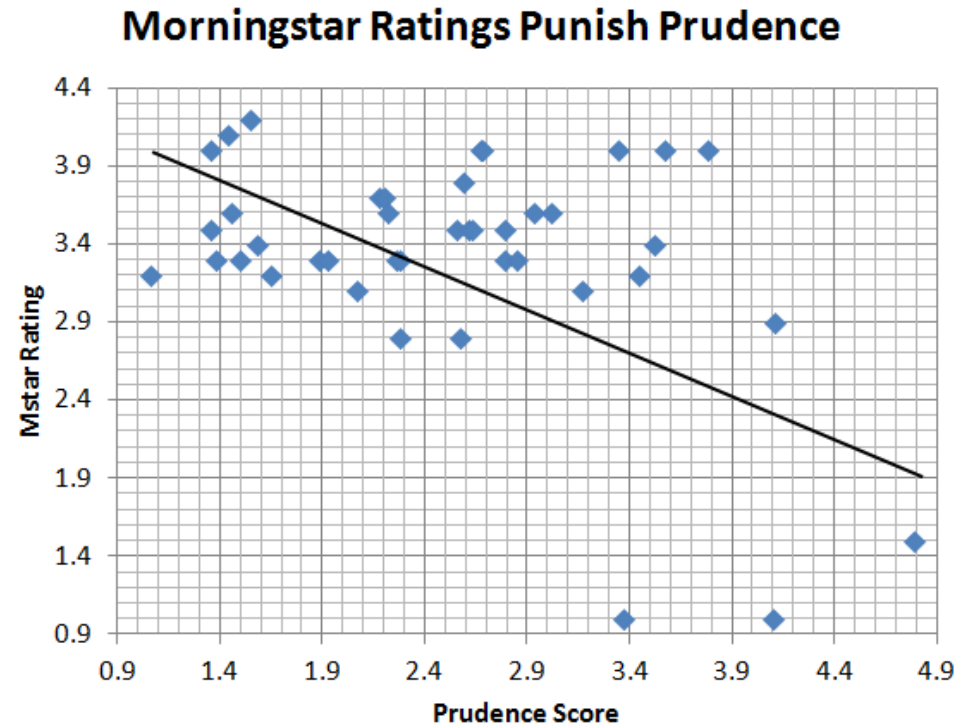


Discovering Target Date Fund Prudence

- At \$1 trillion and growing, target date funds are the most popular Qualified Default Investment Alternative (QDIA) for 401(k) plans.
- Because they are defaults, fiduciaries choose TDFs, so Prudence is more important than high returns that generate high Morningstar ratings. Fiduciaries are at risk.
- High performance in the past 5 years is produced by imprudent risk, so we we've created Prudence Scores to replace Morningstar ratings, especially for fiduciaries.

Asset allocation is the primary determinant of investment performance and risk. Many say asset allocation explains [more than 90%](#) of investment results, but the fact is that it explains [more than 100%](#). Because of this importance, we provide a detailed examination of target date fund glide paths in order to differentiate the good from the bad. Our focus is on fiduciary responsibility and the characteristics of a glide path that make it Prudent. Prudent glide paths are good. Imprudent glide paths are not good for both beneficiaries and fiduciaries. Fiduciaries face possible [legal action](#) for imprudent TDF selections. A glide path does not have to produce high returns to be Prudent. In fact, high returns can be an indication of imprudent risk taking. We use the PIMCO Glide Path Analyzer in the following to examine TDF Prudence and to develop Prudence Ratings that differ from Morningstar Ratings. Morningstar Ratings tend to penalize Prudence.



Defining Prudence

The [three great benefits](#) of target date funds are diversification and risk control provided at a reasonable cost. All three of these benefits vary widely across target date fund providers, as shown in the graph on the right.

Looking to the left of the graph at long terms to target date, we see consensus in high equity allocation – the lines cluster. The differentiator at long dates is diversification. Theory states, and evidence confirms, that diversification improves the risk-reward profile of a portfolio. Greater diversification leads to higher returns per unit of risk, and is a benefit of TDFs.

