Benchmarking Target Date Funds
The S&P Target Date Index Series

Overview

- The strong growth seen in the target date fund market has been primarily due to the adoption of a “one-stop” shopping approach within defined contribution plans – an approach desired by plan participants.

- Significant differences in glide paths and asset class exposure across the target date fund universe can create difficulties in benchmarking and defining passive exposure to the available universe.

- S&P Indices’ target date benchmark series extends traditional representative indexing into the growing target date fund universe by establishing a new method for defining market consensus.

- Benchmark asset allocation is derived from a robust survey of target date fund peer groups with the allocations fully investable.
Indexing the Target Date Fund Market

The strong growth seen in the target date fund market is primarily due to the adoption of a “one-stop” shopping approach within defined contribution plans – an approach desired by plan participants.

As of December 31, 2010, assets in this sector totaled US $340 billion, up from US $256 billion in 2009.1 The positive growth comes as retirement plans shift from defined benefit platforms to defined contribution plans, and recent Department of Labor rulings provide the opportunity to establish target date funds as default investment options.

However, there are significant differences in glide paths and asset class exposure across the target date fund universe that create difficulties for benchmarking and defining passive exposure to the available fund universe. For the same target date, it is not unusual to see wide differences in asset class weights between two providers. While this is not a problem per se, since asset class weights are an active asset allocation decision, the absence of a benchmark to measure the impact of that active decision poses problems when analyzing performance.

Since 2009, S&P Indices has offered a target date index series that is representative of the target date universe in the traditional sense of indexing. To accomplish this, we avoid relying upon capital markets forecasting or proprietary risk modeling to select asset classes or derive their weightings. Instead, we utilize a robust survey of existing target date funds to capture market consensus of asset class exposure for a given target date. We believe that S&P Indices is the only index provider to extend traditional, representative single-asset class benchmarking to the multi-asset class environment of target date funds.

Philosophy

We view our survey of target date funds as a method of establishing a market consensus, thereby defining “market” exposure to various asset classes within the target date fund universe. Although different in approach from the establishment of single-asset class benchmarks, such as the S&P 500, the goal of target date benchmarking is the same as in the single-asset class case – transparent market representation. The target date series extends traditional, representative, single-asset class benchmarking to the multi-asset class environment of target date funds.

Prior to the development of the S&P Target Date Index, significant differences in active risk among target date providers and the lack of standard benchmarking practices prevented the establishment of an independent, transparent, representative target date fund benchmark. Current benchmarking practices range from in-house custom benchmarks to third party model-driven indexes. S&P Indices approach creates a market consensus asset allocation, rendering new possibilities for both passive investment and benchmarking. For the first time, investors can track passive target date asset allocation exposure and can create new active/passive investment combinations by implementing the passive asset allocation with either active or passive funds. Also for the first time, passive target date asset allocation risk can be measured and tracked and the active target date asset allocation risk for individual managers can be objectively measured.

The decision set on the right side of Exhibit 1 encompasses asset allocation risk for a given target date fund, while the decision set on the left contains important aspects of fund selection risk. Taken together, and in particular because asset class exposure and expenses are two of the major drivers of long-term investment performance, these decision sets are highly significant and risky.

Exhibit 1 – Sources of Target Date Fund Active Risk
As would be expected, each target date manager has its own unique approach to investment decision making. Table 1 shows how significant the asset allocation differences are between target date funds. The table contains comparative statistics for total equity and fixed income exposure of funds in our survey. There are large ranges, particularly in close-dated target years. For example, investors in a 2015 fund could obtain as little as 26% or as much as 74% equities exposure, depending on the fund.

Table 1 - Statistics of Total Stock & Fixed Income Allocations by Target Year

<table>
<thead>
<tr>
<th>Target Date</th>
<th>Ret Inc</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
<th>2045</th>
<th>2050+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks</td>
<td>Min</td>
<td>15%</td>
<td>15%</td>
<td>26%</td>
<td>37%</td>
<td>50%</td>
<td>60%</td>
<td>72%</td>
<td>75%</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>69%</td>
<td>70%</td>
<td>74%</td>
<td>75%</td>
<td>84%</td>
<td>90%</td>
<td>94%</td>
<td>95%</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>54%</td>
<td>56%</td>
<td>48%</td>
<td>38%</td>
<td>34%</td>
<td>30%</td>
<td>22%</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>32%</td>
<td>48%</td>
<td>58%</td>
<td>65%</td>
<td>74%</td>
<td>79%</td>
<td>85%</td>
<td>87%</td>
<td>90%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>Min</td>
<td>31%</td>
<td>29%</td>
<td>23%</td>
<td>21%</td>
<td>16%</td>
<td>10%</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>85%</td>
<td>85%</td>
<td>72%</td>
<td>61%</td>
<td>48%</td>
<td>40%</td>
<td>28%</td>
<td>25%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>54%</td>
<td>57%</td>
<td>49%</td>
<td>40%</td>
<td>32%</td>
<td>30%</td>
<td>22%</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>68%</td>
<td>50%</td>
<td>41%</td>
<td>35%</td>
<td>26%</td>
<td>19%</td>
<td>13%</td>
<td>11%</td>
<td>9%</td>
</tr>
</tbody>
</table>


The glide path for a given fund sponsor can be thought of as a set of active risk exposures over time. The market consensus glide path, built bottom-up from the consensus at each target date, reflects the time dimension in benchmarking. We intentionally avoided relying on a model for our glide path because it would introduce active risk instead of providing market representation. Exhibit 2 depicts what may generally be expected in terms of exposures as we approach target dates.

