

Target-Date Funds and Managed Accounts: All that Glitters is not Gold

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The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else...Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.¹

—John Maynard Keynes

At first glance, it appears perfectly reasonable for 401(k) fiduciaries to assume that target-date funds and managed accounts have solid foundations. After all, Congress endorsed their use by classifying them as QDIAs, Bill Sharpe and Harry Markowitz won Noble prizes for contributing to their intellectual foundations, and 401(k) recordkeepers and their investment advisor partners are “peddling them like crazy”. In fact, “[t]arget-date and target-risk retirement vehicles will attract 80% of new and reallocated flows into defined contribution schemes for the next decade. Target-date funds alone will swell to \$2.6 trillion of assets in 2018 from \$311 billion in 2008.”²

Although Congress gave 401(k) fiduciaries a “free pass” when it comes to deciding on the type of QDIA, the selection and monitoring of the specific target-date fund or managed account provider are fiduciary duties that are anything but trivial and routine. To illustrate this unfortunate circumstance, several issues will be raised, and the challenges facing the fiduciaries will be apparent from the quotes that address the issues.

Congress assumed that Modern Portfolio Theory and the asset allocations that spring from it are based on solid theory.

“Assumed” is the proper word because economics is not a science like chemistry or physics or molecular biology. In those disciplines, theories can be used to create models that have predictive value under all sorts of conditions.

A models’ predictive value stems from the existence, and then the application of, universal principles—such as the law of gravity, how glucose regulates blood sugar, or how batteries can start cars in both hot and cold weather. Unfortunately for fiduciaries, economic models, including those used to create target-date funds and managed accounts, are anything but scientific regardless of how much math went into their creation. This lack of a solid foundation explains both why 2010 target-date funds blew-up in 2008 and the large amount of variability in their returns.

In addition to losing substantial amounts of assets, the returns of 2008 revealed significant variability in the performance of target date funds with the same target date.

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For example, for 2008, the returns of 2010 target date funds ranged from negative 9% to negative 41%. While the returns turned positive in 2009, the variability continued, with 2010 target date fund returns ranging from 7% to 31%.

Much of this variability in returns is the result of variations in asset allocations among target date funds with the same target date. Based on a staff review, equity exposure of target date funds at target date has ranged from 25% to 65%.³

As William Sharpe pointed out in 1970, the essence of economic model building is based upon data mining:

...the realism of the assumptions matter little. If the implications are reasonably consistent with observed phenomena, the theory can be said to 'explain' reality.⁴

Another Noble laureate, Milton Friedman, said the same thing years before:

As I shall argue at greater length below, the only relevant test of the validity of a hypothesis is comparison of its predictions with experience. The hypothesis is rejected if its predictions are contradicted ("frequently" or more often than predictions from an alternative hypothesis); it is accepted if its predictions are not contradicted; great confidence is attached to it if it has survived many opportunities for contradiction.⁵

In 2004, physicist turned financial "quant" Emanuel Derman went even further:

*Trained economists have never seen a first-class model... "[E]very financial axiom I've ever seen is demonstrably wrong... The real question is **how** wrong is the theory, and how useful is it regardless of its validity. Everything you read in any theoretical finance book, including this one, you must take with a grain of salt.⁶*

In 2009, Derman and mathematician turned "quant" Paul Wilmott wrote:

The truth is that there are no fundamental laws in finance. And even if there were, there is no way to run repeatable experiments to verify them... Financial markets are alive but a model, however beautiful, is an artifice. No matter how hard you try, you will not be able to breathe life into it. To confuse the model with the world is to embrace a future disaster driven by the belief that humans obey mathematical rules.⁷

Perhaps this is why economists joke that:

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*An economist is an expert who will know tomorrow why the things he predicted yesterday didn't happen today.*⁸

and the noted economist, Deirdre McCloskey (the former Donald N. McCloskey), observed:

*Economics, like geology or evolutionary biology or history itself, is a historical rather than a predictive science...Economics does not understand itself. If it understood its own way of conversing—its rhetoric—maybe some of its neurotic behavior would stop, such as its compulsive handwashing in statistical procedures.*⁹

If anyone doubts the above observations, their doubt will likely be erased if they read the recent front page Wall Street Journal article, *Course of Economy Hinges on Fight Over Stimulus*, which begins:

Eighteen months after President Barack Obama administered a massive dose of spending increases and tax cuts to a weak economy, a brawl has broken out among economists and politicians about whether fiscal-stimulus medicine is curing the illness or making it worse...

