DFA Gives Managed Accounts a New Dimension

By Kerry Pechter *Wed, Oct 24, 2012*

"For as long as I've known him, David Booth has had a desire to find a way to improve retirement for everyone, not just people who have millions of dollars," Michael Lane told RIJ this week. "That's his vision, and that's the whole reason we acquired SmartNest in the first place."

It seems *de rigueur* to have a Nobel laureate's name tied to your brand if you're marketing a newfangled managed account program to defined contribution plan sponsors. Financial Engines has William Sharpe, for instance. Guided Choice has Harry Markowitz.

And now comes Managed DC, the managed account program from Dimensional Fund Advisors, whose secret sauce is an algorithm created by economist Robert C. Merton, who shared the Nobel Prize in 1997 for his work on the Black-Scholes-Merton options pricing model.

Designed to be the only investment vehicle that a 401(k) plan participant would ever need, Managed DC is built on a chassis of a DFA fund-of-funds consisting of equities and Treasury Inflation-Protected Securities, or TIPS.

Merton's algorithm, embedded in software called SmartNest, is intended to ensure that the Managed DC investment vehicle lands safely at a participant's chosen retirement date, with exactly enough assets on board to buy the participant an inflation-adjusted life annuity large enough to provide him or her with an adequate floor income in retirement.

This project appeared ready for prime time last spring, when Managed DC was the topic of a presentation at the Retirement Income Industry Association meeting in Chicago. Over the summer, however, there was a sudden top-level management shuffle at DFA. (See today's feature, "The SmartNest Back-Story.") Now Managed DC is rebooting under DFA vice-president Michael Lane.

Managed DC's strength and weakness, by some accounts, may be the uncompromising nature of its approach. Unlike managed fund-of-funds that target a retirement *date* or, in some cases, a tolerance for *risk*, it targets a retirement *amount*. That puts a burden on participants to top up their accounts with extra cash when Mr. Market doesn't deliver effortless gains.

But, according to people close to the situation, DFA co-founder David G. Booth, 65, isn't in a mood to compromise about Managed DC. He's thinking about his legacy, and wants to be remembered for more than just having funded the U. of Chicago's eponymous Booth School of Business with a record-setting gift of $300 million in 2008.

"For as long as I've known him, David Booth has had a desire to find a way to improve retirement for everyone, not just people who have millions of dollars," Lane, who is 45, told *RIJ* this week. "That's his vision, and that's the whole reason we acquired SmartNest in the first place."

Guidance system

Managed DC is a qualified default investment alternative (QDIA) for defined contribution plans, which means that new participants in ERISA plans can be auto-enrolled into it. Its basic vehicle is a fund-of-funds consisting of a broad-based equity index fund, a short-term TIPS fund, and a long-term TIPS fund. Participants who use Managed DC must apply 100% of their plan contributions to the program. The DFA asset management fee is about 40 basis points a year and the Managed DC overlay will cost 30 basis points, according to an analysis of the program by Wade Pfau.

DFA's stated intent is to manage the three-part fund-of-funds so that, by the time the participant retires, the balance can buy an inflation-adjusted single premium immediate annuity that pays enough so that, along with income from Social Security and any other available source, the participant has enough to live on.

In other words, each participant's account will be managed like an individual pension fund, with lots of course corrections along the way, with lots of (hopefully accurate) input from the participant, and with periodic warnings (if necessary) that the fund is off-track.

The software that purportedly steers this vehicle from Point A to retirement is based on an algorithm that Merton (formerly of Harvard, now at MIT) and TIPS advocate Zvi Bodie (now of Boston University) created more than six years ago and called SmartNest.

A 2008 article in a Harvard Business School newsletter described SmartNest this way:

> First off, employees are asked to input their desired annual income in retirement. If they are not sure, the recommended target to maintain one's standard of living is around 70% of your annual income earned in the last few years of your work life. They are then asked to input the minimum amount they would feel comfortable living on. ('It's a device to calibrate your risk tolerance,' Merton says.)
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> That information is then integrated with the employee's additional sources of retirement income such as Social Security, a DB plan, or an IRA… to determine and implement a dynamically optimized portfolio strategy that maximizes the chance of achieving your desired retirement income goal. Over the years, that managed portfolio adjusts for factors such as increases or decreases in salary and takes into account explicitly the risks of changing life expectancy, inflation, and interest rates.

