

Target-Date Series Research Paper: 2012 Industry Survey

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Executive Summary

Target-date funds are fast becoming a fixed feature of the defined-contribution landscape. Over the past half dozen years, assets in target-date funds have grown more than fivefold from \$71 billion at the end of 2005 to approximately \$378 billion at year-end 2011. In its most recent study, Vanguard reported that 82% of its retirement plans offered target-date funds, and nearly one fourth of participants invested only in a target-date fund. The consultant Casey Quirk estimates that target-date funds will consume more than half of all defined-contribution assets by 2020.

This success has led to heightened scrutiny. In the wake of surprisingly steep losses among target-date funds in 2008, regulators, investors, and the media all gave target-date funds a hard look. Although the subsequent rising tide of bullish stock and bond markets has washed away many of the concerns, skepticism remains. In early 2012, the SEC reopened the comment period on its recommendations for improved disclosure requirements for target-date funds, which were first proposed in 2010. This time, the SEC backed up its proposals with a survey on investor understanding of target-date funds. The findings did not paint a flattering picture of how well target-date providers and plan sponsors have educated plan participants about these offerings.

Though improved returns have quelled some criticisms of target-date funds' construction, there's still debate over whether it's best to construct a glide path that shifts "to" retirement versus "through" retirement. The staunchest critics claim that the stock market crash proved the danger of glide paths whose allocation maintains a high weight in stocks well into retirement. Some firms have stood their philosophical ground, but others have made adjustments—in some cases by modifying their glide paths, adding sleeves of assets that are less-correlated with equities and bonds, or even adding entirely new series to their product offerings.

Meanwhile, some firms have entered the marketplace with bold new target-date designs, seeking to take advantage of plan sponsor and investor concerns. It's unclear, however, whether such strategies provide a true edge to investors over the long term, compared with the traditional approaches to glide path construction.

Morningstar's 2012 Industry Survey explores these topics, and many others, from the ground up. Relying on Morningstar's extensive database of information on target-date funds, target-date series, and target-date underlying holdings, this report seeks to define the state of the industry as of year-end 2011. The report examines target-date fund flows, risk and return traits, portfolio attributes, and fee rankings, as well as data related to the quality of the people running target-date funds and the parent companies that sponsor them. In many cases, this report updates data calculated in previous annual versions. Some of the data and analysis focuses on the 22 target-date series that receive quarterly Morningstar Target-Date Series Ratings, but where possible, the report goes beyond those series to encompass the industry as a whole.

Key findings of the 2012 Industry Survey include:

- ▶ Target-date assets continue to increase at a healthy rate, surpassing most broad asset classes, but a slowing rate of increase does raise some concerns.
- ▶ Several smaller firms have had impressive gains in organic growth for their series, whether through unconventional design, strong performance, or powerful distribution.
- ▶ Index-based series' assets, though a small percentage of the industry's total assets, increased at a faster rate than actively managed series in 2011.
- ▶ Glide paths changed minimally in 2011, compared with previous years. However, Morningstar Ibbotson's new Glide Path Stability Score indicates that over time, some firms have altered their glide paths significantly more than others.

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- ▶ This year's report for the first time includes a comprehensive list of all target-date series glide paths.
 - ▶ Performance for target-date series in 2011 was weak on a relative basis. Most categories turned in losses, and every category trailed major benchmarks.
 - ▶ Strategies that had more-conservative allocations, more-basic asset mixes, or indexed approaches outperformed in 2011.
 - ▶ On a longer-term risk-adjusted basis, a variety of approaches have succeeded, although conservative allocations hold an edge due to the effects of 2008.
 - ▶ In an update of a 2010 look at the performance of closed-architecture versus open-architecture series, Morningstar again finds that there is no significant advantage to one approach over the other.
 - ▶ Industry fees continued to decline in 2011.
 - ▶ The target-date series' managers' average tenure has risen to 4.9 years, which is near the industry average for manager tenure. Several long-tenured management teams have delivered strong risk-adjusted returns.
 - ▶ Target-date managers have altered about a third of the series' underlying fund assets over a three-year period, on average.
 - ▶ The quality of target-date funds' disclosure has improved, though it still falls short in several key areas. For example, few series discuss the degree to which managers can tactically shift the funds' asset allocation from the glide path described in the funds' prospectus.

Target Date Asset Flows

Flows into target-date funds continued to cool off in 2011, though they remain one of the most consistent sources of new assets in the industry. While net assets rose only 11% to \$378.5 billion in 2011, compared with a year-over-year rise of 33% in 2010, much of that difference can be attributed to 2010's superior market performance.

Estimated net inflows into target-date funds, however, rose a healthy 15.8%. Within the respective Morningstar target-date categories, flows varied by a fairly predictable pattern. The longest-dated funds (those aimed at the youngest investors) saw the biggest inflows, with 2050+ funds experiencing organic growth of 38%. Flows trend down as investors age; 2020 and 2015 funds (aimed at investors closer to retirement) grew at slightly less than 10%. And for the first time, funds in the 2000-10 category saw net outflows. (See Table 1.)

Still, there is some cause for concern. The industry's organic growth rates—that is, growth net of market appreciation—have declined steadily since 2007, when growth accelerated 76% in the wake of the Pension

Protection Act, which ultimately made target-date funds safe harbors as Qualified Default Investment Alternatives (QDIAs). Clearly, target-date funds are more prominent in 401(k) plans today, and thus less opportunity exists for new conversions and original business. There will still be a continued pipeline from new workers and ongoing contributions from plan participants, but it remains an open question whether flows will level off from here or continue downward.

Target-date funds' growth rate may have slowed, but their flows remain a bright spot for the mutual fund industry. Target-date funds' organic growth exceeded that of all other broad asset classes in 2011 except for commodities (see Table 2 on next page). This no doubt reflects in part a poor year overall for the markets and the fund industry, but notably, target-date funds' inflows have been consistent in volatile periods. Target-date funds handily outpaced the 2% growth of Balanced funds, and even topped the 13% growth in Alternatives funds, which have been one of the fund industry's fastest-growing areas.

Flows by Family Stable at Top, Variable Down the Line

The so-called Big Three target-date providers—Fidelity, Vanguard, and T. Rowe Price—retained their dominance, collectively holding approximately 75% of open-end

1. Net Assets and Organic Growth Rate by Morningstar Target-Date Category

Morningstar Category	2008 Total Net Assets USD	2008 Organic Growth Rate %	2009 Total Net Assets USD	2009 Organic Growth Rate %	2010 Total Net Assets USD	2010 Organic Growth Rate %	2011 Total Net Assets USD	2011 Organic Growth Rate %
Retirement Income	7,776,695,558	17.07	11,603,098,015	20.19	15,494,917,207	23.33	18,182,636,484	13.83
Target Date 2000-2010	25,610,688,120	5.04	31,622,361,595	3.89	35,654,438,952	1.41	35,015,694,012	(2.60)
Target Date 2011-2015	19,809,026,649	25.07	30,299,982,344	25.29	39,546,282,781	17.08	43,311,872,780	9.28
Target Date 2016-2020	33,708,049,629	17.43	51,349,577,920	20.88	66,672,802,859	15.29	72,246,549,033	9.57
Target Date 2021-2025	18,590,976,330	33.32	32,535,814,124	40.17	45,024,230,037	22.31	51,044,870,911	15.61
Target Date 2026-2030	23,381,764,429	24.55	38,875,374,540	29.36	52,580,220,665	18.77	57,775,509,135	13.14
Target Date 2031-2035	11,475,872,914	40.41	21,179,240,789	44.74	30,165,700,269	24.67	34,582,093,339	18.96
Target Date 2036-2040	13,235,756,514	30.73	24,050,979,892	40.46	33,754,924,133	22.58	37,453,216,616	15.69
Target Date 2041-2045	4,422,268,976	55.28	9,177,617,083	62.98	14,087,330,250	34.29	17,169,396,152	26.84
Target Date 2050+	2,193,848,738	85.53	5,505,053,973	98.85	8,880,733,537	41.09	11,685,949,858	37.74
Average	160,204,947,857	33.44	256,199,100,275	38.68	341,861,580,690	22.08	378,467,788,320	15.81

Data as of 12/31/11. Source: Morningstar, Inc.

target-date assets (see Table 3 on next page). Importantly, though, that market share has been flat to slightly declining over the past few years. Fidelity, in particular, has seen its market share slip. It lost 2 percentage points of market share during 2011 and 15 percentage points since 2007. Meanwhile, Vanguard has increased market share at about 1 percentage point per year, while T. Rowe Price has been essentially flat. (Some of these firms' assets may have been redirected to their collective trust offerings.)

Below the Big Three, market share and flows are more fluid. Indeed, as the industry leaders' market share has leveled off, smaller providers have been able to build up enough of an asset base to generate profitable target-date businesses. Among the top 20, several series shifted rank positions in 2011. ING and BlackRock dropped by two spots and AllianceBernstein by three, for example, while JP Morgan leapfrogged four spots and John Hancock moved up two.

A more powerful way of viewing which firms have momentum (positive or negative) is through organic growth rates, which identify a series' rate of growth net of market effects. Keeping in mind the industry average growth rate of about 15% in 2011, one can identify who is gaining or losing ground.

Of the longer-established \$1 billion-plus series, where baseline growth may be harder to achieve, notable winners in 2011 included TIAA-CREF (31%), John Hancock (32%), JP Morgan (75%), and American Century (29%).

Two newer entrants in this size range have also made impressive gains: USAA (38%) and Maxim (71%), distributed by Great West. There's no apparent common formula to success. While Maxim, USAA, and John Hancock use open-architecture subadvisory structures, TIAA-CREF, JPMorgan, and American Century do not. While American Century and JP Morgan have built strong records on conservative investment approaches, Hancock's series is one of the industry's most aggressive. Despite differences in the funds themselves, all of these series have benefited from strong distribution systems.

Also worth noting are several smaller target-date series with rapid recent growth. Admittedly, series working from a small asset base often show inflated growth rates, but PIMCO's 264% organic growth in its series' third year is impressive. PIMCO has renewed its effort to build its retirement business in the wake of its distribution separation from parent Allianz. Allianz's own target-date offering—currently one of the industry's smallest—also saw a healthy 75% increase in inflows, and it just hit its three-year mark at year-end 2011. Hartford and MainStay each grew their series by 44%. A common thread to all these target-date series is a focus on advisor distribution through smaller-sized plans.

Conversely, some series have struggled to keep pace. Among the \$1 billion-plus crowd, both Principal (3.2%) and ING (1.1%) experienced only incrementally positive flows in 2011. BlackRock, the longest-existing target-date series through its predecessor entity BGI, actually saw a

2. Total Net Assets and Organic Growth Rate by Broad Asset Class, 2009-2011

US Broad Asset Class	2009 Total Net Assets USD	2009 Organic Growth Rate %	2009 Total Net Assets USD	2010 Organic Growth Rate %	2011 Total Net Assets USD	2011 Organic Growth Rate %
Alternative	65,541,056,738	28.00	95,381,292,591	30.23	99,012,289,832	13.16
Balanced	650,109,900,873	0.78	740,820,594,222	2.38	765,235,515,994	2.25
Commodities	23,028,365,628	128.31	44,566,267,680	62.93	47,425,166,697	21.25
International Stock	1,147,692,602,478	3.19	1,351,039,520,470	3.89	1,174,226,128,224	0.25
Municipal Bond	449,439,367,409	22.57	469,747,553,048	2.80	501,119,634,069	(2.30)
Taxable Bond	1,506,527,721,183	28.04	1,850,807,877,081	14.55	2,069,459,759,184	7.11
U.S. Stock	2,957,358,396,013	(0.85)	3,416,172,310,411	(2.09)	3,302,709,020,457	(2.28)

Data as of 12/31/11. Source: Morningstar, Inc.

3. Net Assets, Market Share, and Organic Growth of 30 Largest Target-Date Mutual Fund Companies

Fund Family	2009 Total Net Asset, USD	2010 Total Net Assets, USD	2011 Total Net Assets, USD	2011 Market Share %	2011 Organic Growth Rate %
Fidelity Investments	99,371,579,684	124,861,094,357	130,101,462,105	34.38	6.94
Vanguard	56,587,641,311	79,534,612,338	92,149,823,515	24.35	16.27
T. Rowe Price	42,092,035,956	55,725,536,745	62,861,056,974	16.61	15.15
Principal Funds	14,331,493,135	17,173,810,254	17,221,201,833	4.55	3.21
Wells Fargo Advantage	6,047,001,369	9,175,392,803	10,801,173,164	2.85	18.52
American Funds	6,243,796,979	8,915,738,921	10,218,504,741	2.70	15.92
TIAA-CREF Mutual Funds	4,060,581,773	6,784,400,853	8,741,303,242	2.31	31.34
John Hancock	3,272,432,926	4,829,398,570	6,225,817,793	1.65	32.82
JP Morgan	1,623,614,319	3,251,003,529	5,538,681,707	1.46	74.93
ING Retirement Funds	3,935,895,203	4,870,308,447	4,778,016,187	1.26	1.14
American Century Investments	2,124,451,070	3,440,556,572	4,476,039,971	1.18	29.00
BlackRock	2,898,643,292	4,050,044,315	3,790,143,882	1.00	(6.47)
State Farm	2,654,748,612	3,305,066,664	3,625,790,483	0.96	9.87
USAA	845,427,302	1,780,146,207	2,404,035,587	0.64	38.40
Vantagepoint Funds	951,242,936	1,880,479,019	2,027,587,752	0.54	8.37
Maxim	164,724,825	1,168,170,797	1,959,128,447	0.52	70.93
AllianceBernstein	2,029,963,148	2,217,206,753	1,729,617,824	0.46	(17.72)
Schwab Funds	914,389,810	1,274,968,657	1,467,777,091	0.39	15.42
MassMutual	1,086,954,735	1,105,897,121	1,068,871,378	0.28	(1.11)
Nationwide	433,929,321	730,400,870	894,890,049	0.24	26.47
GuideStone Funds	575,043,913	722,095,409	837,771,373	0.22	16.54
Russell	643,083,634	911,879,412	833,128,615	0.22	(5.84)
OppenheimerFunds	279,733,925	497,290,092	562,920,520	0.15	20.04
DWS Investments	594,943,619	587,321,957	529,379,460	0.14	(8.14)
MFS	285,431,861	421,203,064	512,726,962	0.14	22.81
Hartford Mutual Funds	158,547,103	358,480,158	505,041,063	0.13	44.39
MainStay	229,778,961	289,958,574	410,514,354	0.11	44.70
Manning & Napier	160,953,670	340,356,393	376,749,845	0.10	13.73
PIMCO	29,186,195	58,088,237	223,398,641	0.06	264.27
Putnam	324,539,732	323,587,765	214,372,972	0.06	(31.72)
Invesco	58,734,084	187,112,720	199,681,572	0.05	(1.35)

Data as of 12/31/11. Source: Morningstar, Inc.

6.5% drop in assets, with most of those outflows coming from shorter-dated funds in the flagship Lifepath series (the BlackRock data also incorporate the separate Lifecycle Prepared series). AllianceBernstein saw a sharp drop of 17%, as the series' performance woes continued even though it implemented a new volatility management program. MassMutual saw a small net outflow of 1% in 2011, but that represents its fourth consecutive year of outflows. MassMutual's own retirement-plan platform offers competing target-date series so existing customers can switch to a competitor series without changing retirement-plan providers. Russell Investments, after building its open-architecture series considerably over the past few years, stalled out with a nearly 6% outflow in 2011. Other firms in net outflows include DWS (-8.1%), Putnam (-31.7%), and Goldman Sachs (-32.9%), all of which have experienced performance challenges.

Passive Series Making Gains

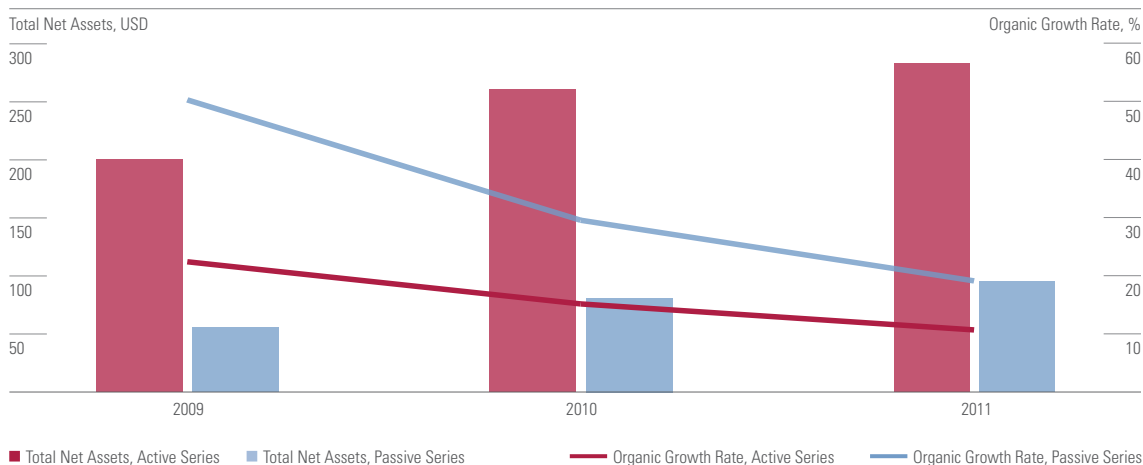
Actively managed target-date series continue to dominate on an AUM basis, with nearly 3 times the assets of passively managed series (see Graph 4). However, index-based series have shown faster growth than active series over each of the past three years. Passive series generally have been gaining assets at about twice the rate of active series; in 2011, passive series grew by 19%, while active series grew 11%. Passive series have drawn

interest from plan sponsors and participants for their lower costs, strong performance, and ease of use, as active managers struggled versus benchmarks in both 2008 and 2011, and many series in 2008 lost money due to active managers' bets. In addition, more passively constructed series have entered the marketplace, with a number of providers offering passive series side by side with existing active products, including Fidelity, John Hancock, BlackRock, and TIAA-CREF. This trend is likely to continue in the near to medium term.

Looking Ahead

Series with few assets under management and flat to declining growth rates will have difficulty maintaining a viable business model if they cannot produce significantly improved performance, more innovative structures, and/or improved marketing/distribution systems. However, it would be surprising to see asset managers merge away these underperformers since target-date funds are critical staples in 401(k) plans. If an asset manager wants a presence in the retirement-plan market, it needs a target-date series. Meanwhile, given that many of the largest target-date providers' growth has leveled, there is room for smaller, nimbler series to expand their reach and capture market share. And index-based series, or active series incorporating passive components, are likely to see superior inflows for the foreseeable future.

4. Net Assets and Organic Growth Rates, Active and Passive Series



Data as of 12/31/11. Source: Morningstar, Inc.

Process

It was a relatively quiet year on the glide path front—at least as far as major equity/fixed-income changes go. It appears likely that the series stung by poor asset allocation in 2008's market crash have already implemented subsequent changes. Thus, there is only minimal difference in the series' 2010 and 2011 asset allocations, as Table 5 shows.

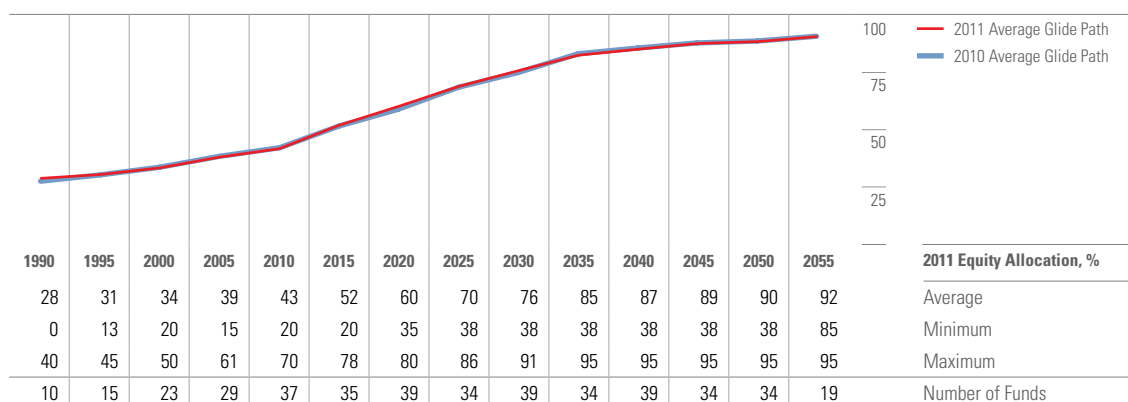
Table 6 breaks down the target allocations in further detail by target year, illustrating trends Morningstar has observed for the past several years. Longer-dated funds from target-date 2040 onward (several firms now offer 2060 funds) show little substantive difference in their average equity allocation, which ranges from 87% to 92%. The range of allocations in long-dated funds look wider for many of the subsequent target years due to the Invesco series' unusual structure, which involves leveraging up its bond holdings. Invesco doesn't offer a 2055 fund, so the range of equity allocations extends from 85% to 100%. Certainly, there is a meaningful difference in equity risk between these allocation points, but it's not extreme. Even at 85% in stocks, investors have heavy exposure to equities, with many years left to ride out periodic short-term losses.

