THE INVESTOR'S MANIFESTO

PREPARING FOR PROSPERITY, ARMAGEDDON, AND EVERYTHING IN BETWEEN

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Foreword

Bill Bernstein—investment advisor, neurologist, economic historian, bestselling author, thinking person's financial guru—is perhaps the smartest man I know. And, fortunately, he is also one of the most approachable. Indeed, during my 13 years as the *Wall Street Journal's* personal-finance columnist, he was the source I invariably turned to when the well ran dry.

"So, Bill, what's on your mind these days?" I would croon down the telephone, hoping a certain jocularity would mask my desperation as yet another column deadline loomed. Bill, thank goodness, almost always delivered. Because he had turned his considerable intelligence to the financial world relatively late in life, he had enthusiasm and insights that eluded the rest of us, who had grown jaded from watching the Wall Street money-go-round for too long.

You will discover that enthusiasm and those insights in *The Investor's Manifesto,* delivered in plain English and with a touch of hyperbole and a helping of humor. Bill and I do not agree on everything, but there is one thing we are both convinced of: The recent economic and market debacle is a great "teachable moment," to steal Bill's phrase from the preface, and it may represent the best investment opportunity in a generation.

So what should you learn from the 2008–2009 financial collapse? You will get Bill's take in the pages that follow. To get you warmed up, here I highlight five important—but perhaps less obvious—lessons.

1. Many of us are not as brave as we thought.

To earn high returns, we need to take high risks. The stock market sure seems risky in 2009, which is a reason for optimism. But even if stocks deliver healthy gains over the next few years, we may not reap the reward if we make panicky decisions in the face of market turmoil.

Have you got what it takes to be a successful stock-market investor? This may be the best chance you will ever get to assess your stomach for risk. If you calmly rode out the 2008–2009 decline, maybe you can indeed live with a stock-heavy portfolio. But if you were terrified by both the economic turmoil and your own investment losses, perhaps you should move toward a more conservative investment mix in the years ahead.

2. Leverage can sting.

Many of us engage in mental accounting, associating the auto loan with the car, the mortgage with the house, and the credit-card balance with the wild weekend in Cancun. Yet, once we have incurred these debts, they effectively leverage our entire finances. This simple truth has lately been hammered home, as the past decade's borrowing binge ran smack into the brutal decline in stock and home prices.

Let's say you went into 2008 with a $400,000 house, a $200,000 stock portfolio, and $300,000 in debts. Your stock portfolio's value might have tumbled to $100,000 and your home might have dropped to $350,000, for a stinging 25 percent decline in your combined assets. But what really stung was the hit to your net worth, which is your total assets minus your total liabilities. That would have fallen a staggering 50 percent.

3. Our homes likely will not pay for our retirement.

The recent collapse in the housing market should have finally killed off the popular notion that "you can't go wrong with real estate." Even if folks are no longer banking on double-digit annual housing gains, they often still view their homes as part of their retirement nest eggs.

To be sure, upon quitting the work force, we could unlock some of our home equity by trading down to a smaller place or taking out a reverse mortgage. But buying and selling real estate is not cheap, and reverse mortgages come loaded with fees. Moreover, we have to live somewhere—which means our homes are best viewed as a consumption item, not as an investment.

4. We need to save. Duh.

If we cannot bank on double-digit annual housing gains—or, for that matter, double-digit stock-market gains—what should we do? That's an easy one: We probably ought to be saving like crazy.

Indeed, with any luck, the recent economic turmoil will nix some of the silly justifications for America's pitifully low savings rate. In the 1990s, financial experts told us we did not need to save because our stock portfolios had grown so fat. In the current decade, experts assured us we did not need to save because our homes were worth so much.

Since then, of course, our stock portfolios and our homes have plummeted in value. It turns out the fabulous stock returns of the 1990s, and the glorious real-estate results of earlier this decade, were effectively borrowing from the future—and that future arrived with stomach-churning ferocity. The lesson: Do not use great investment returns as an excuse to cut back your savings rate, because great returns may be followed by wretched ones.

