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Behavioral Finance Research Digest
for plan sponsors and their advisors

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ARE PLAN PARTICIPANTS PANICKING? AN UPDATE

Executive Summary: The lingering financial turmoil around the globe has raised serious concerns that plan participants are abandoning their long-term goals and are rushing to sell stock-related investments. There were also concerns that 2008 year-end statements would be the trigger causing plan participants to realize the extent of their losses and start to panic. Data through the end of Jan. 2009, however, indicates the vast majority of plan participants are not rushing to trade and are not bailing out of stocks. Furthermore, most indicators suggest that the level of anxiety among plan participants actually decreased between Oct. 2008 and Jan. 2009.

In the previous issue of 401(k)now™, I investigated whether plan participants are panicking, given the market turmoil. I analyzed participant behavior over the 10-year period from Oct. 1998 through Oct. 2008. As you might recall, I reported a slight increase in participant activity, but there was absolutely no evidence of a panic.

One of the limitations of my initial research report was the timing of the analysis. Since I analyzed data through Oct. 2008, most plan participants did not know how much money they had lost. The last account statement they (might have) opened was their Sep. 30, 2008 statement, which did not include the significant losses occurring in Oct. 2008.

This research update addresses whether participants have panicked since then. This is an important question for plan sponsors and their advisors, since by now plan participants received their 2008 year-end statement and their losses became much more vivid and transparent.

Participant activity decreased between Oct. 2008 and Jan. 2009.

Table 1 displays some key statistics on participant behavior through Jan. 2009. Interestingly, participant activity actually decreased during this time period. In particular, the percentage of plan assets

exchanged decreased from 2.31 percent to 0.84 percent.

Looking at the direction of transfers suggests a similar pattern. Whereas 74.43 percent of the exchanges in Oct. 2008 were out of stocks, just 57.84 percent of the exchanges in Jan. 2009 were out of stocks.

Table 1 also provides some summary statistics on saving patterns, with very little changing over the last three months. Participation rates are down slightly from 74.0 percent to 73.8 percent and deferral rates are down from 7.76 percent to 7.70 percent. There is no evidence that participants have decided to stop saving because they are disappointed with the performance of their retirement saving accounts.

TABLE 1	Oct. 2008	Jan. 2009
Monthly transfer activity (% of assets exchanged)	2.31%	0.84%
Monthly exchanges (% of exchanges moving out of stocks)	74.43%	57.84%
Participation rates	74.00%	73.80%
Employee deferral rates	7.76%	7.70%
Loan initiations (% of plan participants)	0.64%	0.52%
Hardship withdrawals (% of plan participants)	0.18%	0.14%
Call volume	186,750	149,125
Web visitors	430,526	356,248

Sources: Hewitt Associates; T. Rowe Price

On a positive note, loan initiations and hardship withdrawals are down. While not all plans and not all countries permit borrowing against one's retirement savings, we do learn from the decrease in loan initiations and hardship withdrawals that most plan participants are able to cope with the tough economic environment without dipping into their retirement savings.

Plan participants are also sleeping better than they did a few months ago, as judged

by the frequency of calls to phone centers and the frequency of logins to account information. Both call volume and web activity decreased by approximately 20 percent from Oct. 2008 to Jan. 2009.

Most indicators suggest the level of anxiety among plan participants has decreased from Oct. 2008 to Jan. 2009.

To summarize, there is no evidence of plan participants panicking. In fact, most indicators suggest that plan participants are less concerned about their retirement savings today than they were back in Oct. 2008. Having said the above, plan sponsors and their advisors should keep monitoring the situation in case participant behavior changes unexpectedly.

ARE PARTICIPANTS SAVING ENOUGH? CONSIDER THE CASE OF RISING MEDICAL EXPENSES

Executive Summary: Economists often debate whether individuals are saving enough for retirement. Some argue that people are saving too little, because their current saving rates would force them to cut expenses in retirement. Others point out that people could live happily with a lot less with a few simple changes (for example, cooking at home instead of eating out). Hence, they suggest that people are saving enough. A more practical issue, however, is whether a retiree will have enough money to pay for essential out-of-pocket medical expenses, which often skyrocket during retirement. Once medical expenses are considered, it is inevitable to conclude that most people save too little.

Do people save enough for retirement? To answer this question, we first need to define how much is "enough." One approach is to assume that retirees would like to "smooth" their consumption and have enough so they can sustain their lifestyle through retirement. This approach is based on the life-cycle income hypothesis by Nobel Laureate Franco Modigliani.

From a practical perspective, the income smoothing approach requires that we calculate the amount of wealth an individual should accumulate to sustain his/her lifestyle through retirement. Professor Jonathan Skinner of Dartmouth College provides such calculations in his 2007 publication in the *Journal of Economic Perspectives*.

