

lanning for retirement is something we would expect "rational economic actors" to take great care in doing. But the Federal Reserve's 2004 Survey of Consumer Finances shows the typical household approaching retirement with less than \$30,000 in financial assets outside of employer-sponsored plans. And people aren't saving enough in those plans. This is not the sort of behavior one would expect from forward-looking human beings.

Society could be headed for an expensive ride if the workers of today don't squirrel away money — early and often. Life expectancy can leave, on average, about 20 years in retirement, and someone will have to pay for it. With guaranteed company pensions becoming less common and the arithmetic problems of Social Security well publicized, today's workers need a retirement lifeline. The risk and responsibilities of retirement rest on individuals' shoulders.

"Companies are moving away from defined benefit plans [guaranteed pensions] and moving toward [defined] contributions, the 401(k), in

which what you get depends very much on what you as an individual do while you're working," says Brigitte Madrian, a Harvard University economist who has studied plan designs and savings outcomes.

But 401(k) decisions require a chain of financial moves that many workers avoid. About one-fifth of eligible employees don't even take the first step — signing up.

To remedy this, automatic enrollment in 401(k) plans is gaining traction among employers. Instead of having to sign up, employees are enrolled by default but retain the right to opt out. Participation results among firms that have tried it have risen as high as 90 percent, in some cases. It's especially effective for increasing participation of women and minorities.

Traditional neoclassical economics can't explain the success of automatic enrollment. Why would it improve enrollment when the choices are the same? Rational people should participate in roughly the same numbers regardless of whether the default is opt in or opt out. In explaining this

paradox, economists are turning to behavioral economics.

# Human Nature and Economic Man

Basic neoclassical economic theory suggests that people weigh costs and benefits, making decisions that are in their best interest. They save and spend according to need over a lifetime. Some people, for example, may count on that rich uncle, or other savings vehicles, especially home equity. And 401(k) plan contributions are deducted before taxes, a great benefit to higher-income earners, but not so much for low-wage workers. So, for some people it could be rational to forego contributions to a 401(k) plan, especially since tax rates and/or brackets may be higher at retirement than now. (For low- and moderate-income people, some research shows that a 401(k) plan may raise lifetime taxes and lower lifetime expenditures.)

Still, surveys indicate that retirement preparation may be inadequate to sustain retirement. The Center for Retirement Research at Boston College reports that 35 percent of

households aged 55 to 64 have no pension, only Social Security. With 401(k) becoming the new pension, policy experts worry that this group of insufficient savers could grow. Mainstream economics hasn't fully explained nor found the cure for low savings.

The life-cycle theory, for example, assumes that people increase savings as they age. But economists Lawrence Summers of Harvard University and Christopher Carroll, now with Johns Hopkins University, suggested in a 1989 paper that consumption, rather than being smoothed over the life cycle, instead tracks income. And it would seem that aging baby boomers would be beefing up the national savings rate, but the rate continues its decline.

"Unfortunately, many years of concentrated attention on this issue by policymakers and economists have failed to uncover a silver bullet for increasing household saving," Fed Chairman Ben Bernanke said recently in a speech. While no silver bullet, automatic enrollment in 401(k) plans may be a step in the right direction.

Whereas neoclassical economics generally models humans as wholly rational beings, behavioral economics assumes some flaws. Incorporating psychological insights, behavioral economics finds human decisions sometimes fraught with error and systematic bias: People have trouble making long-term decisions and place more weight on present circumstances than those in the future.

Behavioral economists Richard Thaler and Shlomo Benartzi observed in 1981 that actual household behavior veers from the life-cycle theory for many reasons. People might calculate needs incorrectly, and have trouble delaying gratification. For example, people born between 1931 and 1941 who saved with old-fashioned pension, Social Security, and home equity vehicles requiring precious little willpower - tend to be adequately prepared in retirement, according to economists Alan Gustman and Thomas Steinmeier of Dartmouth College and Texas Tech University,

respectively. But workers today need to act: calculate future expenses, save, and invest for adequate asset accumulation. That is a tall order for people who place enormous weight on current consumption, and an especially tall order for people with little or no financial knowledge.

Those decisions require selfcontrol and savvy as well as the ability to act rather than procrastinate. As Thaler and Benartzi write, "determining the appropriate savings rate is difficult, even for someone with economics training."

Thaler and others have identified the human tendency to postpone unpleasant tasks such as saving or dieting rather than spending or eating. Using such human characteristics to advantage, automatic enrollment can increase savings somewhat painlessly. Thaler and Benartzi point out: "Standard economic theory would predict that this change would have virtually no effect on saving behavior. The costs of actively joining the plan (typically filling out a short form) are trivial compared with the potential benefits of the tax-free accumulation of wealth." Yet automatic enrollment has clearly added workers to 401(k) plans.