5. Perhaps the smart money is not so smart.

The earlier part of this decade was a time of great financial envy, as we watched the "smart money" buy into hedge funds, private equity, and other investments that were beyond the reach of ordinary investors. We imagined that they were getting mouth-watering returns, while we were left to invest in mundane mutual funds. Glorious returns? Alas, it did not turn out that way for those who invested with Bernie Madoff and his ilk.

But that is enough from me. It is time to listen to Bill. The odds are, you will be wiser for his words—and maybe wealthier, too.

Jonathan Clements
Author, *The Little Book of Main Street Money*
July 2009

Preface

I wrote my last investment book almost eight years ago, and I swore I would never write another. That was for two reasons.

The first was that finance is a relatively circumscribed field; not that much is really known for certain. The body of knowledge that the individual investor, or even the professional, needs to master is pitifully small. If most finance academics were asked to compile a body of truly essential scholarly articles, their lists would generally not be more than several dozen long. On the other hand, put the average doctor, social worker, or scientist to that task, and the required reading would fill many shelves, if not whole rooms. In short, I had said most of what I needed to say about finance in my first two books. Until now.

The financial meltdown of 2008–2009 drastically changed the investment landscape, and if there ever was a time to leapfrog my previous books, it is now. This is a teachable moment, and I intend to use it to clearly and concisely enunciate a set of timeless investment principles.

In 1934, the father of the science of modern value investing, Benjamin Graham, wrote a great brick of a book, *Security Analysis,* which spelled out today's commonly accepted techniques for evaluating stocks and bonds, and it remains to this day required reading for anyone seriously interested in finance. As with any comprehensive, variegated work, it strikes individual readers in different ways.

Graham's graceful prose and methodical composition bowled me over, a shining exemplar for any financial writer. He illuminated a devastated investment terrain of the battered stocks and bonds of the nation's once-mighty corporations strewn about and nearly available for the taking—in short, an environment not unlike today's.

Graham, almost alone among his generation of investors, ran the numbers and concluded that anyone with cash to spare was crazy *not* to own at least some stocks. He recommended a 50/50 stock/bond split; today, most would consider this allocation conservative, but in 1934 it struck most as certifiably reckless.

When I first read *Security Analysis* decades ago, Graham's descriptions of those chaotic long-ago markets reminded me of a B-movie about the Fall of Rome: faintly interesting, but hardly relevant to the placid and modern financial scene.

I was wrong—dead wrong. The markets are placid no longer, and at some points in 2008 and 2009 the resemblance of valuations to those of 1934 were closer than most of us would have liked; in the not-too-distant future, they may yet be again. As in the depths of the Great Depression, there are now generous returns to be had for the brave, the disciplined, and the liquid. If there was ever a time to own a prudent portfolio that includes equities for the long term, it is now.

My second reason for not wanting to consider another finance book had more to do with ideology than financial economics. Successful investing requires a skill set that very few people possess. This is difficult for me to admit; after all, I have written two books premised on the idea than anyone, given the proper tools, can turn the trick.

Once again, I was wrong. Having emailed and spoken to thousands of investors over the years, I have come to the sad conclusion that only a tiny minority will ever succeed in managing their money even tolerably well.

Successful investors need four abilities. First, they must possess an interest in the process. It is no different from carpentry, gardening, or parenting. If money management is not enjoyable, then a lousy job inevitably results, and, unfortunately, most people enjoy finance about as much as they do root canal work.

Second, investors need more than a bit of math horsepower, far beyond simple arithmetic and algebra, or even the ability to manipulate a spreadsheet. Mastering the basics of investment theory requires an understanding of the laws of probability and a working knowledge of statistics. Sadly, as one financial columnist explained to me more than a decade ago, fractions are a stretch for 90 percent of the population.