Skinner's calculations are based on the following assumptions: social security benefits provide 30 percent of one's pre-retirement income, the real interest rate is three percent, retirement age is 65, planning horizon is to age 95, and the saving rate is 7.5 percent of income.

With the above assumptions, people should have a wealth-to-income ratio of 5.1 at retirement. For example, a couple earning $100,000 a year should have $510,000 at retirement to sustain their lifestyle. Unfortunately, most people approaching

retirement have saved far less. Thus, the income smoothing approach suggests that most people save too little.

The above calculations, however, are very sensitive to the assumptions made. For example, with rates of return in the 10 percent range, the required wealth-to-income ratio is less than one. However, with average rates of return of just one percent, accumulated wealth should be eight times income. In this case, those who want some assurance they would be able to sustain their lifestyle need to save a lot more than they currently do.

Some economists, however, disagree with the income smoothing approach, pointing out that retirees could easily cut their expenses without compromising their lifestyle. "Home production" is one option available to retirees to cut expenses. As an example, retirees can cook at home instead of eating out, since they have more free time. And, research by Aguiar and Hurst (2005) confirms that retirees are more likely to engage in home production than fully-employed individuals.

Yet another, more subtle, cost-cutting approach has to do with the often overlooked fact that there is little correlation between money and happiness. People could be happy with far less money. As *New York Times* reader Daniel G. Smith testified:

> *"You can get by on a lot less when you're retired, without really depriving yourself of anything important.... If I had known earlier how much 'wealth' derives from such simple pleasures, I would have retired a lot sooner."*

However, one unrelenting factor that is often missing from the debate about whether people save enough is medical expenses. Even in countries that provide universal healthcare coverage for the elderly, essential out-of-pocket medical expenses are skyrocketing.

> A 55-year-old couple needs to accumulate more than $400,000 during the next 10 years to pay for future out-of-pocket medical expenses.

Paul Fronstin (2006) estimates that a 55-year-old couple, planning to retire at age 65, would need to accumulate more than $400,000 during the next 10 years in order to afford supplemental healthcare through age 90. This covers essential healthcare services beyond what the U.S. government already provides.

Skinner points out that in 1993, two percent of households spent more than half their income on medical expenses. However, by 2004, that fraction tripled with six percent of households spending more than half their income on medical expenses. And by 2019, nearly 10 percent of households will be devoting more than half their income to pay for out-of-pocket medical expenses. Similarly, Johnson and Penner (2004) project that by 2030, the median medical expenses for retiree couples will reach 35 percent of their income.

The median retiree couple will spend 35 percent of their income on out-of-pocket medical expenses by 2030.

It is important to note that the out-of-pocket medical expenses I refer to are not about luxury and indulgence; they are often about basic medical care, as many government programs around the world do not cover some very basic medical needs.

For example, the Medicaid program in the U.S. (a supplemental program for lower-income individuals) does not cover wheelchairs. Similarly, while hip replacements are covered by the healthcare system in the U.K., the waiting queues are often months long, and the only way to jump the queue is to pay out of pocket.

To cut a long story short, out-of-pocket medical expenses are both essential and expensive. And, for obvious reasons, the most vulnerable retirees are the oldest. First, the nature of medical expenses is that they grow exponentially with age. Second, as retirees age and face healthcare issues, they might lose their ability to earn income or take advantage of money-saving options, such as cooking on their own.

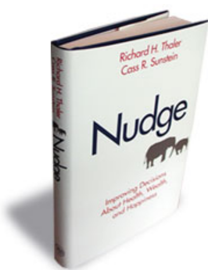
To summarize, some economists believe people are saving too little, as they would have to cut expenses during retirement. Others point out that people could be happy with a lot less, so perhaps people are saving enough. The real key to the debate, however, is mounting out-of-pocket medical expenses. When skyrocketing healthcare costs are considered, it looks like people are not saving enough.

Of course, one cannot guard against all risks, such as prolonged bear markets, job loss, and increasing medical expenses, among other risks. However, saving more is a good starting point. I believe that plan participants should be informed of the potential cost of medical care and the need to save more to cover this retirement necessity.

RECOMMENDED READING

I am often asked for additional reading material on behavioral finance. Assuming you are swamped like most of us, I came up with just three books to read over the next few months. All three are fun to read and have unique insights into behavioral finance and behavioral economics.