SmartNest got its first real-world application at Philips Electronics NV in the Netherlands and Germany, and is said to be still running there. It was a perfect fit there. European companies are looking for ways to transition their retirement plans smoothly from DB to DC. Their employees are used to having someone else manage their money, and they are required to convert their account assets to lifetime income at retirement.

DFA bought SmartNest for an undisclosed sum—the software was valued at $1.1 million when its former owner, Trinsum Group, filed for bankruptcy in early 2009 (see SmartNest feature in this issue of RIJ)—in late 2009, hoping to transplant SmartNest into a very different type of cultural and regulatory soil here in the U.S.

A smarter target date fund

Bodie, in an interview with RIJ, said, "Essentially, SmartNest used a form of asset liability matching. I like to describe it as a 'target benefit plan,' with a lot of adjustments along the way. The goal was to produce a target replacement rate of your final salary, and to be better than a DB plan. A traditional DB plan doesn't offer a COLA adjustment after retirement, and that imposes a huge risk on the participant. [SmartNest was] a much smarter target date fund."

Behind the gizmo, Managed DC espouses a philosophy that's currently in vogue: Shift the participants' focus from accumulation to income. "It's one thing to say, 'What's your number?' and another thing to manage to that liability," Lane told RIJ. "If you just put people in funds, that's managing toward a maximum rate of return.

"That's different from saying there's a future liability of X. I hear everyone talking about income right now, but nobody is managing money toward income. Nobody is doing close to what we're doing. There are others with brilliant people, but nobody is close to what we're doing."

Another of Managed DC's guiding principles: Don't take more risk than necessary to achieve the desired outcome, and gamble only with your surplus. Although young participants may hold as much as 98% of their Managed DC balances in equities, the proportion devoted to TIPS rises as retirement approaches.

The algorithm uses the ever-changing present value of a future inflation-adjusted annuity as a signal for adjusting the asset allocation. The fund technicians manage each account's downside risk with a form of Constant Proportion Portfolio Insurance: When equity prices fall, they shift assets into TIPS. That's the same basic method that Prudential Annuities uses to protect the guarantee in its popular Highest Daily variable annuity living benefit.

Distribution questions

Before participants can start using Managed DC, plan sponsors have to adopt and embrace it. And before that happens, Managed DC has to be mounted on the recordkeeping platforms that plan sponsors use.

So far, according to Lane, Managed DC is integrated with ASPire, a 401(k) recordkeeper that already offers DFA mutual funds to numerous retirement plans. Managed DC will also be on the DST Systems (this was confirmed by DST) and SunGard platforms, which serve as so-called middleware between a wide range of recordkeepers, plan sponsors and investment companies.

Managed DC doesn't require plan participants to buy an inflation-indexed SPIA with their account assets when they retire—no DC plan has such a requirement–but Lane says DFA is committed to providing them with the education and the projections they'll need to choose between annuitization, partial-annuitization, and systematic withdrawals from their accounts.

Managed DC also intends to provide them with specific annuity options. Lane identified Principal Financial as the first confirmed provider of an inflation-adjusted SPIA to Managed DC account owners. (Principal Financial could not confirm that prior to deadline.) He said the company is in contact with another A+ rated insurer as a potential SPIA provider. Before DFA bought SmartNest, Lane said, DFA talked with The Phoenix Companies about partnering to offer an advanced life deferred income annuity, also known as longevity insurance. But Phoenix plays no role in Managed DC at present, Lane said. A Phoenix spokesperson said there is no ongoing relationship between Phoenix and DFA.

Income Solutions, the multi-option, no-commission, online immediate annuity purchase platform created by the Hueler Companies in Minneapolis, already provides an annuitization pathway for Vanguard plan participants, and could do the same for participants who use Managed DC. Kelli Hueler, CEO of Hueler Companies, said she's talked with DFA but has no agreement with the firm.

