Self Control and Chocolate Cake: The Link to Savings Behavior

Beyond the Textbook: Ideas for Teaching Personal Finance

What’s New at the Fed in Economic Education?
Dear Educators,

Economics can give insight into how people make choices. From the moment you wake up in the morning until the time you go to bed, you make hundreds, if not thousands, of choices. This issue of the SE Educator is all about the most basic economic question: How do people make choices?

In the lead article, which originally appeared in the Fifth District’s Region Focus magazine, Nashat Moin gives an overview of new research on self-control. How good are you at resisting that piece of chocolate cake? What does how you respond to a tempting piece of chocolate cake say about choices you make in life?

Next, you will find easy-to-implement teaching ideas for your classroom. It’s important to equip students with the knowledge they need before making financial choices. Did you know that you can teach your students the differences between credit and debit cards by using fly swatters? I didn’t!

I hope you will take advantage of the free resources offered in this publication. And as always, we welcome your comments and suggestions.

Jeff Lacker
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Hallway Monitor

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Self Control
*Region Focus, Winter ‘08*
By Nashat Moin

*Every day we’re faced with temptations.*

Do you reach for a second slice of cake or do you refrain? Whether you ultimately succumb to temptation is influenced at least partly by how much self control you have.

Economic literature on self control typically describes the situation this way: While there is an ideal action that people would prefer to take — a decision arrived at after taking into full account the long-term consequences of the intended action — there is often something that tempts them to deviate from this ideal.

Those with a lack of self control give in to the temptation and deviate from their ideal more often, and this can lead to suboptimal economic outcomes.

In theory, self control problems could hinder accumulation of wealth. People who can’t resist the urge to consume will not put aside money in savings. But there is limited empirical support for this seemingly intuitive notion.

In a recent paper, economists John Ameriks, Andrew Caplin, and John Leahy team with psychologist Tom Tyler to measure the effects of self control problems. They assume that people are fully aware of their level of self control and how it affects their decisions.

In their experiment, they offered 10 restaurant gift certificates with an unlimited budget, each of which could be used once, over the course of two years. Then they asked the participants the following questions:

a) From your current perspective, how many of the 10 certificates would you ideally like to use in year 1 as opposed to year 2?

Discussion Questions:

1. *How does self control affect the accumulation of wealth?*
   A lack of self control may affect short-term decisions that influence long-term accumulation of wealth. People may deviate from longer term investment opportunities to satisfy an immediate want. Self control may affect the trade-offs people accept between consumption now and forgoing consumption today for later.

2. *In the gift certificate experiment, did most people have a problem with self control? Why or why not?*
   Only one out of three of the respondents differed from their ideal consumption. In fact, experiment findings indicated that participants actually under-consumed. It was noted, however, that given the sample, individuals in this experiment were not necessarily representative of society as a whole. (One-third of the participants had Ph.D. degrees. The median level of personal debt was zero and net worth was $500,000.)

3. *What was the relationship between the self-control measure from the experiment and the actual accumulation of wealth of the participants?*
   “Those who expected to over-consume in the survey accumulated 20 percent less wealth than those with no self control problems. Those who expected to under-consume accumulated 25 percent more.” It is also interesting to note that respondents might have behaved differently, as the article suggests, if the restaurant gift certificates were directly purchased by the participants. (Used their own paychecks.)

4. *According to the study, does age matter when it comes to self control and wealth? Why or why not?*
   According to Moin, age does matter. One of the most striking findings of the survey was that older respondents tended to have more self control. The theory is that temptation generally falls with age. Students may offer a variety of answers as to why. Possible responses may include the idea that older adults might have learned from the financial mistakes of their youth.
Self Control

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b) Some people might be tempted to depart from their ideal. Which of the following best describes you: strongly/somewhat tempted to use more in year 1 as opposed to year 2, or not tempted at all?

c) If you were to give in to your temptation, how many certificates do you think you would use in year 1 as opposed to year 2?

d) Based on your most accurate forecast of how you think you would actually behave, how many of the nights would you end up using in year 1 as opposed to year 2?

The measure of self control used in the study represents the difference between each participant’s stated ideal and their expected consumption levels, i.e., their response to (d) minus their response to (a). So, for instance, a positive number indicates that the respondent will tend to consume more (“overconsume”) than their stated ideal preference. A score of zero indicated no self control problems. Out of the 1,520 respondents, two out of every three had no self control problems, according to the measures set forth by the authors of the study.

Yet the researchers also found a significant group of people whose problem was not overconsumption — only around 10 percent suffered from that problem. About 27 percent of the respondents stated they were likely to consume less than their stated ideal amount. The authors take this to mean “that there is a significant group who appear to have problems of underconsumption, at least for consumption activities that also involve time.”

