One

Saving and Investing

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CHAPTER ⁻

Introduction: Investing for a Lifetime

nvesting for a lifetime is really hard. First, investors have to figure out a way to force themselves to save. It's not easy because they have so many other things to do with their income. Savings often becomes just the residual after they have finished their spending. Yet savings are so essential if they are to enjoy a long retirement. This book won't teach anyone how to save. But it will show them how essential it is to save throughout the working years.

What amount of savings is necessary? That depends primarily on how much an individual hopes to spend later on in retirement. Ideally, investors may want to maintain their current standard of living once they retire. It's true that in retirement it may be possible to spend less than in their working years, but it's best not to count on spending much less. Individuals vary widely in their savings level because their incomes differ so much. But savings rates, expressed as a percent of income, should not vary nearly as much. In practice they do. That's because many Americans don't save enough.

Second, investors have to figure out how to invest. That's more complicated than it appears because there are so many pitfalls to successful investing. The most important pitfall is that investors can't control themselves. They shift in and out of investments, and mostly at the wrong time. They chase after "hot" investments even though most investment fads end up poorly.

I believe that investing can be very simple. Investors should be able to pick a portfolio of stocks and bonds and stick with it. I will argue later that the portfolio should be well diversified with different types of stocks and bonds. But that doesn't mean the investments have to be complex or difficult to understand.

Third, investors need a plan for retirement. That means assessing how much savings is needed for retirement. Then they have to figure out how to stretch their resources through retirement. That means having a spending plan that is reasonable given the wealth that investors have accumulated during their working years.

THE NEW RETIREMENT REALITY—WE ARE ON OUR OWN

This book is about investments. But it is also about saving for retirement and stretching resources during retirement. The primary reason people invest is that they need to fund their retirements. Of course, many people have other motives to invest. They may save for a down payment to buy a house. They may save to buy a car rather than to finance it. And they may also save to help pay for the education of their children. But the retirement goal is the primary savings goal for most people.

Some Americans are fortunate enough to have guaranteed pensions that provide them with a steady income throughout their retirements. These are the old-style defined benefit pensions that were once quite common in corporate America (and are still provided by most state and local governments). The pensions provide a guaranteed income to the employee and often to the employee's spouse in the event of the death of the employee. Sometimes the income is indexed to inflation, rising with the cost of living during retirement. Today, the balance has shifted away from defined benefit pension plans to defined contri*bution* pension plans, like the 401(k) plan, where workers contribute part of their salaries to the plan with firms often matching or supplementing the employee contributions. Figure 1.1 shows the share of private sector employees in each type of plan over the past 25 years.¹ There is a dramatic downward trend in defined benefit plans and a corresponding upward trend in defined contribution plans. Employees with the latter type of pension plan are, in a sense, responsible for their own retirement. If they save enough during their careers and invest wisely, they can enjoy a comfortable retirement.

How much is "enough"? That depends on how much they hope to spend in retirement and how much income they can derive from their portfolios. Later chapters will explore both investing and spending in retirement. Decisions that Americans make about investing and spending can make a big difference in determining how financially secure they are in retirement.

Most baby boomers will find the new retirement system quite challenging. It's true that since the 1930s Americans have had a Social Security retirement system to help fund their retirements. But benefits are limited. Retirees typically receive much less in Social Security benefits than they earned in their working years. So savings are necessary if retirees are to come close to matching their preretirement income.

LONGEVITY

Many Americans don't really understand how long their retirement may be. Life expectancy has increased steadily over the past 50 years at the same



FIGURE 1.1 Retirement Plans in Private Sector by Type *Source:* Employee Benefit Research Institute, 2012.

time that the age of retirement has fallen. According to the Labor Department, the median age of retirement for both men and women is less than 62 years of age.² That's down from an average age between 66 and 67 in the 1950s. Americans at 62 can often look forward to 20 or even 30 more years of life in retirement. Yet few Americans have a coherent plan to make sure their resources will last that long. Savings are often inadequate and spending is often too high to be sustainable. Investment decisions, moreover, are often inconsistent with spending rates.