#### Benefit vs. Contribution

Guaranteed income streams, also known as defined benefits, have been drying up. Employers over the last 25 years instead have offered 401(k) plans as an alternative. Only about one in five employees today is covered by traditional pensions compared to the nearly two-thirds so covered in 1983. Moreover, one in four workers were offered both a pension and participation in a 401(k) plan in 1983, but by 2004 that number had fallen to 17 percent. Overall, 63 percent of workers in 2004 had access to a 401(k) plan.

But 401(k) plan participation isn't what it could be, especially if compared with the traditional pension that usually covered every employee at a firm. About one in five eligible employees fail to sign on to 401(k) plans, with younger workers less likely

than older workers to join. Of participants, only about II percent contribute the legal maximum. Many, about half of U.S. workers, don't kick in enough to maximize the amount that some employers match, either, essentially refusing "free money." In some cases, a lot of free money.

David Wray of the Profit Sharing/401(k) Council of America (PSCA) says surveys of his members indicate automatic enrollment can raise participation from its current 70 percent to 75 percent to more than 95 percent. At white-collar firms with educated employees, "We had one company, a consulting company, automatically enrolled with 98 percent participation," he notes. Such high enrollment rates are more likely to occur in smaller firms, because many large firms still offer guaranteed pensions, which typically means that their 401(k) participation rates are lower than smaller firms.

By 1998, Internal Revenue Service rulings cleared the way to promote automatic enrollment into 401(k) plans, giving employees the choice to opt out rather than opt in. "The presumption was very much, 'We will set up these plans, the people who need them will use them, and if we set up financial education they will make smart choices and everything will be hunky dory," Madrian says. That worked fine for some, yet many are uncomfortable with financial choices. Researchers like Madrian have found that firms can affect savings outcomes significantly with automatic enrollment, sensible asset allocation, and escalating contributions.

### Opt Out

The Pension Protection Act (August 2006) clarified points about employers' liability for investments, among other murky areas, giving auto-enrollment a leg up. Mark Iwry, who is a nonresident senior fellow at the Brookings Institution, was the benefits tax counsel at the Department of the Treasury when the concept surfaced.

He recalls asking, "Why do we like defined benefits so much? And if they're not going to be around, let's transplant those organs into 401(k)s." Automatic enrollment fit the bill. The policy would cover more moderate-and low-income workers and ease the pain of the disappearing pension.

Automatic enrollment for sure works, and it's largely because of the human tendency to procrastinate, say behavioral economists. People not only put off signing on to their 401(k) plans, they procrastinate when it comes to changing allocations and contribution levels. Economists Madrian, David Laibson, and Andrew Metrick found 401(k) participation rates at three firms exceeded 85 percent under automatic enrollment. Before, participation ranged from 26 percent to 43 percent after six months at the three firms and 57 percent to 69 percent after three years.

"Even though they could opt out, few did," Madrian notes. "The traditional way companies have gone about offering contribution plans have not worked well for those individuals who don't feel comfortable making financial decisions. And there are very small things companies can do that can have a huge impact on outcomes we observe, either for good or bad."

#### **Default Rates**, Allocations

But even automatic enrollment isn't a retirement savings panacea. Human inertia exerts so much power that most people don't ramp up contribution rates over time nor do they tweak

Automatic Enrollment and 401(k) **Participation: Evidence From** Recent Hires of a Fortune 500 Firm 100 401(k) Participation Rate (Percent) 90 80 70 60 50 37.4 40 30 20 **Before Auto-Enrollment** After Auto-Enrollment SOURCE: Madrian and Shea, 2001

investments to suit their stage in the life cycle.

In a 2001 paper, "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," Madrian and Shea point to about a 48 percentage point increase in participation among new hires and an 11 percentage point increase overall at a large health services firm 15 months after enrollment. Among women, participation rose from 36 percent to 86 percent; for Hispanics, from 19 percent to 75 percent; and for those earning less than \$20,000, from 13 percent to 80 percent.

Automatic enrollment succeeds in enrolling lower-income and minority workers because "these are the groups who have the lowest comfort level with financial matters," she says. "They have less education, less personal experience. They also have a lower sense of urgency."

Because employees are passive when it comes to participation, plans need to be designed with behavioral traits in mind, Madrian and her coauthors James Choi, David Laibson, and Andrew Metrick also noted in another paper, "The Path of Least Resistance in 401(k) Plans."

Money tends to stick where it lands. In that study, 65 percent to 87 percent of participants stayed with the company specified default (2 percent to 3 percent) and remain in default funds, typically conservative. That percentage slowly declined, but even after two years, 40 percent to 54 percent still clung to the default. The fear is that auto-enrollment, as useful as it has become, may drag down retirement savings if default contribution rates are too low. Some employees might otherwise have selected higher contribution rates. The benefits of higher participation rates could be offset by low contribution rates and default allocations if they are too conservative.