Third, investors need a firm grasp of financial history, from the South Sea Bubble to the Great Depression. Alas, as we shall soon see, this is something that even professionals have real trouble with.

Even if investors possess all three of these abilities, it will all be for naught if they do not have a fourth one: the emotional discipline to execute their planned strategy faithfully, come hell, high water, or the apparent end of capitalism as we know it. "Stay the course": It sounds so easy when uttered at high tide. Unfortunately, when the water recedes, it is not.

I expect no more than 10 percent of the population passes muster on each of the above counts. This suggests that as few as one person in ten thousand (10 percent to the fourth power) has the full skill set. Perhaps I am being overly pessimistic. After all, these four abilities may not be entirely independent: if someone is smart enough, it is also more likely he or she will be interested in finance and be driven to delve into financial history.

But even the most optimistic assumptions—increase the odds at any of the four steps to 30 percent and link them—suggests that no more than a few percent of the population is qualified to manage their own money. And even with the requisite skill set, more than a little moxie is involved. This last requirement—the ability to deploy what legendary investor Charley Ellis calls "the emotional game"—is completely independent of the other three; Wall Street is littered with the bones of those who knew just what to do, but could not bring themselves to do it.

As recently as a generation or two ago, lack of financial ability did not greatly handicap the average person. Most Americans did not have much money to invest, and the employees of large firms often participated in a traditional corporate defined-benefit (DB) pension plan, which was professionally managed and strove to provide them and their survivors with a reliable stream of retirement income.

The traditional DB plan, unfortunately, has gone the way of disco as Americans have had to become their own investment managers, herded like cattle into so-called defined-contribution (DC) plans—401(k)s, 403(b)s, and, worst of all, 457s. Somehow, the powers that be have decided that average workers should manage their own investments.

This makes about as much sense as expecting the average person to be his or her own airline pilot or family surgeon. Preposterous? Perhaps with flying complex aircraft or removing a son or daughter's appendix, but when it comes to managing retirement portfolios, most Americans find themselves in precisely this situation.

In fact, any reasonably intelligent person can solo a simple aircraft after a dozen hours of instruction, and surgeons occasionally joke that they could teach an above-average chimpanzee to perform an uncomplicated appendectomy. (The hard part is not knowing how, but rather, when to operate, and how to manage the patient before and after the surgery.) Yet, as the recent financial maelstrom demonstrates, competently and safely managing money often eludes even those at the pinnacle of the financial profession.

As a result, this book is fraught with a great deal of cognitive dissonance. I love investing and derive no small pleasure writing about it for others. Certainly, in a world where everyone has become his or her own investment manager, whether he or she likes it or not, helping small investors to manage their nest eggs would seem to be a laudable goal. It is just that it is not, in many cases, a realistic one.

That said, given current market conditions, I could not resist taking yet another stab at writing an easily comprehensible finance book. Certainly, I did not succeed with my first, *The Intelligent Asset Allocator.* I was gratified with the response to it, both among academics and general readers. Sadly, I was less than pleased by what my friends and family told me, which usually went something like this: "Jeez, Bill, it seems you know what you're talking about, but I fell sound asleep by the second chapter." So I wrote my second book, *The Four Pillars of Investing*, which I aimed, or so I thought, at the average liberal arts graduate. This time, I got fewer complaints, but there was still plenty of grousing about the unnecessary complexity of my tables, graphs, and examples.

This time around, I have attempted a book that I hope will be accessible to almost everyone, particularly the tens of millions who have found themselves unwillingly thrust into the role of portfolio manager. Rather than completely eliminate some of the more abstruse points, I have segregated them into optional boxed "Math Details," sections for more mathematically inclined readers that, while not essential, refine the appreciation of the investing process.