Exhibit 2 – Consensus Target Date Glide Path

![Glide Path Chart]

Source: S&P Indices.
Benchmarking Target Date Funds

March 2011

Benchmark Structure

To create its target date benchmark, S&P Indices conducts an annual survey of target date funds each year in April. Funds are required by the SEC to report their holdings quarterly. At the time of the annual index review, we use the most recent quarterly holdings data for each fund in our survey.

The overall process is as follows:

- Funds are identified as Target Date funds from the Morningstar or Lipper databases and sorted by asset size. Fund families not meeting the minimum asset threshold of US$ 100 million are removed from consideration.
- Fund holdings are drawn from the latest period available using commercial databases and the SEC’s Edgar web site.
- Asset class exposures for the funds are derived by mapping the fund holdings to their corresponding asset class category. In cases where surveyed funds hold balanced or other multi-asset class funds, we look through to the underlying asset allocation of these funds to determine their net effect on the asset allocation of the surveyed fund.

Weights for each target date index are derived by applying the following methods and rules to raw survey observations:

- Each constituent asset class in the index must be employed by at least 25% of target date fund sponsors in one or more of their respective funds. This serves as our asset class selection mechanism. As the market changes the asset classes it elects to include in target date funds, the new classes will be captured by our benchmark.
- For each target date peer group, asset class values either below the 10th percentile or above the 90th percentile of raw values are replaced with the value corresponding to the 10th percentile or the 90th percentile, respectively. This mitigates outlier effects without diminishing the number of survey data points.
- From the results of step 2, mean values of at least 1% are then proportionately adjusted to create preliminary weights that sum to 100% for each target date index.
- In order to establish a smooth consensus glide path from non-smooth holdings averages, a quadratic curve is fitted to the preliminary weight values for each asset class across target dates. Weights must be 0% or greater than or equal to 1%, and they must sum to 100%. Allocations along the fitted curve for each asset class and target date are designated as final index weights.

Asset classes currently represented in the series are:
- Large-, mid-, and small-cap US equities
- Developed International Equities
- Emerging Market Equities
- US REITs
- Core Fixed Income
- Short-Term US Treasuries
- TIPS
- US High Yield
- Commodities

Each target date allocation is created and retired according to a pre-determined schedule related to the relevant target date. The series is currently comprised of the following ten indices:

- S&P Target Date Retirement Income Index
- S&P Target Date 2010 Index
- S&P Target Date 2015 Index
- S&P Target Date 2020 Index
- S&P Target Date 2025 Index
- S&P Target Date 2030 Index
- S&P Target Date 2035 Index
- S&P Target Date 2040 Index
- S&P Target Date 2045 Index
- S&P Target Date 2050+ Index
Disclaimer

This document does not constitute an offer of services in jurisdictions where Standard & Poor’s or its affiliates do not have the necessary licenses. Standard & Poor’s receives compensation in connection with licensing its indices to third parties.

All information provided by Standard & Poor’s is impersonal and not tailored to the needs of any person, entity or group of persons. Standard & Poor’s and its affiliates do not sponsor, endorse, sell, promote or manage any investment fund or other vehicle that is offered by third parties and that seeks to provide an investment return based on the returns of any Standard & Poor’s index. Standard & Poor’s is not an investment advisor, and Standard & Poor’s and its affiliates make no representation regarding the advisability of investing in any such investment fund or other vehicle. A decision to invest in any such investment fund or other vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Inclusion of a security within an index is not a recommendation by Standard & Poor’s to buy, sell, or hold such security, nor is it considered to be investment advice.

Exposure to an asset class is available through investable instruments based on an index. It is not possible to invest directly in an index. There is no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. Standard & Poor's is not a tax advisor. A tax advisor should be consulted to evaluate the impact of tax-exempt securities on portfolios and the tax consequences of making any particular investment decision.

Standard & Poor’s does not guarantee the accuracy and/or completeness of any Standard & Poor’s index, any data included therein, or any data from which it is based, and Standard & Poor’s shall have no liability for any errors, omissions, or interruptions therein. Standard & Poor’s makes no warranties, express or implied, as to results to be obtained from use of information provided by Standard & Poor’s and used in this service, and Standard & Poor’s expressly disclaims all warranties of suitability with respect thereto. While Standard & Poor’s has obtained information believed to be reliable, Standard & Poor’s shall not be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages, even if it is advised of the possibility of same. These materials have been prepared solely for informational purposes based upon information generally available to the public from sources believed to be reliable. Standard & Poor’s makes no representation with respect to the accuracy or completeness of these materials, the content of which may change without notice. The methodology involves rebalancings and maintenance of the indices that are made periodically during each year and may not, therefore, reflect real-time information.

Analytic services and products provided by Standard & Poor’s are the result of separate activities designed to preserve the independence and objectivity of each analytic process. Standard & Poor’s has established policies and procedures to maintain the confidentiality of non-public information received during each analytic process. Standard & Poor’s and its affiliates provide a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

Copyright © 2012 by Standard & Poor’s Financial Services LLC. All rights reserved.

Redistribution, reproduction and/or photocopying in whole or in part is prohibited without written permission. S&P, S&P Indices and STANDARD & POOR’S are registered trademarks of Standard & Poor’s Financial Services LLC.

About S&P Indices Research & Design

S&P Indices is the world’s leading index provider, maintaining a wide variety of investable and benchmark indices to meet a wide array of investor needs. Our research team is dedicated to conducting unbiased and in-depth analysis on a broad range of topics and issues facing investors in today’s marketplace. Research by S&P Indices’ Global Research & Design provokes discussion on investment matters related to benchmarking in the asset management, derivatives and structured products communities. The series covers all asset classes and is often used to float new indexing concepts or explain substantive changes to well-known S&P indices.

Contact us to receive future reports: index_services@standardandpoors.com
www.SPindices.com