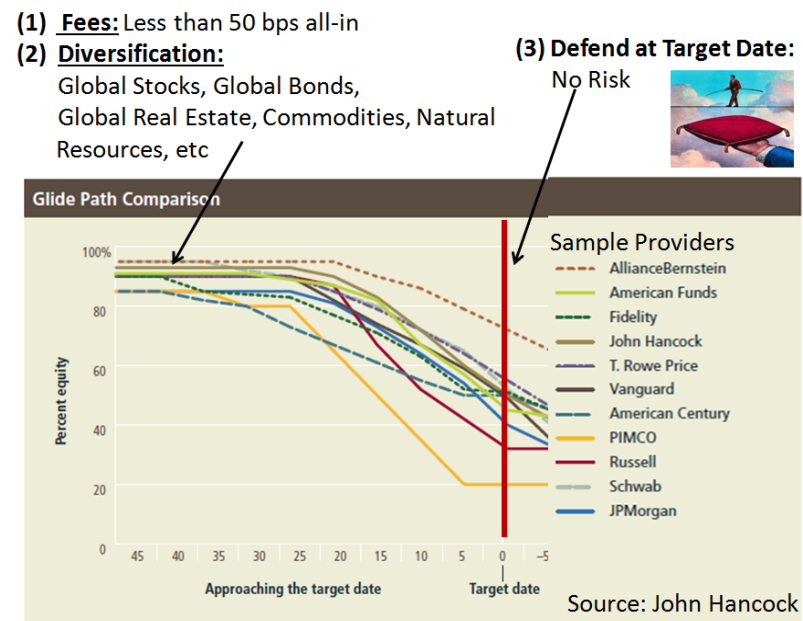
Looking to the right of the graph, near the target date, we see wide disagreement, with equity allocations at target date ranging from a high of 70% to a low of 20%. The prudent choice is safety at the target date, the other benefit of TDFs.

These two key benefits, plus fees, are discussed in the following in the order of their importance.

The most important benefit is safety at the target date

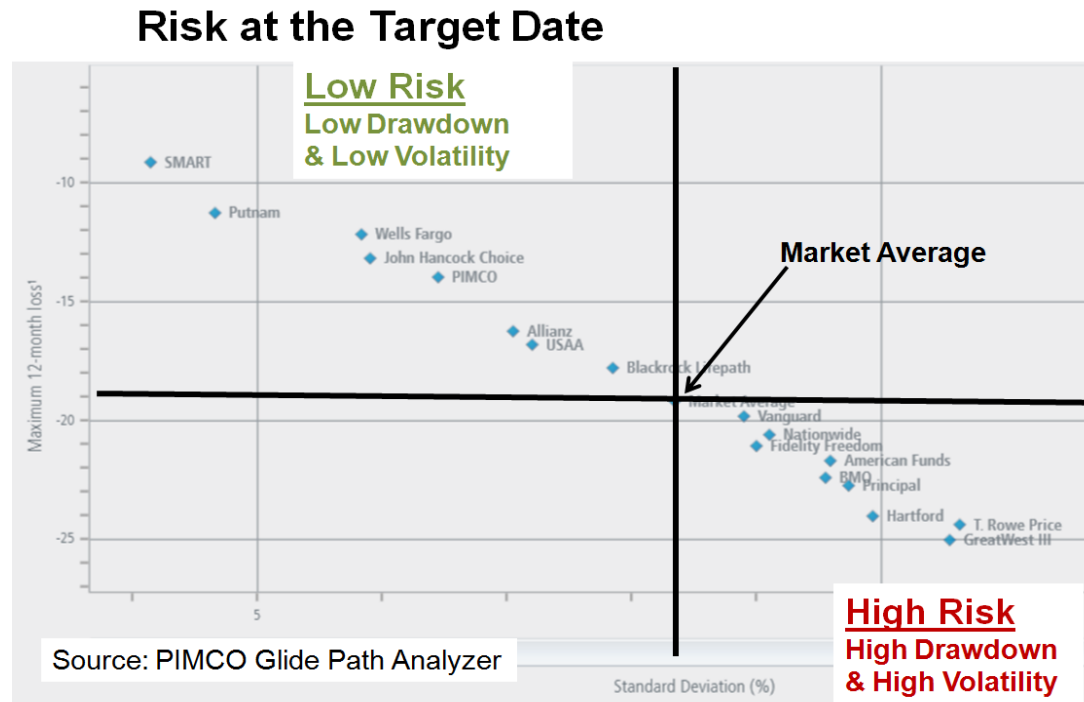
Safety at the target date is the most important benefit for the following reasons:

1. There is no fiduciary upside to taking risk at the target date. Only downside. The next 2008 will bring class action lawsuits.



2. There is a “risk zone” spanning the 5 years preceding and following retirement during which lifestyles are at stake. Account balances are at their highest and a participant’s ability to work longer and/or save more is limited. You only get to do this once; no do-overs.
3. Most participants withdraw their accounts at the target date, so “target death” (i.e., “Through”) funds are absurd, and built for profit. All TDFs are *de facto* “To” funds.
4. Save and protect. The best individual course of action is to save enough and avoid capital losses. Employers should educate employees about the importance of saving, and report on saving adequacy.
5. Prior to the Pension Protection Act of 2006, default investments were cash. Has the Act changed the risk appetite of those nearing retirement? Surveys say no.

