COWIN FINANCIAL LITERACY PROGRAM

TEACHERS COLLEGE COLUMBIA UNIVERSITY

Generously supported by TC Trustee Joyce B. Cowin

Topic: financial planning

Case Study: Shore Financial

How does recent research about human behavior change the way we think about money management and financial planning?

Before you begin work! This financial case study is based on three experiments in behavioral economics. It will work best if one member of the group is chosen as the leader or department chair and reads the Background while the rest of the group waits to follow instructions.

Background

You are a financial advisor trying to help your clients to be rational about their money decisions. You are also head of your department. Before beginning work with one very important client, you decide that you and your colleagues should do some research on rational behavior by replicating some experiments you have read about. It is a little unorthodox, but the others agree to go along (or to humor you) because you are so insistent that it will help frame everyone's thinking about how to advise your clients.

Tell your department that you will be doing these experiences as thought experiments, meaning you will describe each experiment to them and ask for their responses. Tell them that, although the setups are hypothetical, they are the same ones researchers have used to understand human decision making.

1. Gimme the Money. A benevolent stranger offers you a crisp $100 bill on the spot, with no catch and no questions asked. As you reach for the bill, the stranger strokes his beard and says, "On second thought . . . if you are willing to wait 1 month, I will give you $110."

Ask: How many would take the $100 now? How many would wait 1 month?

After your colleagues have made that choice, you walk further down the street and another benevolent stranger (this being a very benevolent town) offers you another choice: she will give you $100 in exactly 1 year, or $110 in 13 months.

Ask: How many would take the $100 in a year? How many would wait the additional month for $110?

2. The Ultimatum Game. Break your group into pairs. Award each pair $100 of pretend money. Explain that one person is to choose how the $100 will be split, and the other will decide whether or not to accept that division. If the split is rejected, nobody gets anything.

Debrief: What were the splits proposed by the first partner? Did the second partner accept or reject the division?

3. Prices Slashed! You are in the market for a new toaster. The store in your small town has toasters for $50, but you are confident that someplace within a 100-mile radius of your town will have toasters for $25, because your town is small and there is relatively little competition. How far would you be willing to travel to get the toaster for $25? A week later, you decide that you would also like a new laptop computer. The store in your town offers the computer you want for $800. You think it might be cheaper elsewhere; how far would you be willing to travel to get the computer for $775?

Team Discussion. If you and your colleagues represent an average group in the population, you likely got the following responses:

1. The majority of them would prefer $100 today rather than $110 a month from now. They also would prefer $110 13 months from now over $100 1 year from now.

2. Most partners likely rejected the offer if the split were anything more uneven than about $70/$30.

3. Most people were likely willing to travel significantly farther to save $25 on the toaster than to save $25 on the computer.

It turns out that none of the responses that most people would make in these situations is what we call "rational" in an economic sense—meaning that the choice reflects stable, clearly defined preferences. In fact, in two of the examples, it is likely that your group took different actions in response to what was, in effect, *the exact same decision*! In case one, you had the opportunity to earn an extra $10 for waiting an extra month, regardless of whether that extra month was right now or in a year, and in case three, the question in either case is how far one is willing to travel to save $25. In the second case, because nobody gets anything if the second partner rejects the deal, it is in the second partner's interest to *accept any deal whatsoever*, no matter how "fair" it is perceived to be. (The caveat being that it is clear the game will not be repeated so there is no advantage to establishing a reputation as a tough negotiator.)

These examples illustrate some findings from the expanding field of behavioral economics, combining insights from economics with social psychology. They do not suggest that the members of your group are foolish or short-sighted (and, to the extent that they are, they are exactly like everybody else). Rather, they suggest that people's cognitive processes often differ from what might lead to the economically optimal outcome in important and often predictable ways.

As the team leader, you think these findings offer important insights that could improve the advice you give to your clients and the way you communicate with them.

Dilemma

The firm has had limited success with some of its clients; families do not always follow the firm's advice, and its success rate in helping lift low-income families above the 200% of poverty mark is very low. The firm wants you to examine the advice it currently gives clients, and give the company advice in the following areas:

- How are clients interpreting the advice they receive about investments and financial planning?

- In light of the experiments discussed and other research about behavioral economics, how would you suggest changing the advice the firm gives clients?

- How does your research about behavioral economics suggest that the firm should change its beliefs about clients' financial choices, and how it communicates with clients about investments and financial planning?

Take a look at this text from the firm's current financial planning brochure.