"Employers can exert a strong influence on savings and investment. They could adopt automatic enrollment with aggressive defaults. Also they could automatically roll over balances of terminated employees,

choose a higher match threshold to motivate higher savings rates, and they could offer well-thought-out investment options," Madrian notes.

#### Choice is Hard

Decisionmaking can be tough. Information may be so abundant that people feel paralyzed to act. (An example: In one study, sales fell sharply when customers had 24 jars of jam to choose from instead of only six.)

Less is often more when it comes to information: People use information when it isn't too costly for them in terms of time and money, say Julie Agnew and Lisa Szykman of the College of William and Mary. They examined how similarity of plan choices, as well as display of choices, "lead to varying degrees of information overload and the probability of opting for the default."

The authors controlled for the financial aptitude of participants and found that people who were less sophisticated financially opted for the default more often — 20 percent compared to 2 percent — than people who possessed more knowledge about financial matters. Fewer investment choices eased the pain of too much information but only for those with above-average financial knowledge. Even changing the way information was presented, by making it easily comparable, or reducing choices didn't ease "information overload" for those who weren't financially grounded. "The results of this paper support the move away from offering 'one-sizefits-all' defaults," write the authors.

## The Buy-In: Automatic Enrollment

The PSCA's David Wray, who surveys his 1,200 members (with a total of 5 million employees) annually about profit sharing and 401(k) plans, found in 2005 that nearly 17 percent of the 1,106 firms responding offer automatic enrollment for new hires, up from 10.5 percent in 2004 and 8.4 percent in 2003. Among the larger companies, with at least 5,000 employees, 34 percent offer automatic enrollment.

Benefits giant Hewitt Associates' 2005 biennial survey of more than 450 firms found one in five automatically enrolled employees in 401(k) plans compared to 14 percent in 2003. One in four firms provided automatic rebalancing of accounts. Nearly 20 percent of companies either offer or planned to offer escalation features.

Many firms in the Fifth District offer or plan to offer automatic enrollment, according to Amy Reynolds of Mercer Human Resources Consulting. The Pension Protection Act will definitely increase auto-enrollment, she predicts. "For employers who might have been on the fence, the [Pension Protection Act] has endorsed automatic enrollment," she says. "Now it is part of any conversation we have with plan redesign."

Scott Barton, who manages the retirement plan for plumbing whole-saler Ferguson Enterprises, based in Newport News, Va., says automatic enrollment has been a feature since he was hired in April 2006. The default contribution rate is 2 percent, allocated to the guaranteed income fund. While he isn't sure about participation rates before automatic enrollment, currently they are about 89 percent. And automatic escalation is a possibility down the road.

Blue Cross Blue Shield of North Carolina began automatic enrollment last year for its work force of about 4,100, the majority of whom are women. While participation rates were good, about 70 percent, now more than 90 percent of employees are part of the 401(k) plan.

Larger firms have tended to move more quickly to automatic enrollment. For example, Michelin North America employs more than 7,600 people in South Carolina. Michelin started automatic 401(k) sign-up for employees at 3 percent in January 2005. Since then, fewer than 1 percent of new hires have opted out, according to Lynn Mann, public relations director.

Thaler and Benartzi developed a plan whose name uses the human tendency to procrastinate. It's called "Save More Tomorrow." Everyone wants to save tomorrow, just don't ask them to do it today. The plan extends the idea of automatic enrollment by escalating contributions as employees' wages rise. Because the plan links the savings to employee raises, they don't feel the pain of reduced take-home pay. In its first implementation, more than 80 percent of those offered the plan signed up, increasing savings rates from 3.5 percent to 9.4 percent. After two more years those employees were saving 13.6 percent, nearly four times the previous level.

As automatic enrollment sets in, escalating contributions are the next step, and both are poised for growth, says Wray of the PSCA. An added bonus for firms to use automatic enrollment and escalating contributions lies in the "nondiscrimination" testing required by federal pension laws. Savings rates between top earners and others in the firm can't differ by more than 2 percent. Because automatic escalation affects low- as well as high-income earners, the new Pension Protection Act eliminates discrimination testing if employers use the tool. That may be incentive enough, Barton says, for his company to implement the idea.

Automatic enrollment's success at adding people to 401(k) rolls hasn't been widely criticized, according to Madrian. "The criticisms have been more along the lines of the extent to which it is 'paternalistic' and whether that is appropriate." Richard Thaler has dubbed it "libertarian paternalism."

And even mainstream economists such as Eugene Fama of the University of Chicago, well known for his work in the "efficient markets" tradition, acknowledge the role of the behavioralists in raising participation with automatic enrollment. While he's not well versed in the literature, he says "hearsay suggests that they have it right."

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