

Introduction

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The saving rate has fallen precipitously in the United States in the past two decades. From a level of about 8 percent in the mid-1980s, the personal saving rate has dropped to zero and has remained at that level for several years. While the aggregate statistics only describe a specific measure of saving, there is additional evidence at the micro level that the slump in saving is for real. Many Americans are doing little or no saving and get close to retirement with no wealth apart from their homes. There is research that shows that many households are not preparing adequately for retirement and will have to cut back spending when they stop working.

This situation is worrisome because, more than ever before, individuals are in charge of their own financial security after retirement. With the shift from defined benefit to defined contribution pension plans that has occurred over the past twenty years, increasingly individuals have to decide how much to save and how to allocate their pension wealth. The necessary decisions are daunting and are made more difficult by the increased complexity of financial instruments; investors have to deal with a vast array of new and sophisticated financial products. Saving decisions now require not only that individuals be informed about their pensions, but also that they be knowledgeable about finance and economics.

This book explores the many challenges that have arisen in the transition to a pension system that requires more individual responsibility, focusing on micro behavior as it relates to saving and pensions and illustrating the impediments and barriers to saving. The issues at hand have not gone unnoticed. The financial industry, employers, and the government have taken initiatives to promote saving and financial education programs. The financial industry has developed and provided products that can better suit the needs of investors. In addition, financial

education programs have been offered in different forms and from different institutions. This book tries to evaluate whether and how these developments are helping to effectively bridge the way to a new system. The authors who have contributed to this book have analyzed programs that are in place, examined available investment products, and taken a close look at the experiences of countries that have privatized their pension systems or experienced changes in their Social Security systems. From these contributions emerge what is perhaps the most important objective of this book: to provide suggestions on how to improve the effectiveness of these programs and products, thereby enabling the United States to make the transition to this new system more smoothly.

As many of the chapters in the book show, the problems are many and the challenges are daunting, but programs can be designed to change saving behavior and overcome the saving slump now facing so many individuals. We have a wealth of information to rely on, as we are increasingly understanding the variables at play in providing and promoting effective saving and financial education programs. That information should make effective financial education and improved saving increasingly possible as we move further into a very different pension landscape.

Transitioning to a new system

The economic changes that are occurring in the pension landscape in the United States are well documented in the first chapter of this book, which traces the increase of individual retirement accounts that has occurred in recent decades. Workers retiring before the 1980s relied mostly on Social Security and employer-sponsored defined benefit pension plans for their retirement income. The situation is very different for current workers, who will reach retirement

with a different mix of funds—not only Social Security and defined benefit plans, but also personal retirement accounts, including IRAs and defined contribution pension plans. And future retirees’ pension funds will be even more different, as defined benefit plan coverage continues to decline and prevalence of personal accounts continue to grow. One characteristic of these accounts is that individuals are in charge of deciding how much to contribute and how to allocate their retirement savings. The increase in the number of individuals with their own retirement accounts means that personal finances will be more directly affected by the fluctuations in financial markets, by the new instruments that these markets offer, and by individuals’ financial decisions. Low contribution rates or allocation in conservative assets can quickly translate into inadequate accumulation for retirement.

In addition to deciding how much to save and how to allocate pension wealth, individuals must decide how to decumulate their wealth when they reach retirement. A comprehensive retirement planning strategy requires consideration not only of how to save but also how to spend down wealth. Individuals have to make sure that retirement wealth lasts a lifetime. With the shift that has taken place from defined benefit to defined contribution plans, how to spend down is becoming an increasingly important part of retirement planning.

