

RISK LESS

AND



PROSPER

› *Your Guide to Safer Investing* ‹

ZVI BODIE AND RACHELLE TAQQU

Risk Less and Prosper

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YOUR GUIDE TO SAFER INVESTING

**Zvi Bodie
and
Rachelle Taqqu**



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For my grandchildren, my most precious assets
—ZB

For Yael and Jonathan
—RT

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Foreword

The arrival of *Risk Less and Prosper*, with its innovative perspective on how households can take charge of their essential financial decisions involving life-cycle saving and investment, could not have been better timed. These are difficult decisions in difficult times, surrounded by considerable uncertainty involving where we might be, what we might want, and the state of the economic environment, often decades into the future. We are amid a perplexing financial and economic crisis affecting most of the Western world, which further amplifies the uncertainty. How it will play out in the impending future, we do not know. But what we do know is that it is critically important to take charge of one's financial affairs now.

Even before the current crisis, as a result of major technological innovation and widespread deregulation, households have been called on to make a wide range of important and detailed financial decisions that they did not have to in the past. For instance, there is a widespread trend away from defined-benefit pension plans that require no management decisions by the employee toward defined-contribution plans that very much do. In the United States alone, there are more than 8,000 mutual funds and a vast array of other retail investment products to choose from. Along with insurance products and liquidity services, the household thus faces a daunting task to assemble these various components into a coherent effective lifetime financial plan and then implement it.

Some see this trend continuing and widening. Perhaps so, especially in the more immediate future, with the widespread growth of relatively inexpensive Internet access to financial “advice engines” to assist households with financial decisions. However, the creation of all these alternative investment products combined with financial advice offered from so many different sources has consequences: Households have been left with the responsibility for making important and technically complex microfinancial decisions involving risk—decisions that they did not have to make *in the past*, they are not trained to make *in the present*, and they are not likely to execute efficiently *in the future*, even with attempts at education. Financial planners, corporate pension-plan sponsors, and independent pension funds can be helpful, but still the complexity for the individual can be overwhelming.

This book offers a clear, foundational, analytical framework that explains how to go about determining the financial goals you want to achieve; creating a realistic plan to achieve those goals; and then implementing that plan. Writing in plain, jargon-free language, the authors patiently develop their theme and thesis that properly measuring and managing risk of well-specified goals is the foundation for good investment decisions, and they develop guiding principles to do so, based on finance science and informed by practical experience. These principles are applied to develop a risk-management strategy for investment success defined by achievement of goals and to help you avoid paths of error by exposing the flaws of frequently heard, but erroneous, investment rules.

You could not do better than have the Bodie-Taquq team as your guides. A professor of finance at Boston University for more than 35 years, Zvi Bodie is a premier scientific researcher on retirement finance and investing, particularly on the risk of inflation and the incorporation of human capital into the investment optimization process. He has long been dedicated to creating financial literacy

and is the coauthor of a best-selling investment textbook, now in its 9th edition. Rachele Taqqu is a financial consultant practitioner who, like Bodie, is committed to improving financial decision making for households. She brings hands-on experience of working with individuals on setting and executing their financial course.

The book employs a clever and effective pedagogical approach by creating a story about a group of people with a common need to make financial decisions, who meet to discuss their individual challenges and opportunities with the idea of learning from one another's knowledge and experiences. Although the group and its leader are hypothetical, their characters and challenges are composites drawn from real people and carefully crafted to illustrate a wide range of situations. Through the interactions among the characters, you come to recognize interests, types, and issues in common, and in that way feel a sense of active participation as a virtual member of the group. The journey of the group from knowing little about financial planning and feeling overwhelmed to learning how to execute a well crafted custom-fit plan, including how to select an advisor to help, is presented in three parts.

Part I is all about you, focusing on unlearning ineffective habits from the past and learning a better way to determine a feasible and desirable life-cycle financial plan tailored to you. The process starts with setting financial goals, determining what the risks are that they may not be achieved, and then cycling back to modify those goals until a combination of goals and the risk of not achieving them reaches a comfortable balance. This is undertaken in six steps: (1) Set the goals, (2) know how to monitor progress toward the goals, (3) establish a priority list for the goals, (4) create a time line for achieving those goals, (5) consult with others whose life plans will be directly affected by your plan, and (6) determine what the cost is to achieve those goals. From this, we learn how to create a lifetime budget and convert a dream into a concrete plan.

