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Changing Savings Habits

By Annie Duflo & Dean Karlan

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ECONOMIC DEVELOPMENT

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▶ Even before the 2007-08 financial crisis, Americans weren't in great long-term financial shape. We've overborrowed, with average credit card debt more than $5,000; and 50 percent of Americans haven't adequately saved for retirement. One plausible approach to this problem has been to teach financial literacy, explaining basic principles of saving, planning, and spending responsibly. Unfortunately, research doesn't generally show that savings seminars positively affect people's long-term financial outcomes. The journey from *knowing* what we should do to actually *doing* it can be difficult.

That's why we wanted to know what would happen if we started teaching good behaviors early. We asked: Are kids easier to influence? Could even a small and early influence on kids have big cumulative societal benefits over the course of their lives? To make it more interesting, we decided to look at a country with a very low savings rate: Ghana.

Aflatoun, an NGO based in the Netherlands, has developed a financial education curriculum for schools that uses local partners in 83 countries to train teachers. At the heart of the program is a simple group "bank" in the form of a locked money box and a passbook kept by the teacher, where kids in an afterschool program can save money and record deposits and withdrawals. Savings lessons are embedded in a broader social and emotional development curriculum, linking saving to individual rights and responsibilities, along with social and financial enterprise education.

The key to a rigorous study about whether a social program works is to compare how people's lives changed with how they would have changed had the program not existed. When feasible, the best way to do this is with a randomly assigned comparison group. In this case, we evaluated two program groups: one who got the full Aflatoun curriculum, and one who got just the basic financial training. This latter group—who received the money box and skills training, but not the broader psychosocial development curriculum—we called the "Honest Money Box" group (HMB); having it allowed us also to compare the effects of a simpler intervention. Fifth and 7th graders in 135 schools participated, with schools randomly assigned to one of the two savings programs or the comparison group.

After a full school year, our surveyors asked both groups about a host of savings attitudes and behaviors. The surveyors also looked for differences among students who'd gone through the programs in risk tolerance, self-confidence, and interpersonal relations.

To tap the wisdom of the crowd, we posted a description of the study on *SSIR*'s website and asked readers to predict what we found. Readers could vote for positive effects of the full Aflatoun program, the HMB, both, or neither.

It turns out that both programs had a modest but measurable impact on savings. About 51 percent of kids in the comparison group reported savings, and participating in either Aflatoun or HMB boosted the savings rate by an additional 4 percent.

Most of the online voters predicted correctly, with 56 percent guessing both would have an impact. Twenty-seven percent said Aflatoun only, 12 percent said HMB only, and a pessimistic 5 percent said neither would have an impact.

Moving savings into a social context might also spur other social activities. At the Nkwanta South district school in a poor rural district of the Volta Region, students had never been involved in a club activity. But once they had a savings group, they started a stationery store, selling pencils, books, water bottles, and similar items. An Aflatoun group in the Pantang Basic School near Accra started selling pastries and a children's newspaper at PTA meetings, and embarked on such pro-social activities as organizing their own savings outreach programs and visiting foster home children.

One of the few differences we found in financial outcomes between the Aflatoun and HMB programs was that kids in the HMB program were more likely to work outside of school. As one HMB student told us: "I work hard every Saturday and Sunday at the market. ... I used to spend all my money on video games and other entertainment items, but since I joined the Honest Money Box club I have changed the way I spend." Whether this is positive is still in question, because working could compete with school. A possible side effect of encouraging savings without broader psychosocial development could be an increase in child labor.

We did, however, see reduc-

Junior high school students display their Aflatoun Savings Workbooks at the Pantang School in Ghana's Abokobi district.

PHOTOGRAPH COURTESY OF JESSICA BENJAMIN, FINANCIAL EDUCATION FUND

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tions in the attraction to risky bets, with students in both intervention groups showing higher levels of risk aversion. But by and large, we saw no differences from the comparison group across the range of other psychosocial factors we measured. So even in difficult conditions an intervention can increase savings, and a relatively straightforward program can have roughly the same outcome as a more rigorous one.