The risk of individuals making costly mistakes in their saving and retirement planning are real. Throughout the book, evidence is shown of widespread financial illiteracy in the United States. Chapter nine documents that high school students are sorely in need of financial knowledge. Data from five surveys conducted by the Jump\$tart Coalition for Personal Financial Literacy from 1997 to 2006 show that only a small minority of students score above a passing grade in financial literacy. Low scores are not only pervasive among high school students, but have changed little over time. Older individuals are also unfamiliar with basic concepts of

economics and finance, such as the power of interest compounding, the effects of inflation, and the working of risk diversification. Many individuals in custom-made surveys (chapter seven) report that not having enough knowledge about finance/investing represents one of the most difficult elements of their saving decisions. Consistent with this fact, many individuals consider themselves simple investors, reporting they know little about bonds and stocks.

Findings discussed in chapter two point to the same concern about a lack of information about critical components of retirement savings. This chapter documents widespread lack of information about pensions. Using data from 1983, when pensions were still dominated by defined benefit plans, the authors find a mismatch of 40 percent between respondents' and employers' reports of pension plan information. Data from 1992, when defined contribution plans became more prevalent, show a similar finding, with the mismatch between employers' reports and workers' reports at close to 50 percent. Looking closely at a more recent time period, in which defined contribution pension plans have become even more prevalent, does not change the main finding. As recently as 2004, data show systematic differences in the plan type reported by workers versus the plan type reported by employers. Thus, irrespective of the change in the pension landscape in recent decades and the increase in individual responsibility, the level of knowledge about pensions has not improved much, if at all.

Workers misreport their pension plan type because they do not understand their pension well, and today's workers need—at minimum—an adequate level of understanding of pensions in order to be sure of funding them properly. As chapter two notes, as defined benefit plans take on more features of defined contribution plans, morphing through cash balances or related plans, and as defined contribution plans take on more characteristics of defined benefit plans, offering opportunities for annuitizing benefits and imposing defaults and participation requirements, it

will be much harder to clearly determine pension plan types, making it even less likely that workers will be able to understand, correctly identify, and adequately fund their plans.

Lack of information and lack of financial literacy provide fertile ground for financial errors. Left to their own devices, employees may choose to invest their pension wealth in either too-conservative or too-aggressive assets. An analysis of portfolio allocation from a large sample of Vanguard investors offers compelling evidence that portfolio allocation can be improved upon. Chapter four examines data from over 2,000 defined contribution plans and nearly 2.9 million 401(k) participants and uses a simple stoplight color scheme—green, yellow, and red—to classify participants' portfolio selection. Only about 45 percent of investors are determined to be doing fine, constructing “green” portfolios with equity allocation consistent with expert advice. More than a quarter of participants hold “yellow” portfolios that are either too aggressively invested in stocks or too conservative. The remainder hold “red” portfolios with more serious errors, including zero participation in the stock market and overexposure to single-stock risk.

Another potential error individuals make is the failure to annuitize. As mentioned earlier, in addition to deciding how much to save and how to allocate pension wealth, workers today must decide how to decumulate their wealth when they reach retirement. One of the difficulties in deciding how to spend down is uncertainty about the length of life. Life annuities are designed to eliminate longevity risk by allowing an individual to exchange a lump sum of wealth for a stream of payments that continue as long as the individual (and spouse) is alive. Economic theory suggests that life annuities can substantially increase welfare by eliminating the risk associated with uncertain life expectancies and providing consumers with a higher level of lifetime consumption. Yet, as described in chapter six, most individuals do not annuitize as often as the theory predicts, if they annuitize at all.

There are a number of reasons why it may be optimal not to annuitize. While many are plausible, they can hardly explain why the annuity market is so small and why so many individuals do not annuitize at all or buy specific annuity contracts, nor can these behaviors be explained by classical economic theory. In fact, researchers have recently resorted to explanations more grounded in behavioral economics to explain lack of annuitization. For one, annuities are rather complex products and those who lack financial sophistication may not fully appreciate the benefits of annuities. Moreover, annuities may be viewed as a gamble. Without the annuity, investors have some money for certain, but in buying an annuity, they face the possibility of not receiving much from it if they die too soon. Other explanations are offered in chapter six as to why individuals are reluctant to buy annuities. But to increase the size of the annuity market, we need to do a better job in understanding the barriers that prevent people from buying annuities.