As you can see in the following graph from PIMCO’s Glide Path Analyzer, only a handful of TDFs provide true safety at the target date.

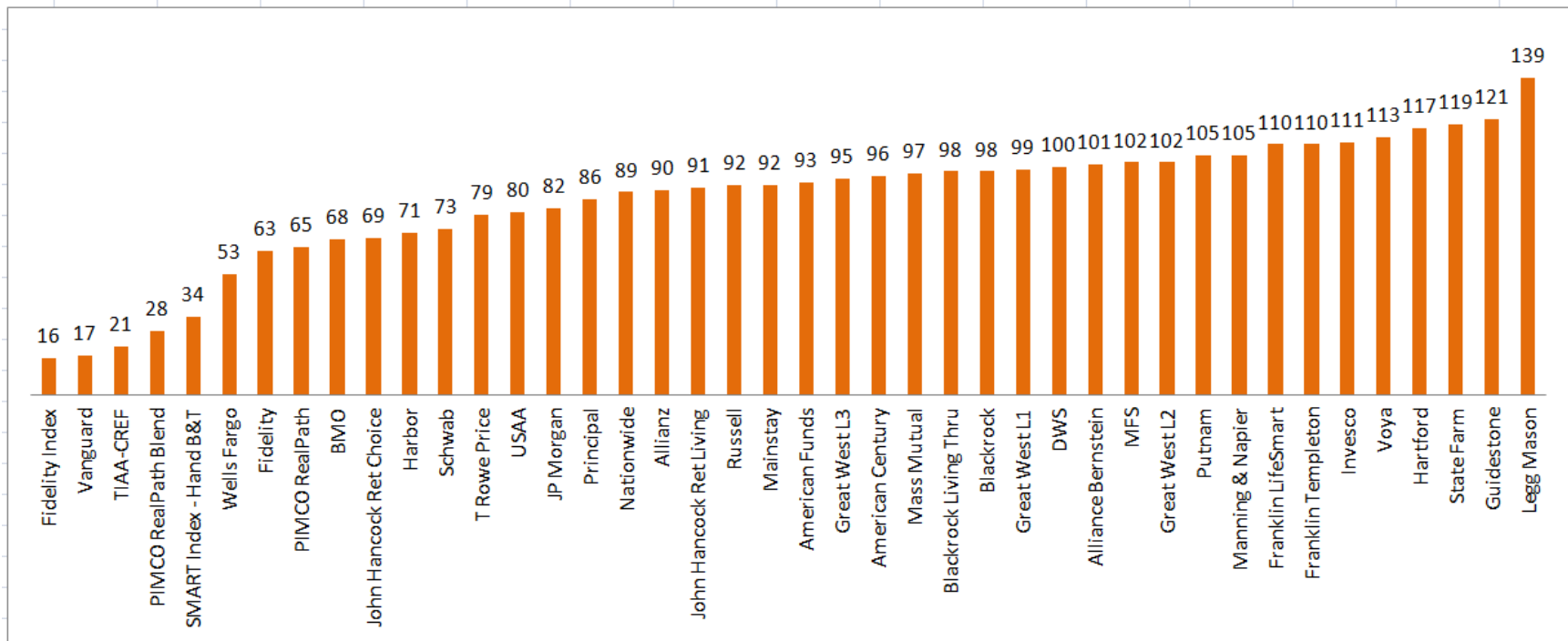


The second most important benefit is reasonable cost

Fees undermine investment performance and are the basis for several successful lawsuits. You can be the judge of what is reasonable, keeping in mind that you want to get what you pay for. The challenge for plan providers is achieving good diversification for a reasonable cost. Assets that diversify, like commodities and real estate, are expensive.

As shown in the following graph, only a handful of TDFs are low cost, similar to the scarcity of TDFs that provide safety at the target date. You need to ask yourself what you get for a high fee that you can't get for a much lower fee.