By contrast, the range of allocations for shorter-dated funds remains wide by any definition. Funds with a 2015 target date average 52% in equities, but the minimum allocation is 20% (PIMCO RealRetirement) and the maximum reaches 78% (Guidestone MyDestination). Such a vast gap reflects the divergent philosophies regarding how long investors are expected to remain invested in target-date funds (that is, should they remain invested after they enter retirement or reallocate into other vehicles when they retire) and thus the appropriate weighting in stocks when they retire. These data once again confirm that philosophical and risk-management differences among target-date series are most pointed in the years leading up to the retirement date. The problem is that many investors in target-date funds buy in during their twenties or thirties—precisely when the differences among series are least varied. Thus the burden is high on target-date fund providers, plan sponsors, and advisors to educate prospective investors on the risks they may incur across an entire target-date series, and the rationale underlying a given approach. (For further discussion of firms' disclosure quality, see the Parent section of this report.)

To Versus Through Glide Paths: An Update

In the Morningstar Target Date Series Research Paper: 2011 Industry Survey, Morningstar published a comparison of the average glide path for series that used a "to" glide path (one where asset allocation stops evolving at the retirement date) with those that use a "through"

5. and 6. Equity Allocation % by Target Year



Data as of 12/31/11. Source: Morningstar, Inc.

glide path (one where allocations continue to shift after the retirement date). In Table 7, these numbers have been updated based on glide paths disclosed as of the most recent prospectus available at year-end 2011.

One difference of note is that the industry looks tipped slightly more in favor of “through” glide paths than it did last year. Of the 41 glide paths included in the 2011 survey, 22 were in the “through” camp and 19 in the “to” camp. This year, out of 46 glide paths considered, 28 are “through” compared with 18 in the “to” camp. Several new series met Morningstar’s filtering criteria and fell into the “through” group (including three Maxim series). Morningstar also recharacterized one series as “through” from “to.” (One new “to” series, John Hancock Retirement, also made its debut on the list.)

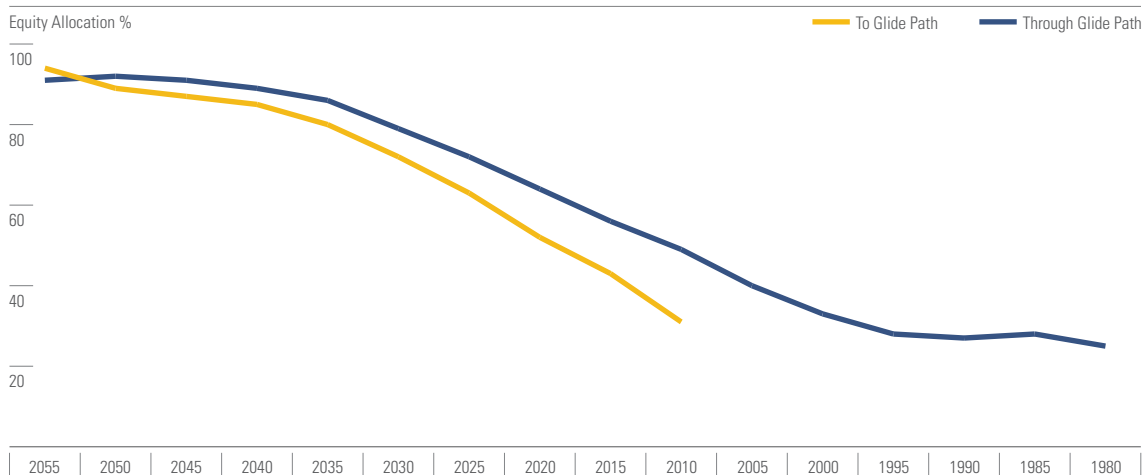
The trends in the contours of the two glide paths remain largely constant: The two allocation paths start out close to one another, but the “to” series begin to deviate more sharply from the “through” series starting about 20–25 years before retirement, dropping off steeply to an average landing point of 31% in equities at the retirement date, while “through” series still hold 49% in equities on average at that point. “Through” funds continue to reduce equities for another 20–30 years, ultimately landing at a point

a bit lower than the “to” finale, averaging around 28% in stocks at the termination point. One slight difference is that in last year’s examination, the glide paths were virtually identical for years 2035–55; in this year’s analysis, the “to” funds hold 3–4 percentage points less in stocks.

“Through” series clearly remain in a strong majority in the industry, on both a numerical and assets basis. What also remains clear, however, is that “to” and “through” are only partially useful terms. Because there is no official definition, and because the risks and characteristics of glide paths can be so varied, oddities can turn up, as noted in this report last year. American Century’s “to” series lands at 45% equities, very close to the “through” average of 49% in equities at the target year. Wells Fargo, despite one of the industry’s lowest equity allocations at retirement, gets classified as “through” by Morningstar because its glide path still shifts for a short period after the retirement date.

Since “to” and “through” are not binary classifications, researchers, regulators, investors, and other stakeholders shouldn’t get hung up on these labels. While important, many other factors—from cost to portfolio quality to management stability—also play a role in the outcomes of these investments.

7. To and Through Glide Paths



Data as of 12/31/11. Source: Morningstar, Inc.

Glide Paths by Series

Appendix 1 features a first-time, comprehensive table of the glide paths for all open-end target-date series in Morningstar's database. It is important to note that series don't report glide path details consistently, so Morningstar data analysts often have to make adjustments and interpretations, based on a set of internal rules, in order to produce consistent glide paths. For instance, a firm may list an "alternatives" sleeve in its glide path that is distinct from equities; Morningstar combines that allocation with the series' equity allocation. Some detail allocations to underlying multiasset funds, and Morningstar decides what percentage of that underlying fund to assign to a given asset class. Thus, at times, Morningstar's glide path data may diverge from a target-date provider's self-defined glide path.

When Glide Paths Change: Morningstar's Glide Path Stability Score

In 2011, Morningstar's Ibbotson Associates introduced a new measure to assess how much a given series' glide path has shifted over time, called the Glide Path Stability Score, or GPSS. (Ibbotson is a subsidiary of Morningstar's investment management division, distinct from the Fund Research group that authors this report and issues Morningstar's target-date series ratings.) The notion of glide path stability offers a compelling new perspective on target-date funds for consultants, researchers, plan providers, plan sponsors, and investors. It quantifies an often opaque aspect of target-date series: namely, that series may alter their glide paths over time.

The GPSS in essence shows the absolute percentage change in equity exposure that a glide path has experienced on an annualized basis, for both the three-year period through Dec. 31, 2010, and since inception (see Table 8). The complete description of how Ibbotson calculated the GPSS can be found in the paper "Bait and Switch: Glide Path Instability" (Idzorek, Stempien, and Voris, 2011), which is forthcoming in the *Journal of Investing*. (A version is available [here](#)¹).

There are a few caveats worth noting, however. Ibbotson researchers only calculated GPSS for the 21 target-date

series that received editorial ratings from Morningstar at the time the paper was written. It would be preferable to analyze GPSS across the entire target-date universe, which Morningstar hopes to do in the future. In addition, Ibbotson determined the glide paths using actual equity allocations rather than the series' prospectus policy weights, which are featured in Appendix 1. This provides the benefit of capturing the actual experience of investors in the funds, but it may also capture shifts from the policy weights, which can occur when an underlying manager deviates from a mandate or holds excessive cash. Finally, glide path data are calculated only through 2010. Ibbotson plans to update these data through 2011 by midyear 2012.

Should investors be concerned by glide path instability? In "Bait and Switch," Idzorek et al do address this question at some length. In its paper on glide path instability, Ibbotson suggests that GPSS scores "below 1.5 are stable, between 1.5 and 3.0 are somewhat unstable, and scores beyond 3.0 are progressively more unstable." Here we would suggest that a glide path change is not in and of itself bad. More important is the rationale behind glide-path changes. If alterations are extreme or frequent or changes are poorly communicated to investors, that would be cause for concern. Large and frequent changes may suggest that asset allocators lack methodological rigor or commitment. They may also cause investors to end up in target-date funds that, 20 or 30 years down the road, look nothing like the investments they initially purchased. Weak disclosure only exacerbates this problem.

The remainder of this discussion delves into the GPSS figures associated with specific series. It's helpful to examine the three-year and since-inception numbers in tandem, because each presents its own challenges and tells a distinct story. It's reasonable to expect that since-inception scores for series with very long histories may be higher, since they have had more opportunity to change over time. Also, target-date management philosophies have evolved considerably over the past decade.

¹http://corporate.morningstar.com/ib/documents/MethodologyDocuments/IBBAssociates/Bait_and_Switch_Glide_Path_Stability_Final_091211.pdf

In the three-year period, a single significant change (of which there have been several in the wake of 2008) may have an outsize impact. Three-year GPSS figures range from 0.52 percentage points per year at the low end to 6.06 points at the high end, with an average of around 3 percentage points.

Smooth Riders

Despite a relatively volatile period for target-date funds, some firms have shown a remarkable ability to stay the course. T. Rowe Price Retirement, for example, one of the largest and longer-tenured series, has a three-year GPS of only 0.81 percentage points and a since-inception rate of 1.02%. T. Rowe Price maintains one of the most aggressive glide paths in the industry, has continually marshaled evidence and communicated rationale in support

of its approach, and made no changes after 2008. That consistency is reflected in its GPSS.

BlackRock Lifepath and Vanguard Target Retirement also exhibit low GPSS, particularly over the three-year period. Vanguard, a passively managed series that adds new asset classes only cautiously, has clearly been successful with little disruption to its glide path (GPSS of 0.52 percentage points for the three-year and 2.62 since inception). BlackRock (GPSS of 1.30 since inception), via its BGI predecessor, is the oldest target-date series, though the data here only start in 2004. BlackRock also has a strong index-oriented influence, though it has actively managed components, and a well-regarded asset-allocation group that has made few changes to its glide path. Actively managed American Century Livestrong also has had a stable glide path, with a GPSS of 1.53 percentage points since its 2005 inception. Management here is typically cautious about making changes to its relatively conservative glide path; its since-inception manager left in 2009, however, so the chance of a more significant glide path change lingers, though the new managers have not made any rash moves.

Bumpier Paths

Several series have shown GPSS levels high enough to provoke concern, or at the very least questions. And in some cases reasonable answers exist. Putnam RetirementReady shows one of the higher ranges, with a GPSS of 6.06% over the past three years and 4.08% since inception. These figures stem from Putnam's significant structural shift in 2009, when it moved from a traditional fund-of-funds approach to using a mix of allocation and absolute-return strategies within the series. These newer strategies are more dynamic and can make use of derivatives or shift tactically in the short term. Putnam's strategic glide path did not change in 2009, but its GPSS suggests that at least on a look-through basis, things have not been stable.

ING Solution also has shown significant shifts, with an average change of 3.94% over the past three years and 6.05% since its 2005 inception, the highest since-inception GPSS in the sample. Much of this instability derives

Table 8: Glide Path Stability Measures

Fund Family Name	Start Year of Data	Average Standard Deviation		GPSS Average (Absolute) Change Per Year	
		3-Year	Inception	3-Year	Inception
AllianceBernstein Retirement Strategy	2006	5.22	4.12	3.26	2.79
American Century LIVESTRONG	2005	2.05	1.65	2.08	1.53
American Funds Target Date Retire	2007	3.07	3.13	2.94	2.94
BlackRock LifePath	2004	1.19	1.66	1.08	1.30
DWS LifeCompass	1997	4.36	8.35	3.09	4.61
Fidelity Advisor Freedom	2004	2.86	2.34	2.26	2.03
Fidelity Freedom	1996	2.56	4.77	2.58	3.32
ING Solution	2005	3.22	7.40	3.94	6.05
John Hancock Lifecycle	2006	2.39	2.00	2.39	2.35
JP Morgan SmartRetirement	2006	1.95	3.28	3.14	3.50
MassMutual RetireSMART	2004	2.88	6.91	2.30	2.94
MFS Lifetime	2005	3.93	4.04	2.62	2.46
Oppenheimer Transition	2007	3.75	3.67	2.83	2.96
Principal LifeTime	2001	2.95	7.76	3.05	3.73
Putnam RetirementReady	2004	9.97	7.63	6.06	4.08
Schwab Target	2005	5.43	4.33	4.11	3.23
TIAA-CREF Lifecycle	2004	1.17	6.49	1.06	2.46
T. Rowe Price Retirement	2002	0.81	1.03	0.81	1.02
Vanguard Target Retirement	2003	0.44	8.58	0.52	2.62
Vantagepoint Milestone	2005	4.20	3.66	3.29	2.45
Wells Fargo Advantage DJ Target	1994	1.25	7.37	1.39	4.62

Data as of 12/31/10. Source: Ibbotson Associates

from a change made early in the series' history: The series swapped a relatively conservative glide path for a more equity-heavy approach. Fluctuations have continued since then, but at a more moderate rate. ING's GPSS rate may tick up further when 2011's data are included in the study. That year the series smoothed out its "stepped" glide path, moving to a more conventional sloped path.

Wells Fargo Advantage DJ Retirement's relatively high since-inception GPSS of 4.62 percentage points likewise traces to a significant glide path change made in 2006, some 10 years into this fund's lengthy history, when it switched subadvisors. That shift led Wells Fargo to offer one of the most conservative "to" glide paths in the industry. Since then, the glide path has been more stable with a 1.39% three-year GPSS.

Middle Ground

A number of series hover around the 3% average GPSS mark for the series in the sample. That includes large, successful series such as Fidelity Freedom (3.32%) American Funds (2.94%), and JPMorgan SmartRetirement (3.50%). In their study, Idzorek et al. provide a detailed case study on the glide path shifts of the Fidelity series. It's true that the rate of glide path change in Fidelity's and similar series are 3 times as great as more focused series such as T. Rowe Price. At the same time, it's not clear that investors should be overly troubled by such a rate of change, particularly if it is largely due to a single, well-reasoned shift. It is also not surprising to find shifts taking place over the past decade, as the industry's approach to target date fund management—including their asset allocation, architecture, asset mix, and investor use—has evolved rapidly over the past decade.

The key questions investors should ask, then, are these: Has a fund company based its glide path changes on a compelling, supportable rationale, and has it communicated those changes to investors and other stakeholders in a clear fashion? Or have its changes been erratic, market-driven, and/or poorly (or not at all) communicated? And do such changes ultimately benefit fundholders by producing better risk-adjusted returns? The Ibbotson GPSS measure provides a suitable starting point for ex-

ploring those questions. In the future, Morningstar intends to standardize the GPSS as a data point and to use it as part of its standard target-date reports and data.

Performance

Traversing a Tough Environment in 2011

In 2011, target-date funds produced their worst absolute and relative returns since 2008 as measured by the Morningstar target-date category average returns. Of course, those results were mild by comparison with the wreckage of the financial crisis. The worst-performing category, Target Date 2050+, produced a 4.1% loss, compared with a 38.8% loss in 2008. The 2011-15 category finished slightly in the red, with a 0.3% loss, versus a 27.7% loss in 2008.

Still, 2011 was a tough year for most mutual funds. Most categories turned in absolute losses in 2011. Moreover, every category average trailed two major broad U.S.

benchmarks, the S&P 500 Index (2.1%) and the Barclays US Aggregate Bond Index (7.8%). Target-date categories also trailed the Morningstar Moderate Allocation category (1.7%), a proxy for balanced funds (active and passive).

Target-date funds' difficulties ironically stemmed from their broad diversification. Amid questions of economic stability in the U.S. and Europe, investors sought safety in government bonds and well-capitalized large-cap stocks, boosting indexes like the S&P 500 and Barclays Agg at the expense of riskier market segments. A glance at the benchmark returns in Table 9 shows how this played out: Moves into small-cap, non-U.S., or emerging-markets stocks produced progressively greater losses. Thus, broad diversification—one of the highly promoted features of target-date funds and a key to strong returns in 2009 and 2010—proved to be a detriment in 2011. Target-date series with exposure to most anything beyond the basic asset classes lagged relative to benchmarks or less-adventurous peers. In addition, active managers had great difficulty keeping up with indexes in 2011, and most target-date series remain actively managed.

9. Calendar-Year Returns for Morningstar Target-Date Categories and Benchmarks

Name	2011 Annual Return %	2010 Annual Return %	2009 Annual Return %	2008 Annual Return %
US OE Target Date 2000-2010	0.91	10.68	22.42	-22.46
US OE Target Date 2011-2015	-0.27	11.50	23.55	-27.76
US OE Target Date 2016-2020	-0.22	12.27	24.25	-29.46
US OE Target Date 2021-2025	-2.06	13.29	28.32	-34.15
US OE Target Date 2026-2030	-2.26	13.47	28.87	-36.04
US OE Target Date 2031-2035	-3.51	14.28	30.06	-37.04
US OE Target Date 2036-2040	-3.49	14.37	30.90	-37.94
US OE Target Date 2041-2045	-4.10	14.60	30.88	-38.11
US OE Target Date 2050+	-4.13	14.45	32.20	-38.86
S&P 500 Index	2.11	15.06	26.46	-37.00
BarCap US Agg Bond Index	7.84	6.54	5.93	5.24
Russell 2000 Index	-4.18	26.85	27.17	-33.79
MSCI World Index	-7.61	9.55	26.98	-42.08
MSCI EM Index	-20.41	16.36	74.50	-54.47
Morningstar Aggressive Allocation	-0.74	11.78	24.76	-26.98
Morningstar Moderate Allocation	1.70	13.49	29.37	-18.61
Morningstar Conservative Allocation	-3.80	10.03	20.77	-34.34

Data as of 12/31/11. Source: Morningstar, Inc.

These patterns can be observed in more detail among individual funds (see Table 10). Funds intended for investors planning to retire in or around 2015 showed a range of return of just under 10 percentage points, from 5.5% to -4.9%. This reflects the varying equity exposure within the shorter-dated funds. Funds that finished near the top of the group generally shared one or more of several traits: They feature more-conservative equity allocations in the glide path (Wells Fargo, Allianz, Schwab), use index constructions (Wells Fargo, Vanguard, ING Index Solution), and/or lean toward large-cap stocks and high-quality bonds (American Funds). Funds that lagged generally featured opposite characteristics: higher equity allocations, actively managed structures with exposure to far-reaching asset classes, and a bigger chunk of lower-rated bonds. This group includes two series, AllianceBernstein and Legg Mason, which had new programs in place that are designed to reduce losses during periods of high volatility.

