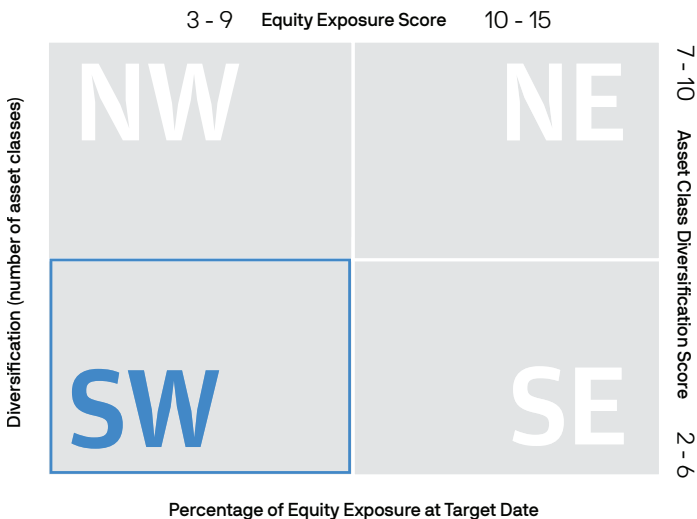
- Lower level of equity exposure at the target date
- Lower number of asset classes—tends to maintain focus on traditional asset classes

Investment Orientation:

- Focus on ensuring income replacement at retirement
- Focus on managing volatility
- Believes lower diversification can provide appropriate levels of portfolio optimization

Plan Profile:

- Seeks to help meet participants' income replacement goals at retirement
- May have participants who exhibit typical savings behavior
- Prefers target date funds seeking to manage downside risk
- Believes broad diversification is not likely to improve portfolio outcomes
- Believes diversification can be achieved primarily with traditional asset classes, such as stocks and bonds



Southeast

Quadrant Characteristics:

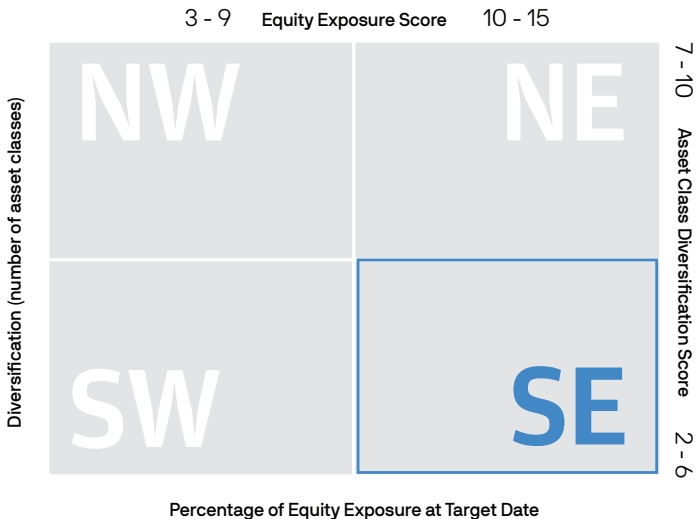
- Higher level of equity exposure at the target date
- Lower number of asset classes—tends to maintain focus on traditional asset classes

Investment Orientation:

- Focus on managing longevity risk post-retirement
- Focus on managing growth
- Believes lower diversification can provide appropriate levels of portfolio optimization

Plan Profile:

- Seeks to help maximize participants' savings throughout their lifetimes
- May have participants who more closely exhibit optimal behavior
- Prefers target date funds that seek to maximize upside return potential
- Believes broad diversification is not likely to improve portfolio outcomes
- Believes diversification can be achieved primarily with traditional asset classes, such as stocks and bonds



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TARGET DATE FUNDS: Target date funds are funds with the target date being the approximate date when investors plan to retire. Generally, the asset allocation of each fund will change on an annual basis with the asset allocation becoming more conservative as the fund nears the target retirement date. The principal value of the fund(s) is not guaranteed at any time, including at the target date.

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