Financial Planning Brochure

We offer a wealth of options to help you manage your money, achieve your goals, and secure your family's future! Whether you are saving for a down payment on a house, your child's college education, a dream vacation, or retirement, or even to start your own business, we offer an investment plan that is right for you. You can start with as little as $500, and watch your money grow.

Follow this simple process to begin working toward a more financially secure future:

1. Decide on your goals. How much do you want to save, for what purpose, and by when? This will help determine how much risk you are willing and able to take, and how liquid you need your assets to be—in other words, how accessible your money needs to be, for instance, in case of emergencies.
2. Set a level of risk you are willing to tolerate in order to achieve a particular reward. As a general rule of thumb, the greater the risk you are willing and able to accept, the greater the potential reward. Extremely high-risk investments, such as venture funds or taking a high-ownership stake in an aspiring business, can pay off handsomely, but you may also lose significant amounts of money. Safer investments are more shielded from losses, and also generally are more liquid, meaning your money can be more easily accessed if needed, but generally offer lower rates of return.
3. Diversify. This is generally the magic word for investments; nobody can perfectly predict the future, and all investments have some risk. Your best bet is to reduce your risk by selecting a wide range of different types of investments. Some of the types of investments we can assist you with are described in more detail in the next section. We can recommend the right mix based on the amount of risk you choose.

Once you have set your goals and decided on the right level of risk, you can begin selecting which investments you would like. The following are five general types; within each type, there are several more-specific options.

1. Money market accounts: A money market account is a type of savings account that generally offers higher interest rates than typical savings accounts, in exchange for having higher minimum balances and limits on the number of transactions that can be performed. Therefore, in exchange for slightly less liquidity, you can earn higher interest than a typical simple savings account. You should shop around for the account that offers the highest interest rate and lowest fees.

2. Mutual funds: A mutual fund is a type of pooled investment; you join many other investors in pooling funds together, which are then invested in a variety of financial instruments by professional money managers who choose appropriate investments to meet the fund's stated objectives, including aiming for particular targets for returns and particular mixes of investments to reach a specific risk/reward balance. The major advantage of mutual funds is that they allow small-scale investors to diversify more than would ordinarily be possible with a small amount of money because your money is pooled with that of other investors.

3. Retirement accounts: There are many different types of accounts that help you save for retirement. Your employer may offer access to particular accounts as an employee benefit, and may even contribute a small percentage of your salary to a retirement account. A common option offered by employers is a 401(k), which is a group account that, like a mutual fund, offers diversification advantages due to group buying. Your company may offer some level of matching your contributions to a 401(k). We strongly encourage you to investigate what options your employer offers and whether there are any matching benefits. You can also select to enroll in a plan on your own in individual retirement accounts, or IRAs. You can select from many different types of IRAs that offer different mixes of investments and rules about when your money is taxed. Choose carefully to minimize your tax burden. We strongly encourage you to explore your options for retirement planning, because many people underprepare for retirement; however, be aware that there is a loss of liquidity, because many of these accounts will not allow you to access your money without severe penalties until you reach a particular age, such as 55 or 59 1/2.

4. Bonds: A bond is like a loan. The bond itself is essentially a piece of paper that promises its holder a specific stream of income for a period of time. The original holder of the bond provides cash to the entity that issued the bond, often a government agency or corporation, in exchange for a promise of repayment of the principal (amount of the loan) plus interest. The bond can be resold, and its value rises and falls inversely with market interest rates. Several different types of bonds exist; each has implications in terms of risk, interest rates, and taxes. Some common types of U.S. government bonds are Treasury bills, Treasury notes, and Treasury bonds; they differ primarily in terms of their length to maturity and how interest is paid.

5. Stocks: Stock refers to partial ownership of a company that is owned by many people; such a company is known as a corporation, and one unit of ownership in that company is known as a share of stock. Generally, shares are bought and sold only by licensed brokers in special markets known as stock exchanges. Shareholders hope to earn money on their investments through appreciation of the company's value as it grows and earns more profits over time and through the payment of dividends, which are portions of the company's profits divided among shareholders. Some companies may choose not to pay dividends and instead reinvest profits in the future growth of the business. Investors may still want to invest in these companies in the hope that growth and future profits will lead to future dividends. Investors often monitor fluctuations in perception of how businesses will be doing in the future by watching how stock indexes, or compilations of the prices of many stocks, change over time. Investing in individual companies is often extremely risky and difficult; it is very hard to predict how the market will do in the future. Even with a great deal of effort and research, it is rare for individual investors to outperform the market by betting on a stock that is underpriced and will rise in value quickly; it is generally a better strategy to stick with a diversified, managed fund.