10. 2015 Target-Date Fund Performance

Name	2011 Annual Return		3-Year Total Return		5-Year Total Return	
	%	Category Rank %	Annualized %	Category Rank %	Annualized %	Category Rank %
JHFunds2 Retirement 2015 Portfolio 1	5.45	1	—	—	—	—
Wells Fargo Advantage DJ Target 2015 I	3.05	2	9.66	92	—	—
American Century LIVESTRONG 2015 A	2.90	3	10.31	85	2.97	7
TIAA-CREF Lifecycle Index 2015 Inst	2.56	6	—	—	—	—
Maxim Lifetime 2015 I T	2.27	10	—	—	—	—
Allianz Gbl Inv Solutions 2015 A	2.15	13	11.49	54	—	—
American Funds Trgt Date Ret 2015 A	1.85	16	11.71	43	—	—
GuideStone Funds MyDestination 2015 GS4	1.84	18	13.45	8	1.84	44
Schwab Target 2015	1.78	18	10.71	71	—	—
Vanguard Target Retirement 2015 Inv	1.71	19	11.54	50	2.54	13
Maxim Lifetime 2015 II T	1.49	20	—	—	—	—
Harbor Target Retirement 2015 Instl	1.10	23	—	—	—	—
ING Index Solution 2015 Port I	1.01	25	8.84	100	—	—
Fidelity Freedom Index 2015 W	1.00	26	—	—	—	—
Russell LifePoints 2015 Strategy R1	0.93	27	12.65	22	—	—
Columbia Retirement Plus 2015 A	0.74	29	10.44	82	-0.40	87
Vantagepoint Milestone 2015	0.70	30	10.58	78	2.01	31
Maxim SecureFoundation LT 2015 Port G	0.60	33	—	—	—	—
TIAA-CREF Lifecycle 2015 Retire	0.46	37	11.05	61	1.83	50
Maxim Lifetime 2015 III T	0.31	40	—	—	—	—
Hartford Target Retirement 2015 R3	0.17	41	13.20	11	—	—
Principal LifeTime 2015 Instl	0.01	42	12.63	29	—	—
BlackRock Lifecycle Prepared 2015 Inv A	0.00	43	12.30	32	—	—
JPMorgan SmartRetirement 2015 A	-0.11	44	12.78	18	2.24	19
T. Rowe Price Retirement 2015	-0.32	49	14.21	1	2.11	25
Fidelity Freedom K 2015	-0.34	51	—	—	—	—
Fidelity Freedom 2015	-0.34	51	11.84	39	1.90	38
ING Solution 2015 Port I	-0.46	54	10.84	64	0.92	69
Putnam RetirementReady 2015 A	-0.50	54	10.72	68	-0.36	81
Fidelity Advisor Freedom 2015 A	-0.52	56	12.19	36	1.74	56
MassMutual RetireSMART 2015 A	-0.67	59	—	—	—	—
Franklin Templeton 2015 Retire Trgt A	-0.82	64	12.85	15	3.28	1
DWS LifeCompass 2015 S	-1.03	70	10.69	75	-0.27	75
Nationwide Destination 2015 A	-1.44	77	9.14	96	—	—
JHancock2 Lifecycle 2015 A	-1.45	78	13.91	4	0.97	62
Oppenheimer Transition 2015 A	-2.18	85	11.58	46	-3.10	100
AllianceBern 2015 Retirement Strat A	-2.76	89	12.65	25	-0.61	93
Goldman Sachs Retirement Str 2015 A	-4.04	94	10.26	89	—	—
Legg Mason Target Retirement 2015 A	-4.93	98	11.20	57	—	—

Data as of 12/31/11. Source: Morningstar, Inc.

11. 2045 Target-Date Fund Performance

Name	2011 Annual Return		3-Year Total Return		5-Year Total Return	
	%	Category Rank %	Annualized %	Category Rank %	Annualized %	Category Rank %
JHFunds2 Retirement 2045 Portfolio 1	-0.56	1	—	—	—	—
American Century LIVESTRONG 2045 A	-0.94	3	12.86	55	1.00	10
TIAA-CREF Lifecycle Index 2045 Inst	-1.41	5	—	—	—	—
Columbia Retirement Plus 2045 A	-2.24	9	9.96	100	-2.05	82
Vanguard Target Retirement 2045 Inv	-2.51	14	12.90	46	0.24	28
BlackRock LifePath 2045 Investor A	-2.62	17	—	—	—	—
American Funds Trgt Date Ret 2045 A	-2.70	18	12.98	37	—	—
Fidelity Freedom Index 2045 W	-2.76	20	—	—	—	—
Vantagepoint Milestone 2045	-2.81	21	—	—	—	—
Franklin Templeton 2045 Retire Trgt A	-2.81	21	15.43	5	1.38	1
BlackRock Lifecycle Prepared 2045 Inv A	-2.85	23	12.12	86	—	—
Maxim Lifetime 2045 I T	-3.21	28	—	—	—	—
T. Rowe Price Retirement 2045	-3.47	32	16.06	1	0.43	19
GuideStone Funds MyDestination 2045 GS4	-3.63	34	13.73	23	-1.71	64
TIAA-CREF Lifecycle 2045 Instl	-3.63	35	12.66	68	—	—
Principal LifeTime 2045 Instl	-3.66	36	12.93	41	—	—
Hartford Target Retirement 2045 R3	-3.72	38	13.69	28	—	—
Legg Mason Target Retirement 2045 A	-3.83	41	12.52	77	—	—
ING Index Solution 2045 Port I	-3.92	44	11.58	91	—	—
Maxim SecureFoundation LT 2045 Port G	-3.96	46	—	—	—	—
Putnam RetirementReady 2045 A	-4.03	47	12.70	59	-2.23	91
Wells Fargo Advantage DJ Target 2045 I	-4.06	49	14.37	10	—	—
Maxim Lifetime 2045 II T	-4.08	51	—	—	—	—
Maxim Lifetime 2045 III T	-4.44	58	—	—	—	—
Nationwide Destination 2045 A	-4.50	61	12.46	82	—	—
MassMutual RetireSMART 2045 A	-4.86	71	—	—	—	—
Fidelity Freedom K 2045	-4.95	73	—	—	—	—
Fidelity Freedom 2045	-5.02	74	12.89	50	-0.84	46
ING Solution 2045 Port I	-5.02	75	12.61	73	-1.82	73
JPMorgan SmartRetirement 2045 A	-5.03	76	13.91	19	—	—
Fidelity Advisor Freedom 2045 A	-5.07	77	13.67	32	-1.17	55
Russell LifePoints 2045 Strategy R1	-5.20	81	12.70	64	—	—
JHancock2 Lifecycle 2045 A	-5.49	86	14.06	14	-0.77	37
Harbor Target Retirement 2045 Instl	-6.04	92	—	—	—	—
AllianceBern 2045 Retirement Strat A	-8.07	97	10.70	95	-3.46	100

Data as of 12/31/11. Source: Morningstar, Inc.

A similar pattern is at work in longer-dated funds. For funds in the 2041-45 category, John Hancock's newer index-based, more conservative Retirement 2045 fund was the top performer, though it still notched a loss of 0.56% (see Table 11). Index-based offerings from TIAA-CREF, Vanguard, and BlackRock, and Fidelity also appear near the top. Actively managed series weren't shut out though: American Century and American Funds turned in good relative returns among both the long- and short-dated funds.

The 8.6 percentage-point range of returns between the worst and best 2045 funds was fairly close to the range among 2015 funds, reflecting the narrowness of market returns in 2011. The bottom four 2045 performers were also the worst of the 2015 group, while other aggressive, highly diversified series such as John Hancock Lifecycle and DWS LifeCompass appear farther up the list. Other factors may also be at play, such as poor underlying fund performance or less conventional strategies, especially since asset allocations tend to be less varied in the longer-dated categories. Poor underlying fund performance, for example, can help sink a target-date funds' returns. At the opposite end of the performance spectrum, note that the 2045 category does not include Invesco Balanced Risk, which trumped the competition due to an unusual approach that has resulted in an extremely high bond weighting (and lower equity market exposure) across all funds in the series.

Longer-Term Performance Trends

Target-date investors would be wise not to fixate on one-year performance, particularly given the shifting year-to-year nature of the markets over the past half-decade. No single approach has proven superior to others over the longer term (though the industry as a whole is still quite young). Yet short-term performance can provide a glimpse of what investors could reasonably expect from a target date fund, given its strategy. The fact that a given fund trailed in 2011 owing to a heavy allocation to foreign stocks may not necessarily be a negative factor over the long term. Foreign stocks could outperform over decades of target-date ownership, especially if the target-date provider has included managers with the expertise to

make those investments. Conversely, investors comfortable with more basic forms of asset allocation or prefer to limit downside risk might be happy sticking with one of the index-based or lower-equity winners from 2011. Broadly speaking, though, investors should focus more on long-term consistency than short-term winners (which have a higher likelihood of ending up near the bottom of the rankings in a subsequent year).

Comparing Risk-Adjusted Returns

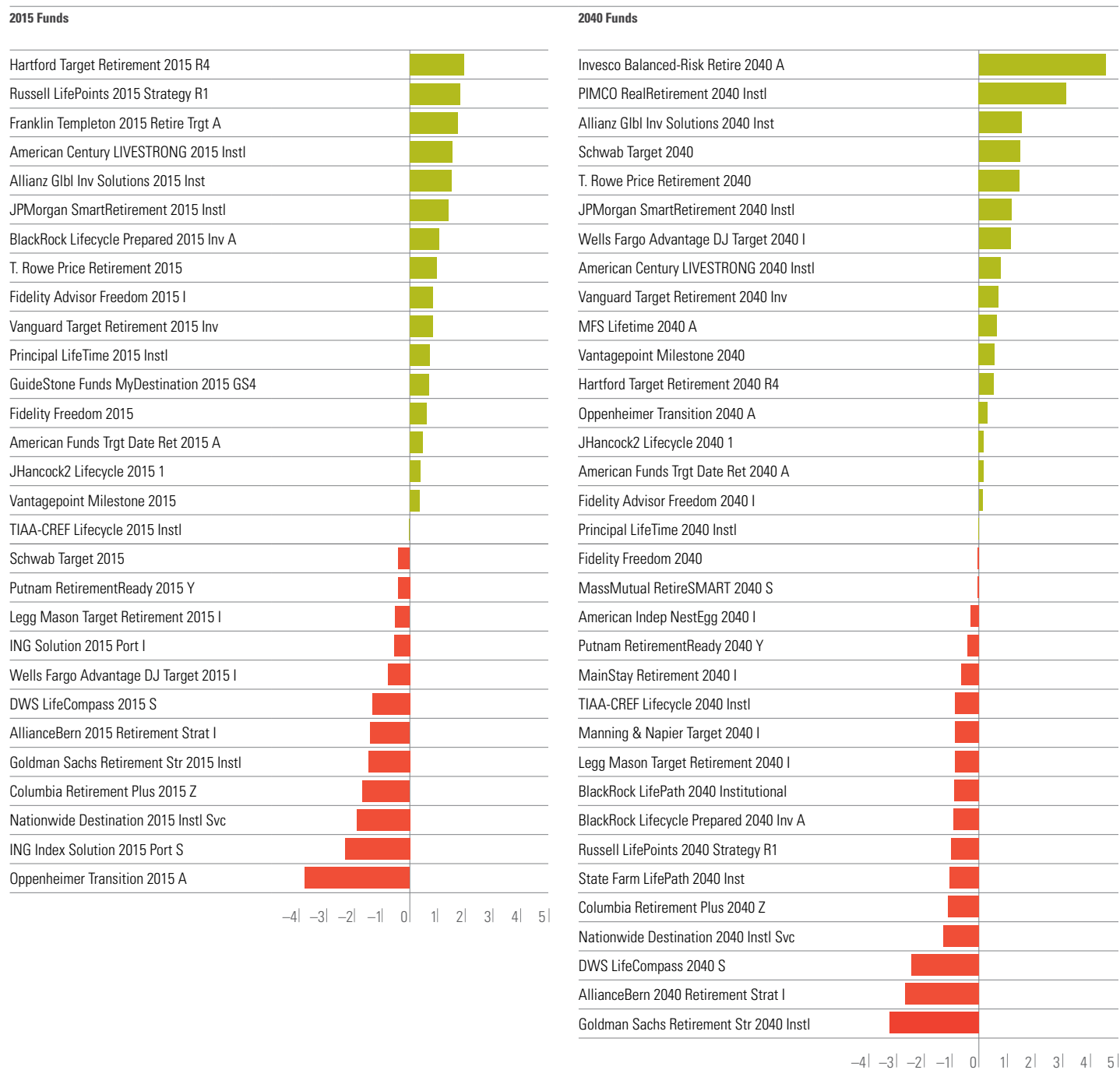
Another way to evaluate performance is by comparing risk-adjusted returns. In its ratings of target-date series, Morningstar primarily evaluates series' performance through Morningstar Risk-Adjusted Return, a return measure that penalizes funds for months of downside volatility. MRAR and other risk-adjusted return measures provide a more meaningful view of performance than straight total returns, because they incorporate the effects of volatility.

In calculating its Performance score for the Morningstar Target-Date Series Ratings, Morningstar considers how much the MRAR for funds in a series deviates from peer averages, using a weighted average of three-year, five-year, and, if applicable, 10-year figures. When evaluating these time periods, consider some caveats: 2008 has effectively dropped off of series' three-year return histories, while remaining on the record for five-year histories. As such, target-date series that lack a five-year history may have better Performance scores than might otherwise be expected. Of 29 2015 funds, for example, 13 have only three-year histories to include.

Tables 12 and 13 examine 2015 and 2040 funds, detailing how each fund's weighted MRAR differs from the category MRAR. The 2015 funds are relevant to the series' broader risk profile because these shareholders are closest to retirement.

Among 2015 funds, so-called "to" strategies, which generally feature lower equity allocations that terminate at retirement, still produce most of the top MRARs. This is the case even though several of these series feature only three-year records that exclude 2008. Among the top-

12 and 13. Morningstar Risk-Adjusted Return Deviation From Fund Category



Data as of 12/31/11. Source: Morningstar, Inc.

ranking “to” series are those from Russell, Allianz, American Century, and JP Morgan. Impressively, though, some series that feature more aggressive glide paths, in particular T. Rowe Price, show favorable MRAR metrics. The bottom of the list tends to be populated by series with more aggressive glide paths or asset mixes, as well as underperforming underlying holdings.

Among the 2040 funds, the range of equity allocations are more closely bunched, but the trends are similar. The two highest MRAR figures belong to Invesco and PIMCO, both series with unusual strategies that emphasize much greater allocations to commodities (among other differences). Other winners have more-conservative glide paths and asset mixes, although T. Rowe Price again appears among the top series. Those with the worst deviations from the average are largely similar to the names that appear in the group of 2015 funds, including Goldman Sachs, AllianceBernstein, and DWS.

Other Risk Lenses

MRAR is one way to analyze how target-date series’ returns are impacted by risk-taking. Another way to assess risk is by comparing series on multiple factors and plotting the results on a scatterplot graph. These graphs generally serve to reinforce points made when looking at measures previously discussed, such as MRAR, but they also add nuance and in some cases, add new dimensions to our understanding of target-date series risks.

Table 14 attempts to reveal 2015 funds’ potential equity risk by comparing their standard deviation and equity allocation percentage over the past three years. Standard deviation is simply a measure of realized volatility over the period described. The equity allocation figure is the fund’s average over the period. Together, these data reveal how sensitive the funds’ returns are to big swings in the equity markets, which can be particularly important when looking at funds for investors close to retirement age.

Funds near the bottom left (Allianz, Putnam, and Wells Fargo) exhibit both low volatility and low equity holdings. Relative to funds in the upper right quadrant of the graph,

investors should expect substantially lower risk of significant downdrafts. The 2015 funds in the upper right include those from AllianceBernstein Retirement, Goldman Sachs Retirement, and John Hancock Lifecycle.

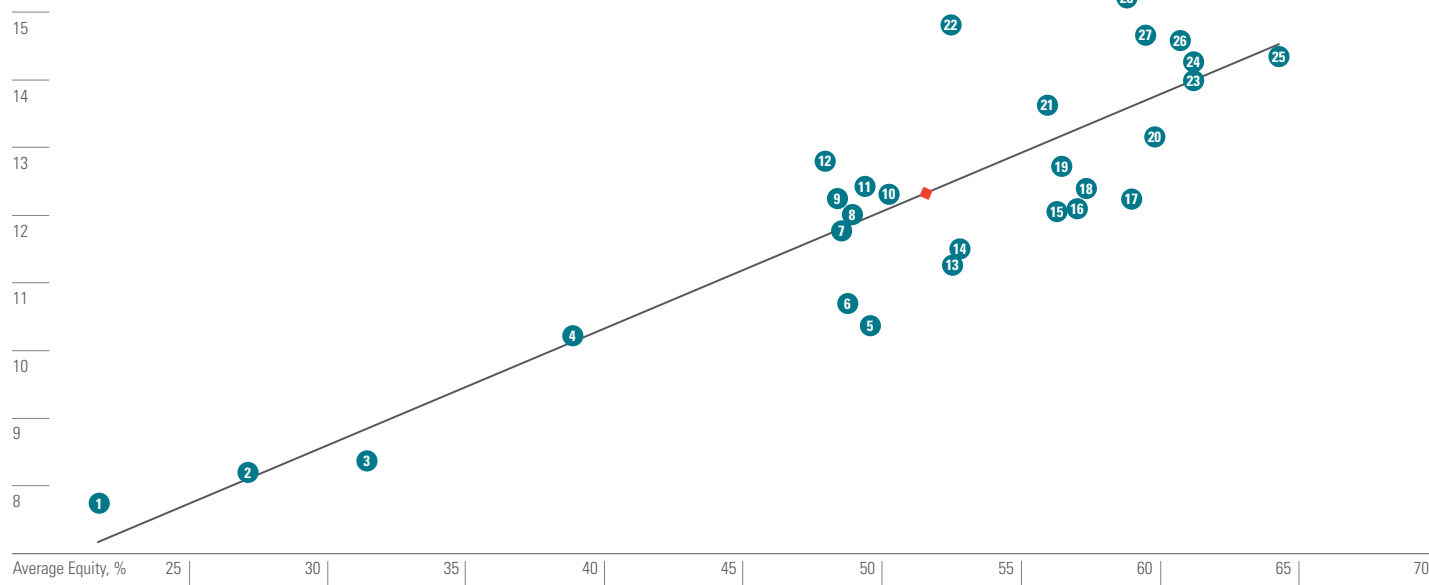
Funds that deviate from the trend line exhibit notable strengths and weaknesses. For instance, American Century LIVESTRONG 2015 has produced less volatility than a number of funds with similar equity allocations, indicating this fund has done a good job controlling volatility within the underlying strategies. Conversely, series offered by AllianceBernstein, Goldman Sachs, and Legg Mason have shown higher volatility than expected relative to their equity allocations, suggesting a higher risk profile overall.

Table 15 is a more standard risk-return graph, plotting three-year return versus three-year standard deviation for 2015 funds. These results are widely dispersed. Once again, funds that have deviated significantly from the mean have demonstrated an ability to achieve excess returns for a given level of risk, or conversely underperformance at the same level of volatility. For instance, seven funds have three-year standard volatility between 14% and 16%. During that period, series from T. Rowe Price and John Hancock returned around 14% annually or better, while those from Columbia and Goldman Sachs returned less than 11% annually. All other things being equal, investors should prefer series that have produced higher returns given a similar level of volatility.