Fees



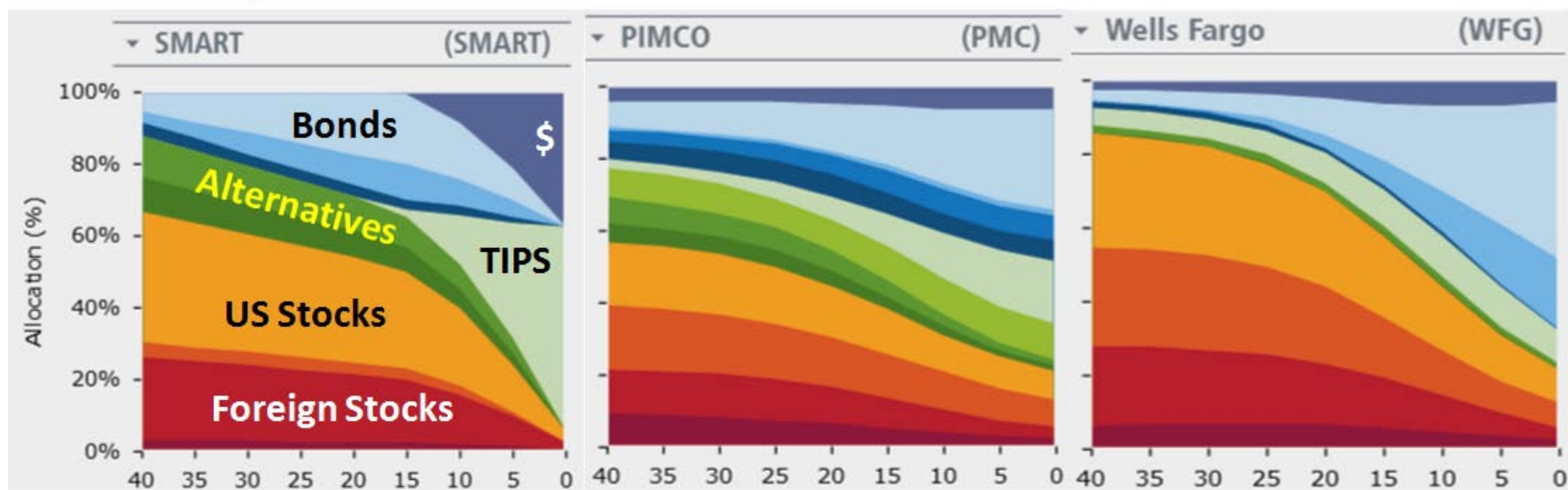
Source: Morningstar

Diversification is the third most important benefit

"A picture is worth a thousand words." Diversification is readily visualized as the number of distinct asset classes in the glide path, especially at long dates. The following are examples of well diversified TDFs, as seen through the lens of PIMCO's Glide Path Analyzer. Keep these images in mind when you view the other glide paths shown in the next section. Think "A rainbow of colors is diversified."

Broadly Diversified

Source: PIMCO Glide Path Analyzer

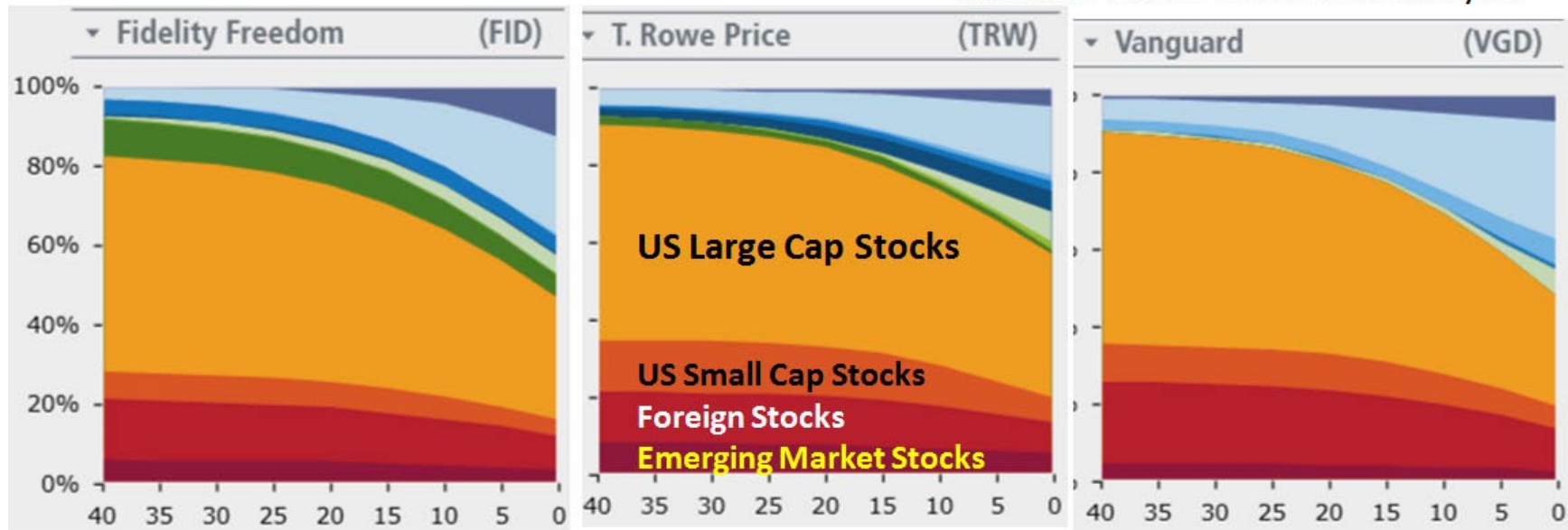


Common Practices

Most assets in target date funds are invested with the Big 3 bundled service providers and with funds that have high Morningstar ratings. Here are the glide paths for these common practices.