Part II is dedicated to understanding the critical element of risk in financial decision making. Chapter 4 covers the most commonly encountered fallacies about measuring risk and investing. Chapter 5 takes you through the common psychological mistakes humans make in making decisions under uncertainty. These important and challenging subjects are explained in an intuitive fashion so that you can both understand the fallacies and cognitive errors and become sensitized to recognize them when they are experienced.

The central message is clear: You may easily get less than you pay for, measured either in terms of money or risk protection, but you rarely, if ever, will get more. If it seems too good to be true, it is almost surely not true. There is no free lunch, and if you seem to be offered one, check again—you have probably missed some cost. All important financial decisions involve making trade-offs between what we desire and what we must give up to get it. So if you want a higher-priced lifestyle in retirement, then there are only three ways to improve the chances of getting it: Save more (and consume less) now, work longer (retire later), or take more risk (and accept a larger loss in the event that you do not succeed).

Armed with this sound preparation, Chapter 6 leads you affirmatively through the process of creating a personal risk profile. From all of this emerges a lifetime financial plan framed in reality and specificity with an explicit recognition of the balance between the desired goals and the risks of not achieving them. The process is thus structured to accommodate unpredictable change as one goes through life and the future unfolds into the present.

Part III addresses the implementation of the lifetime plan with ample detail and description of the various financial instruments that can be used to go after the desired goals within the accepted risk profile. Featured are the role of annuities in the retirement part of the life cycle and specialized tax-efficient plans for saving for children's

education or for accumulating resources for retirement. You receive a primer on the tools for protecting against the risk of inflation, interest rate risk, and mortality and longevity risks. There is a chapter devoted to risky investing in equities and other asset classes.

Although the book prepares you for financial decision making and implementation, determining a plan and investing to implement it is time consuming and often complicated. Many readers will thus decide that it makes sense to hire a professional, an advisor, to manage and implement their financial plan. Building on the foundation of the preceding chapters, the concluding Chapter 11 takes you through the process, step by step and thoroughly, beginning with helping you determine if you need an advisor, and if you do, then how systematically to go about selecting one.

Risk Less and Prosper is an accessible, bold, and largely self-contained offering of the principles and steps of implementation to achieve your lifetime financial goals, and to better understand, measure, and manage risk in the evolving financial system. Whether you're a first-time investor, a seasoned financial advisor, or a regulator of retail financial services, you are in for a treat: *Bon Appétit!*

ROBERT C. MERTON
MIT, Sloan School of Management

Preface

Something has gone terribly wrong with the way we think about personal investing. Trustworthy investment advice for individuals is hard to find. Much of what goes for advice is filled with misleading promotions masquerading as education, and the result has been pervasive misinformation. Investors are not aware of how much risk they are bearing. Two stock market collapses in seven years have made these failings all too clear.

What's needed is a better investment path—one that leads investors to their financial goals without risking calamity.

This mission has become all the more pressing following the financial earthquake that began in the fall of 2008. Few people have fared well and markets remain volatile. The phasing out of company-sponsored pension plans darkens the picture. Without an employer's pension to rely on, most individuals are left to manage their investments on their own—for retirement and more. When they do look to a trusted advisor for help, it's still the ordinary investor's responsibility to find and pay for such counsel. If individuals and families are to shoulder such a large responsibility, they'll need to be better prepared.

There is an urgent need for impartial advice to combat the confusion and false impressions fostered in much of conventional wisdom. For coauthor Zvi Bodie, this has been a long-term project. He has been an outspoken advocate for educating individuals on the basics and has repeatedly voiced distress at the misconceptions that continue to take investors in. Even in his classes at Boston University's School of Management, where he is the Adele Baron Professor of

Finance, Zvi has encountered confusion from students who should know better but have been influenced more by the industry than the science.

Zvi has been a longtime proponent of integrating insurance perspectives into investment planning. He has persistently emphasized the need to assure yourself a minimum basic income that is safe—whether for retirement, for higher education, or for other long-term goals. Zvi teamed up with coauthor Rachelle Taqqu after they discovered their shared commitment to investor education. As a financial consultant, Rachelle had come across a daunting level of needless mystification in the general public about all things financial, even among the highly educated, and had become an advocate for improving investment literacy.