This three-year snapshot for target-date funds is perhaps an overly rosy picture, since it was a largely bullish market, particularly for U.S. stocks and high-quality bonds. One could do the same comparison with funds’ five-year histories, but few series have the requisite history, making the sample size less meaningful. That said, the five-year versions of the same graphs illustrate some differences from the three-year period. For instance, the trend line for the risk-reward graph remains inverted, in that lower-volatility series have higher returns, as risk-averse funds held up best in 2008. In the equity-versus-risk graph, the extremes of volatility around the mean seem wider due to 2008’s market crash. Since then, some

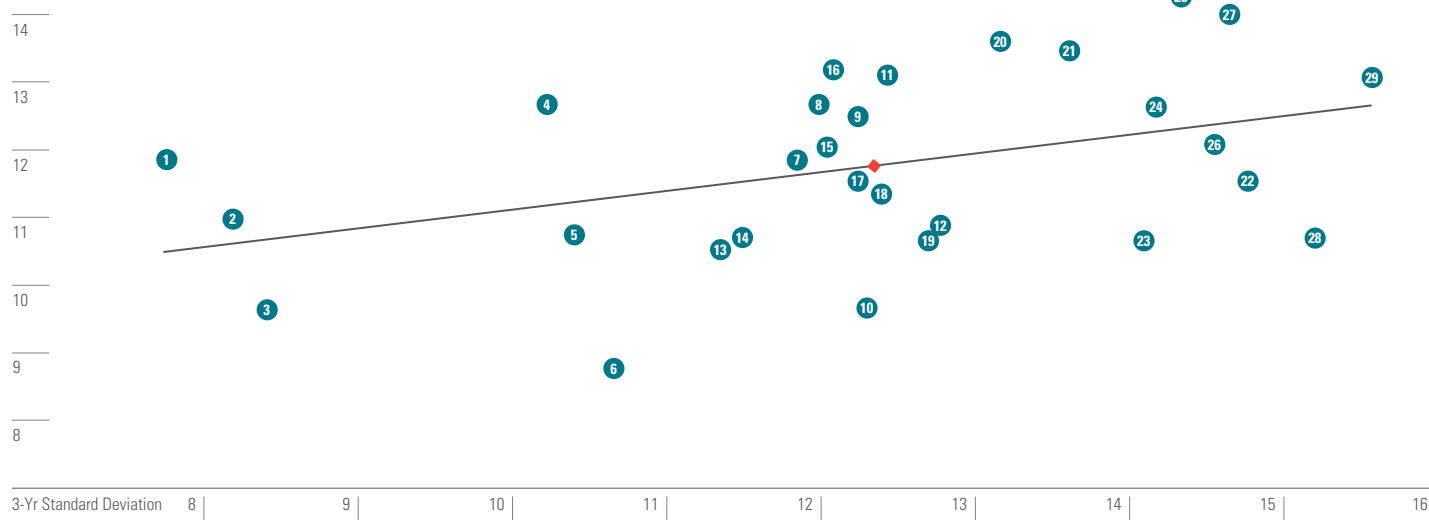
14. Target Date 2015 Three-Year Equity Versus Risk

3-Yr Standard Deviation



15. Target Date 2015 Three-Year Risk Reward

3-Yr Return



Key

- | | | | | |
|--------------------|--------------------|-----------------------|---------------|----------------------|
| 1 Allianz | 7 Fidelity | 13 Vantagepoint | 19 DWS | 25 T. Rowe Price |
| 2 Putnam | 8 BlackRock | 14 Schwab | 20 Hartford | 26 Oppenheimer |
| 3 Wells Fargo | 9 Fidelity Advisor | 15 American Funds | 21 GuideStone | 27 John Hancock |
| 4 Russell | 10 Nationwide | 16 Franklin Templeton | 22 Legg Mason | 28 Goldman Sachs |
| 5 American Century | 11 JP Morgan | 17 Vanguard | 23 Columbia | 29 AllianceBernstein |
| 6 ING Index | 12 ING | 18 TIAA-CREF | 24 Principal | ◆ Mean |

Data as of 12/31/11. Source: Morningstar, Inc.

of the most aggressive series have made modifications to their glide paths, so their past results may not represent how they're likely to perform going forward.

Parsing Performance Attribution

The scatterplot graphs can give insight into how target-date funds' design impacts its returns, especially with respect to their equity allocation and volatility. Morningstar's attribution analysis explores other factors that drive a target-date fund series' underperformance or outperformance. This attribution analysis separates relative performance into three components:

1. Allocation: Performance driven by the equity/fixed-income glide path
2. Selection: Performance driven by security, sector, and style decisions
3. Cost: Impact of fund expenses on fund performance

Traditional attribution analysis usually involves measuring a fund's returns relative to its prospectus benchmark, studying the decisions that helped and hurt returns relative to the benchmark. That's pretty straightforward for a fund that tracks the S&P 500 Index, for example, but such analyses are difficult for target-date series because they each have unique, complex asset allocations tapped through a number of underlying strategies—and they're shifting along the glide path. As such, Morningstar's attribution analysis compares all the target-date series' returns to those of a single, peer-generated allocation benchmark. Morningstar's approach is most useful for comparing series to one another.

Morningstar's three-year series attribution results look much different at the end of 2011 than they did at year-end 2010—primarily because 2008 returns are no longer in the period. Most notably, for the three years through 2010, the Allocation effect was previously positive for firms with bond-heavy glide paths that protected returns during the 2008 financial crisis. Meanwhile, series with the more aggressive equity allocations tended to show negative results for that period. By Dec. 31, 2011, the three-year trend had reversed, with equity-heavy strategies (such as AllianceBernstein and T. Rowe Price) show-

ing positive Allocation results, while conservative glide paths like those from Wells Fargo and American Century have detracted value.

Removing the Allocation effect reveals the outcome of active decisions, which in Morningstar's calculation includes underlying manager stock selection, as well as style, sector, and tactical decisions made by the series managers. Table 16 shows the target-date series' three-year performance attribution through Dec. 31, 2011, ranked by the Selection factor.

Series that have performed poorly under a variety of measures and conditions also fare badly in terms of Selection. For example, series from AllianceBernstein, Goldman Sachs, and DWS all have negative Selection scores, despite Allocation scores that have flipped to positive. There are also several index-based series with negative Selection scores, including American NestEgg and ING Index. These results likely owe to asset-mix choices; ING, for example, allocates 50% of its stock exposure to foreign stocks, an unusually high weighting.

Series exhibiting positive Selection scores include series with both stock-heavy glide paths (such as T. Rowe Price and John Hancock Lifecycle) and more-conservative glide paths (including MFS, JP Morgan, and USAA). Invesco Balanced-Risk has a high Selection score and has been one of the best performers over the past three years, owing to an unusual underlying strategy that allocates assets evenly on a risk basis to stocks, bonds, and commodities. It has thus benefited from outsize exposure to some of the strongest market sectors, particularly government bonds, which the managers have typically leveraged to more than 100% of assets.

16. Three-Year Performance Attribution, 1/1/09 through 12/31/11

Name	Selection %	Cost %	Allocation %	Total Attribution %
USAA TARGET RETIREMENT FUNDS Series	3.10	0.26	-1.45	1.87
Invesco Balanced-Risk Retirement Series	2.67	-0.16	0.05	2.55
T. Rowe Price Retirement Series	2.31	0.14	0.25	2.71
Franklin Templeton Retirem Series	2.20	-0.44	-0.61	1.12
MFS Lifetime Series	1.51	-0.25	0.29	1.55
JPMorgan SmartRetirement Series	1.33	0.11	-0.16	1.27
Fidelity Advisor Freedom Series	1.33	0.13	-0.52	0.93
John Hancock Lifecycle Series	1.18	-0.07	0.49	1.60
Guidestone Funds MyDestination Series	1.11	-0.38	0.32	1.04
Fidelity Freedom Series	0.91	0.16	-0.77	0.30
Wells Fargo Advantage DJ Target Date Series	0.65	0.33	-0.87	0.10
Massachusetts Mutual Life Insurance Co.	0.52	-0.04	0.41	0.90
Russell LifePoints Target Date Series	0.42	0.05	-0.02	0.45
Putnam RetirementReady Series	0.41	-0.07	-0.15	0.19
Legg Mason Target Retirement Series	0.27	-0.02	0.22	0.47
Schwab Target Series	0.20	0.08	-0.26	0.02
Vanguard Target Retirement Series	0.19	0.66	-0.04	0.82
American Century LIVESTRONG Series	0.18	0.16	-0.66	-0.32
Principal LifeTime Series	0.17	0.07	0.86	1.10
BlackRock Lifecycle Prepared Series	-0.09	-0.46	-0.01	-0.57
American Funds Trgt Date Rtrmt Series	-0.14	0.07	0.50	0.43
Oppenheimer LifeCycle Series	-0.16	-0.48	0.77	0.12
BlackRock LifePath Series	-0.18	-0.02	-0.41	-0.61
PIMCO RealRetirement Series	-0.18	0.04	0.46	0.33
Vantagepoint Milestone Series	-0.34	-0.10	-0.02	-0.45
TIAA-CREF Lifecycle Series	-0.37	0.40	0.11	0.14
ING Solution Series	-0.47	-0.01	0.09	-0.40
MainStay Retirement Series	-0.48	-0.32	0.19	-0.61
Manning & Napier Target Series	-0.52	-0.05	-0.70	-1.27
State Farm Lifepath Series	-0.66	-0.19	0.10	-0.76
DWS LifeCompass Series	-0.77	-0.15	0.21	-0.71
AllianceBernstein Retirement Str Series	-1.02	0.12	0.74	-0.17
Nationwide Target Destination Series	-1.16	0.18	-0.08	-1.05
ING Index Solution Series	-1.68	0.03	-0.04	-1.69
Columbia Retirement Plus Series	-1.73	0.08	0.09	-1.56
Goldman Sachs Retirement Str Series	-2.22	0.00	0.68	-1.56
NestEgg Dow Jones Series	-2.46	0.00	-0.80	-3.24

Data as of 12/31/11. Source: Morningstar, Inc.

Portfolio

Although a series' asset allocation is likely a big factor in its long-term performance, portfolio construction and asset mix also play an important role in performance as well as in distinguishing one series from another. In this section, we examine portfolio characteristics such as the active/passive mix of underlying holdings and the average Morningstar rating of underlying portfolios, updating those statistics from previous years' reports. In addition, we update our study on the performance comparison of closed-architecture and open-architecture series last conducted two years ago.

Active Funds Remain Prominent

While actively managed target-date series are most common in the target-date industry, several pure index series have been added to Morningstar's active-passive analysis, including offerings from Fidelity, TIAA-CREF, and BlackRock. In addition, two of the three Maxim series, which each hold 35%–40% of assets in index funds, also are new to the list. Nevertheless, actively run target-date strategies remain prevalent. Of the 45 series listed, 25 (or more than half) have 89% or more of assets in active strategies (see Table 17). Only six are 90% or more indexed. Even the Fidelity Freedom Index series has 11.6% of series assets in an actively managed commodities strategy. There is a meaningful middle ground of about a dozen series that mix active and passive strategies in mixes ranging from 20% active (Nationwide) to 87% active (Allianz), with most in the 60%–70% active range.

While series rarely change their stripes when it comes to their active or passive orientation, a few have made partial shifts over the past year. BlackRock Lifepath raised its active percentage by 11 percentage points, as it moves to differentiate that flagship series from its newer Lifepath Index series. Nationwide Destination nearly tripled its active exposure to 20% with the addition of an actively run alternatives fund. Allianz, while still predominantly active, reduced its active exposure by

about 12 percentage points. ING Solution, formerly 100% active, folded in some core index exposure, decreasing its active percentage to 91%. And in early 2012, John Hancock announced that its Lifecycle funds would be converting their roughly 35% in index funds to a new index-based but actively managed allocation sleeve. Thus, investors should not assume that a series' original or current structure is static, and such structural changes can have important consequences for a series' performance characteristics.

Quality of the Underlying Funds

The Morningstar Rating for mutual funds, best known as the "star rating," serves as a baseline measure of the quality of a target-date series' funds by examining their underlying holdings. The star rating is a quantitatively calculated risk-adjusted measure of historical performance versus category peers. Morningstar uses the star rating as the basis for the Portfolio component of its ratings for target-date series. The star rating is a backward-looking measure, and only one of many ways to measure fund quality, but it nevertheless provides a useful snapshot.

A minimum three-year performance history is required to earn a star rating, but Morningstar uses alternative share classes with a longer history if a target-date fund includes a new share class of an older fund. Firms with five-year or 10-year records receive an overall star rating that is calculated based on a weighted formula for each subperiod. Firms that do not use a fund-of-funds structure, such as Wells Fargo and AllianceBernstein, are excluded. In addition, firms with a high allocation to private funds—in particular the BlackRock and State Farm series—were excluded this year, since only about a fourth of the funds' holdings receive star ratings. The star ratings are dollar-weighted by a fund's position in an individual target-date fund's portfolio, then averaged across the funds in the series.

Target-date funds as a whole continue to exhibit acceptable, if not stellar, quality based on the star rating. The overall average for the industry at year-end 2011 was 3.43 stars (with a median of 3.40), a slight improvement over 2010's mean of 3.39 stars (see Table 18.) Since three stars

17. Target-Date Series by Percentage of Assets in Active Strategies

Name	% Active
AllianceBernstein Retirement Str Series	100.0
American Century LIVESTRONG Series	100.0
American Funds Trgt Date Rtrmt Series	100.0
Goldman Sachs Retirement Str Series	100.0
Guidestone Funds MyDestination Series	100.0
Harbor Target Retirement Series	100.0
Invesco Balanced-Risk Retirement Series	100.0
JPMorgan SmartRetirement Series	100.0
Manning & Napier Target Series	100.0
MassMutual RetireSMART Series	100.0
MFS Lifetime Series	100.0
Oppenheimer LifeCycle Series	100.0
Putnam RetirementReady Series	100.0
Russell LifePoints Target Date Series	100.0
TIAA-CREF Lifecycle Series	100.0
Columbia Retirement Plus Series	99.4
Hartford Target Retirement Series	97.1
Franklin Templeton Retirem Series	94.7
USAA TARGET RETIREMENT FUNDS Series	93.6
ING Solution Series	91.9
Fidelity Advisor Freedom Series	89.7
Fidelity Freedom K Series	89.5
Fidelity Freedom Series	89.3
Principal LifeTime Series	89.3
MainStay Retirement Series	88.5
Allianz Global Investors Solutions Series	87.3
T. Rowe Price Retirement Series	84.4
Vantagepoint Milestone Series	81.2
Schwab Target Series	74.0
State Farm Lifepath Series	71.6
BlackRock LifePath Series	71.2
Legg Mason Target Retirement Series	67.3
John Hancock Lifecycle Series	66.9
DWS LifeCompass Series	65.4
Maxim Lifetime I Series	64.7

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17. Target-Date Series by Percentage of Assets in Active Strategies Continued

Name	% Active
Maxim Lifetime II Series	62.6
Maxim Lifetime III Series	60.7
Nationwide Target Destination Series	20.0
Fidelity Freedom Index Series	11.6
Vanguard Target Retirement Series	3.2
TIAA-CREF Lifecycle Index Series	1.6
BlackRock LifePath Index Series	0.0
ING Index Solution Series	0.0
John Hancock Retirement Series	0.0
Wells Fargo Advantage DJ Target Date Series	0.0

Data as of 12/31/11. Source: Morningstar, Inc.

indicates a fund's risk-adjusted return is near the peer-group average, target-date fund holdings as a whole are doing slightly better than average. This is promising, but it is reasonable for investors to expect above-average ratings, given managers' abilities to select the best available options at their mutual fund firm or, in the case of some series, from a wide potential array of external subadvisors.

The series that ranked as the highest on this list over the past two years, Manning & Napier, dropped steeply, from 5.0 to 2.84 stars. That is a function of its concentrated style, which relies on just a few of the firm's Pro-Blend allocation funds. Manning & Napier's fundamentals-based stock-picking style was at odds with the market in 2011, and its stock selection in certain sectors lagged as well.

The two series with the best rating at year-end 2011 have something in common: Relatively few of the series' assets are in underlying funds that earn Morningstar Ratings, and the assets that are rated have done well. PIMCO RealRetirement tops the list, at 4.48 stars, as its two largest holdings, PIMCO Real Return and PIMCO Total Return both are 5-star funds. A considerable portion of the RealRetirement funds' portfolios is invested directly in derivatives rather than in underlying funds, so all told, just 68% of the series' assets received star ratings. The series with the second highest rating of 4.23 stars, BlackRock Lifecycle Prepared, has an even lower percentage of assets rated at 50%, making its rating less meaningful.

Fidelity's actively managed series also have a lower percentage of rated assets, though that figure increased between 2010 and 2011. The two series' ratings of 2.94 to 2.97 stars are based on about 64% of assets, up from 44% in 2010, as more of the special Series funds designated for the target-date vehicles have achieved three-year histories.

With the upward skew in the ratings of target-date holdings, only a fraction of target-date series receive notably below-average Morningstar Ratings and thus should generally be avoided. Proving that not all indexes are created equal, the ING Index Solution series earns only a 2.81 average star rating, compared with Vanguard's 4.0

and TIAA-CREF's 3.81 stars. Putnam RetirementReady's underlying Absolute Return funds have lagged the past two years, causing its average star rating to drop to the lowest figure in our sample, at 2.57 stars, though it should be pointed out that the absolute-return funds are not a neat fit within traditional category peer groups.

Open-Architecture Versus Closed-Architecture Series: A Second Look

One oft-heard criticism of target-date funds is that the series usually feature their own proprietary funds. These "closed-architecture" series potentially give investors a less-than-optimal or inferior investment experience than they would have if they could choose from any fund in the industry. Those same critics argue that open-architecture series, which feature strategies from a number of firms, are preferable because management can choose from best-in-class investments, rather than the provider's limited inventory.

Morningstar's 2010 Industry Survey compared open- and closed-architecture series by a number of performance measures and concluded that no apparent advantage accrued to one type of target-date series or the other.

The 2012 Survey updates those comparisons. In the two years that have passed since the previous study, the sample has gotten larger. There are more series with minimum performance histories of three years, and additional open- and closed-architecture series have entered the arena. In addition, whereas results reviewed in 2010 may have been unduly influenced by the 2008 market, the series' three-year records now exclude 2008 while the five-year records incorporate the bear market, perhaps offering a more balanced perspective. One also can put more stock in a longer performance record, which is important given the relative youth of this industry.

New Data, Same Story

Cutting to the chase, this year's assessment once again fails to support the contention that open-architecture target-date funds are superior to closed-architecture offerings. If anything, closed-architecture series appear to have a slightly better track record.

18. Average Star Rating of Underlying Funds by Target-Date Series

Name	2011 Morningstar Rating, Stars	2010 Morningstar Rating, Stars	Holdings with Rating	Holdings with Rating
PIMCO RealRetirement Series	4.48	3.82	33	67.9
BlackRock Lifecycle Prepared Series	4.23	3.76	33	49.8
Allianz Global Investors Solutions Series	4.15	4.01	93	77.2
Franklin Templeton Retirem Series	4.05	4.14	69	92.8
Vanguard Target Retirement Series	4.00	3.75	9	72.0
Harbor Target Retirement Series	3.93	3.82	40	94.4
American Funds Trgt Date Rtrmt Series	3.91	3.84	61	97.3
TIAA-CREF Lifecycle Index Series	3.81	—	9	71.8
ING Solution Series	3.73	3.80	75	80.8
MFS Lifetime Series	3.66	3.46	51	88.6
USAA Target Retirement Series	3.65	3.35	39	95.8
JPMorgan SmartRetirement Series	3.63	3.66	57	93.3
Fidelity Freedom Index Series	3.62	—	6	66.1
MainStay Retirement Series	3.57	3.32	84	97.8
Maxim Lifetime III Series	3.49	—	92	75.8
Maxim Lifetime II Series	3.49	—	92	78.3
Hartford Target Retirement Series	3.48	—	96	96.3
Maxim Lifetime I Series	3.48	—	92	81.3
Columbia Retirement Plus Series	3.47	3.39	86	91.2
T. Rowe Price Retirement Series	3.43	3.51	51	95.9
American Century LIVESTRONG Series	3.38	3.21	42	95.1
Vantagepoint Milestone Series	3.38	3.42	27	100.0
TIAA-CREF Lifecycle Series	3.36	3.35	45	94.8
MassMutual RetireSMART Series	3.36	3.21	94	98.3
Legg Mason Target Retirement Series	3.31	3.09	57	88.6
Schwab Target Series	3.26	3.24	60	97.7
Guidestone Funds MyDestination Series	3.23	2.94	30	78.6
John Hancock Lifecycle Series	3.23	3.30	111	85.4
Principal LifeTime Series	3.16	3.01	62	91.6
Oppenheimer LifeCycle Series	3.15	3.44	42	97.4
Nationwide Target Destination Series	3.11	3.22	18	79.9
John Hancock Retirement Series	3.04	—	15	100.0
Russell LifePoints Target Date Series	3.02	3.21	30	95.4
Fidelity Advisor Freedom Series	2.97	—	31	64.2
Fidelity Freedom K Series	2.95	—	32	63.6

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18. Average Star Rating of Underlying Funds by Target-Date Series Continued

Name	2011 Morningstar Rating, Stars	2010 Morningstar Rating, Stars	Holdings with Rating	Holdings with Rating
Fidelity Freedom Series	2.94	3.26	34	63.8
Manning & Napier Target Series	2.84	5.00	12	100.0
ING Index Solution Series	2.81	—	27	94.4
Goldman Sachs Retirement Str Series	2.75	2.49	51	94.9
DWS LifeCompass Series	2.73	2.81	105	96.2
Putnam RetirementReady Series	2.57	3.00	13	87.3

Data as of 12/31/11. Source: Morningstar, Inc.