The Big 3

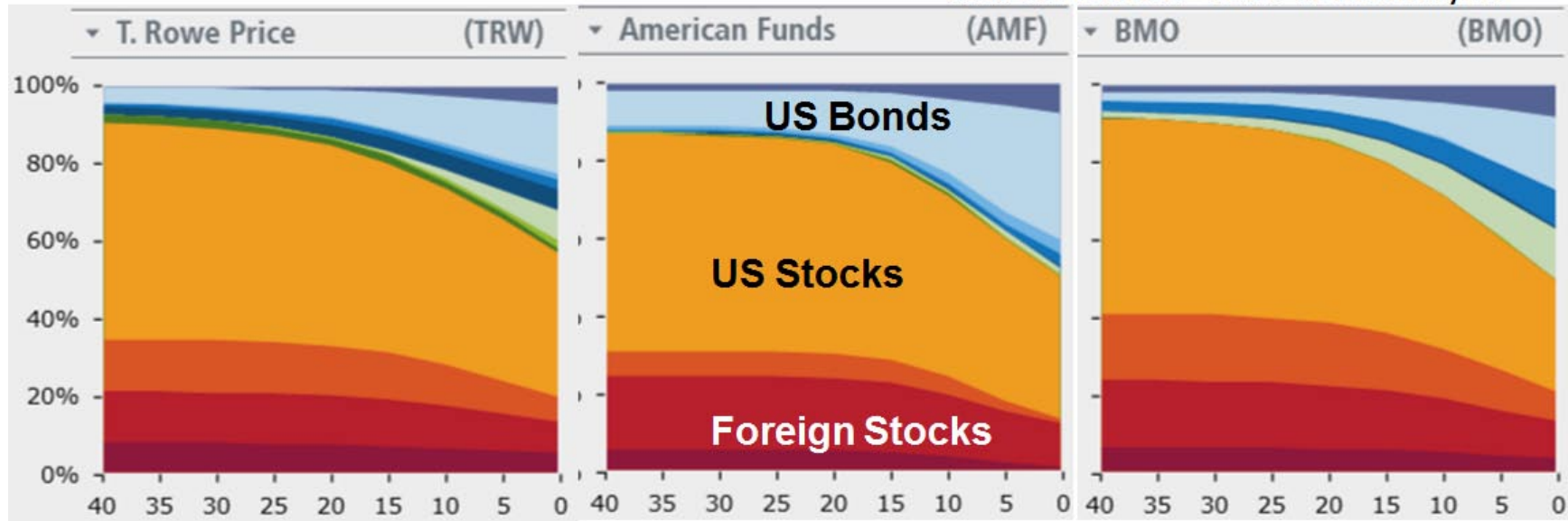
Source: PIMCO Glide Path Analyzer



Fidelity is the most diversified of this group, as indicated by the color spectrum at long dates (40 years). All three end at the target date with more than 50% in risky assets, which is not safe. As shown in the risk graph above, the Big 3 are low on the list of safety at the target date.