Over the years, Zvi has seen a growing circle of planners and advisors adopt the core principles of safety-first investing. They too are looking for a source that sets out the safety-first approach in one place—starting from how to think about it and including details about how to get it done.

Risk Less and Prosper has been written for readers at all levels and is targeted especially at the middle class. For the novice, it aims for clarity and simplicity. It's designed to prepare you for action while avoiding harm. And seasoned investors will find a new, across-the-board approach to risk and reward that changes the game for good. But be forewarned: We will be discrediting many chestnuts from the conventional wisdom along the way as we point the direction to a safer alternative.

Setting Goals to Manage Risk

As you read on, you'll be introduced to a small group of men and women who are meeting together, along with a financial advisor, in order to get better at taking charge of their personal investments. All the members of this group are based on composites of real people. All are well educated, except that they're unversed in the basics of finance and investing.

Here is a preview of the fundamentals we'll be covering along with the group.

First and foremost, personal investing is about you—your goals, your values, your career path, and your preferences. In very large measure, it is your goals that drive your investment decisions.

So the safety-first approach you'll read about here also calls for goal-based investing. It encourages you to picture your destinations as clearly as you can. And this is where the book begins.

Your next step is to estimate the price tag of your vision. To decide how much of your vision you need to keep safe, try paring your goals down to the bare essentials. Imagine the minimum you will absolutely need.

How easy is it to come up with answers? Does the picture of your destination come readily to mind? If it does, you are among the lucky ones. Research shows that relatively few people get as far as making a plan, even a very approximate one. This is one of the most common causes of failure—so, if you don't have your destination clearly in mind yet, keep working on it, even if you think your long-term goals are just too far in the future to capture. We'll be looking at ways to help you get a better grasp of both your goals and the investments you'll need to fund them.

It's also important to complete a budgeting drill. Check how well your goals align with the lifetime income you are expecting. Most of the money to meet your goals will probably come from income from your work. This explains why your chosen career path is an important factor in your investment decisions. Of course, you can't predict your route with certainty, but the source and the extent of your income expectations play a key role in setting your investment course.

The exercise of setting goals and aligning them with expected funding sources has a crucial by-product: It helps you decide on the right amount of risk to take. We'll get to the mechanics later on, but the central insight is simple. Setting goals—and quantifying them—clarifies where to draw the line

on risk. By establishing the minimal needs that you can't do without, you're also specifying what you cannot afford to lose or risk.

This perspective breaks with convention because it measures risk in terms of possible shortfall *amounts*, and not the *odds* of falling short. So: if you hear the catchphrase that an investment portfolio has a 90 percent chance of getting you to your goal, remember to flip the statement on its head. Ask *how much* you stand to *lose*. Then weigh the consequences.

Because individuals do such a bad job of assessing risk—and because investment risk is so often and so deceptively promoted as a necessity—we'll also spend time surveying the landscape of investment risk. In Part II, we'll look at the ways that risk has been sold to consumers. We'll show how to spot trickery, and how to reframe the questions more honestly.

The ability to take risk is a highly individual matter. It is affected by many factors—including how near or far you are from achieving your financial targets, how much time remains before you need to retire, how reliable your income from work is, and how stable your life circumstances are, among other things.

Stability in work and life circumstances is not always predictable, but you can detect broad outlines. In work, look at the stability of the industry you are in as well as your own position. Life circumstances include your dependents and your marital status, for example, and perhaps your health.

All these factors influence your objective capacity for risk. On the other hand, there is also the matter of how you feel about risk—or your risk tolerance. Having a high subjective tolerance for investment risk is not the same as having a large objective capacity for risk.

Your personal inclination to take investment risk is not easy to gauge. It has nothing to do with your strong attraction to skydiving out of airplanes. But, if you try imagining actual scenarios of loss and gain to test how you'd feel, you may learn something about it.

You may decide, though, that your risk tolerance is not a permanent trait after all, but a passing state that changes with circumstances. If so, you won't pay much attention to it. At the end of Part II, you'll find guidance on how to think about risk tolerance, so you can draw your own conclusions. You'll see why—contrary to conventional wisdom—risk tolerance is only a secondary consideration when you are choosing your investments.