To reach this conclusion, Morningstar started by examining the underlying holdings to determine whether each series has open or closed architecture. Morningstar identified three categories: closed (90% or more of assets come from the provider's funds or those of affiliate firms), open (10% or fewer of assets come from the provider's funds), and Mixed (any combination of open and closed between the two extremes). (See Appendix 2 for a full list of the series and how we labeled them.) True closed-architecture series still dominate on a numerical basis, with 21 in our sample. There were seven pure open series, and 11 mixed. However, most series labeled mixed should probably be considered in tandem with open series, since managers of most mixed series theoretically have the opportunity to invest 100% in external subadvisors if they wish, so an additional grouping, mixed & open, is also listed.

Morningstar compared performance trends using the following measures:

- ▶ Morningstar Rating for the target-date funds in a series
- ▶ Average Morningstar Rating of the underlying funds in a series
- ▶ A series' rank based on Morningstar risk-adjusted performance over the trailing three-year and five-year periods through Dec. 31, 2011
- ▶ A series' Selection score within Morningstar's series attribution analysis
- ▶ A series' Morningstar Series Rating, an analyst assigned rating based on a number of qualitative and quantitative factors (which applies only to the 22 series under analyst coverage by Morningstar)

Many of these data points are listed by series elsewhere in this report, so this section features primarily summary data. Beginning with some basic risk-adjusted measures, Table 19 displays the average three-year and five-year Morningstar Rating for the target-date funds in each series, and the Morningstar risk-adjusted returns for those series over the same periods. For each of the three-year periods, closed series beat the open, mixed, and open/mixed groups by considerable margins. For the five-year periods, open series produced slightly better results than the closed series, but closed series did beat or match the mixed group. The better results of the open group over the five-year period stem in part from the fact that the returns for this small sample are skewed by the presence of several series with notably conservative glide paths (including Wells Fargo, State Farm, and Russell), which performed unusually well in 2008. The open/mixed group provides a broader and more realistic appraisal of series that can use external subadvisors.

A second analysis—studying the Morningstar Rating of underlying funds in target-date portfolios—eliminates the effect of glide paths and focuses only on the quality of the underlying holdings. (A fuller discussion of the star rating and a table of all series' ratings can be found earlier in this report's Portfolio section.) One might imagine that closed-architecture series would have a more pronounced advantage in this area, given their ability to seek out any manager they wish. The data do not support this thesis, though. On average, closed-architecture series have a higher average star rating for underlying holdings than mixed and open-architecture series, for both 2010 and 2011 (see Table 20). The difference is not huge,

19. Average Morningstar Rating of Constituent Funds and Risk-Adjusted Return by Architecture

	Morningstar Rating		Morningstar Risk-Adjusted Return	
	3-Year Average	5-Year Average	3-Year Average	5-Year Average
Closed	3.55	3.31	9.92	-3.16
Mixed	3.25	3.05	9.34	-3.16
Open	2.78	3.59	8.78	-2.75
Mixed & Open	3.06	3.32	9.11	-2.95
Average	3.33	3.31	9.56	-3.06

Data through 12/31/11. Source: Morningstar, Inc.

to be sure, but at a minimum makes clear that one structure does not have a clear advantage.

Performance attribution is another area that can help isolate the effects of asset allocation. Pulling the Selection scores from the attribution data in Table 16 and sorting by open/closed status, we can summarize the Selection effect for each series type. (Selection includes not only manager selection but also style and sector weighting choices.) As shown in Table 21, closed-architecture series on average have a positive Selection effect of 0.32%. The open-architecture-only group has a negative score of -0.35%, while the combined open/mixed group is about net neutral. (For context, among all target-date series, the highest Selection score is 3.10 and the lowest -2.46.) The numbers here suggest closed series have had a slight performance advantage.

20. Average Underlying Star Ratings by Architecture

	Morningstar Rating	
	3-Year Average	5-Year Average
Closed	3.49	3.59
Mixed	3.28	3.24
Open	3.39	3.32
Mixed & Open	3.32	3.27

Data through 12/31/11. Source: Morningstar, Inc.

21. Average Selection Attribution by Architecture

Closed	0.32
Mixed	0.20
Open	-0.35
Mixed & Open	-0.02
Average	0.16

Data through 12/31/11. Source: Morningstar, Inc.

Finally, a broader performance view, over a narrower sample, comes from the Morningstar Target-Date Series Rating, an analyst-assigned rating based on a number of qualitative and quantitative factors. Full ratings for the 22 series under coverage are listed in the last section of this report. Of the 22 series, 14 are considered open-architecture and the remaining eight are closed or mixed. The four series receiving Top ratings are all closed-architecture. The two receiving Bottom also are closed. Above

Average and Below Average ratings are split between closed and open or mixed series types. In short, while closed funds have cornered the highest ratings in this system, overall the ratings are evenly distributed.

Conclusions and Caveats

There are certainly many other measures by which one might compare the performance of open- and closed-architecture series. But based on the data Morningstar has examined to this point open-architecture target-date funds have not exhibited their purported advantages versus closed-architecture series. Why this is so is a matter of speculation at this point. Cost may be one factor, as hiring outside managers is in some cases more expensive than using in-house managers. Morningstar's analysis of costs by architecture type do indicate a slightly higher fee level for open-architecture funds, though only by 3 basis points per year on average. Perhaps firms have not used their ability to select the highest-quality managers available to its fullest capacity. Or perhaps the closed-architecture series have succeeded in the target-date business because the series' underlying funds—and the firm's broader investment process—are of a higher general quality than mutual funds at large. The closed series' managers may also be superior at fund selection or portfolio construction.

Despite Morningstar's findings, investors may have perfectly legitimate reasons for choosing open-architecture series. They may base their investment decision primarily on the series' asset-allocation philosophy—not its architecture. They may prefer a diverse group of underlying managers because the mix potentially reduces single-manager or style-correlation risk within a firm. It's also possible that open-architecture series may have broader access to specialized strategies or asset classes, a question not explored here.

Morningstar continues to consider open- and closed-architecture target-date series as equally valid investment options. Investors will arrive at a better investment decision if they thoroughly analyze the series' individual merits and characteristics, as they pertain to glide path, portfolio construction and quality, firm culture, expenses, and management skill and experience.

Price

In 2011, fees on target-date funds continued to decline, advancing an industry trend that Morningstar has observed in each of the past three years. Declining fees demonstrate both that target-date providers have taken advantage of economies of scale as assets in target-date funds have grown and that market pressures have forced firms to come up with cost-saving measures when those economies of scale do not exist, merely in order to compete. Cost pressures have increased not only due to competition among open-end mutual fund series, but some series have said they're losing market share to separate-account and collective-investment-trust options—private funds that tend to have much lower expenses.

Target-date series have trimmed their expense ratios through a variety of techniques, including the creation of new, lower-cost share classes, expansion of distribution within those cheaper share classes, implementation of lower-cost share classes for underlying funds, greater emphasis on lower-cost index options within portfolios, and temporary installment of fee caps and waivers.

In the Survey, Morningstar publishes two versions of cost rankings. The first, shown in Table 22, is based on the lowest-cost share class that captures at least 10% of total series assets and matches the methodology currently used in Morningstar's ratings for target-date series. The second, detailed in Table 23, uses an asset-weighted calculation to better represent the expenses borne by all shareholders in a series' funds.

By either metric, expenses declined last year. Average expenses by the lowest-cost share class method dropped by 3 basis points (0.03%), from 0.86% to 0.83%. That figure has dropped from our initial calculation of 0.91% in June 2009. Although those 8 basis points may not seem like a lot, they represent an aggregate savings to shareholders of some \$300 million-plus based on current target-date assets.

Asset-weighting expenses within each series, then averaging across the industry, shows a fee drop from 1.02% to 0.99%. When expenses are instead also asset-weighted across the industry (with the largest series receiving proportionally higher representation), expenses drop from 0.66% to 0.60%. (Keep in mind that the predominance on an AUM basis of Vanguard, Fidelity, and T. Rowe Price holds down the latter asset-weighted figure.) Perhaps more telling is the breadth of the fee decreases across the industry. Of the 40 target-date series tracked in the table, roughly three fourths saw expenses decline in 2011, either through direct lowering of fees or shifting of assets to lower-cost share classes.

Several firms dropped expenses by impressive amounts, including Allianz (by 0.20%), Nationwide (0.23%), PIMCO (0.21%), and Oppenheimer (0.14%). Less pronounced but still significant savings were achieved by several larger series, including TIAA-CREF, JP Morgan, Fidelity Advisor, Schwab, MassMutual, and Russell, among others.

Several series remain overpriced relative to the industry average. These are, typically, advisor-sold series that charge additional distribution or servicing fees to investors, though to be fair, the servicing fees for some other series may not be represented in their expense ratios. Many (though not all) of these series are also on the smaller side, so they lack efficiencies of scale. Still, it is disappointing that a number of the highest-cost series increased their fees in 2011, including Legg Mason Target Retirement, BlackRock Lifecycle Prepared, and Guidestone MyDestination funds.

Vanguard Target Retirement, at 0.18% annually, remains the best value proposition in the open-end target-date universe. Fidelity Freedom Index, 1 basis point behind, has accumulated \$3 billion in assets, while TIAA-CREF and BlackRock's index-based series trail slightly behind on an expense basis and much further on an asset basis. Several index-based series incur significantly higher expenses, including Wells Fargo, John Hancock Retirement, and American Independence NestEgg.

The most affordable actively managed series on an asset-weighted basis are TIAA-CREF (0.60%), Harbor (0.69%), Fidelity Freedom (0.70%), and USAA (0.70%), with Schwab and T. Rowe Price in the next tier. Note that while the rank order is directionally similar between the asset-weighted and lowest-cost methods, some series rank quite differently under each measure, owing in some cases to a greater percentage of assets in more-expensive share classes under the asset-weighted method.

Morningstar Refinements Ahead

Assessing target-date series on the basis of expenses has been challenging, in part because of the proliferation of retirement share classes and the different distribution models. Target-date providers that use advisors to sell to smaller plans, or who package servicing fees into their expense ratios, can with some justification complain when they are compared against firms that sell only to large plans or that may charge additional fees on an a la carte basis.

In the next six to 12 months, Morningstar anticipates making some changes to its Price rating methodology that will help create a more level playing field. Using the Morningstar Fee Level methodology recently adopted for individual mutual funds, Morningstar will evaluate each share class in a target-date series against similarly distributed peers, then roll up those fee rankings to the series level. As part of this change, Morningstar is adding three new Retirement share classes to its database, Retirement: Small, Retirement: Medium, and Retirement: Large, which will be defined by the funds' 12b-1 fee; smaller retirement plans usually pay higher 12b-1 fees, while large plans pay little or no 12b-1 fees. This revised Price methodology will be available later in the year.

22. Target-Date Series Expense Ratios by Lowest-Cost Method

Name	Average Expense Ratio %
Vanguard Target Retirement Series	0.18
TIAA-CREF Lifecycle Series	0.43
Wells Fargo Advantage DJ Target Date Series	0.50
USAA TARGET RETIREMENT FUNDS Series	0.57
Allianz Global Investors Solutions Series	0.64
Nationwide Target Destination Series	0.65
American Century LIVESTRONG Series	0.67
Fidelity Freedom Series	0.67
T. Rowe Price Retirement Series	0.70
Fidelity Advisor Freedom Series	0.71
AllianceBernstein Retirement Str Series	0.71
JPMorgan SmartRetirement Series	0.73
Columbia Retirement Plus Series	0.75
Schwab Target Series	0.76
Principal LifeTime Series	0.76
American Funds Trgt Date Rtrmt Series	0.77
Russell LifePoints Target Date Series	0.78
PIMCO RealRetirement Series	0.79
ING Index Solution Series	0.80
American Independence NestEgg Series	0.83
Goldman Sachs Retirement Str Series	0.83
ING Solution Series	0.84
BlackRock LifePath Series	0.85
Legg Mason Target Retirement Series	0.85
Massachusetts Mutual Life Insurance Co.	0.87
Manning & Napier Target Series	0.88
Hartford Target Retirement Series	0.90
Putnam RetirementReady Series	0.90
John Hancock Lifecycle Series	0.90
Vantagepoint Milestone Series	0.93
DWS LifeCompass Series	0.98
Invesco Balanced-Risk Retirement Series	0.99
State Farm Lifepath Series	1.03
MFS Lifetime Series	1.08
MainStay Retirement Series	1.15
Guidestone Funds MyDestination Series	1.21
Franklin Templeton Retirem Series	1.27
BlackRock Lifecycle Prepared Series	1.29
Oppenheimer LifeCycle Series	1.31
Industry Average	0.83

Data as of 12/31/11. Source: Morningstar, Inc.

23. Target-Date Series Asset-Weighted Average Expense Ratios

Name	Asset-Weighted Expense Ratio %	Assets in Industry %	Total Assets USD
Vanguard Target Retirement Series	0.18	32.4	91,339,963,067
TIAA-CREF Lifecycle Series	0.60	2.2	7,753,815,518
Wells Fargo Advantage DJ Target Date Series	0.62	3.1	10,801,173,164
Harbor Target Retirement Series	0.69	0.0	114,715,910
Fidelity Freedom Series	0.70	20.1	69,964,910,790
USAA TARGET RETIREMENT FUNDS Series	0.70	0.7	2,404,035,587
Schwab Target Series	0.75	0.4	1,288,955,627
T. Rowe Price Retirement Series	0.77	18.1	62,861,056,974
Columbia Retirement Plus Series	0.81	0.1	177,024,774
American Independence NestEgg Series	0.82	0.0	134,823,055
Allianz Global Investors Solutions Series	0.86	0.0	64,124,858
JPMorgan SmartRetirement Series	0.86	1.6	5,538,681,707
ING Index Solution Series	0.89	0.3	917,119,477
Principal LifeTime Series	0.91	5.0	17,221,201,833
American Century LIVESTRONG Series	0.91	1.3	4,476,039,971
John Hancock Lifecycle Series	0.91	1.5	5,069,281,707
Vantagepoint Milestone Series	0.93	0.6	2,027,587,752
BlackRock LifePath Series	0.93	1.1	3,689,422,954
Nationwide Target Destination Series	0.95	0.3	894,890,049
Russell LifePoints Target Date Series	0.96	0.2	826,644,282
American Funds Trgt Date Rtrmt Series	0.97	2.9	10,218,504,741
PIMCO RealRetirement Series	0.98	0.1	179,876,229
Fidelity Advisor Freedom Series	1.00	3.9	13,515,163,207
AllianceBernstein Retirement Str Series	1.00	0.5	1,729,617,824
MassMutual RetireSMART Series	1.03	0.3	1,068,871,378
Hartford Target Retirement Series	1.04	0.1	505,041,063
Putnam RetirementReady Series	1.12	0.1	204,423,003
Manning & Napier Target Series	1.12	0.1	376,749,845
DWS LifeCompass Series	1.16	0.2	529,379,460
Invesco Balanced-Risk Retirement Series	1.16	0.1	199,681,572
ING Solution Series	1.18	1.1	3,860,847,123
Goldman Sachs Retirement Str Series	1.21	0.0	62,190,501
Guidestone Funds MyDestination Series	1.21	0.2	837,771,373
MainStay Retirement Series	1.26	0.1	410,514,354
State Farm Lifepath Series	1.29	1.0	3,625,790,483

Continued on next page.

23. Target-Date Series Asset-Weighted Average Expense Ratios Continued

Name	Asset-Weighted Expense Ratio %	Assets in Industry %	Total Assets USD
MFS Lifetime Series	1.32	0.1	512,726,962
BlackRock Lifecycle Prepared Series	1.40	0.0	84,195,763
Franklin Templeton Retirem Series	1.44	0.0	160,252,346
Legg Mason Target Retirement Series	1.53	0.0	33,354,438
Oppenheimer LifeCycle Series	1.55	0.2	562,920,520
Average	0.99		326,243,341,241

Data as of 12/31/11. Source: Morningstar, Inc.

People

The list of individuals supporting a target-date series is usually a long one. To start, there often are a handful of named managers running the series of funds. These managers' primary responsibility is choosing and then monitoring the investments inside the target-date series. They are also often involved in making the broad asset-allocation or glide path decisions for the series. In some cases, the series managers also are charged with implementing tactical asset-allocation moves suggested by other specialists at the firm or the series managers' own research.

If the series uses a fund-of-funds structure, there is another layer of management to consider: The skippers of the series' underlying funds. The constituent funds' managers usually run their strategies without the broader target-date series in mind, but their contribution is critical to the target-date series' returns.

One way to quantitatively assess the managers contributing to the target-date series is through manager tenure. It stands to reason that long-tenured managers have been reasonably successful (otherwise they'd be out of a job), and fundholders would rather their assets be managed by someone with a strong, established record than an unknown newcomer.

Among the underlying funds used within the target-date funds, the managers tend not to be newcomers (see Table 24). Average manager tenure of the funds used inside the target-date series was 5.25 years on Dec. 31, 2011. That's down slightly from year-end 2010's average of 5.4 years. Among the series where average manager tenure of the underlying funds declined over the 12-month period were Fidelity Freedom (3.04 in 2011; 3.44 in 2010), ING Index Solution Series (2.67 in 2011; 2.81 in 2010), ING Solution Series (3.43 in 2011; 3.96 in 2010), Oppenheimer LifeCycle (4.72 years in 2011; 4.98 in 2010), Russell LifePoints Target Date (3.01 years in 2011; 4.59 years in 2010), TIAA-CREF (4.17 years in 2011; 4.25 years

in 2010), and Vanguard Target Retirement (7.22 years in 2011; 9.53 years in 2010). In some cases, there were management changes on the underlying funds (Russell, for example), but in other cases, the series swapped funds, and the new underlying funds were run by managers with less time on the job.

Meanwhile, the target-date managers tend to be less experienced than the managers of the underlying funds in the series, but those figures have improved. The average manager tenure for target-date series skippers has increased to 4.9 years on Dec. 31, 2011, from 4.3 years at year-end 2010. It's not too surprising that the target-date managers are less experienced, on average, than underlying funds' managers given that many series are less than five years old. Meanwhile, the series managers have some incentive to seed their target-date funds with offerings run by seasoned managers—preferably with good track records. The series with relatively lengthy average manager tenure are also some of the industry's older series, namely Fidelity Freedom and Vanguard Target Retirement. The longest tenure belongs to DWS LifeCompass, which has turned in poor relative returns and illustrates that long tenure doesn't always lead to superior results.

It can be helpful to compare the target-date series and underlying funds' average manager tenure with the average manager tenure at the firm offering the funds. In many cases, there's consistency between the average manager tenure of the series' underlying funds and the firmwide average. At American Funds and Franklin Templeton, the long tenure at the target-date series' underlying funds isn't a fluke—manager tenure at the firms is similarly long, if not longer. This suggests that managers at those firms are likely to stick around, and there may be less manager turnover at the funds over longer-term periods.