Note that financial products are often sold via intermediaries. In principle, this could facilitate financial transactions and overcome some of the challenges that investors face. However, relying on recommendations of financial service industry professionals creates a number of potential problems for individuals. For example, a financial advisor may steer an individual's decision in a direction that serves the interest of the advisor and not the client. This practice may be accentuated by the presence of a collateral benefit for the advisor—a side payment or the provision of some ancillary service.

This problem—yet another of the issues surrounding the saving slump—is labeled “the trilateral dilemma in financial regulation” and is rather pervasive, as discussed in detail in chapter three. Trilateral dilemmas appear in multiple areas of the financial service industry and are particularly important in regard to pension plans. An example of a trilateral dilemma is the

practice of pension consultants advising employer sponsors on the selection of investment options, then receiving compensatory payments from the financial services firms that offer 401(k) programs. These arrangements pose risks to participants in 401(k) programs as consultants may be tempted to guide plan sponsors to less-than-optimal service providers. Compensatory payments may also increase the cost of 401(k) programs, resulting in higher fees and expenses for participants.

It is still unclear whether side payments are necessary or if they simply prey on individuals' lack of sophistication and general confusion about financial matters. Moreover, because side payments are often associated with ancillary services, it may be easy for individuals to overlook them. For example, workers focused on making a decision about how much to save and how to best invest those savings may spend little time in checking the fees of the funds offered by their plan. Furthermore, costs from side payments can be blended into pricing arrangements that cover many services and may be hard for individuals to identify and disentangle.

Putting concerns about issues such as the trilateral dilemma aside for the moment, it is important to point out that the financial industry has developed several products that can overcome problems of widespread financial illiteracy as well as limit portfolio mistakes. While there are now many such products, the book highlights a few important examples, such as managed accounts, life-cycle funds, and specific types of annuities.

As proposed in chapter four, rather than investing on their own, investors could turn funds over to managed accounts. These types of accounts can substantially limit the magnitude of portfolio mistakes. For the small group of investors, followed by the authors, who shifted to managed accounts, changes in portfolio allocation are staggering. Prior to the adoption of an

advisory service, nearly half of the group's participants were at three focal points in their investment allocations: zero equities, 100 percent equities, and 50 percent equities. After the advisory service took control of participant accounts, the distribution changed dramatically; extreme equity holdings were entirely eliminated and equity holdings became more normally distributed, with a mean equity exposure at a healthy 76 percent.

Portfolio errors of the sort made by individuals followed in chapter four can be costly, causing investors to potentially forfeit over 350 basis points in expected return. Studies have shown that these errors are most prevalent in specific groups of participants, often those with lower income, lower wealth, and less financial sophistication.

Another of the financial products investors can resort to for better saving outcomes are life-cycle funds. These funds change asset allocation based on the age of the investor. As investors approach retirement, the life-cycle fund shifts from riskier assets, such as stocks, to more conservative assets, such as bonds. As noted in chapter five, there are several reasons "age-based investing" is appropriate. First, stock returns are much less volatile when they are measured over long holding periods, evidence which has been used to promote a strategy of buying and holding equities for the long-term. Second, one of the significant elements of total wealth is human capital, or the present discounted value of expected future earnings. This has important implications for asset allocation. As illustrated in chapter five, for an investor who knows his income in advance with perfect certainty, human capital is equivalent to an implicit investment in bonds. When the investor is young and has many years of labor income ahead of him, but little wealth saved, human capital represents a large share of total wealth. This investor should tilt his financial portfolio toward equities. However, as the investor ages, the value of human capital declines while financial wealth grows. Thus, the investor will want to attenuate

the tilt toward risky assets in his financial portfolio. Life-cycle funds can be particularly well-suited for personal retirement accounts, which are investments for the long run. Moreover, life-cycle funds greatly simplify investment decisions and help investors to decrease exposure to risk as they approach retirement.