All these notions—matching investments to goals, estimating the level and riskiness of your future earnings, and risk tolerance—will come into play as you chart your individual line of defense against loss. This is the line that determines the right blend of risk and safety for you. Depending on who you are, you may find that the portion of your investments you need to invest safely seems overwhelmingly large. That's not unusual, especially as you approach retirement. In fact, as we'll see, one good way to ensure that you have indeed arrived at the right decision is to start out by hypothetically loading absolutely everything into the safe side, then determine how far that will take you and fine-tune as needed. In any event, remember that you'll surely be making adjustments in future years as you monitor your original investment map to stay up-to-date.

Creating a Safety-First Portfolio

It's often argued that risk-free instruments such as government bonds are not really risk free because you remain exposed to inflation when you own them. We've encountered such claims even from supposedly trustworthy sources, including the web site of the Financial Services Industry Regulatory Agency (FINRA). This argument is *only* correct if you're referring to insured Certificates of Deposit from banks or conventional U.S. Treasury bonds.

But it's a position that's been trumped since 1997, when the U.S. Treasury began issuing Treasury Inflation Protected Securities (TIPS for short), which offer returns that have

been adjusted for inflation. There is also a U.S. savings bond called an I Bond, which has different mechanics but also offers a return that keeps holders even with inflation.

When you own TIPS and I Bonds, your initial investment is guaranteed and your return is paid in inflation-adjusted dollars. TIPS are offered in a variety of maturities, so it's possible to build a ladder made up of bonds that mature one after the other. You can readily see how well such an investment lends itself to goal matching. We'll explore the ins and outs of the implementation strategy in a later chapter. For safety and protection against inflation, TIPS and I Bonds are unsurpassed.

It's important to be clear about what's meant by "safety," because nothing is absolutely safe. Life happens; unexpected things occur. And we are living in turbulent times. Nevertheless, just because nothing is completely safe does not mean that everything is equally unsafe.

So, when we look for safe investments, we are looking for the safest investments available. In an era when even strong sovereign credits are being questioned, TIPS and I Bonds are still the safest investments around—especially for individuals who expect to be paying their expenses in U.S. dollars.

In Part III, we'll take you through the ins and outs of TIPS and I Bonds. There are also some other relatively safe products that can be used to serve special purposes. Some states offer educational savings accounts for prepaying college tuition. Insurance companies sell annuities to protect retirees against fluctuating income after they have stopped working. And so on. We'll look at these too as we consider how to build a safety-first, goal-based investment portfolio.

The risky portion of your portfolio comes next. We'll give you a bird's-eye picture of the landscape here, focusing on stocks. We'll include principles to follow, significant traps to watch out for, and how to think about your risky portfolio in general. And finally, we'll give you some essential pointers on how to find an impartial, trustworthy financial advisor.

At no time will we argue that your risk in the stock market goes away or even diminishes over time. This popular

and rather seductive belief is a fabrication based on misconception, illusion, and confusion.

Stocks generally have higher returns than lower-risk investments. The premium compensates you for taking risk. There is nothing that magically happens over time to remove the risk from the picture. After you read this book, we expect you to abandon forever the myth that risk in the stock market vanishes or shrinks in the long run.

Of course, if you've created a solid basic layer of safe investments, you'll have the luxury of peace of mind. You can hope for some upside from your risky portfolio with the knowledge that you've created a safety net for yourself in case your stock holdings move against you.

More Science, Less Junk

Goal-based investing is not a passing fad or fancy. It's grounded in science, and its main scientific mooring is in life-cycle economics. By looking at your goals first, we take a page from the life-cycle economist's book, which views your consumption of goods and leisure rather than wealth as the best measure of your financial well-being.

When you calculate how to fund your future goals, you are effectively planning to reduce consumption today in order to spend tomorrow, just as life-cycle economics predicts you will. When you judge success by your ability to meet these goals—rather than by your record in beating some market benchmark—you are also following precepts from economics.

Life-cycle economics further considers your *earning power* (called “human capital” by economists) as a key determinant of both your lifetime income and your wealth. Your total wealth is the sum of your financial wealth and your earnings potential. From this standpoint, it's easy to understand why it's prudent to coordinate your overall investment risk with the risk and reward you expect from your career. If you leave your earning power out of the equation, you can end up with an imbalanced investment strategy that takes either too much or too little risk.