Task

In light of the experiments you and your group have just experienced, and the summary of recent research in behavioral economics and finance presented earlier, what changes to the firm's approach would you recommend?

Some possible approaches suggested by the research literature include:

- Targeting the information the firm distributes to particular audiences. Rather than producing a general brochure, take advantage of social networking and other technologies to identify specific target audiences to receive shorter, more focused messages that better suit the financial profiles of the intended audience.
- Generally reducing the amount of choice the firm offers. For example, the firm could put together a series of financial planning packages to suit three different client profiles. Each client could be matched to the package that best suits his or her financial goals, risk/reward profile, and current assets and liabilities.
- Reducing the number of barriers that create delay in making financial decisions become reality, such as paperwork, follow-up appointments, and phone calls. To the extent legally possible, make all the results of clients' decisions occur right away.
- Working with clients, community agencies, local banks, and employers to offer programs with new default options and precommitment devices; these include automatic enrollment in retirement accounts or savings plans with deductions from a paycheck (for participating employers) or checking account (for participating banks), as well as options to commit oneself to save more in the future, even if it is not feasible now (and make that choice binding).

What course of action, or combination of courses of action, would *you* recommend? If the firm only had the resources to implement one of these options, which would you most encourage? Use the results of your experiments the behavioral research discussed in the Resources to make a case for your recommendation.

What else would you want to know to make a better recommendation?

Terms

- 401(k)
- Bonds
- Capital gain
- Diversification
- Dividend
- Hyperbolic discounting
- Investment
- Loss aversion
- Mutual fund
- Risk vs. return
- Stock index
- Stocks

Resources

Excerpts About Behavioral Economics

From ”Later: What Does Procrastination Tell Us About Ourselves?” by James Surowiecki

The New Yorker, October 11, 2010

Most of the contributors to the new book agree that this peculiar irrationality stems from our relationship to time—in particular, from a tendency that economists call “hyperbolic discounting.” A two-stage experiment provides a classic illustration: In the first stage, people are offered the choice between a hundred dollars today or a hundred and ten dollars tomorrow; in the second stage, they choose between a hundred dollars a month from now or a hundred and ten dollars a month and a day from now. In substance, the two choices are identical: wait an extra day, get an extra ten bucks. Yet, in the first stage many people choose to take the smaller sum immediately, whereas in the second they prefer to wait one more day and get the extra ten bucks. In other words, hyperbolic discounters are able to make the rational choice when they’re thinking about the future, but, as the present gets closer, short-term considerations overwhelm their long-term goals. A similar phenomenon is at work in an experiment run by a group including the economist George Loewenstein, in which people were asked to pick one movie to watch that night and one to watch at a later date. Not surprisingly, for the movie they wanted to watch immediately, people tended to pick lowbrow comedies and blockbusters, but when asked what movie they wanted to watch later they were more likely to pick serious, important films. The problem, of course, is that when the time comes to watch the serious movie, another frothy one will often seem more appealing. This is why Netflix queues are filled with movies that never get watched: our responsible selves put *Hotel Rwanda* and *The Seventh Seal* in our queue, but when the time comes we end up in front of a rerun of *The Hangover*.

The lesson of these experiments is not that people are shortsighted or shallow but that their preferences aren’t consistent over time. We want to watch the Bergman masterpiece, to

give ourselves enough time to write the report properly, to set aside money for retirement. But our desires shift as the long run becomes the short run.

http://www.newyorker.com/arts/critics/books/2010/10/11/101011crbo_books_surowiecki?currentPage=all

From "Sustainable Money—Tara Siegel Bernard on Why Budgets Don't Work"

The New York Times, December 31, 2010

There's another factor that prevents people from being model financial citizens (besides, of course, uncontrollable circumstances like joblessness). As a species, humans are notoriously poor at following through with their plans. Sticking to a budget—a dirty word even among many financial planners, who prefer the more euphemistic "spending plan"—feels too much like dieting. And we often fail at both for the same reasons: too much focus on the restrictions, not enough on fun. So it's not surprising when people end up bingeing later, more than making up for dollars not spent or calories not consumed.

http://www.nytimes.com/2011/01/02/weekinreview/02siegelbernard.html?_r=1&emc=eta1

From "Too Many Choices: A Problem That Can Paralyze" by Alina Tugend

The New York Times, February 26, 2010

Understanding how we choose could guide employers and policy makers in helping us make better decisions. For example, most of us know that it's a wise decision to save in a 401(k). But studies have shown that if more fund options are offered, fewer people participate. And the highest participation rates are among those employees who are automatically enrolled in their company's 401(k)'s unless they actively choose not to.