Pick #1: "Nudge" by Richard H. Thaler and Cass R. Sunstein

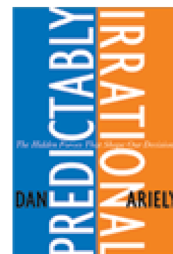


My first pick is "*Nudge: Improving Decisions about Health, Wealth, and Happiness*" by Professors Richard H. Thaler and Cass R. Sunstein of the University of Chicago. One of the key ideas in the book is the notion of "choice architecture." From among the numerous practical applications presented by Thaler and Sunstein, the retirement plan sponsor and advisor can learn how the effectiveness of retirement saving plans is greatly influenced by many small design features.

One example of a seemingly minor design feature that has a dramatic effect on the utilization of retirement plans is changing the default so that employees are automatically enrolled into the plan. Research shows that changing the default from an opt-in system to an opt-out system results in nearly universal participation in retirement saving plans.

If we accept the idea that even minor design features can have a dramatic effect on the utilization of retirement saving plans and healthcare programs, then "choice architects" could use lessons from behavioral economics to design more effective retirement saving plans and "nudge" employees toward better decisions. The book offers many clever suggestions for how to design retirement plans, healthcare coverage and other key programs in our society.

Pick #2: "Predictably Irrational" by Dan Ariely



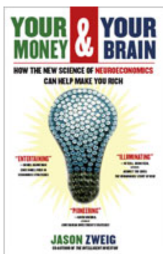
My second pick is "*Predictably Irrational: The Hidden Forces That Shape Our Decisions*" by Professor Dan Ariely of Duke University. Professor Ariely reviews the many ways in which we are predictably irrational as consumers and investors. For example, most of us believe

we should be spending less and saving more, yet we predictably keep spending too much.

Predictably Irrational is a very entertaining read. One of my favorite suggestions in the book is to freeze your credit card in a glass of water. If you are tempted to buy something, then you'd have to go back home, thaw out the card (which could take a few hours), then go back to the store. Professor Ariely predicts that by the time you're done thawing your card, you will no longer be interested in those designer shoes or the television that is just a few inches larger than the TV you already have.

Obviously, I am not proposing that plan sponsors and their advisors install miniature freezers in the workplace for the purpose of freezing credit cards and spending less. However, much of the behavioral phenomena Professor Ariely discusses can be applied to financial education and communication programs.

Pick #3: "Your Money and Your Brain" by Jason Zweig



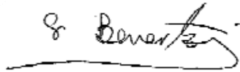
My third pick is "*Your Money and Your Brain: How the New Science of Neuro-economics Can Help Make You Rich*" by Jason Zweig. Neuroeconomics is a relatively new field combining neuro-science, economics and psychology to learn how people make decisions. Mr. Zweig offers a great review of this emerging field and its applications for investment decision making.

I must admit that more research is necessary before we could use neuroeconomics to improve common investing decisions. However, to give you a sense of the potential applications of this emerging field, consider an investment advisor who is trying to figure out the risk preferences of his/her client. Similarly, consider a plan sponsor who is trying to choose a default investment fund that matches the risk preferences of the plan participants. Traditionally, we've used some form of a risk tolerance questionnaire to elicit risk preferences. However, the science of neuroeconomics might allow us one day to estimate risk preferences by simply scanning the brain with an MRI machine.

Within these three recommended books, you'll find practical applications for your role in the retirement world today as well as some possibilities for the future. You might even find ways to improve your personal life as well.

I hope you enjoyed reading the 401(k)now research digest. If you have any comments, suggestions or feedback, feel free to send me an email at benartzi@ucla.edu.

Sincerely,



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REFERENCES

Aguiar, Mark, and Erik Hurst, 2005, "Consumption versus Expenditure," *Journal of Political Economy* 113.5, pp. 919-948.

Ariely, Dan, 2008, "Predictably Irrational: The Hidden Forces That Shape Our Decisions," HarperCollins Publishers.

Fronstin, Paul, 2006, "Savings Needed to Fund Health Insurance and Health Care Expenses in Retirement," EBRI Issue Brief No. 295.

Johnson, Richard W., and Rudolph G. Penner, 2004, "Will Health Care Costs Erode Retirement Security?" Center for Retirement Research at Boston College Issue Brief 23.

Skinner, Jonathan, 2007, "Are You Sure You're Saving Enough for Retirement?" *Journal of Economic Perspectives* 21.3, pp. 59-80.

Smith, Daniel G., October 25, 1998, "Money Isn't Everything, Especially in Retirement," *The New York Times*.

Thaler, Richard H., and Cass R. Sunstein, 2008, "Nudge: Improving Decisions about Health, Wealth, and Happiness," Caravan Books.

Zweig, Jason, 2007, "Your Money and Your Brain: How the New Science of Neuroeconomics Can Help Make You Rich," Simon & Schuster.