*One side says Mr. Obama's \$862 billion fiscal stimulus prevented an even graver recession. Cutting the deficit right now, this side insists, would send the economy into a tailspin. The other side questions the benefits of the stimulus and argues addressing long-term deficits now is crucial to avoid higher interest rates and even bigger economic problems down the road.*¹⁰

If economists can't even agree on whether or not the stimulus worked, how can they possibly arrive at a glide path for a target-date fund or arrive at the "correct" asset allocation for a managed account? If you doubt the merit of that question, read another recent Wall Street Journal article, *Are Bonds Expensive? Stocks Cheap? Or Both?*¹¹

If these fellows are correct, why have target-date funds and managed account programs taken off?

The answer is simple. Congress recognized that 401(k) plans are becoming, if they haven't already become, the "goose that has been cooked". After all, it has become a well-established fact that the average American worker:

- knows little, if anything, about investing;
- has little interest in retirement/investment planning;
- does not adequately and appropriately diversify his/her account;

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- is not contributing anywhere near the amount required to achieve a financially secure and comfortable retirement.

Thus, Congress endorsed the use of target-date funds and managed accounts in the hopes that professional investment advice would solve the participants' problems and contribute to salvaging the 401(k) plan as this nation's corporate retirement program. It is highly unlikely that Congress delved into the basis of Modern Portfolio Theory in any depth given that deregulation was in vogue at that time and the financial services' lobbyists were probably quite active. (A brief discussion on the mindset of the regulators at that time can be found in *Fed's No. 2 Man Says Rules 'Didn't Keep Up'*.¹²)

In any event, Congress' creation of QDIAs should be of little comfort to fiduciaries since they still:

- must demonstrate they acted prudently in selecting and monitoring their choice;
- are held liable for their decisions even if Congress or a government agency leads them astray (a very costly lesson BP has recently learned¹³).

In addition, target-date funds and managed accounts create profit opportunities for recordkeepers and investment advisors. Thus, they enthusiastically market these products. Fiduciaries, however, should keep in mind that the marketing pieces of 401(k) recordkeepers that hype the expertise of their investment advisor partners will likely offer them little legal protection if target-date funds and managed accounts implode again. After all, those marketing pieces simply reflect the views of a profit-driven, non-fiduciary recordkeeper and are definitely not a substitute for the fiduciaries doing a thorough investigation. (This argument is remarkably similar to the one the credit rating agencies are making in defending themselves against lawsuits stemming from the subprime mortgage crisis.)

The power of the profit motive as a driver for financial innovation and the models that spring from it has been succinctly summarized by Benoit B. Mandelbrot and Richard Hudson:

*Financial economics, as a discipline, is where chemistry was in the sixteenth century: a messy compendium of proven know-how, misty folk wisdom, unexamined assumptions, and grandiose speculation. Most of it focuses on practical aims, such as making money or avoiding loss for whoever is paying for it...it does mean—especially in the field of financial market analysis—that the flow of scientific information is sharply curtailed by self-interest.*¹⁴

In addition, demonstrating that a representation is fraudulent is easier said than done:

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Many categories of responses which are misleading, evasive, nonresponsive or frustrating are nevertheless not legally “false” [including] truthful answers that imply facts that are not true.¹⁵

401(k) fiduciaries may feel that if the investment advisor signs on as a co-fiduciary, especially if that co-fiduciary is affiliated with a Noble laureate, their problem is solved. Unfortunately, fiduciaries have a responsibility to monitor their co-fiduciaries and when they don't, legal nightmares can occur as was recently demonstrated in the excessive fee case, *Phones Plus v. Hartford Financial Services*.