Outside perspectives

By now, many people in the retirement industry have become familiar enough with the basic design of Managed DC to have formed opinions about it. In RIJ's conversations with a few of them, they tended to express support for DFA's mission, but wondered if it will lead to the envisioned outcomes—especially in a regulatory environment where annuitization is optional and where a lot can go wrong between the auto-enrollment date and the retirement date.

RIJ asked Wade Pfau, Ph.D., who has written about retirement income and will begin teaching next spring in a new doctoral program on financial planning at The American College, to describe the strengths and weaknesses of Managed DC.

"They're trying to change the defined contribution pension back into a defined benefit pension, where they manage everything for you, But it's still DC. It's only a DB pension if you decided to annuitize. The weakness would be that it's a sort of a black box. It's complicated, and it's hard to understand it or to explain to clients. For instance, I'm not sure if they report the asset allocation to [the participant], or if that is kept from you. It also could be expensive in terms of how much you have to save. For instance, if you're falling behind on your savings, you'll be put in all TIPS," Pfau said.

"But it's good for people who have no intention to manage their own investments. It can guide people to somewhere between their lifestyle spending goal and their minimum spending needs," he continued. "They don't need to worry about asset allocation or rebalancing, because the program will help them do the best they can with the amount they are able to save. It's like an individually customized target date fund."

An executive at one 401(k) recordkeeping technology firm told RIJ, "There's no guarantee that when you get to retirement there will be an annuity for you to buy [that's the same price as the amount you've saved]. From a recordkeeping standpoint, there are no big issues with it. It's no different from anybody else's managed account program. It just has a different set of inputs and rebalancing rules and different targets. But just because you get on a platform, it doesn't necessarily mean that plan sponsors will choose it or that 'money will come rolling in the door.'"

Similarly, an executive at a potential Managed DC competitor said he agrees with the philosophy behind Managed DC, but notes that the capabilities of the SmartNest software shouldn't be overstated.

"It's a bit of a placebo," he told RIJ. "It creates the illusion of certainty rather than certainty. But placebos taste good, so they're popular." He compared it to Financial Engine's "Income+ program.

Even a brilliant model is just a model, and not a duplication of the real world, he added. "They pretend that the participants will always be able to express all of the information they need to [make the model work] properly. Also, there are two sides to the household balance sheet, and the other side is debt. Most folks in this space, including DFA, don't ask participants about debt. It's hard to ask about."

He warned against the trap of being dazzled by the wonders of technology.

"I think they have a great concept," he said. "But there's a tendency to over-engineer the mousetrap and think that it's all about the genius of the mousetrap. [The retirement industry's] goal is to get people to put their eye on the ball and realize that income is the ultimate outcome. You don't need to focus on the accuracy of the income. It's not about the model. It's about the impact on individual behavior." Under-saving and under-planning is the problem, he suggested. Solve that, and people will begin to save enough.

What's next for Managed DC

For the moment, Lane has his hands full trying to get Managed DC on recordkeeping platforms. Then he has to make his pitch to plan sponsors. Many of them have qualms about mixing annuities and 401(k) plans. They may also wonder whether an all-in, 100%-contribution plan is right for their participants. The managed account space is also highly competitive; firms like Guided Choice and Financial Engines have more than a year's head-start.

"We've spoken to the plan sponsors for feedback, but until we're on the recordkeeping platforms, they can't access the Managed DC product," Lane said. "Right now, we're focusing on recordkeeper integration, and talking to some plan sponsors, consultants—especially if they use ASPire as their record keeper."

But, beyond merely selling a managed account program, Lane is responsible for realizing David Booth's vision—something for which Lane may be inherently better suited than his predecessor, David Deming.

"I've known David Booth for almost 20 years," Lane said, "and he has always wanted to provide a better retirement investment experience to the vast majority of people—people who are working hard and making a good living, but who will need to rely on Social Security, and for whom a 401(k) is their only savings."