If average manager tenure for the series' underlying funds is lower than the firm's average tenure, that could be a sign that the target-date series is featuring some newer offerings launched specifically for the target-date series. This is the case at the Fidelity and American Century series, for example. Tenure also may be understated at firms

24. Average Manager Tenure of Underlying Funds, Series and Firm by Target-Date Series

Series Name	Average Manager Tenure, Years		Longest Manager Tenure, Years			
	Series Underlying Funds'	Series	Firm (Longest)	Series Underlying Funds'	Series	Firm, Asset-Weighted
AllianceBernstein Retirement Str Series	N/A	5.16	8.10	N/A	6.44	10.30
Allianz Global Investors Solutions Series	5.47	2.42	5.50	24.75	3.11	13.10
American Century LIVESTRONG Series	4.45	4.94	6.80	10.19	7.44	9.60
American Funds Trgt Date Rtrmt Series	11.25	3.61	15.90	40.86	5.02	24.20
BlackRock Lifecycle Prepared Series	5.50	4.80	5.10	23.01	4.81	13.20
BlackRock LifePath Series	4.54	7.07	5.10	12.52	17.94	13.20
Columbia Retirement Plus Series	6.17	3.12	5.40	36.34	5.73	10.00
DWS LifeCompass Series	4.06	12.87	6.60	14.61	15.23	9.10
Fidelity Advisor Freedom Series	2.76	5.53	4.10	6.36	8.55	7.40
Fidelity Freedom Series	3.04	8.51	4.10	15.10	15.31	7.40
Franklin Templeton Retirem Series	9.94	3.15	14.00	46.94	5.52	21.50
Goldman Sachs Retirement Str Series	5.61	3.22	5.40	16.11	4.43	8.50
Guidestone Funds MyDestination Series	4.71	3.89	7.60	10.45	5.11	9.20
Hartford Target Retirement Series	5.01	4.72	5.80	15.55	6.36	9.80
ING Index Solution Series	2.67	3.56	4.40	4.20	3.92	5.30
ING Solution Series	3.43	5.78	4.40	12.94	6.78	5.30
Invesco Balanced-Risk Retirement Series	3.39	2.87	5.70	5.15	5.02	8.40
John Hancock Lifecycle Series	4.00	3.86	5.80	6.94	5.28	6.00
JPMorgan SmartRetirement Series	5.67	4.42	7.00	20.19	5.74	10.10
Legg Mason Target Retirement Series	7.46	1.57	7.70	29.82	3.44	11.90
MainStay Retirement Series	6.16	3.74	6.40	25.10	4.61	8.50
Manning & Napier Target Series	10.81	3.10	9.00	19.11	3.87	13.70
Massachusetts Mutual Life Insurance Co.	5.26	5.41	5.90	17.36	8.11	7.40
MFS Lifetime Series	5.53	6.36	7.70	14.33	6.36	9.30
Nationwide Target Destination Series	1.78	4.45	5.50	7.02	4.45	5.60
NestEgg Dow Jones Series	4.52	3.25	2.80	8.69	13.10	5.70
Oppenheimer LifeCycle Series	4.72	4.06	5.80	15.87	5.15	8.20
PIMCO RealRetirement Series	4.67	3.71	4.90	24.75	3.86	15.50
Principal LifeTime Series	3.60	5.61	5.50	11.17	10.94	6.30
Putnam RetirementReady Series	5.82	4.44	6.20	9.69	7.27	7.10
Russell LifePoints Target Date Series	3.01	7.10	1.50	15.52	7.10	2.80
Schwab Target Series	6.36	4.62	5.00	24.75	6.61	7.20
State Farm Lifepath Series	3.22	5.32	8.60	8.18	8.75	12.50
T. Rowe Price Retirement Series	8.53	6.36	7.50	20.44	9.36	10.30
TIAA-CREF Lifecycle Series	4.17	6.18	4.90	12.61	7.32	6.50
USAA TARGET RETIREMENT FUNDS Series	5.37	3.19	6.60	18.10	3.52	8.40
Vanguard Target Retirement Series	7.22	8.28	6.80	17.11	8.28	11.30
Vantagepoint Milestone Series	4.80	6.47	7.10	12.44	7.10	7.90
Wells Fargo Advantage DJ Target Date Series	N/A	4.98	7.40	N/A	5.11	9.00
Target-Date Industry Average	5.26	4.92	6.40	17.14	6.97	9.66

Source: Morningstar, Inc. Fund tenures as of 12/31/11; Firm tenures as of 3/31/12.



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25. Series Average Manager Tenure, Firm-Wide Manager Retention Rates, and Asset-Weighted, Average Risk-Adjusted Returns

Fund Firm	Series Name	Series Average Manager Tenure, Years	5-Year Firm-Wide Manager Retention Rate %	Asset-Weighted 3-Yr Target-Date Series MRAR %
DWS Investments	DWS LifeCompass Series	8.73	81.74	8.63
T. Rowe Price	T. Rowe Price Retirement Series	8.33	94.64	11.83
MFS	MFS Lifetime Series	6.53	86.40	11.29
Vanguard	Vanguard Target Retirement Series	6.42	92.12	9.51
Vantagepoint Funds	Vantagepoint Milestone Series	6.06	90.55	8.99
TIAA-CREF Mutual Funds	TIAA-CREF Lifecycle Series	6.03	86.28	9.16
Wells Fargo Advantage	Wells Fargo Advantage DJ Target Date Series	5.28	90.94	9.60
Principal Funds	Principal LifeTime Series	5.20	88.38	10.00
AllianceBernstein	AllianceBernstein Retirement Str Series	4.99	88.23	8.82
BlackRock	BlackRock Lifecycle Prepared Series	4.98	84.70	9.81
Hartford Mutual Funds	Hartford Target Retirement Series	4.87	87.15	10.63
MassMutual	MassMutual RetireSMART Series	4.81	87.28	10.24
ING Retirement Funds	ING Solution Series	4.63	87.95	8.41
Nationwide	Nationwide Target Destination Series	4.62	88.90	8.13
JP Morgan	JPMorgan SmartRetirement Series	4.59	85.37	10.74
Putnam	Putnam RetirementReady Series	4.31	81.92	10.31
American Funds	American Funds Trgt Date Rtrmt Series	4.30	98.71	10.04
American Century Investments	American Century LIVESTRONG Series	4.11	87.17	9.98
BlackRock	BlackRock LifePath Series	4.07	84.70	8.96
GuideStone Funds	Guidestone Funds MyDestination Series	4.06	89.77	10.64
State Farm	State Farm Lifepath Series	4.05	86.98	8.72
PIMCO	PIMCO RealRetirement Series	3.73	88.18	11.60
Fidelity Investments	Fidelity Advisor Freedom Series	3.71	85.59	10.48
Manning & Napier	Manning & Napier Target Series	3.71	95.94	9.45
ING Retirement Funds	ING Index Solution Series	3.61	87.95	6.99
Fidelity Investments	Fidelity Freedom Series	3.51	85.59	9.84
John Hancock	John Hancock Lifecycle Series	3.43	88.66	10.83
Franklin Templeton	Franklin Templeton Retirement Series	3.32	94.17	11.35
USAA	USAA TARGET RETIREMENT FUNDS Series	3.20	90.30	11.37
MainStay	MainStay Retirement Series	3.03	83.86	9.39
Goldman Sachs	Goldman Sachs Retirement Strategy Series	2.69	81.30	6.96
Invesco	Invesco Balanced-Risk Retirement Series	2.61	81.08	13.31
Allianz Funds	Allianz Global Investors Solutions Serie	2.59	84.00	11.21
OppenheimerFunds	Oppenheimer LifeCycle Series	2.48	88.86	9.47
American Independence	American Independence NestEgg Series	2.45	74.16	7.04
Legg Mason/Western	Legg Mason Target Retirement Series	1.96	87.52	9.22
Russell	Russell LifePoints Target Date Series	1.78	82.72	10.06
Columbia	Columbia Retirement Plus Series	1.69	84.90	7.55
Schwab Funds	Schwab Target Series	1.27	89.57	9.78

Source: Morningstar, Inc. Data as of 12/31/11

that hire experienced subadvisors to run portions of their target-date series. At ING and John Hancock, which both include subadvised funds in their target-date series, the subadvisor may be a newcomer to an underlying fund, but the managers probably have long track records elsewhere.

Average manager tenure can tell you whether a team is experienced overall, but longest manager tenure reveals the individual manager(s) who served the fund for the longest period. These data highlight whether veteran managers are among a broader team. Also instructive are the asset-weighted firmwide average manager tenures. This number is often higher than the firm's straight average manager tenure because the firm's largest funds are usually among its most successful. PIMCO's asset-weighted firmwide average manager tenure is more than 3 times higher than the firm's straight average manager tenure due in large part to manager Bill Gross' long stint on PIMCO Total Return, the firm's largest fund by far.

Tenure and Returns

One might assume that series run by longer-tenured managers have delivered better risk-adjusted returns, since managers who don't perform well are often replaced. But as Table 15 illustrates, that hasn't been the case in the target-date industry over the past three years. Series with manager tenure in the industry's top half averaged 5.41 years of experience, and put up an asset-weighted average three-year Morningstar Risk Adjusted Return of 9.74%. Meanwhile, the industry's less-experienced managers, with 2.94 years on the job, posted an equivalent three-year asset-weighted MRAR of 9.76%.

There also was little relationship between the series' average manager tenure and the five-year firmwide manager retention rate, which measures whether managers have stayed in the roles from year to year. DWS LifeCompass has had its management team on board for an industry-leading 8.73 years even though the fund company's five-year manager retention rate is relatively low at 81.74%.

These results are likely affected by the relative youth of target-date series. Some firms with the longest firmwide manager retention rates and tenure overall, such as the

American Funds, offer target-date series that are relatively new. Looking out further, however, it's not clear whether average manager tenure for target-date funds is going to rise significantly as it's also near the mutual-fund industry average.

Investing With Fundholders

Another way of quantitatively evaluating target-date managers is through their investments in the funds they run. In two separate 2011 studies, Morningstar found a correlation between managers who invested substantial sums in their funds and superior relative fund performance.

Unfortunately, manager ownership of target-date shares is low overall. Of the 38 series listed below in Table 26, the managers of 18 have zero dollars invested alongside shareholders of the target-date series. That's not out of step with broader fund-industry trends: Most fund managers don't invest a dime in the mutual funds they run. But given the importance and growing prominence of target-date funds as the primary retirement-savings tool in defined contribution savings plans, this low co-investment is disappointing.

Across the industry, just one manager—Hans Erickson of TIAA-CREF Lifecycle—meets the highest industry standard for manager investment, owning shares worth more than \$1 million. One other manager, Jerome Clark of T. Rowe Price Retirement, may be reasonably close to that sum. He owns shares in two of the funds, with one investment valued between \$500,000 and \$1 million while the other is worth between \$10,000 and \$50,000.

In some cases, the funds' managers can't buy shares of their funds. The funds may only be for sale through retirement plans and aren't featured in the retirement plan of the managers' employer. Other fund managers who can't buy in are those who reside outside the U.S., like Steve Orlich of John Hancock Lifecycle. But these reasonable explanations for no investment are few and far between. Most managers could make at least a token investment but haven't.

26. Target-Date Series Managers' Ownership of Series' Fund Shares

Series Name	Manager Name	Series Ownership Level
AllianceBernstein Retirement Strat	Seth J. Masters, Thomas J. Fontaine, Christopher Nikolich, Patrick Rudden, Dokyoung Lee	\$0
Allianz Global Investors Solu	Stephen C. Sexauer, Paul Pietranico, James Macey	\$0
American Century LIVESTRONG	Enrique Chang	\$500,001–\$1 million
	Scott Wittman, Scott Wilson, Richard A. Weiss, Irina Torelli	\$100,001–\$500,000
American Funds Trgt Date Ret	James B. Lovelace, John H. Smet, Alan N. Berro, Wesley K.-S. Phoa, Nicholas J. Grace	\$100,001–\$500,000
	Bradley J. Vogt	\$10,001–\$50,000
American Indep NestEgg	T. Kirkham Barneby, Robert S. Natale, Dixon Morgan, Jeffrey A Miller, Jeffrey Miller	\$0
BlackRock Lifecycle Prepared	Philip Green	\$0
BlackRock LifePath	Dagmar Nikles, Leslie Gambon, Alan Mason, Amy Whitelaw	\$0
BlackRock Lifepath Index	Leslie Gambon, Alan Mason, Amy Whitelaw	\$0
Columbia Retirement Plus	Kent M. Bergene	\$50,001–\$100,000
	Anwiti Bahuguna, Todd A. White, Kent M. Peterson	\$0
DWS LifeCompass	Inna Okounkova	\$10,001–\$50,000
	Robert Y. Wang	\$1–\$10,000
Fidelity Advisor Freedom	Chris Sharpe, Andrew Dierdorf	\$0
Fidelity Freedom	Andrew Dierdorf	\$100,001–\$500,000
	Chris Sharpe	\$1–\$10,000
Fidelity Freedom Index	Andrew Dierdorf	\$1–\$10,000
	Chris Sharpe	\$0
Franklin TempletonRetire Trgt	Thomas Nelson, T. Anthony Coffey	\$0
GuideStone Funds MyDestination	Rodric E. Cummins, Matt L. Peden, Ronald C. Dugan	\$0
Hartford Target Retirement	Edward C. Caputo;	\$10,001–\$50,000
	Paul Bukowski	\$1–\$10,000
ING Index Solution	Paul Zemsky, William A. Evans	\$0
	Heather Hackett	\$10,001–\$50,000
ING Solution	Paul Zemsky	\$100,001–\$500,000
	Paul Zemsky, Heather Hackett, William A. Evans	\$50,001–\$100,000
Invesco Balanced-Risk Retire	Mark Ahnrud, Scott Hixon, Scott Wolle, Chris W. Devine, Christian Ulrich	\$0
JHancock2 Lifecycle	Steve Orlich	\$0
	Bob Boyda	\$50,001–\$100,000
	Steve Medina	\$100,001–\$500,000
JPMorgan SmartRetirement	Anne Lester	\$500,001–\$1 million
	Patrik Jakobson, Michael Schoenhaut, Jeffrey A. Geller, Daniel Oldroyd	\$0
Legg Mason Target Retirement	Andrew Purdy, Stephen A. Walsh, Y. Wayne Lin, Prashant Chandran	\$0
	Steven D. Bleiberg	\$100,001–\$500,000

Continued on next page.

26. Target-Date Series Managers' Ownership of Series' Fund Shares Continued

Series Name	Manager Name	Series Ownership Level
MainStay Retirement	Jonathan B. Swaney, Jae Yoon	\$0
Manning & Napier Target	Christian A. Andreach, Jeffrey W. Donlon, Brian P. Gambill, Jeffrey A. Herrmann, Michael J. Magiera, Marc D. Tommasi, Jack W. Bauer, Brian W. Lester, Virge J. Trotter, III, Ebrahim Busheri, Jeffrey S. Coons, Christopher F. Petrosino	\$0
MassMutual RetireSMART	Bruce Picard Jr., Frederick Schultiz, Michael Eldredge	\$0
MFS Lifetime	Joseph C. Flaherty Jr.	\$100,001–\$500,000
Nationwide Destination	Thomas R. Hickey, Jr.	\$50,001–\$100,000
Oppenheimer Transition	Alan C. Gilston	\$10,001–\$50,000
	Krishna K. Memani	\$0
PIMCO RealRetirement	Vineer Bhansali	\$0
Principal LifeTime	Jeffrey R. Tyler	\$1–\$10,000
	Dirk Laschanky, David Blake, Randy L. Welch, James Fennessey	\$0
Putnam RetirementReady	Jeffrey L. Knight	\$100,001–\$500,000
	Robert J. Kea, Robert J. Schoen, Joshua Kutin	\$0
Russell LifePoints	Michael R. Ruff, Dagmar Nikles, Leslie Gambon, Alan Mason, Amy Whitelaw	\$0
T. Rowe Price Retirement	Jerome A. Clark	\$500,001–\$1 million
	Jerome A. Clark	\$10,001–\$50,000
TIAA-CREF Lifecycle	Hans L. Erickson	More than \$1 million
	John Cunniff	\$100,001–\$500,000
	Pablo Mitchell	\$0
TIAA-CREF Lifecycle Index	Hans L. Erickson, John Cunniff, Pablo Mitchell	\$0
Schwab Target	Zifan Tang	\$0
Vanguard Target Retirement	Duane F. Kelly	\$0
Vantagepoint Milestone	Wayne Wicker, David J. Braverman, Lee Trenum	\$100,001–\$500,000
Wells Fargo Advantage DJ Target	Rodney H. Alldredge	\$10,001–\$50,000
	James P. Lauder, Paul T. Torregrosa	\$50,001–\$100,000

Source: Morningstar Inc.

Rewarding Long-Term Performance

Another way to determine whether a fund manager's own financial incentives are aligned with fundholders' is to examine the criteria that determine his or her annual bonus, which typically is the bulk of a manager's annual compensation. An industry best-practice is to pay managers primarily based on their ability to deliver strong long-term returns for fund investors.

Among target-date series managers, it's common for fund performance measures to be included in the bonus criteria. To analyze fund managers' bonus criteria,

Morningstar analysts study the description of the pay-plan criteria listed in the funds' annual Statement of Additional Information, a form filed annually with the Securities and Exchange Commission. For this analysis, Morningstar defines long-term performance as periods of at least four years.

Nineteen of the 22 series that receive Morningstar Target-Date Series Ratings say that fund performance determines managers' pay, but only seven series indicate that superior long-term performance is the main driver behind the size of the manager's annual bonus.

27. Main Criteria of Pay Plans

Long-term Performance

American Century LIVESTRONG Series	JPMorgan SmartRetirement Series
American Funds Trgt Date Rtrmt Series	T. Rowe Price Retirement Series
DWS LifeCompass Series	Vanguard Target Retirement Series
ING Solution Series	

Short-term Performance

Blackrock LifePath Series	Principal LifeTime Series
Fidelity Advisor Freedom Series	Putnam RetirementReady Series
Fidelity Freedom Series	Schwab Target Series
John Hancock Lifecycle Series	State Farm LifePath
MFS Lifetime Series	TIAA-CREF Lifecycle Series
Oppenheimer LifeCycle Series	Vantagepoint Milestone Series

Gathering Assets or Criterion Unclear

AllianceBernstein Retirement Str Series	Wells Fargo Advantage DJ Target Date Series
Massachusetts Mutual Life Insurance Co.	

Data as of 12/31/11. Source: Morningstar, Inc.

28. Target-Date Industry's Average Changes to Underlying Fund Assets

Portfolio Date	Change in Underlying Fund Assets Over Past 3 Years, %		
	Increase	Decrease	Total
12/31/09	18.23	13.64	31.87
12/31/10	16.78	14.34	31.12
12/31/11	17.67	15.75	33.42
3-Year Average	17.56	14.61	32.16

Data as of 12/31/11. Source: Morningstar, Inc.

Tweaking the Portfolios

It's important to have confidence in the management team behind a target-date series because the managers don't sit on their hands. Rather, target-date managers have swapped nearly a third of the underlying fund assets in and out of the series in each of the past three years (see Table 28). Some of this change may be due to rebalancing—keeping funds' assets in line with the strategic benchmark. But it also is a function of target-date funds maturing as an investment tool. Managers' thinking on asset allocation and fund selection has evolved based on market movements, new underlying offerings, cost pressures, and a post-2008 desire to limit the series' volatility—especially in the years just before and after the retirement date.

Whatever the reason for the changes, they certainly impact performance, whether it's an overhaul of the entire portfolio (which was behind the BlackRock Lifecycle Prepared and Invesco Balanced-Risk series' high average turnover rates, for example) or smaller adjustments to fund selection. (Vanguard's high rate of change stemmed from its move from more-narrow index funds to a handful of very broadly diversified ones.) Table 29 illustrates the percentage of underlying fund assets moving in and out of individual target-date series, on average, over the past three years.