Regardless of how fiduciaries “slice and dice” the issues, they ultimately must address another question: Does our investment advisor have a model that will work in non-equilibrium conditions, such as those the United States and much of the rest of the world has experienced for the last ten years? After all, under stable conditions, the future might resemble the past. In unstable (non-equilibrium) conditions, all bets are off as so aptly stated by George Soros:

Markets are constantly in a state of uncertainty and flux and money is made by discounting the obvious and betting on the unexpected.

What's a fiduciary to do since it is quite obvious that managed accounts and target-date funds aren't going away?

The answer is simple.

- Read so you will be up-to-date on the issues and appreciate how they are evolving.
- Document what you did and why you did it.
- Document that you evaluated how well the managed account and target-date fund programs are meeting your expectations (and the challenges the fiduciaries confront in developing realistic expectations are discussed in *Try as Investors Might, So Much Depends on Chance*¹⁶).
- Candidly discuss the issues with your participants in language they will easily understand and, above all, avoid sugarcoating any of the issues.

And when you do your evaluations, keep in mind the comments of the highly regarded ERISA attorney, Fred Reish:

How do you measure the success of a 401(k) plan for benefit adequacy? Most people think of the account balance at retirement. But the real measure is the monthly income provided in retirement. After all, the electric company, the phone company, the water company, and your landlord or mortgage holder will still be expecting monthly payments.

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*So, participants—and, therefore, plan sponsors and providers—need to think in terms of monthly income . . . and then participants need to be provided with the information they need to do their job right.*¹⁷

401(k) fiduciaries must periodically—preferably semiannually—evaluate what’s happening to the accounts of the participants who are using target-date funds and managed accounts (see Appendix A). If such evaluations aren’t done, the fiduciaries are setting themselves up for costly litigation with disgruntled participants.

¹ John Maynard Keynes, The General Theory of Employment, Interest, and Money, Harcourt, Brace, and World, New York, 1936, p. 383.

² Casey Quirk, *Target-Date Retirement Funds: The New Defined Contribution Battleground*, November 2009.

³ Chairman Mary L. Schapiro, Opening Statement at Commission Open Meeting, U.S. Securities and Exchange Commission, Washington, D.C., June 16, 2010.

⁴ William Sharpe, Portfolio Theory and Capital Markets, McGraw-Hill, New York, 1970, p. 77.

⁵ Milton Friedman, *The Methodology of Positive Economics*, Essays in Positive Economics, University of Chicago Press, Chicago, 1966, pp. 3-16, 30-43.

⁶ Emanuel Derman, *My Life as a Quant: Reflections on Physics and Finance*, John Wiley & Sons, Inc., Hoboken, 2004, pp.266-267.

⁷ The Financial Modelers' Manifesto at <http://www.wilmott.com/blogs/eman/index.cfm/2009/1/8/The-Financial-Modelers-Manifesto>.

⁸ Donald N. McCloskey, The Rhetoric of Economics, University of Wisconsin Press, Madison, 1985, p. xix.

⁹ Donald N. McCloskey, p. xix.

¹⁰ Jon Hilsenrath, *Course of Economy Hinges on Fight Over Stimulus*, Wall Street Journal, July 26, 2010, A1.

¹¹ Mark Gongloff, *Are Bonds Expensive? Stocks Cheap? Or Both?*, Wall Street Journal, July 31, 2010, B1.

¹² Jon Hilsenrath, *Fed's No.2 Man Says Rules 'Didn't Keep Up'*, Wall Street Journal, June 18, 2010, C1.

¹³ Neil King Jr. and Keith Johnson, *BP Relied on Faulty U.S. Data*, Wall Street Journal, June 24, 2010, A1.

¹⁴ Benoit Mandelbrot and Richard L. Hudson, The (mis)Behavior of Markets, Basic Books, New York, 2006, p. xix.

¹⁵ Legal brief filed by President Clinton’s lawyers to a committee of the Arkansas Supreme Court which recommended that he be disbarred for “serious misconduct”. Quoted in Jeremy Campbell, The Liar’s Tale: A History of Falsehood, W.W. Norton & Company, New York, 2001, p. 11.

¹⁶ Sam Mamudi, *Try as Investors Might, So Much Depends on Chance*, Wall Street Journal, August 2, 2010, R1.