High Morningstar Ratings

Source: PIMCO Glide Path Analyzer

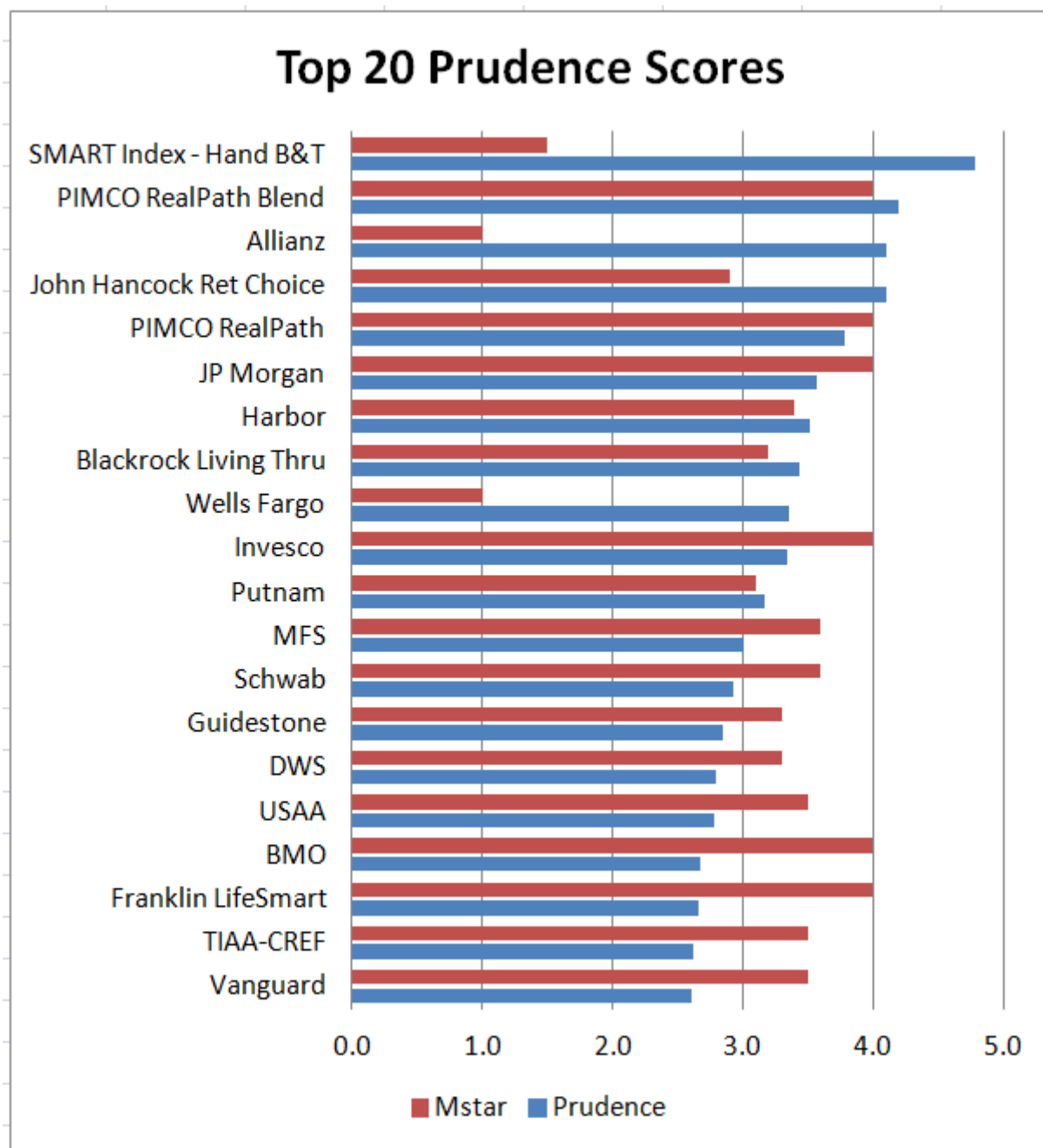


High Morningstar ratings go to funds with a high concentration in US stocks because US stocks have performed very well in the past 5 years. High Performance is not the same as Prudence. In fact, it's currently an indication of imprudent risk concentrated in US stocks.

Putting it all together: Prudence scores

To summarize, some TDFs provide good safety, while others provide broad diversification, and still others provide low fees. To integrate these three benefits we've created a composite Prudence Score, detailed in the Appendix. The graph on the right shows the Top 20 Prudence Scores and compares them to Morningstar Ratings.

The tendency is for the 8 highest prudence scores to get low Morningstar ratings. Four of the Top 8 have Morningstar ratings below 3. Prudence scores below the top 8 tend to get Morningstar ratings above 3.5 stars. The difference of course is performance, especially recent performance that has benefitted from high US equity exposures. This "Group of 8" deserves your attention.