In the annuity market as well, new products have been developed to overcome some of the barriers to investing in these contracts. For example, several insurance companies have begun to offer products that are designed to provide life annuity payments that start at some future date (deferred payout). This may overcome the psychological barrier that people face in converting a large stock of wealth into income at the time of retirement. Other contracts offer guaranteed minimum withdrawals. Typically, they guarantee that the individual will receive a fixed percentage of the account balance at a specific point in time. These guaranteed withdrawals may help overcome investors' desire to avoid regret or the perception of annuities as a gamble. There are also annuities that offer some liquidity, providing an option to withdraw, on a one-time-only basis, up to 30 percent of the expected value of the remaining annuity payments based on mortality rates at the time of purchase.

While the development of products to help investors make better decisions is important, it cannot offset the importance of investors' abilities to understand how to use the products to effectively save and invest. Such understanding requires a certain level of financial knowledge and grasp of information, yet both have been shown to be lacking in the U.S. population. In this environment, it is clear that financial education can play a critical role in overcoming the saving slump. Both employers and the government have promoted financial education programs to help workers in their saving and investment decisions. Programs have taken many different forms. In the United States, many firms—particularly large ones—have begun to offer retirement seminars

to workers. Moreover, financial education programs have been implemented into many high school curricula.

There exists, however, a debate about the effectiveness of financial education programs. Certain issues that arise in the evaluation of these programs can be seen in chapter eight, which discusses a well-crafted financial education program implemented by TIAA-CREF. One of the problems in evaluating such a program is that those attending seminars are not necessarily a random group of employees. Thus, it is hard to determine whether it is the seminar that affects behavior or whether seminar participants display specific characteristics that are already conducive to that behavior. Moreover, seminars result in improved financial planning for only a small fraction of participants. In the TIAA-CREF program, for example, only about 12 percent of seminar participants reported that they planned to change the age at which they would retire and close to 30 percent planned to change their retirement income goal. Furthermore, intentions may not necessarily lead to actions. When surveyed several months later, many participants reported failing to follow through on their plans. Another feature highlighted in the study was that the effect of the seminar was rather different among demographic groups. For example, rather pronounced gender differences in saving behavior were seen. Before attending the seminars, women displayed less confidence in their abilities to attain their retirement goals than men. But women were substantially more likely than men to increase their expected retirement age and to alter their retirement goals. Thus, evaluating the effects of seminars in the whole population of participants may understate its impact on specific groups.

More disappointing results are provided by financial education programs in high schools. As reported in chapter nine, students who took courses in financial management or personal finance did not do any better on financial literacy tests than students who did not take any such

course, a finding that does not seem to be explained by either the caliber of the students who enroll in such courses, the training of the teachers, or the quality of the courses.

The mixed evidence of the effectiveness of financial education programs has led some to question whether it is worth trying to improve financial literacy. However, the evidence gathered in this book—while highlighting the challenges we are currently facing in the saving arena—shows that financial education programs can be effective and that increased literacy does result in better saving habits. Given the complexity of current financial instruments and the financial decisions required in everyday life, individuals need to know *how to read and write* financially. Just as it is impossible to live well and operate effectively without being *literate*, i.e., knowing how to read and write, so it is becoming very hard to live well and operate effectively without being *financially literate*. However, increasing financial literacy and promoting saving behavior is clearly a challenge, and it is important to highlight ways to increase the effectiveness of programs designed to address these problems.

How to increase the effectiveness of financial education and saving programs

One of the key objectives of this book is to provide suggestions on how to increase the effectiveness of financial education programs. Effectively designing education and saving programs needs to take into account a number of factors: identification of barriers to effective saving, differences among demographic groups, and flexible program design.