¹⁷ Fred Reish, *Adequate Benefit and Monthly Income*, Report to Plan Sponsors, July, 2010.

Appendix A: Retirement Readiness Assessment

Retirement Readiness Assessment

| | Entire Group | Under 30 | 30 - 39 | 40 - 49 | 50 - 59 | 60 and older |
|--------------------------------------------------------------------------------|--------------|-------------|-------------------------------------------|-----------|----------------------------------------|--------------|
| Number of employees analyzed | 370 | 56 | 67 | 119 | 98 | 30 |
| Participants* | 220 | 33 | 46 | 67 | 60 | 14 |
| Non-participants* | 150 | 23 | 21 | 52 | 38 | 16 |
| Projected required nest-egg withdrawal, average | | | | | | |
| All employees | \$45,435 | \$71,801 | \$61,893 | \$46,064 | \$27,073 | \$16,947 |
| Participants* | \$50,618 | \$74,652 | \$67,450 | \$51,210 | \$30,667 | \$21,336 |
| Non-participants* | \$37,832 | \$67,709 | \$49,720 | \$39,433 | \$21,399 | \$13,107 |
| Participant contribution rate, average | | | | | | |
| Current | 4.9% | 5.2% | 4.5% | 4.8% | 5.0% | 6.1% |
| Suggested** | 15.8% | 5.5% | 6.8% | 14.1% | 28.1% | 24.3% |
| Non-participant contribution rate, average | | | | | | |
| Current | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Suggested** | 19.7% | 3.6% | 6.7% | 17.2% | 34.4% | 33.5% |
| Participant nest-egg at retirement, average | | | | | | |
| Projected (at current contribution) | \$828,242 | \$1,921,685 | \$1,188,208 | \$644,005 | \$295,725 | \$232,025 |
| Needed | \$981,049 | \$1,453,263 | \$1,303,080 | \$986,077 | \$599,872 | \$419,427 |
| Non-participant nest-egg at retirement, average | | | | | | |
| Projected (at current contribution) | \$48,021 | \$11,064 | \$119,188 | \$54,363 | \$42,548 | \$125 |
| Needed | \$742,182 | \$1,325,690 | \$973,552 | \$767,415 | \$427,606 | \$264,830 |
| Participant retirement income security, percentage of group | | | | | | |
| Projected to be on track | 26.4% | 72.7% | 34.8% | 16.4% | 8.3% | 14.3% |
| Non-participant retirement income security, percentage of group | | | | | | |
| Projected to be on track | 0.7% | 0.0% | 0.0% | 0.0% | 2.6% | 0.0% |
| Number of years nest-egg projected to last at current contribution rate | | | | | | |
| Participants | 15 | 23 | 19 | 14 | 10 | 9 |
| Non-participants | 2 | 1 | 2 | 2 | 3 | 1 |
| All projections are based on: | | | | | | |
| Retirement age: 65 | | | Post-retirement investment return: 6.0% | | Employer matching schedule: | |
| Annual salary increase: 3.0% | | | Post-retirement inflation rate: 3.0% | | 100% on first 3% on of pay contributed | |
| Pre-retirement investment return: 8.0% | | | Post-retirement life expectancy: 25 years | | 50% on next 2% on of pay contributed | |
| Replacement ratio: 80% | | | | | | |

See notes on next page.

Analysis Notes

* Participants are defined as those people who are currently making contributions to the plan. Non-participants are defined as those who are not currently contributing.

** The "suggested" contribution is not necessarily the contribution projected to be required to provide an adequate retirement income stream. The suggested contribution will never exceed federal contribution limits, even if the required contribution would. In addition, for participants, the suggested contribution is never lower than what the participant is currently contributing even if the required contribution is less. These two factors can combine to make the suggested contribution for non-participants in a given group be lower than the suggested contribution for participants in the same group even though the required contribution (which is not shown) would be higher for the non-participants than for the participants.

(Generally, more non-participants than participants have required contributions greater than the federal limits which drives the average suggested contribution for non-participants down relative to required contribution. At the same time, participants who are currently contributing more than required drive the average suggested contribution for participants up relative to the contribution required to provide an adequate retirement income stream.)