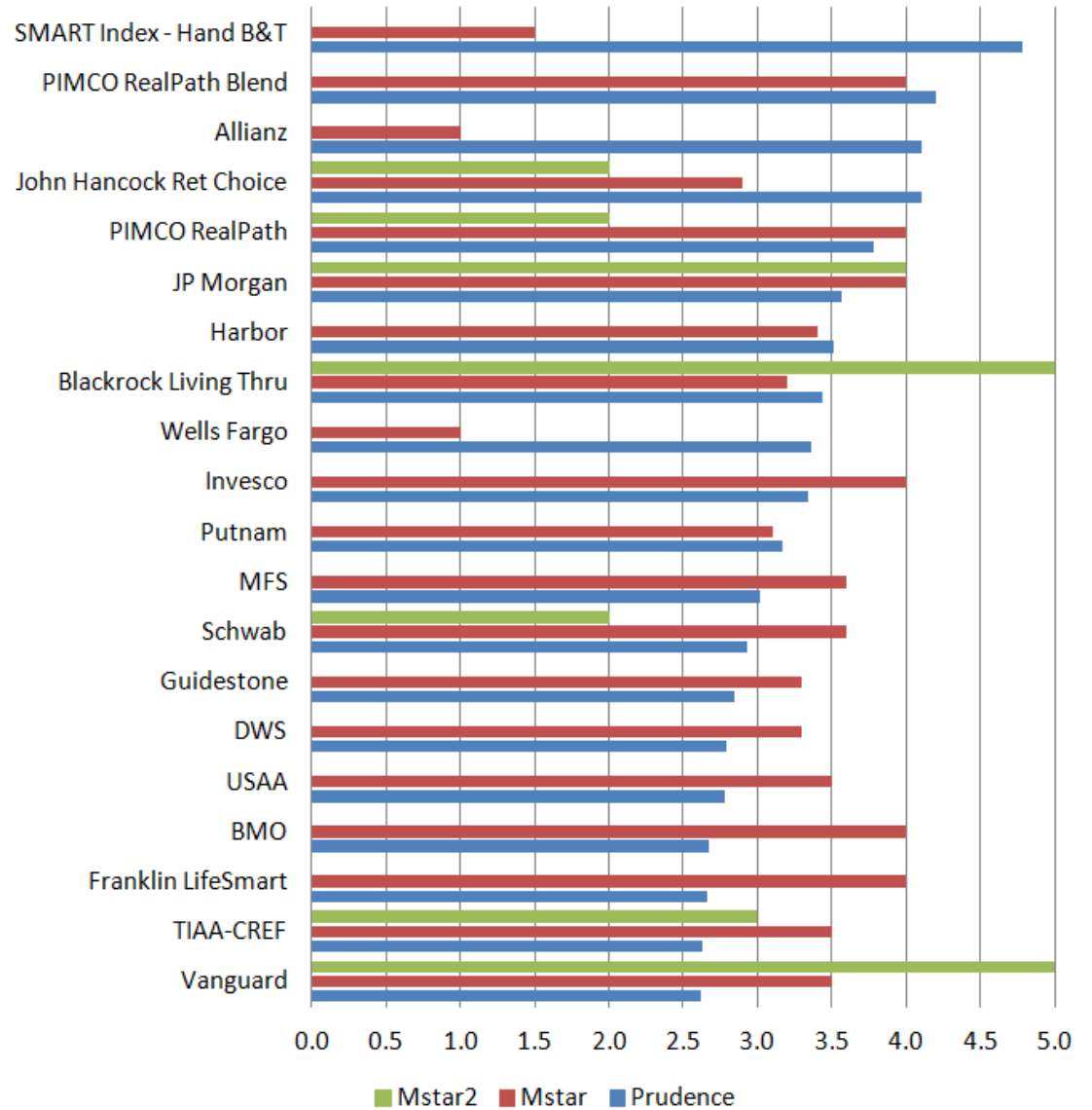
Expanded Comparisons

Shortly after this article was first published, a representative from Morningstar contacted me to express concern about using the Morningstar Star ratings. She suggested that the alternative Analyst ratings would be more in keeping with Prudence. So the following chart adds Analyst ratings, shown as “Mstar2”. Only 7 of the top 20 funds on Prudence have Analyst ratings, and indeed 2 of those do receive high Analyst ratings of “Gold” (shown as 5 in the chart), namely Blackrock and Vanguard. But 3 of the 7 have “Neutral” Analyst ratings (shown as a 2 in the chart); Neutral is just one cut above “Negative.” In other words, the 3 different rating systems are in fact quite different.

Conclusion

Fiduciaries now have a choice between TDF rating systems that are quite different. You can choose between Prudence and Performance. The cost of Prudence in rising markets is sacrificed Performance, but this sacrifice pays off in declining markets and can easily compensate for sacrifices.

Prudence vs Mstar Star & Mstar Analyst



We hope you find this glide path report and Prudence Score helpful. We also hope that plan fiduciaries will vet their TDF selection. The fact that more than 60% of TDF assets are with the Big 3 bundled service providers suggests that fiduciaries are not considering alternative TDFs, so participants might not be getting the best; they're simply getting the biggest. See our [Infographic](#) for more detail.

Endnote

Many thanks to PIMCO for letting me use their Glide Path Analyzer. It's great. That said, the views expressed in this report are strictly my own.

Disclosure: I sub-advise the SMART Target Date Fund Index that is included in this report. It's treated exactly the same as all the other funds.



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[Target Date Solutions](#) developed the [patented the Safe Landing Glide Path®](#), the basis for [the SMART Funds® Target Date Index](#) collective investment funds on Hand Benefit & Trust, Houston, the only investable target date fund index. Ron is co-author of the [Fiduciary Handbook for Understanding and Selecting Target Date Funds](#)

Appendix: Constructing Prudence Scores

The Prudence Score is not very quantitative, & much simpler than Morningstar ratings. It uses only 3 pieces of information:

1. Fees: obtained from Morningstar
2. # of diversifying risky assets at long dates: I counted these, & excluded allocations that are less than 1%. Some funds have meaningless allocations to commodities for example.
3. Safety at target date: % allocation to cash & other safe assets, like short term bonds & TIPS.