This is a case where offering a default option of opting in, rather than opting out (as many have suggested with organ donations as well) doesn't take away choice but guides us to make better ones, according to Richard H. Thaler, an economics professor at the Booth School of Business at the University of Chicago, and Cass R. Sunstein, a professor at Chicago's law school, who are the authors of *Nudge: Improving Decisions About Health, Wealth and Happiness* (Yale University Press, 2008).

http://www.nytimes.com/2010/02/27/your-money/27shortcuts.html?scp=1&sq=too%20many%20choices&st=cse

From "The Marketplace of Perceptions"
by Craig Lambert

Harvard Magazine, March–April 2006

"There's a fundamental tension, in humans and other animals, between seizing available rewards in the present, and being patient for rewards in the future. . . . It's radically important. People very robustly want instant gratification right now, and want to be patient in the future. If you ask people, 'Which do you want right now, fruit or chocolate?' they say, 'Chocolate!' But if you ask, 'Which one a week from now?' they will say, 'Fruit.' Now we want chocolate, cigarettes, and a trashy movie. In the future, we want to eat fruit, to quit smoking, and to watch Bergman films," [says behavioral economist David Laibson].

. . .

Broadly speaking, "People act irrationally in that they overly discount the future," says Bazerman. "We do worse in life because we spend too much for what we want now at the expense of goodies we want in the future. People buy things they can't afford on a credit card, and as a result they get to buy less over the course of their lifetimes." Such problems should not arise, according to standard economic theory, which holds that "there shouldn't be any disconnect between what I'm doing and what I want to be doing," says Nava Ashraf.

Luckily, Odysseus also confronts the problem . . . and Homer's hero solves the dilemma. The goddess Circe informs Odysseus that his ship will pass the island of the Sirens, whose irresistible singing can lure sailors to steer toward them and onto rocks. The Sirens are a marvelous metaphor for human appetite, both in its seductions and its pitfalls. Circe advises Odysseus to prepare for temptations to come: he must order his crew to stopper their ears with wax, so they cannot hear the Sirens' songs, but he may hear the Sirens' beautiful voices without risk if he has his sailors lash him to a mast, and commands them to ignore his pleas for release until they have passed beyond danger. "Odysseus pre-commits himself by doing this," Laibson explains. "Binding himself to the mast prevents his future self from countermanding (overriding) the decision made by his present self."“

http://people.hbs.edu/nashraf/marketplaceofperceptions.pdf

From "Financial Literacy: What Works? How Could It Be More Effective?"
by William Gale and Ruth Levine

October 2010

While planning can help people navigate saving options, the evidence suggests that making the options simpler can help people participate more in retirement saving plans. The classic demonstration of this fact is Madrian and Shea (2001), who show that shifting to an automatic enrollment format raises 401(k) plan participation rates substantially. Likewise, Thaler and Benartzi (2004) show that changing the default level of contributions over time can readily enable increases in contributions.

More recently, Beshears et al (2006) evaluate an experiment in which individuals were given the chance to enroll in a retirement saving plan at a pre-selected specifications for contribution amounts and asset allocations, rather than having to choose each item for themselves. They found that the simplified option raised participation rates in the retirement saving plan by between 10 and 20 percentage points for the affected population.

Lusardi, Keller and Keller (2009) surveyed and conducted focus groups with new employees of a non-profit institution to understand what respondents saw as the biggest barriers to their saving. The three main barriers were a lack of information about how to save, too little income, and lack of self-control in following through with saving goals. In response, the authors developed a simplified plan selection process to make the steps easier and more concrete and the information more accessible; specifying the minimum and maximum amounts allowable for contributions to an account and demonstrating the relative sizes of those amounts; and offering commitment plans for year-long savings. Among respondents who received these "planning aids," election rates of retirement plans tripled over a 30-day period."

http://www.rand.org/content/dam/rand/www/external/events/2010/11/18/financial-literacy-what-works.pdf

Additional Sources

(Links to some "conventional" investment advice, and some of the source material for the original brochure, that might be useful in making revisions.)

http://money.howstuffworks.com/personal-finance/financial-planning/money-market-accounts3.htm
http://www.investopedia.com/terms/m/mutualfund.asp
http://www.bankrate.com/brm/news/sav/20060110a1.asp?caret=33
http://www.econlib.org/library/Enc/Bonds.html

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