29. Target-Date Series' Average Changes to Underlying Fund Assets

Target-Date Series Name	Change in Underlying Fund Assets Over Past 3 Years, %		
	Increase	Decrease	Total
Allianz Global Investors Solutions Series	25.47	14.82	40.29
American Century LIVESTRONG Series	12.15	7.52	19.67
American Funds Trgt Date Rtrmt Series	2.20	1.62	3.82
American Independence NestEgg Series	30.99	64.79	95.78
BlackRock Lifecycle Prepared Series	31.43	24.96	56.39
BlackRock LifePath Series	14.37	14.37	28.74
Columbia Retirement Plus Series	30.44	2.02	32.46
DWS LifeCompass Series	6.39	19.39	25.78
Fidelity Advisor Freedom Series	14.90	12.40	27.30
Fidelity Freedom Series	13.97	18.76	32.73
Franklin Templeton Retirement Series	21.13	6.70	27.83
Goldman Sachs Retirement Strategy Series	9.34	7.19	16.53
Guidestone Funds MyDestination Series	24.81	20.72	45.53
Hartford Target Retirement Series	16.63	8.40	25.02
ING Index Solution Series	25.03	13.05	38.08
ING Solution Series	20.36	17.29	37.64
Invesco Balanced-Risk Retirement Series	32.44	60.09	92.53
John Hancock Lifecycle Series	17.77	7.80	25.57
JPMorgan SmartRetirement Series	24.98	18.97	43.95
Legg Mason Target Retirement Series	3.19	1.00	4.19
MainStay Retirement Series	15.23	16.62	31.85
Manning & Napier Target Series	5.56	0.00	5.56
MassMutual RetireSMART Series	4.49	5.55	10.04
MFS Lifetime Series	26.49	6.35	32.84
Nationwide Target Destination Series	9.58	14.03	23.61
Oppenheimer LifeCycle Series	26.87	19.80	46.67
PIMCO RealRetirement Series	38.24	20.30	58.54
Principal LifeTime Series	9.95	9.83	19.79
Putnam RetirementReady Series	14.30	25.11	39.41
Russell LifePoints Target Date Series	4.77	0.00	4.77
Schwab Target Series	19.66	14.60	34.26
State Farm Lifepath Series	4.77	7.13	11.90
T. Rowe Price Retirement Series	5.37	3.81	9.18
TIAA-CREF Lifecycle Series	6.87	3.21	10.09
USAA TARGET RETIREMENT FUNDS Series	1.91	0.22	2.13
Vanguard Target Retirement Series	41.66	33.78	75.44
Vantagepoint Milestone Series	2.02	0.44	2.46

Data as of 12/31/11. Source: Morningstar, Inc.

30. Series' Firm Average Fee Level Percentiles, Five-Year Manager Retention Rates, and Assets with \$1 Million in Manager Investment

Series Name	Firm Name	Firm Average Fee Level Percentile	Firm Five-Year Manager Retention Rate %	Firm Fund Assets With Manager Investment More Than \$1 Million %
AllianceBernstein Retirement	AllianceBernstein	47.00	87.20	6.01
Allianz Global Investors Solu	Allianz Funds	57.00	93.24	4.34
American Century LIVESTRONG	American Century Investments	45.00	87.97	0.00
American Funds Trgt Date Ret	American Funds	19.00	97.60	95.95
American Indep NestEgg	American Independence	57.00	75.84	0.00
BlackRock Lifecycle Prepared	BlackRock	48.00	88.58	53.83
BlackRock LifePath	BlackRock	48.00	88.58	53.83
BlackRock Lifepath Index	BlackRock	48.00	88.58	53.83
Columbia Retirement Plus	Columbia	43.00	83.78	31.42
DWS LifeCompass	DWS Investments	53.00	81.66	0.00
Fidelity Advisor Freedom	Fidelity Investments	34.00	87.66	44.24
Fidelity Freedom	Fidelity Investments	34.00	87.66	44.24
Fidelity Freedom Index	Fidelity Investments	34.00	87.66	44.24
Franklin Templeton Retire Trgt	Franklin Templeton Investment Funds	30.00	94.17	52.36
GuideStone Funds MyDestination	GuideStone Funds	45.00	84.89	0.00
Hartford Target Retirement	Hartford Mutual Funds	42.00	92.18	41.26
ING Index Solution	ING Retirement Funds	25.00	89.17	NA
ING Solution	ING Retirement Funds	25.00	89.17	NA
Invesco Balanced-Risk Retire	Invesco	40.00	81.08	39.51
John Hancock Lifecycle	John Hancock	46.00	92.04	10.21
JPMorgan SmartRetirement	JP Morgan	37.00	92.40	21.79
Legg Mason Target Retirement	Legg Mason/Western	50.00	91.86	15.78
MainStay Retirement	MainStay	65.00	84.94	49.99
Manning & Napier Target	Manning & Napier	52.00	95.65	0.00
MassMutual RetireSMART	MassMutual	52.00	87.13	3.57
MFS Lifetime Retirement	MFS	47.00	92.37	36.50
Nationwide Destination	Nationwide	26.00	83.33	0.00
Oppenheimer Transition	OppenheimerFunds	56.00	85.59	29.05
PIMCO RealRetirement	PIMCO	51.00	88.18	57.78
Principal LifeTime	Principal Funds	38.00	88.19	0.00

Continued on next page.

30. Series' Firm Average Fee Level Percentiles, Five-Year Manager Retention Rates, and Assets with \$1 Million in Manager Investment Contd.

Series Name	Firm Name	Firm Average Fee Level Percentile	Firm Five-Year Manager Retention Rate %	Firm Fund Assets With Manager Investment More Than \$1 Million %
Putnam RetirementReady	Putnam	50.00	83.65	22.01
Russell LifePoints	Russell	56.00	86.22	0.00
State Farm LifePath	State Farm	36.00	87.74	0.00
T. Rowe Price Retirement	T. Rowe Price	31.00	92.69	38.17
TIAA-CREF Lifecycle	TIAA-CREF Mutual Funds	12.00	85.65	6.18
TIAA-CREF Lifecycle Index	TIAA-CREF Mutual Funds	12.00	85.65	6.18
Schwab Target	Schwab Funds	31.00	87.23	0.00
Vanguard Target Retirement	Vanguard	3.00	92.12	13.37
Vantagepoint Milestone	Vantagepoint Funds	35.00	86.97	0.00
Wells Fargo Advantage DJ Target	Wells Fargo Advantage	51.00	90.61	8.16
Target-Date Industry Average		40.28	88.17	23.26

Data as of 12/31/11. Source: Morningstar, Inc.

31. Average Overall Morningstar Rating, Morningstar Success Ratios and Morningstar Risk-Adjusted Success Ratios

Series Name	Firm Name	Firm Average Overall Morningstar Rating, Stars	Firm Morningstar Success Ratio %			Firm Morningstar Risk-Adjusted Success Ratio %		
			3-Year	5-Year	10-Year	3-Year	5-Year	10-Year
AllianceBernstein Retirement	AllianceBernstein	2.33	44.00	24.00	28.00	40.00	18.00	21.00
Allianz Global Investors Solu	Allianz Funds	2.72	33.00	29.00	27.00	33.00	25.00	24.00
American Century LIVESTRONG	American Century Investments	3.05	27.00	46.00	39.00	30.00	43.00	39.00
American Funds Trgt Date Ret	American Funds	3.14	40.00	48.00	66.00	47.00	47.00	68.00
American Indep NestEgg	American Independence	2.58	7.00	28.00	33.00	5.00	37.00	44.00
BlackRock Lifecycle Prepared	BlackRock	2.98	33.00	35.00	23.00	31.00	31.00	21.00
BlackRock LifePath	BlackRock	2.98	33.00	35.00	23.00	31.00	31.00	21.00
BlackRock Lifepath Index	BlackRock	2.98	33.00	35.00	23.00	31.00	31.00	21.00
Columbia Retirement Plus	Columbia	2.93	28.00	26.00	16.00	24.00	22.00	15.00
DWS LifeCompass	DWS Investments	2.51	30.00	23.00	14.00	29.00	23.00	16.00
Fidelity Advisor Freedom	Fidelity Investments	2.86	59.00	43.00	44.00	50.00	30.00	32.00
Fidelity Freedom	Fidelity Investments	2.86	59.00	43.00	44.00	50.00	30.00	32.00
Fidelity Freedom Index	Fidelity Investments	2.86	59.00	43.00	44.00	50.00	30.00	32.00
Franklin Templeton Retire Trgt	Franklin Templeton Investment Funds	3.19	40.00	52.00	56.00	42.00	50.00	52.00
GuideStone Funds MyDestination	GuideStone Funds	3.39	58.00	43.00	44.00	60.00	34.00	44.00
Hartford Target Retirement	Hartford Mutual Funds	2.99	47.00	37.00	35.00	43.00	27.00	30.00
ING Index Solution	ING Retirement Funds	3.04	36.00	30.00	19.00	41.00	32.00	20.00
ING Solution	ING Retirement Funds	3.04	36.00	30.00	19.00	41.00	32.00	20.00
Invesco Balanced-Risk Retire	Invesco	3.11	30.00	32.00	20.00	29.00	30.00	22.00
John Hancock Lifecycle	John Hancock	3.13	43.00	35.00	31.00	42.00	29.00	28.00
JPMorgan SmartRetirement	JP Morgan	3.09	50.00	44.00	31.00	43.00	38.00	27.00
Legg Mason Target Retirement	Legg Mason/Western	2.99	56.00	34.00	16.00	51.00	31.00	15.00
MainStay Retirement	MainStay	2.77	27.00	40.00	22.00	20.00	41.00	20.00
Manning & Napier Target	Manning & Napier	2.56	14.00	79.00	83.00	19.00	71.00	67.00
MassMutual RetireSMART	MassMutual	2.89	52.00	44.00	49.00	48.00	36.00	44.00
MFS Lifetime Retirement	MFS	3.42	63.00	56.00	44.00	61.00	52.00	42.00
Nationwide Destination	Nationwide	2.44	20.00	20.00	25.00	14.00	25.00	20.00
Oppenheimer Transition	OppenheimerFunds	2.75	57.00	23.00	33.00	54.00	18.00	27.00
PIMCO RealRetirement	PIMCO	3.37	64.00	76.00	50.00	63.00	68.00	43.00

Continued on next page.

31. Average Overall Morningstar Rating, Morningstar Success Ratios and Morningstar Risk-Adjusted Success Ratios

Series Name	Firm Name	Firm Average Overall Morningstar Rating, Stars	Firm Morningstar Success Ratio %			Firm Morningstar Risk-Adjusted Success Ratio %		
			3-Year	5-Year	10-Year	3-Year	5-Year	10-Year
Principal LifeTime	Principal Funds	3.08	44.00	31.00	30.00	43.00	29.00	31.00
Putnam RetirementReady	Putnam	2.41	51.00	28.00	22.00	40.00	20.00	16.00
Russell LifePoints	Russell	2.96	69.00	25.00	24.00	66.00	20.00	21.00
State Farm LifePath	State Farm	2.38	17.00	21.00	20.00	14.00	18.00	18.00
T. Rowe Price Retirement	T. Rowe Price	3.68	77.00	83.00	77.00	80.00	77.00	76.00
TIAA-CREF Lifecycle	TIAA-CREF Mutual Funds	3.26	66.00	53.00	31.00	75.00	52.00	25.00
TIAA-CREF Lifecycle Index	TIAA-CREF Mutual Funds	3.26	66.00	53.00	31.00	75.00	52.00	25.00
Schwab Target	Schwab Funds	3.20	28.00	28.00	43.00	33.00	32.00	37.00
Vanguard Target Retirement	Vanguard	3.64	69.00	74.00	77.00	73.00	76.00	75.00
Vantagepoint Milestone	Vantagepoint Funds	3.24	47.00	70.00	50.00	44.00	77.00	45.00
Wells Fargo Advantage DJ Target	Wells Fargo Advantage	3.05	38.00	39.00	31.00	35.00	35.00	29.00
Target-Date Industry Average		2.98	43.75	40.95	35.93	42.50	37.50	32.63

Data as of 12/31/11. Source: Morningstar, Inc.

Parent

An investment in a target-date series will likely be a decades-long commitment, as most target-date investors have thus far proven to stay put in the series, regardless of market conditions. As such, it's important to partner with a series that's offered by a fund firm that's a good steward of capital. Morningstar refers to the target-date advisor as the series' parent, and it examines its stewardship practices and assigns a Parent rating as part of the methodology for the Morningstar Target-Date Series Ratings, which are assigned to 22 series quarterly.

Studying target-date series' parents requires qualitative research into the firm's corporate culture, governance practices, and regulatory history, but Morningstar has introduced a new set of firmwide data that make it easier to measure all target-date series' parents on more objective counts. Specifically, Morningstar can compare average Morningstar Fee Level percentile rankings across the fund share classes at the firm to determine whether the firm's funds overall are good value propositions. This measure ranks funds by strategy as well as share class type, or distribution channel, with all front-load share classes in one peer group, investor share classes in another, and so forth.

Another firm-level data point establishes how often fund managers leave the firm, which is captured through the firm's five-year manager retention rate. This data point can indicate whether a firm's investment team—and in turn, their investment process—is stable or in flux. (The five-year manager retention rate stems from an annual measure, where Morningstar compares all of the managers named to funds at the firm on Dec. 31 of a given year to the same list one calendar year later. The five-year average captures those annual rates over a longer period to keep departures in context.)

The firmwide data also include the percentage of the firm's fund assets that are run by at least one manager

with more than \$1 million invested in fund shares. Table 26, in the People section of this paper, details the target-date managers' investments in the series they run, but the firm data show whether manager ownership of fund shares is common across the firm. Morningstar has found that manager ownership of fund shares tends to be cultural by firm—managers either make big investments in their funds or they don't—and the firmwide measure indicates whether the firm's managers largely have their own financial incentives aligned with fundholders'. Table 30 shows how the industry's target-date series' parents compare on fees, manager retention, and manager investment.

On average, the firms offering target-date series have fairly priced funds. The industry's firm average Morningstar Fee Level Percentile is 40, meaning the share classes are below their peer-group averages. Meanwhile, the target-date industry average firm five-year manager retention rate is 88%. Morningstar has found that relatively stable investment organizations usually have five-year manager retention rates that are greater than 90%, so target-date firms as a group don't meet the highest standards of manager retention. As for the percentage of firm assets with more than \$1 million in manager investment, the industry average is 23%.

The target-date series' parent firm that looks especially strong across these three measures is American Funds, with an average firm fee level percentile of 19, a five-year manager retention rate of 98%, and the percentage of firm fund assets in an offering with more than \$1 million invested at 96%. Franklin Templeton also exceeds the industry averages on all three marks, but the data aren't nearly as strong as the American Funds'.

It's more common for the series to look strong on two of the three measures. For example, Vanguard is the fee leader with an average Morningstar Fee Level Percentile of 3, a five-year manager retention rate of 92%, but weaker manager investment, with 13% of fund assets having manager investment of more than \$1 million. Among the firms that are lagging across all three measures are AllianceBernstein, DWS, MassMutual, and Russell.

Measuring Firm Performance

Morningstar also has calculated several firmwide metrics to measure mutual-fund performance. All of the performance measures are peer-based, as Morningstar believes it's important to measure funds' returns relative to others with similar strategies.

The first of the measures, displayed in Table 31, is an average of the fund firms' overall Morningstar Rating, which is better known as the star rating. The calculation is a simple average, with each of the firm's fund share classes counting once.

The subsequent columns are Morningstar Success Ratios based on the firm's funds' three-, five-, and 10-year returns. The first set of success ratios are based on the funds' Morningstar category rank for the period. Funds that have a category rank less than 50 and survived the period are considered successful, and the number of successful share classes at the end of the period is divided by the total number of share classes at the beginning of the period. Since the ratio's denominator features the number of share classes at the start of the period, the calculation is designed to eliminate survivorship bias. It's reasonable to assume that the nonsurviving funds are deemed not successful for this calculation because fund firms rarely merge away or liquidate their best performers.

While the Morningstar Success Ratio uses category percentile rank to determine whether a fund is successful, the Morningstar Risk-Adjusted Success Ratio is based on Morningstar Risk-Adjusted Returns, the basis of the Morningstar Rating, which compares funds' returns relative to their Morningstar category peers, penalizing the funds that assume more risk than their peers. For this calculation, fund share classes are deemed successful if their MRARs are in the top half of their peer group and they survived the period. As is the case with the Morningstar Success Ratio, this calculation sums the four- and five-star share classes and divides that total by the number of share classes at the beginning of the measurement period to limit survivorship bias.

On average, target-date series firms have not offered funds in their broader universe that have beaten their peers on a risk-adjusted basis. Firms offering target-date funds have an overall Morningstar Rating of 2.98 stars. The same holds true across the Morningstar Success Ratio metrics—the industry average for each ratio across each time period is less than 50%.

That said, there are some fund families that stand out for their broader out- and underperformance. Both T. Rowe Price and Vanguard's average Morningstar Rating exceeds 3.6 stars and more than three fourths of the firm's funds have been successful across all time periods based on category rank and the Morningstar Rating. The notables among the underperformers include State Farm, with an average overall Morningstar Rating of 2.33 stars—the target-date industry's lowest—and success ratios that do not exceed 21% for any of the periods. AllianceBernstein also has struggled. Its average Morningstar Rating is 2.33 stars. Notably, however, its three-year success ratios are higher (though still below 50%) for the three-year period, and lower for the longer time periods. These data reflect the fund company's broader performance problems in 2008's market crash, which are not included in the three-year figures. Oppenheimer is another firm with better three-year performance data, relative to the longer-term periods.

Measuring Disclosure

Another way to measure fund firm's stewardship practices is to study their disclosure to fundholders, a factor that Morningstar considers explicitly as part of its Parent rating for target-date series. Given the complexity of these investments and the broad mix of investor sophistication, explaining these funds is a serious challenge. But for shareholders to successfully own these funds for decades, it's crucial that the disclosures be clear. Moreover, the information needs to be detailed enough for advisors, consultants, and plan sponsors to adequately assess the funds' potential risks and rewards.

Target-date disclosures have caught the attention of financial regulators. The Securities and Exchange Commission has taken a closer look at rules related to

these funds in order to enhance the information available to investors. Most recently, the SEC proposed that target-date funds be required to disclose the asset allocation of the fund at its target date adjacent to the fund's name the first time it is mentioned in marketing materials. The proposal also requires marketing materials to include a table, chart, or graph depicting the asset allocations over time. Finally, the SEC may require a statement in target-date funds' marketing materials that says that the fund should not be selected based solely on age or retirement date, that it is not a guaranteed investment, and that the stated asset allocations may be subject to change.

These proposed rules reflect the SEC's concerns that investors are not fully aware of the risks related to target-date funds. As part of their proposal, the SEC commissioned a

study on target-date fund disclosures that found, among other things, that investors aren't always sure when the target-date funds' asset allocations stop changing and whether the funds provide guaranteed income in retirement. The study confirms that many investors cannot articulate the basics of these funds' operations nor set reasonable expectations for their performance.

All of this underscores Morningstar's longstanding emphasis on improved target-date transparency. For the past two years, Morningstar has studied how well fund companies describe their target-date series to investors. To conduct the study, Morningstar looks at publically available documents and websites for the 22 largest target-date series. We first look to see whether the series meet the disclosure expectations set out by the

Table 32. Target-Date Series Meeting ICI Standards for Public Disclosure

Fund Series	Relevance of Target Date	Withdrawal Intentions	Age Group	Asset Allocation Illustration	Risk of Loss Statement	Where to Get More Information	Degree of Tactical Allocation
AllianceBernstein	•	•	•	•	•	•	•
BlackRock	•	•	•	•	•	•	•
Fidelity Freedom	•	•	•	•	•	•	N/A
MassMutual	•	•	•	•	•	•	•
TIAA-CREF	•	•	•	•	•	•	•
T. Rowe Price	•	•	•	•	•	•	•
Vanguard	•	•	•	•	•	•	N/A
Wells Fargo	•	•	•	•	•	•	N/A
ING	•	•	•	•	•	•	
Principal	•	•	•	•	•	•	
Putnam	•	•	•	•	•	•	
Schwab	•	•	•	•	•	•	
American Century	•	•	•	•	•		N/A
Fidelity Advisor Freedom	•	•	•	•	•		N/A
MFS	•	•	•	•	•		N/A
Vantagepoint	•	•	•	•	•		•
John Hancock	•		•	•	•		•
JP Morgan	•		•	•	•	•	•
American Funds	•		•	•	•		•
DWS	•		•		•		
Oppenheimer	•	•	•	•	•		
State Farm	•	•	•		•		

Data as of 12/31/11. Source: Morningstar, Inc.

Investment Company Institute, or ICI, the trade group for the mutual fund industry. The ICI provides a starting point for what fund series should disclose. In its paper from mid-2009 (http://www.ici.org/pdf/ppr_09_principles.pdf) the ICI suggests fund series prominently disclose:

1. The relevance of the “target date” used in a fund name, including what happens on the target date.
2. The fund’s assumptions about the investor’s withdrawal intentions after reaching the target date.
3. The age group for whom the fund is designed.
4. An illustration of the asset-allocation path (or glide path) that the target-date fund follows and the degree from which management may change the allocation tactically.
5. A statement of the risks associated with the series.