It is critical to identify the barriers individuals are facing when trying to make saving decisions. A variety of barriers are described throughout the book, from lack of literacy to lack of information to behavioral biases. However, this hardly exhausts the list of things that can affect individual behavior. The research that deals with increasing the effectiveness of financial

education and saving programs, discussed in chapters seven, eight, ten, and thirteen, points to a variety of factors that need to be considered. Because individuals differ widely in their barriers to saving, it is important to develop methods to uncover those barriers. In designing effective programs, approaches such as in-depth interviews, focus groups, and ethnographic studies may need to be employed.

The many differences among individuals must also be taken into account for successful implementation of financial education programs. Targeted education programs may better serve the needs of specific groups of the population, such as women, younger and older individuals, and those with low income. Chapters throughout the book document the many differences that exist among these groups.

One-time financial education seminars—typical of the programs offered by many large companies—may simply be insufficient to address widespread illiteracy and lack of information. Chapter ten, specifically, provides evidence that financial education proves effective when several hours and sessions of financial education are offered. Moreover, financial education should not be limited to information about financial products. As described in chapter three, individuals also need to be educated about the intermediaries who influence their selection of financial products and the incentives those intermediaries may face.

When these broader influences on saving education and behavior are considered, more effective outcomes may be seen. Chapter seven documents improved saving behavior resulting from a customized planning aid designed to stimulate contributions to supplementary pensions for individuals who displayed low levels of information about saving options and reported not knowing where to start in regards to saving. The planning aid has several interesting features. First, it breaks down the process of enrollment in a supplementary pension plan into several

small steps, describing to participants exactly what they need to do at each step. Then the aid provides several pieces of information to help overcome barriers to saving, such as describing the low minimum amount of income employees can contribute (in addition to the maximum) and indicating the default fund that the employer has chosen for them (a life-cycle fund). Finally, it contains pictures and messages designed to motivate participants to save. Initiatives such as this indicate that there are innovative and potentially more cost-effective ways to stimulate saving than, for example, relying on tax incentives and employer matches. The chapter also shows that, to both understand and exploit differences in individual behavior, it is important to incorporate concepts of marketing and psychology into economics.

Fundamentally, to overcome the saving slump, as is discussed in chapter ten, it is important to create an infrastructure that promotes saving and asset accumulation. Such infrastructure would include not only effectively designed financial education and saving programs but also a variety of policies and initiatives to stimulate saving. For example, access to saving opportunities can be fundamental. About half of private-sector workers have jobs that do not offer pensions, making it particularly difficult for those workers to accumulate retirement wealth, and it is important to find ways to facilitate saving among those individuals. Low income households also display little or no savings. However, specific programs targeted to the poor, such as Individual Development Accounts, which are matched savings accounts, seem effective in stimulating saving among this group of the population. Automatic enrollment in pensions also greatly facilitates plan participation and accumulation of retirement wealth. Another important policy demand, given the findings reported in chapter nine, is to prepare young people for financial life. This is a challenging task and a lot more has to be done to find effective ways to teach financial education in schools. As discussed in more detail in chapter ten, such

infrastructure should pay attention to program design. For example, centralized and efficient accounting, low-cost investment options, and outreach can play important roles in stimulating saving.

Another key point that is illustrated throughout the chapters is that individuals often lack information necessary to make sound saving and investment decisions; thus it is critical to find effective ways to deliver information to consumers. One example of effective delivery is point-of-sale education, offered as consumers obtain products. Moreover, we should explore opportunities to provide education at teachable moments. As the program described in chapter seven shows, new hires are particularly malleable to change and the start of a new job may provide a good opportunity to implement education programs.

