

Finding the Sharpshooters of Target Date Lifecycle Funds

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For a related discussion of target date funds, see the other article in this issue, [Are Target Date Funds a Ticking Time Bomb?](#)



The Department of Labor's (DOL's) new rules for Qualified Default Investment Options (QDIAs) advance three investment options: Target Date Funds, Balanced Funds and Managed Accounts. "Managed Accounts" in this context means that a service provider creates diversified portfolios of the plan's mutual funds (and/or other offerings) on behalf of the participants and holds the most promise for advisors but requires adherence to an audited prudent investment process. This process could take years to achieve scale. Thus, Target Date Funds (TDFs) are the immediate play. Advisors will be called upon to find the best TDFs, the sharpshooters. But unfortunately, or perhaps fortunately for the opportunistic, current offerings are not as good as they could be. The target date industry is still in its infancy and is likely to evolve very rapidly, if for no other reason than the probable stampede into these funds. At least 34 target date funds have been launched this year, according to Morningstar Inc. in Chicago. Assets in target date funds totaled \$153 billion at the end of June, up 71% from \$89 billion 12 months earlier and 955% from \$14.5 billion at the end of 2002, according to Financial Research Corp. in Boston.

Even so, the ability to separate the wheat from the chaff is extremely difficult, primarily because there are no good yardsticks for gauging performance. That is why we formed Target Date Analytics (TDA). TDA's mission is to identify best practices in TDFs, and to create indexes that adhere to these practices. Importantly, we've designed our indexes to be investible and not just theoretical. TDA was formed in August of this year by Dr. Craig Israelsen of Brigham Young



University, Joe Nagengast of Turnstone Advisory Group LLC & author of “Popping the Hood of Target Date Funds”, and me, Ron Surz of PPCA. In the following I describe TDA’s views of best practices. You may disagree with some of the specifics, but you will agree that the resulting benchmarks are just what the industry needs.

Target date funds have no guarantees; rather they provide a “set it and forget it” investment pattern that should serve the typical investor well. These funds are aggressive at first and then become more conservative through time as the target date draws near. The idea is to take more risk, in the hopes of higher return, when the horizon is long and account balances are low, because there is time to recover from losses through both savings and future returns. As assets accumulate and the target date approaches, asset protection takes precedence over performance; there is a shift in objective. An advisor’s choice of target date fund family is driven by branding, fees and performance expectations. Branding and fees are straightforward, and may even override performance, but best practices are primarily focused on performance.

In simple terms, every target date fund incorporates the following three components:

1. Risky asset pool
2. Protective asset pool
3. Scheduled shift from risky to protective through time called a glide path

Each TDF is unique in its structure of these three components. These differing structures set apart current TDF offerings and establish the template for best practices. Advisors should seek out the sharpshooters in all of these three components.



Risky asset pool

The best choice of risky assets is a diversified portfolio. Modern Portfolio Theory (MPT) tells us diversification provides the best returns for the least amount of risk and the ultimate diversification is the “world portfolio” comprising all assets in the world. This world portfolio includes stocks, bonds, real estate, natural resources, etc. No one really knows the composition of this ideal but it is a worthy goal.

The choice of active or passive managers is secondary to broad diversification, but if active managers are employed preference should be given to open architecture, where the advisor has complete flexibility in manager selection. Skill is hard enough to find when the search is open to all. Limiting the investment team is not likely to produce results.

Protective asset pool

The best protective asset preserves not only principal but purchasing power. After all, the end game is to afford a reasonable standard of living in retirement, which means we need to be able to buy goods at future inflated prices. Variable rate bonds, Treasury Inflation-Protected bonds (TIPs), and Treasury bills are examples of good protective assets.

Long term fixed rate bonds do not work well as a protective asset because they are risky and decrease in value when inflation increases. In fact, these bonds should be included in the risky asset pool.



Glide Path

The best glide path strives for high returns in the early years, when the investor should be less risk averse, because there is plenty of time to recover if necessary and asset balances are low. Investor risk aversion should increase as account balances grow and the target date nears. The two key decisions that a target date provider must make are (1) when to start applying the brakes, and (2) how forcefully. One timing decision rule is to wait until the horizon is short enough to have a risk of loss. "Loss" in this context should be interpreted relative to the riskless asset, which, as I pointed out, could consist of TIPS or Treasury bills. It is highly unlikely that an investor in a well diversified portfolio of risky assets will underperform Treasury bills over a 20 year period. An investor who stays with the program for 20 years is highly likely to reap the reward for taking risk. Accordingly, this risk-of-loss rule argues that the brakes are first applied at 20 years to target date.

The magnitude of transfer from risky to protective asset should be determined using the principles of liability-driven investing (LDI). Sufficient assets are set aside in the protective asset such that, even if the worst case, risky return is realized over the horizon the total account balance is insulated from purchasing power loss. This structure leads to a non-linear glide path because transfers increase exponentially. Here's an example. Let's say we're 20 years from target date and our estimate of the worst case unannualized real return (net of inflation) on risky assets is -5%. And let's also say that TIPs are priced to earn a 2% real return per year so over 20 years this would compound to more than a 45% real return. To protect against loss we want $-5(1-X) + 45X = 0$, where "X" is the amount invested in the protective asset. In this case you can verify that X is 10%, so we move 10% of assets out of risky and into protective. As the time to target



date shortens the worst case risky asset loss increases and the cumulative return on the protective asset decreases, so the amount in the protective asset increases at an increasing rate, ultimately reaching 100% at target date.

So far the competition for target date business has been based on performance and has led most to favor a very gentle application of the brakes, leaving the target date fund in a substantial risky asset allocation at target date. This is dangerous. The motivation for higher risky balances at target is that the “current” fund morphs into a distribution fund. But this is not in the best interests of the investor. All sorts of distribution alternatives are springing up to accommodate a diverse set of objectives and circumstances in retirement. These distribution choices are much more complex than the accumulation decisions, so target date funds should stick to just the single objective of accumulation, which is in keeping with the appeal of simplicity.

Conclusion

We at Target Date Analytics (TDA) have constructed a series of indexes that follow the best practices described above. We expect that these benchmarks will be difficult to beat. Time will tell. Be aware that these indexes are not just hypothetical; they are totally investible. Everyone can actually hold the TDA indexes.

We started with an index that we now call “Defensive.” It follows the advice described above to the letter. But we recognized that the industry needs not only normative but also practical indexes, so we designed additional indexes that are more in keeping with current practices, and added three more levels of indexes tied to the aggressiveness of the risky asset portfolio and the slope of the glide



path. Our most aggressive index is called “Aggressive” and is distinguished by a risky asset portfolio that is predominantly stocks and an allocation to risky assets at target date of 75%, which contrasts to zero risky assets at target date for our Defensive index. We fill in between these two extremes with Conservative and Moderate indexes. Indexes are currently maintained for “Current” portfolios plus 2010, 2020, 2030, 2040 and 2050, so 24 indexes are provided in all: four levels of aggressiveness for each of six target dates. These indexes can be used to evaluate target date funds of all types including active and passive mutual funds, collective trusts, privately built custom target date portfolios, etc.

TDA has constructed a Website at www.tdbench.com with the following free information for visitors:

- Monthly index returns for January, 1998 through present
- Analysis of target date mutual fund performance, including assignment of each mutual fund to one of the TDA aggressiveness levels (Defensive, Conservative, Moderate, or Aggressive) as well regression results including [alpha](#), beta and R2 against the appropriate TDA index
- A library of articles and white papers describing the need for special indexes and the extensive backtests that have been run on the TDA indexes.

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