To see if this bears itself out in the actual real-world decisions of the participants, the authors compared the results of the survey to each participant’s wealth profile. (The sample of survey participants was far from representative. A third of the participants had Ph.D. degrees. The median level of personal debt was zero and net worth was $500,000.) What they found was a statistically significant and strong relationship between the self-assessed measure of self control and wealth. Those who expected to overconsume in the survey had accumulated on average 20 percent less wealth in the real world than those with no self control problems. Those who expected to underconsume accumulated 25 percent more. Among the more striking findings was that older respondents tended to have more self control. “This finding is certainly consistent with the common view that temptation falls with age, and has important connections with actual consumption behavior over the life cycle.”

Critics of the study might suggest that the best test of the authors’ theory is how the recipients of the gift certificates actually use them, not whether they say they are likely to use them. Or they might question whether people are able to accurately gauge how much self control they really have. There’s also the possibility that people respond to different incentives when they are presented with an unearned gift versus when they earn a paycheck. Yet, based on this study at least, there is some interesting evidence that whether someone expects they’ll reach for that proverbial second slice of chocolate cake could have some real implications in their economic decisions.

To view other articles from Region Focus online or subscribe visit: www.richmondfed.org/publications/research.

Heard over the P.A.

Each issue of the 5E Educator features information on upcoming workshops, competitions, new resources from the Fed and/or other topics of interest.

Staff Development Opportunities
The Federal Reserve Bank of Richmond offers staff development opportunities across the Fifth District (Md., D.C., most of W.Va., Va., N.C., S.C.). Workshops enhance K-12 teachers’ understanding of economics and personal finance. The following events are examples of the diversity of programs coming this spring.

To sign up for these events, or view more in your area, go to www.richmondfed.org/conferences_and_events/education/.

**Kidsize and Midsize Economics**
Elementary and middle teachers, enhance your knowledge of economics while learning about fun and easy-to-implement educational resources and lesson plans.

**Dates:** Jan. 29, 2009 (Kidsize)
Jan. 30, 2009 (Midsize)

**Location:**
Federal Reserve Bank of Richmond, Charlotte Branch, Charlotte, N.C.

**Dates:** Feb. 24, 2009 (Kidsize), Mar. 3, 2009 (Midsize)

**Location:**
Federal Reserve Bank of Richmond, Richmond, Va.

**Maryland Business Educators Association Conference**
Business teachers, stop by the Fed booth to pick up free educational materials to supplement your curriculum. A Fed session will feature hands-on activities for the high school classroom.

**Date:** April 17-18, 2009

**Location:** Ocean City, Md.
Beyond the Textbook

Preparing students to make financial choices is easier with these lesson plans and publications from the Federal Reserve System and our partners.

Debit Card – Credit Card
Lis Turner
Federal Reserve Bank of Richmond

In this lesson, students weigh the advantages and disadvantages of using cash and consumer credit through an explanation of and activities (such as a fly swatter game) using debit and credit cards.

Recommended for: 4-6th Grade

Concepts:
- Credit
- Interest
- Saving

(To view the full text of this lesson, visit www.richmondfed.org/education/for_teachers/lesson_plans_and_classroom_activities/pdf/debit_credit_lesson.pdf)

Special thanks to Cory R. Allen of Cool Spring Elementary School, Elisa Lopez of Pinchbeck Elementary School, Ruth Cookson at the ODU Center for Economic Education and Billy Britt and Mary Suiter at the St. Louis Fed for field testing this lesson and helpful comments.

Middle School and High School Lesson Plan Tips

Want a great interactive way to teach personal finance to middle and high school students?

The Federal Reserve System has several publications that emphasize the importance of budgeting and money management. Building Wealth, a Federal Reserve Bank of Dallas publication, has an engaging online video that examines the impact of budgeting on personal savings. This publication is also available in hard copy and on DVD. (www.dallasfed.org/ca/wealth/index.cfm)

Katrina's Classroom, available either on DVD, or online courtesy of the Federal Reserve Bank of Atlanta, describes the financial impact of Hurricane Katrina on the lives of three students and their families. Lesson plans examine the impact of credit card debt, the importance of maintaining personal financial records and the importance of saving for college. (www.frbatlanta.org/atlantafed/katrina.cfm)

EconEdLink.org, a Council on Economic Education teacher resource, has a middle school lesson entitled, The Opportunity Cost of a Lifetime. Students learn the principles of scarcity and opportunity cost by choosing to purchase gum, soda or movie tickets. It is a fun and entertaining way to teach basic economic and financial literacy concepts. (www.econedlink.org/lessons/index.cfm?lesson=EM51&page=teacher)

The editors welcome comments and feedback on these lessons and your recommendations for future lesson plan topics.

Pep Rally

High School Student Competitions

Interested in providing your high school students with creative and interactive learning opportunities?

The Federal Reserve Bank of Richmond has competitions that offer high school students the chance to expand their knowledge of economic concepts, and hone skills useful in today's work force.

Spring 2009

High School Fed Challenge

Engage your students' public speaking and economic analysis skills in this exciting competition that puts students in the role of Fed policymakers.

Competition dates:

Richmond........................................March 20
Baltimore........................................April 1-2
Charlotte.........................................March 24
District competition .........................April 14
National competition.......................May 19

For details click on: www.richmondfed.org/education/for_teachers/academic_competitions