As in all single studies, there are caveats—we measured outcomes at only one point in time. Whether the effects persist is unknown, and we relied on kids' self-reports. Yet having a well-balanced study with equivalent groups, who received either no training or basic training, also lets us see what really works for the future. ■

ENVIRONMENT

Prairie Portfolio

▶ Conservation groups have always faced difficult decisions in prioritizing which natural areas to protect. The traditional way has been to place the greatest importance on the rarest, most pristine, or unique places. But in recent years, consideration of costs vs. benefits has entered the discussion.

Now economists Amy Ando and Mindy Mallory of the University of Illinois have introduced modern portfolio theory (MPT)—a tool familiar to the financial industry—to the world of biology and conservation. MPT is a well-established method of diversifying investments to maximize returns, given a certain level of risk.

Currently, conservation groups use sophisticated optimization tools to figure out which areas to protect. But in the face of uncertainty, such as the possible outcomes of climate change, those tools don't work very well, Ando says.

These shallow, temporary lakes scattered across the upper Midwest provide critical habitat for migrating birds.

Ando and Mallory applied MPT to the Prairie Pothole Region, a 64-million-acre expanse of wetlands habitat in the north-central United States that is a breeding ground for more than 200 species of migratory birds. The US Fish and Wildlife Service and organizations such as Ducks Unlimited have purchased land in the region to protect it for waterfowl nesting. And a lot of research has been done to look at how that habitat could be affected by climate change.

The availability of this information made the Prairie Pothole Region a good test case for applying MPT. The best waterfowl habitat, for example, would shift east under certain climate change scenarios. Improvement in one area would mean worse conditions in another.

The researchers modeled various climate change outcomes, such as a warming of 2 degrees Celsius and of 4 degrees Celsius, at different probabilities. Compared with a simple diversification scheme where investments were divided evenly among three subregions, an MPT-based portfolio of landholdings held 15 percent more value per dollar spent for the same level of risk. With MPT, the researchers could also construct portfolios that would produce less risk or greater benefits in the face of climate change.

The simple, evenly divided investment scheme "turns out not to work well," Ando says. "It's very inefficient. You are giving up much more expected return than you need to for a given level of risk."

The information needed for an MPT analysis doesn't come easily, though. "It's a new kind of data that conservationists haven't been collecting historically," says Jonathan Hoekstra, chief scientist for the World Wildlife Fund. Still, he hopes that the approach will catch on. "This paper shows us a way to be smarter about how we invest our conservation resources to get as much as we possibly can for nature and for society as a whole." **—Corinna Wu**

Amy W. Ando & Mindy L. Mallory, "Optimal Portfolio Design to Reduce Climate-Related Conservation Uncertainty in the Prairie Pothole Region," *Proceedings of the National Academy of Sciences* 109, 2012.

ECONOMIC DEVELOPMENT

Unequal Market Access

▶ Rural markets are often vibrant places where people from all walks of life gather to buy and sell things. But look more closely and it's clear that markets in some countries are not as inclusive as they at first seem.

In Bangladesh, for instance, women are excluded from most market activities. Because encouraging markets is taken for granted as a way to promote economic development, "What does it mean when many people, especially women, are not in a position or allowed by local norms and traditions to participate in markets?" asks Johanna Mair, a visiting scholar at the Stanford Center on Philanthropy and Civil Society.

Mair and her colleagues Ignasi Martí of the EMLYON Business School and Marc J. Ventresca of the University of Oxford tackled this question by analyzing market building in rural Bangladesh. Their findings challenge the accepted idea that filling certain institutional voids, such as granting people autonomy and property rights, will lead to the establishment of inclusive markets.

In Bangladesh, these institutional voids are actually "full of institutions," Mair says. The institutions are not ones established by the government but are "locally emerging norms and rules of the game that come from the community sphere, from religion, and from political spheres," she explains.

For example, the Bangladeshi constitution grants all citizens ownership rights and protection of property. But in reality, the patriarchal culture confers the control and ownership

PHOTOGRAPH COURTESY OF US FISH AND WILDLIFE SERVICE