The experiences of other countries offer important lessons for the United States. While the increase in individual responsibility that is required in the system we're transitioning to provides incentives for individuals to become knowledgeable and informed, one has to be cautious about relying simply on individual initiative. For example, lack of understanding of critical components of pensions is a persistent feature, even in economies where personal retirement accounts have been in place for many years. For example, in Chile, which adopted personal retirement accounts more than 25 years ago, there is a remarkably low level of knowledge about pensions. As reported in chapter eleven, only 69 percent of participants in the Chilean system indicate that they receive an annual statement summarizing past contributions and projecting future benefit amounts while, in fact, every participant is sent a statement. Less than half of the participants know how much they contribute to the system, even though the contribution rate has been set at 10 percent of pay since the system's inception. Understanding of what workers have accumulated and how their assets are invested is also scanty. For example,

just one-third of respondents stated knowing how their own money is invested, and only 16 percent can correctly identify which funds they hold (compared to administrative records).

In Sweden, which implemented comprehensive pension reform during the 1990s, transforming the old public defined benefit plan into a defined contribution plan and implementing a broad public information campaign, the level of knowledge is also not high. The cornerstone of communication of information to plan participants in Sweden is the Orange Envelope. The envelope is sent out annually and contains account information as well as a projection of benefits. Overall, three-fourths of all participants say they have opened the envelope, though only half report reading at least some of its content. Relying on self-reports of participants, chapter twelve documents that half of participants rate their knowledge of pensions as poor. Moreover, the share of respondents who report having a good understanding of the pension system has decreased over time. Measuring actual knowledge of the pension system from surveys that ask respondents about components of the system confirms the evidence provided by self-reports. Many participants are still unaware of the key principles regarding how benefits are determined and many overstate the importance of individual accounts.

Another problematic area for U.S. investors, which is validated in looking at the experiences of other countries, is knowledge of commissions and fees. High fees can prevent investors from accumulating adequately for retirement. However, as discussed in chapter three, fees can be easily overlooked. The experience of Chile provides compelling evidence that this is the case; only a minuscule fraction of pension participants (around 2 percent) seem to know the fees that are charged on their accounts.

The experience of Sweden further shows that when individuals are confronted with a very broad range of funds in which to invest—as many as 800—there can be a substantial

increase in information and search costs. In fact, fewer than 10 percent of new participants in Sweden make an “active choice” and choose their portfolios. The large majority invest in a default fund. Thus, it is critically important to design defaults in a way that promotes wise portfolio allocation.

Moreover, widespread evidence of illiteracy is not unique to the United States, but is present throughout OECD (Organisation for Economic Co-operation and Development) countries. Importantly, illiteracy in all countries is particularly severe among certain groups, such as women, those with low income and education, and the elderly. This suggests that these groups are particularly vulnerable to many of the changes that are occurring in modern economies. It also suggests that it is possible to share programs across countries and develop international cooperation in efforts to develop effective financial education programs.

A wealth of information is presented in the thirteen chapters of this book. While some of the contents are technical in nature, the book is intended for a wide audience. Chapters ten and thirteen are particularly suited to readers interested in public policy issues. Readers interested in the legal aspects of financial education and financial advice should refer to chapter three. Chapters one and two provide a richness of information, and a number of important statistics, about pensions and the new pension landscape and are particularly suited for an academic audience. Applications of behavioral economics and psychology to saving and financial education programs are discussed in chapters six, seven, and thirteen, with specific financial education programs discussed in chapters seven, eight, and thirteen. Readers interested in managed accounts, life-cycle funds, and annuities should read chapters four, five, and six, and those interested in the outcome of pension privatization and reliance on individual retirement

accounts should read chapters eleven and twelve. Finally, readers with an interest in financial literacy among young adults and in high school financial education programs should read chapter nine.

My aim in editing this book is to illuminate the issues facing so many Americans in regards to saving and retirement planning and to evaluate the existing programs and products that have been designed to facilitate saving. My hope is that such a close look at the situation faced today by individuals, businesses, and policymakers will help to provide a foundation to continue to devise effective financial education and saving programs, which can contribute to overcoming America's saving slump.