In formulating a savings plan for retirement, it will be helpful to know just how long our savings must last. Figure 1.2 presents some estimates of how long current 65 year-olds are likely to live.³ For a 65-year-old man today, the median age of death is estimated to be 83 years, with 25 percent of his cohort likely to live to be 89. For a 65-year-old woman, the median age is 86 and 25 percent are likely to reach 92. For a married couple at 62 years old, the relevant statistic is the life expectancy of the *surviving* spouse. The median age of death for the surviving spouse is over 90 years of age! So the nest egg accumulated for retirement must last a long time.

With lifetimes this long, investment horizons must be just as long. In fact, they need to be longer because individuals may live longer than the average person their age. Yet Americans entering retirement often choose



FIGURE 1.2 Life Expectancies of Today's 65-Year-Olds *Source:* National Vital Statistics Reports, 2011.

portfolios appropriate for retirees of their grandparents' generation who typically lived only a few years after they retired. Retirees of that generation used to invest in bonds during retirement. Investing in bonds surely seems the safe thing to do. It helps you sleep at night if you avoid stocks and other volatile investments. That's all well and good for emotional well-being, but does the average investor realize how little can be spent if a portfolio is weighted heavily toward bonds?

An even bigger question is whether investors understand how much money needs to be saved before retiring. Chapter 17 explains why retirees should keep their spending in retirement at 4 percent or less of their wealth. Do the arithmetic. If investors save enough to be millionaires, guess how much they can spend if they follow this rule? Four percent of a million is only \$40,000 per year. And do you know how hard it is to accumulate that much wealth? The task of saving is truly daunting.

THE SQUIRREL MODEL OF SAVING AND SPENDING

Saving and retirement planning is often viewed as so complex that many Americans just tune out. Unfortunately, we cannot afford to do that. We need to understand how imperative it is to save. If that lesson is learned, then investing is relatively easy. Fortunately, we have squirrels to guide us in saving.⁴

Let's imagine a squirrel is only concerned about the next 12 months and that it lives in a very cold place where winter lasts for six months. Then a good plan would be to "squirrel away" some nuts. The squirrel would like to eat one nut per day. To store up enough nuts for the winter, the squirrel has to find two nuts per day and save 50 percent of them. At the end of six months, the squirrel will have 180 nuts saved (i.e., half of the 360 days in a squirrel year)—just enough to last the winter. A 50 percent savings rate is very high, but the squirrel does not want to run short of nuts late in the winter. Figure 1.3 illustrates the saving and spending plan of this squirrel. For the first six months, the squirrel steadily builds up its store of nuts. Then when winter sets in, the squirrel can sit back and consume them. By planning wisely, the squirrel can eat one nut per day for the whole year.

What if the squirrel lives in Pennsylvania where there are only four winter months? Then the squirrel can cut its savings rate to 33 percent since it can save nuts for 8 out of the 12 months. By working for two more months, the squirrel can eat more nuts ($1\frac{1}{3}$ nuts per day!) and save less. That savings and spending plan is illustrated by the dotted line in Figure 1.3. Total nuts stored peaks after eight months. Then the squirrel sits back and eats



FIGURE 1.3 Squirrel Model of Saving

his store of nuts during the remaining four months. In Pennsylvania, the squirrel has to work two months longer. But he will enjoy so many more nuts than his cousins in the cold north.

Now let's imagine how this works for a person saving for retirement. To make things simple, assume that the person starts saving at 30 years of age, retires at 60, and dies at 90. Let's assume that this person earns zero return on savings and, like the squirrel, does not pay taxes. Then to have enough wealth to retire at 60, this person has to save *half of all income* to maintain the same spending level in retirement as in the working years. Saving at a 50 percent rate is quite onerous. But that's because retirement lasts so long.