6. A statement of where investors can obtain additional information about the series.

Table 32 outlines which target-date series meet the ICI’s standards as of March 2012. Under the column labeled “Degree of Tactical Allocation,” series that explicitly state how far the actual asset allocations may differ from the targeted allocations receive a “dot”, series that do not have a tactical allocation component receive an “N/A,” and series that have a tactical component but do not state the degree are left blank.

The ICI suggestions are good, but further disclosure would help investors fully evaluate the quality and risks of a target-date series. Morningstar suggests target-date series be required to publicly disclose to shareholders:

1. The investment rationale behind the strategic asset-allocation path used in the target-date series.
2. The subasset classes likely to be represented in the funds’ strategic asset-allocation path and their intended percentage of assets.
3. In cases where the target-date series uses a fund of funds structure, a list of the underlying funds included in the target-date series, as well as:
 - a. The percentage of assets allocated to each underlying fund, and
 - b. The underlying funds’ asset allocation, including market-cap size for stock funds; credit quality, maturity, and sector information for fixed-income funds; and both for multi-asset-class funds.
4. The underlying funds’ performance relative to its prospectus benchmark over the past one-, three-, five-, and 10-year periods.
5. In cases where the target-date series owns individual securities, a list of the investment strategies represented by the securities, including references to similar strategies run by the advisor, such as a public mutual fund.

Tables 33 and 34 show which series meet Morningstar’s suggested standards.

Table 33. Public Disclosure of Rationale, Glide Path, and Performance

Fund Series	Investment Rationale for Asset Allocation Path	Subasset Classes in the Glide Path	Target-Date Funds’ Performance
BlackRock	•	•	•
Fidelity Freedom	•	•	•
ING	•	•	•
JP Morgan	•	•	•
Principal	•	•	•
TIAA-CREF	•	•	•
T Rowe Price	•	•	•
Vanguard	•	•	•
MassMutual	•		•
Schwab	•		•
Wells Fargo	•		•
AllianceBernstein		•	•
American Funds		•	•
Fidelity Advisor Freedom		•	•
MFS		•	•
Oppenheimer		•	•
State Farm		•	•
American Century			•
DWS			•
John Hancock			•
Putnam			•
Vantagepoint			•

Data as of 12/31/11. Source: Morningstar, Inc.

While many more of the largest target-date series now provide the most important disclosures, a handful of companies have not addressed key gaps in their publically available information. DWS and State Farm, for instance, do not present an illustration of their series' glide paths, which is among the simplest ways to explain the funds (the SEC investor survey showed improved comprehension when a glide path illustration was included). DWS also does not describe how the firm expects investors to withdraw assets from the funds, nor does it post an investment rationale for the glide path design. American Funds and John Hancock don't publically display their investment rationale or disclose their investor withdrawal expectations either.

Among the fund companies that do satisfy most of the suggested disclosure, the quality of the information varies dramatically. Following are some examples of good and bad disclosures taken from fund prospectuses and other public documents posted on fund company websites.

Explaining Tactical Allocation

Many target-dates series use some amount of tactical allocation—an active decision by the funds' managers to stray from the series strategic glide path—but there's no standard for how much of a tactical shift is acceptable. Furthermore, fund series do not uniformly describe their tactical allocation budgets and constraints, making it difficult to determine whether these decisions add or subtract from the series' returns. JP Morgan is one firm that

Table 34. Public Disclosure of Target-Date Series' Underlying Holdings and their Attributes

Fund Series	Lists Underlying Funds	Shows % of Assets Allocated to Each Fund	Shows Market-Cap	Shows Sector Weights	Shows Credit Quality	Shows Maturity	Shows Underlying Funds' Performance Relative to Benchmark	If Series Owns Individual Securities, Lists Strategies and Similar Funds
American Century	•	•	•	•	•	•	•	
DWS	•	•	•	•	•	•	•	
Fidelity Advisor Freedom	•	•	•	•	•	•	•	
JPMorgan	•	•	•	•	•	•	•	
MFS	•	•	•	•	•	•	•	
Principal	•	•	•	•	•	•	•	
Schwab	•	•	•	•	•	•	•	
T. Rowe Price	•	•	•	•	•	•	•	
TIAA-CREF	•	•	•	•	•	•	•	
Vanguard	•	•	•	•	•	•	•	
Oppenheimer	•	•	•	•	•	•	•	
Fidelity Freedom	•	•		•	•	•	•	
Jhancock	•	•		•	•	•	•	
American Funds	•	•		•	•	•		
Putnam	•	•			•	•	•	
ING	•	•	•	•				
Vantagepoint	•	•		•				•
BlackRock	•	•						
MassMutual	•	•						
State Farm	•	•						
Wells Fargo	N/A							•
AllianceBernstein	N/A							

Data as of 12/31/11. Source: Morningstar, Inc.

does a good job describing its tactical-allocation restrictions on the SmartRetirement series:

These strategic target allocations represent J.P. Morgan Investment Management Inc.'s (JPMIM or the Adviser) view of how the Fund's investments should be allocated over the long term. The Fund's actual allocations may differ due to tactical allocations. The Adviser will use tactical allocations to take advantage of short to intermediate term opportunities through a combination of positions in underlying funds and direct investments, including derivatives. As a result of these tactical allocations, the Fund may deviate from its strategic target allocations at any given time by up to +/- 15% for fixed income, +/- 10% for equity, +/- 20% for money market/ cash and cash equivalents and +/- 5% for commodities and global natural resources. These ranges apply to both the asset classes and types of underlying funds. Updated information concerning the Fund's actual allocations to underlying funds and investments is available in the Fund's shareholder reports and on the Fund's website from time to time.

On the opposite end of the spectrum, Putnam's Retirement Ready series also tactically adjusts its asset allocations but does not describe it in detail:

The fund's target allocations may differ from this illustration. We may change a fund's target allocations and the underlying funds in which it invests at any time, although we do not expect to make changes frequently.

How the fund companies portray the target-date series on their websites varies, too. Most fund firms provide the same information for their target-date lineup as they do for their other funds, even though the target-date funds are more complex investments. A select few firms, such as T. Rowe Price and Vanguard, do a commendable job of differentiating the target-date funds and explaining the funds to investors. T. Rowe Price has a useful website that allows investors to easily dig into the details of the investments that underpin the series (see Figure 35).

35. Example of Target-Date Website Disclosure, T. Rowe Price



Source: troweprice.com

Another important area of disclosure relates to how the fund companies expect shareholders to use their funds upon reaching the target year. Some series are designed to be held through retirement, while others are built to take investors up to retirement whereupon the asset allocation no longer shifts. Presumably, investors of these "to" series (described in more detail in the Process section of this paper) are expected to move their retirement savings elsewhere. If fund firms explicitly stated their assumptions about shareholder withdrawals, it would improve the chances that investors will use the funds as designed. The ICI made a similar suggestion in a January 2011 letter (<http://www.ici.org/pdf/24878.pdf>) responding to the Department of Labor's November 2010 proposals to improve target date disclosure (<http://webapps.dol.gov/federalregister/HtmlDisplay.aspx?DocId=24466&AgencyId=8&DocumentType=1>).

Most fund companies now mention their withdrawal assumptions in the shareholder prospectus, but the quality of the disclosure varies. TIAA-CREF provides a decent disclosure:

The Fund is designed to accommodate investors who invest in a fund up to their target retirement date, and plan to make gradual systematic withdrawals in retirement. In addition, investors should note that the Fund will continue to have a significant level of equity exposure up to, through and after its target retirement date, and this exposure could cause significant fluctuations in the value of the Fund depending on the performance of the equity markets generally.

On the other hand, State Farm discloses that it expects shareholders to withdraw assets at the target date, but doesn't clarify the rate at which the assets would be withdrawn: "The LifePath 2020 Portfolio is designed for investors expecting to retire or to begin withdrawing assets around the year 2020."

Table 36 shows which series of those rated by Morningstar disclose their assumptions about shareholder withdrawals.

The number of fund companies meeting Morningstar's and the ICI's disclosure standards has increased, but there remains a large disparity in the quality of the information. While many firms do provide in-depth disclosure privately to interested parties, such as Morningstar or defined-benefit plan consultants, the private information is uneven and one can't be sure all investors and fiduciaries have the same access.

Morningstar maintains that the information be broadly and prominently displayed through websites and documents filed with SEC to eliminate the risk that critical information is unavailable to shareholders and fiduciaries seeking it. Well-informed investors are more likely to own target-date funds well and avoid costly mistakes, such as owning funds with unsuitable risk profiles or objectives.

36. Disclosure of Withdrawal Assumptions

Fund Series	Gradually During Retirement	All or Most at Retirement
AllianceBernstein	•	
American Century	•	
Fidelity Advisor Freedom	•	
Fidelity Freedom	•	
ING	•	
MassMutual	•	
MFS	•	
Oppenheimer	•	
Principal	•	
Putnam	•	
Schwab	•	
State Farm	•	
T Rowe Price	•	
TIAA-CREF	•	
Vanguard	•	
Vantagepoint	•	
BlackRock		•
Wells Fargo		•
American Funds		
DWS		
John Hancock		
JP Morgan		

Data as of 12/31/11. Source: Morningstar, Inc.

Morningstar Target-Date Fund Series Ratings

When it comes to assessing specific strengths and weaknesses of target-date series, Morningstar has developed a methodology to evaluate series based on the same themes outlined in this report: Process, Performance, Portfolio, Price, People, and Parent. Each area but Process receives a rating based on a combination of quantitative and qualitative analysis. Morningstar then combines those five section ratings to come up with an overall rating for 22 of the largest target-date series. Morningstar updates these ratings, and the reports that accompany them, quarterly. (For more on Morningstar's

target-date rating methodology, click here: http://corporate.morningstar.com/us/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSeries_RatingMethodology.pdf.)

The series' ratings for each of those five sections follows, as do the series' overall ratings. As of Dec. 31, 2011, the target-date series that reflected the most industry best-practices were American Funds, JP Morgan, T. Rowe Price, and Vanguard. Each earned a Top rating for their series. Six of the 22 series earned ratings of Below Average and Bottom. In Morningstar's view, these series have plenty of room for improvement when it comes to series construction, returns, fees, management, and stewardship.

37. 2012 Morningstar Target-Date Fund Series Overall, Performance, Portfolio, Price, People and Parent Ratings

Series	Overall Rating	Performance Rating	Portfolio Rating	Price Rating	People Rating	Parent Rating
American Funds Trgt Date Rtrmt Series	Top	Average	Top	Average	Top	Above Average
JPMorgan SmartRetirement Series	Top	Above Average	Top	Above Average	Above Average	Above Average
T. Rowe Price Retirement Series	Top	Above Average	Above Average	Above Average	Top	Top
Vanguard Target Retirement Series	Top	Average	Above Average	Top	Top	Top
American Century LIVESTRONG Series	Above Average	Average	Above Average	Above Average	Average	Average
TIAA-CREF Lifecycle Series	Above Average	Average	Above Average	Top	Above Average	Average
Vantagepoint Milestone Series	Above Average	Average	Above Average	Below Average	Above Average	Above Average
Wells Fargo Advantage DJ Target Date Series	Above Average	Average	Bottom	Top	Average	Average
BlackrockLifepath Series	Average	Average	Bottom	Average	Average	Above Average
Fidelity Advisor Freedom Series	Average	Average	Above Average	Above Average	Average	Average
Fidelity Freedom Series	Average	Average	Above Average	Above Average	Average	Average
ING Solution Series	Average	Average	Top	Average	Above Average	Average
John Hancock Lifecycle Series	Average	Average	Above Average	Below Average	Above Average	Average
MassMutual RetireSMART Series	Average	Average	Above Average	Average	Average	Average
MFS Lifetime Series	Average	Average	Top	Bottom	Above Average	Above Average
Principal LifeTime Series	Average	Average	Average	Average	Below Average	Average
AllianceBernstein Retirement Str Series	Below Average	Below Average	Bottom	Below Average	Bottom	Average
Putnam RetirementReady Series	Below Average	Below Average	Bottom	Below Average	Below Average	Average
Schwab Target Series	Below Average	Average	Above Average	Above Average	Bottom	Bottom
State Farm LifePath Series	Below Average	Average	Bottom	Below Average	Average	Average
DWS LifeCompass Series	Bottom	Below Average	Bottom	Below Average	Bottom	Average
Oppenheimer LifeCycle Series	Bottom	Below Average	Average	Bottom	Below Average	Average

Data as of 12/31/11. Source: Morningstar, Inc.

Appendix 1. Complete Glide Paths by Target Date Series

Series Name	2060	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010	2005	2000	1995	1990	1985	1980
AllianceBernstein Retirement Str Series	—	95	95	95	95	95	90	86	79	72	66	56	45	35	35	—	—
Allianz Global Investors Solutions Serie	—	90	89	85	78	68	56	44	36	29	25	—	—	—	—	—	—
American Century LIVESTRONG Series	—	85	85	82	78	72	66	60	54	49	45	45	45	45	—	—	—
American Funds Trgt Date Rtrmt Series	—	91	91	91	91	89	87	82	67	57	45	43	38	36	31	26	24
BlackRock Lifecycle Prepared Series	—	—	90	90	90	90	75	65	58	53	—	—	—	—	—	—	—
BlackRock LifePath Index Series	—	—	97	92	86	80	73	66	57	—	38	—	—	—	—	—	—
BlackRock LifePath Series	—	99	99	95	90	83	76	69	61	50	38	38	—	—	—	—	—
Columbia Retirement Plus Series	—	—	—	88	83	77	71	65	60	55	44	33	22	13	0	—	—
DWS LifeCompass Series	—	—	—	—	93	—	86	—	67	55	—	36	—	—	—	—	—
Fidelity Advisor Freedom Series	—	90	90	86	84	83	73	69	60	50	49	41	20	—	—	—	—
Fidelity Freedom Index Series	—	90	89	85	83	82	73	69	60	51	50	41	21	20	—	—	—
Fidelity Freedom K Series	—	90	90	85	84	83	75	70	62	51	50	44	28	20	20	20	—
Fidelity Freedom Series	—	90	90	86	84	83	74	69	60	51	49	41	21	20	—	—	—
Franklin Templeton Retirem Series	—	—	84	83	82	81	79	74	48	57	32	32	32	—	—	—	—
Goldman Sachs Retirement Str Series	—	—	98	95	94	92	90	85	80	75	67	52	—	—	—	—	—
Guidestone Funds MyDestination Series	—	—	—	94	94	90	85	77	76	78	70	61	50	25	—	—	—
Harbor Target Retirement Series	—	—	93	93	85	74	64	54	45	37	32	20	—	—	—	—	—
Hartford Target Retirement Series	—	—	95	93	89	84	79	73	67	61	55	—	—	—	—	30	—
ING Index Solution Series	95	95	95	95	95	87	80	70	65	48	35	35	35	35	35	35	—
ING Solution Series	—	95	95	95	95	88	80	72	62	50	35	35	35	35	—	—	—
Invesco Balanced-Risk Retirement Series	—	—	38	38	38	38	38	38	38	32	25	25	25	25	—	—	—
John Hancock Lifecycle Series	—	—	95	95	95	95	91	83	73	59	48	41	37	32	25	25	25
John Hancock Retirement Series	—	—	82	82	82	80	73	65	47	28	8	—	—	—	—	—	—
JPMorgan SmartRetirement Series	—	—	85	85	85	85	78	70	60	51	35	35	—	—	—	—	—
Legg Mason Target Retirement Series	—	94	94	94	92	86	77	75	69	63	59	52	46	40	40	35	—
MainStay Retirement Series	—	—	92	—	87	—	78	—	63	—	49	—	—	—	—	—	—
Manning & Napier Target Series	—	—	88	88	88	88	64	57	52	45	40	28	24	—	—	—	—
Massachusetts Mutual Life Insurance Co.	—	—	95	95	89	87	85	81	74	63	52	42	37	32	32	—	—
Maxim Lifetime I Series	—	86	86	84	82	76	67	56	47	40	35	31	27	25	24	24	—
Maxim Lifetime II Series	—	92	92	92	91	87	80	70	60	50	44	38	34	32	31	30	—

Continued on next page.

Appendix 1. Complete Glide Paths by Target Date Series Continued

Series Name	2060	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010	2005	2000	1995	1990	1985	1980
Maxim Lifetime III Series	—	94	95	95	95	93	90	83	73	63	54	47	43	39	37	37	—
MFS Lifetime Series	—	95	95	95	95	95	87	79	59	39	29	29	29	—	—	—	—
Nationwide Target Destination Series	—	91	90	90	88	84	77	66	55	50	43	30	—	—	—	—	—
NestEgg Dow Jones Series	—	—	87	—	76	—	58	—	42	—	26	—	—	—	—	—	—
Oppenheimer LifeCycle Series	—	—	94	93	92	90	84	76	70	62	52	41	28	28	28	28	—
PIMCO RealRetirement Series	—	—	85	85	80	80	65	50	35	20	20	—	—	—	—	—	—
Principal LifeTime Series	90	90	90	87	85	82	78	72	67	60	52	44	35	26	26	—	—
Putnam RetirementReady Series	—	95	94	91	86	80	72	62	50	37	25	—	—	—	—	—	—
Russell LifePoints Target Date Series	—	90	90	90	90	90	83	64	50	40	32	32	—	—	—	—	—
Schwab Target Series	—	—	—	92	89	85	80	72	64	50	41	39	37	32	25	25	—
State Farm Lifepath Series	—	—	98	—	87	—	75	—	59	—	39	—	—	—	—	—	—
T. Rowe Price Retirement Series	—	90	90	90	90	90	85	79	72	64	55	46	40	—	—	—	—
TIAA-CREF Lifecycle Index Series	—	90	90	90	90	89	81	72	65	57	49	—	40	—	—	—	—
TIAA-CREF Lifecycle Series	—	90	90	90	90	89	81	73	65	57	49	—	41	—	—	—	—
USAA TARGET RETIREMENT FUNDS Series	—	—	93	—	75	—	55	—	38	—	30	—	—	—	—	—	—
Vanguard Target Retirement Series	—	90	90	90	90	90	82	75	67	58	50	36	30	—	—	—	—
Vantagepoint Milestone Series	—	—	—	95	95	91	84	76	69	60	51	45	30	—	—	—	—
Wells Fargo Advantage DJ Target Date Series	—	90	90	90	87	81	70	58	44	33	23	15	—	—	—	—	—

Data as of 12/31/11. Source: Morningstar, Inc.

Appendix 2. Open/Closed Architecture Status by Target-Date Series

Closed	Open	Mixed
AllianceBernstein Retirement Strat	American Independence NestEgg	DWS LifeCompass Series
Allianz Global Investors Solutions	Guidestone Funds MyDestination	Hartford Target Retirement Series
American Century LIVESTRONG	Nationwide Target Destination	ING Index Solution Series
American Funds Trgt Date Rtrmt	Russell LifePoints Target Date	ING Solution Series
BlackRock LifeCycle Prepared	State Farm Lifepath	John Hancock Lifecycle Series
BlackRock LifePath	Vantagepoint Milestone	Legg Mason Target Retirement Series
BlackRock LifePath Index	Wells Fargo Advantage DJ Target Date Series	MainStay Retirement Series
Columbia Retirement Plus		Massachusetts Mutual Life Insurance Co.
Fidelity Advisor Freedom		Principal LifeTime Series
Fidelity Freedom Index		Schwab Target Series
Fidelity Freedom		
Franklin Templeton Retirem Series		
Goldman Sachs Retirement Strat		
Invesco Balanced-Risk Retirement		
JPMorgan SmartRetirement		
Manning & Napier Target		
MFS Lifetime		
Oppenheimer LifeCycle		
PIMCO RealRetirement Series		
Putnam RetirementReady		
T. Rowe Price Retirement		
TIAA-CREF Lifecycle Index		
TIAA-CREF Lifecycle		
Vanguard Target Retirement		

Data as of 12/31/11. Source: Morningstar, Inc.