Here's the table I filled out by hand:

Company	Fee (bps)	# Risky	% Safe
SMART Index - Hand B&T	34	6	90
PIMCO RealPath Blend	28	6	30
Allianz	90	6	40
John Hancock Ret Choice	69	5	40
PIMCO RealPath	65	6	30
JP Morgan	82	6	30
Harbor	71	4	35
Blackrock Living Thru	98	5	35
Wells Fargo	53	5	25
Invesco	111	4	40
Putnam	105	3	40
MFS	102	6	25
Schwab	73	3	30
Guidestone	121	5	30
DWS	100	5	25
USAA	80	4	25

BMO	68	3	25
Franklin LifeSmart	110	5	25
TIAA-CREF	21	3	15
Vanguard	17	4	10
Hartford	117	5	25
Voya	113	6	20
Nationwide	89	6	15
American Century	96	4	20
Principal	86	6	10
Russell	92	5	15
Alliance Bernstein	101	4	20
Mass Mutual	97	5	15
T Rowe Price	79	4	15
Fidelity Index	16	3	5
Great West L1	99	4	15
Blackrock	98	5	10
John Hancock Ret Living	91	5	5
Great West L2	102	4	10
Manning & Napier	105	4	10
Fidelity	63	3	5
Mainstay	92	3	10
American Funds	93	3	10
Legg Mason	139	5	10
Franklin Templeton	110	4	8
Great West L3	95	4	5
State Farm	119	4	5

The next step is a little quantitative. I made up some rules for the importance of each factor:

- Safety got the highest importance. I adjusted the “% safe” allocations so the safest got a score of 25
- Fees are 2nd in importance. I weighted them at 15.
- Diversification gets a max score of 10

Then I add the 3 scores for each & divide this sum by 10, so the highest composite score is 5: (25 + 15 +10)/10

The 1st table is totally verifiable. We can discuss the weighting scheme in the following 2nd table:

Prudence Scores					
Company	Fee (15)	Divers(10)	Protect(25)	Prudence	Mstar
SMART Index - Hand B&T	12.8	10	25.0	4.8	1.5
PIMCO RealPath Blend	13.5	10	25.0	4.2	4
Allianz	6.0	10	25.0	4.1	1
John Hancock Ret Choice	8.5	7.5	25.0	4.1	2.9
PIMCO RealPath	9.0	10	18.8	3.8	4
JP Morgan	7.0	10	18.8	3.6	4
Harbor	8.3	5	21.9	3.5	3.4
Blackrock Living Thru	5.0	7.5	21.9	3.4	3.2
Wells Fargo	10.5	7.5	15.6	3.4	1
Invesco	3.4	5	25.0	3.3	4
Putnam	4.1	2.5	25.0	3.2	3.1
MFS	4.5	10	15.6	3.0	3.6
Schwab	8.1	2.5	18.8	2.9	3.6
Guidestone	2.2	7.5	18.8	2.8	3.3
DWS	4.8	7.5	15.6	2.8	3.3
USAA	7.2	5	15.6	2.8	3.5
BMO	8.7	2.5	15.6	2.7	4
Franklin LifeSmart	3.5	7.5	15.6	2.7	4
TIAA-CREF	14.4	2.5	9.4	2.6	3.5
Vanguard	14.9	5	6.3	2.6	3.5
Hartford	2.7	7.5	15.6	2.6	3.8
Voya	3.2	10	12.5	2.6	2.8

Nationwide	6.1	10	9.4	2.5	3.5
American Century	5.2	5	12.5	2.3	2.8
Principal	6.5	10	6.3	2.3	3.3
Russell	5.7	7.5	9.4	2.3	3.3
Alliance Bernstein	4.6	5	12.5	2.2	3.6
Mass Mutual	5.1	7.5	9.4	2.2	3.7
T Rowe Price	7.3	5	9.4	2.2	3.7
Fidelity Index	15.0	2.5	3.1	2.1	3.1
Great West L1	4.9	5	9.4	1.9	3.3
Blackrock	5.0	7.5	6.3	1.9	3.3
John Hancock Ret Living	5.9	7.5	3.1	1.6	3.2
Great West L2	4.5	5	6.3	1.6	3.4
Manning & Napier	4.1	5	6.25	1.5	4.2
Fidelity	9.3	2.5	3.1	1.5	3.3
Mainstay	5.7	2.5	6.3	1.4	3.6
American Funds	5.6	2.5	6.3	1.4	4.1
Legg Mason	0.0	7.5	6.3	1.4	3.3
Franklin Templeton	3.5	5	5.0	1.4	4
Great West L3	5.4	5	3.1	1.3	3.5
State Farm	2.4	5	3.1	1.1	3.2