How might we find a way to lower the savings rate to a more manageable level? Let's examine four possibilities.

- 1. Postpone retirement. The individual could decide to work longer. Let's assume that the retirement age is postponed until the person is 70 years old. Since the individual works for 40 years rather than 30 years, savings can be less during the working years. In fact, savings can drop from 50 percent of income to 33 percent. That is, you save one third of your income for 40 years, then live off your savings for 20 years. And you can spend more all of your life.
- 2. Spend less in retirement. In the squirrel example, spending needs are as high in retirement as during working years. If spending in retirement were to be reduced to only two thirds of spending during the working years, the required level of savings drops from 50 percent to 40 percent. In the meantime, spending during the working years can rise as well. Of course, anyone already in retirement will quickly object that such a drop in spending is unrealistic. This topic is discussed in Chapters 16 through 19.
- **3.** Earn a rate of return on your savings. The example assumes that the individual earns no return on savings. In Chapter 2 we discuss long-run returns on retirement portfolios. Then in Chapter 5, we discuss how positive investment returns can reduce the amount of savings necessary for retirement. Investment returns are crucially important to the success of the retirement strategy. No wonder so much of this book is devoted to investing.
- 4. We have Social Security benefits. Unlike the squirrel, Americans have Social Security benefits for the retirement years. For an individual retiring at full retirement age in 2012, those benefits might be as high as \$30,000 per year depending on lifetime earnings. We will have to take those benefits into account when we consider savings strategies in Chapters 4 through 6 and retirement spending in Chapters 16 through 19.

Despite these important qualifications, the squirrel's strategy has a lesson for us all. Retirement savings are really important if we hope to have a decent retirement. And investing those retirement savings in a wise way is also enormously important. That's what this book is about.

OUTLINE OF THE BOOK

Investing for a lifetime requires savings. But how much does an investor have to save to provide a secure retirement? The squirrel's tale gives some indication, but in the first part of the book I will be much more specific. The investor's savings rate will depend on how long that investor plans to save. And it will depend on the extent to which the investor is burdened by taxes and other expenses.

Before we can discuss savings, though, it's important to learn how much can be earned on these savings. If the squirrel could have earned a decent return on his hoard of nuts, he wouldn't have had to work so hard. So the next two chapters discuss how much can be earned on the two basic assets in the portfolio, stocks and bonds. Chapter 2 shows how much we have earned historically on these two assets. Chapter 3 considers whether future returns might be lower in a "New Normal." Then Chapters 4 through 6 discuss savings.

Part Two of the book studies investment options that are available for the average investor (in Chapters 7 through 13). These range from different types of U.S. stocks to foreign stocks and real estate as well as bonds. I will also discuss investment in a home.

Part Three of the book discusses wealth management. Topics include what portfolio is appropriate for the investor (Chapter 14), how can investments in that portfolio be tracked, and what are best practices for investing (Chapter 15). Those topics are for investors of any age. But retirees need special attention. Many retirees are desperately looking for investments that yield income for retirement. Chapter 16 will view the major sources of income available. Then Chapters 17 through 19 will discuss investing and spending in retirement more generally, including a future where a "New Normal" of lower returns prevails.

My aim is to provide some practical guidelines for investing over a lifetime. I hope this book makes the process of saving, investing, and spending much easier to comprehend.

NOTES

1. Figure 1.1 shows participation in defined benefit and defined contribution plans in medium-size and large private establishments. Those employees who have neither type of pension plan are excluded from the calculations. In 2010, 34 percent of the employees in these same establishments had no retirement plan at all.

- 2. According to the U.S. Bureau of Labor Statistics, the median age of retirement for the years 2000–2005 was 61.6 for men and 60.5 for women (see Gendell 2008).
- **3.** The estimates are reported by Arias (2011) in a report for the National Vital Statistics System.
- **4.** The squirrel analogy was developed by Keith Sharp of the University of Toronto (sharp@ustat.utoronto.ca).

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