

# Robert Merton on the Promise of Reverse Mortgages and the Peril of Target-Date Funds

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Target-date funds are an exceptionally bad way to save for retirement, according to Robert Merton. But, he said, reverse mortgages are a powerful – yet largely untapped – tool for retirees to improve their standard of living.

Merton is a professor of economics at M.I.T. and was awarded the Nobel Prize in economics in 1997 for his contributions to the Black-Scholes option-pricing model.

Merton spoke about target-date funds during his keynote speech on October 26 at the national conference for clients of BAM Advisor Services, a turnkey asset management provider for more than 140 wealth advisory firms known collectively as the BAM Alliance, held in St. Louis. In other venues (for example, [here](#)), he has spoken about reverse mortgages.



The idea that the design of target-date funds is based solely on one's age doesn't pass a "minimal test of common sense," he said.

According to Merton, reverse mortgages will become a "key means" of saving for retirement.

Let's look at Merton's analysis of those two products.

## The peril of target-date funds

For every retirement product, Merton said, the measurement of success should be income. Income is how one determines their desired standard of living. You don't need a principal sum to live, he said. You need a certain level of inflation-adjusted income.

Everywhere, except in the defined-contribution (DC) world, retirement success is measured in income, he said. For example, pension plans measure success by their "funded status," which in effect is the degree to which the plan can meet its participant's projected income payments. But in the DC world, which includes target-date funds, success is measured as a principal target.

"You have to set a goal and measure the progress toward it the right way," said Merton.

Target-date funds have a date, which Merton said "makes you feel good." He reminded the audience,

though, that the 2010-target funds still exist, which should cause one to question the meaningfulness of a fund's target date.

More to the point, Merton said there are no goals in the prospectus of target-date funds; there is a process, which is the glide path. The date, he said, is the date that the process stops.

Technology has advanced, Merton said, and much more is possible in terms of providing customized advice and products. The downside is that complexity has increased, and so has the need for competent advice, according to Merton.

Target-date funds get more conservative by increasing exposure to fixed-income. But, Merton said, it matters what type of bonds they hold. If they put you in three-five year nominal bonds, for example, they don't protect you against inflation.

Your chance of getting to a goal with a customized solution is much greater than with a generic solution.

His most strident criticism was that target-date funds lack customization and are based solely on one's age (or, equivalently, the time to retirement).

"Imagine you got your medical advice by age, without respect to gender." He asked rhetorically, "Would you settle for that for your prescriptions?"

"Why would think that it would be remotely possible that a single statistic – age – would be good enough to get you to a decent retirement?" Merton asked.

"To me that doesn't pass the minimal test of common sense."

That's a good thing for advisors and the finance industry, he said. "If the answer using age was good enough, then this whole industry would have far too many resources devoted to it."

"I'm not trashing target-date funds," he said. "But why would you ever believe that age was good enough?"

### **The promise of reverse mortgages**

Technology may have failed with respect to target-date funds, but Merton was much more optimistic about the promise of reverse mortgages. Indeed, he said technology underlies the promise of reverse mortgages. He said that belief is an outgrowth of the field of growth theory, for which the economist Robert Solow won a Nobel Prize. Solow showed that economic growth is not driven by population growth or high rates of saving, but by technological progress. Technology allows us to get more from labor and capital.

"One of the biggest global issues is how to fund retirement," Merton said. "It is faced by every country

– large and small.”

The good news is we are living longer and having longer active lives, Merton said. This is thanks to improvements in nutrition and medical science. The distribution of those benefits is not equal, he added, since the wealthy get a disproportionate share of those benefits.

Technology makes a solution possible, he said, and reverse mortgages are an important way that financial innovation can solve problems on a global basis.

The bad news, according to Merton, is that we must pay for our consumption while we work and during retirement. The implication of longevity means that we go from a 40-year working career and a 10-year retirement to a 40-year career and a 20-year retirement. The implication, approximately speaking, is that we must save 33% of our working earnings for retirement instead of 20%. Without reverse mortgages, the alternative, Merton said, is to reduce consumption or work longer.

If we can find ways to get more out of the assets we accumulate, Merton said, then we can enjoy greater longevity without sacrificing standard of living.

For the working middle class, the largest and sometimes only major savings and the largest single asset is the house in which they live, according to Merton. Reverse mortgages are ideally suited to un-tap that store of wealth.

However, Merton said, “reverse mortgage” is a terrible name. In Korea, he said, it is called a home pension. It is a practical way to use one’s house as a more efficient way to save for retirement.

In an agrarian economy, you gave the farm to your children and they looked after you. It does not work that way in an industrial economy, according to Merton. Houses get sold; children do not move in.

The house should be viewed as an annuity while you live in it and a financial asset that ultimately gets sold. A reverse mortgage gives up the financial asset when one doesn’t need it, in order to pay for other expenses during retirement that you do need.

Reverse mortgages provide liquidity based on the owners’ age and the value of house, in the form of a loan. Interest accrues on the loan. But no payments on loan are due until the owners leave the house.

Critically, Merton said, reverse mortgages are non-recourse loans. If the value of the house is less than the principal due at the time the owners move out, then there is no recourse.

In this sense, reverse mortgages are designed differently than traditional mortgage loans. Borrowers shouldn’t care about the rate of interest they will pay; their goal should be to maximize the amount of principal loaned.

Moreover, it doesn’t change one’s behavior. A reverse-mortgage user stays in their house.

“This is going to become one of the key means of funding retirement in the future,” Merton said.

The challenge, Merton said, is to implement it cost effectively and efficiently through communication and marketing. Funding is a challenge too, he added. “This is an engineering problem, not a science problem,” Merton said. “This can be done today.”

Also, Merton said a challenge remains in what one does when they get the principal. “If you spend it,” he said, “it defeats the purpose.”

One criticism of reverse mortgages is that it deprives one’s children of a bequest of the remaining value of the house. Merton’s response was that the potential for a bequest still exists with a reverse mortgage. It becomes more like a “lottery ticket” that is won under the most adverse circumstances (when one’s parents die). The children or heirs get an option (a call option) on the value of the house at the time of sale, to the extent that value exceeds the amount due on the reverse mortgage.

More broadly, though, Merton said retirees should place maintaining their own standard of living ahead of leaving a bequest. He said it is similar to the warning that airline attendants give with regard to the use of oxygen masks. They say to place the mask over your own mouth before that of your children.

“It doesn’t help if you can’t make it through retirement without your resources,” he said. “This is about having enough to have a decent retirement.”