The Roadmap

This book's first three chapters explore the theoretical basis of investing and designing portfolios and are liberally laced with a fair amount of financial history. I have done this for two reasons. First, the theory can get pretty complex. Human beings deal with complexity by spinning narratives around it; this not only makes the difficult concepts more understandable, but also more entertaining as well. (Albert Einstein most famously resorted to piquant narrative to explain his theory of relativity by imagining the relative motion experienced by riders on two trains on parallel tracks. He did this not only to amuse and educate others, but also, at least initially, to help himself think about the process.)

Second, and more importantly, no matter how well an investor masters the theory of investing, he or she is lost if he or she lacks the ability to coolly observe extraordinary current events and say "I've seen this movie before, and I know how it ends." A small example will suffice: In 1994, former Salomon Brothers executive John Meriwether assembled the most brilliant group of financial experts ever seen, including Nobelists Myron Scholes and Robert Merton, into a firm called Long-Term Capital Management. Not only did his partners understand the mathematics behind their options-related strategies as well as anyone on Wall Street, but they were in many cases the inventors of these techniques.

For a few years, their strategies worked like a charm and generated annual returns of over 40 percent. There was just one problem: The data they based their strategies on covered only a relatively brief period of time. It never occurred to them to consider the longer span of data or the broad narrative sweep of financial history. Had they done so, they would have realized that about once every decade the wheels come completely off the machinery of the markets, and the old relationships among various kinds of investments, which they profited so mightily from, temporarily reverse with a vengeance.

In 1997 the world economy, along with Long-Term Capital Management, ran into a speed bump when Asia suffered from a debt crisis similar to the recent meltdown. The next year this spread to Russia, which defaulted on some of its debt. Around the world, the prices of nearly all financial assets, save those of the government bonds of developed nations, plummeted in unison—something that had not occurred during the brief period of market history that the Long-Term Capital partners had based their strategy on—and forced the company's liquidation under the anxious eyes of the Federal Reserve. Meriwether and his brilliant associates had made the classic mistake of getting their math right and their history wrong.

The present investment landscape is in many ways as extraordinary as any seen in finance, but its outlines are still easily understandable by those with a good grasp of the calumnies that have savaged investors in previous centuries. For example, anyone familiar with the collapse of Long-Term Capital Management would not have been taken completely by surprise by the recent meltdown. The point is not to predict when such calamities can occur—that is impossible—but simply to know that they *will* occur from time to time, and that you should design your long-term investment strategy appropriately.

If the financial disasters described in Chapters 1 and 2 do not convince you of the need to diversify your risks, then nothing will. In Chapter 3, I explore the ways in which ordinary investors can construct portfolios that should at least blunt some of the damage that can be rained down by the fickle goddess of finance.

Just as I employ a financial telescope to survey broad swaths of investment history and theory in the first three chapters, in the fourth a microscope turns inward to understand the greatest enemy facing investors: the visage in the mirror staring back at them.

The reason why most people do such lousy jobs with their portfolios is that human nature is an agar dish that breeds all manner of investing psychopathology. Two of the most virulent behavioral organisms are overconfidence and an overemphasis on recent history.

In 1998, a classic article by *Wall Street Journal* reporter Greg Ip dissected both these foibles. The Gallup organization polled investors in both June and September of that year—just before and just after the aforementioned Russian bond default and the Long-Term Capital Management debacle—on what they thought their own portfolio returns, and that of the overall market, would be.[1] Here were the results:

Expected Returns	June 1998	September 1998
Next year, own portfolio	15.2%	12.9%
Next year, overall U.S. market	13.4%	10.5%

Three things leap out from this table. First, note how optimistic the estimated returns are. These numbers are more than a bit higher than the long-term returns for stocks in the United States, the nation with the best results among all major markets.

Next, on average the individuals polled expected that they would beat the market by about 2 percent (the difference between the numbers in the first and second rows). This is remarkable, since, in the aggregate, these investors *are* the market. Further, average investors do not receive even the market return, but rather that return reduced by the expenses they pay. Within a few decades, these slow leaks will deflate any portfolio.

Finally, and most remarkably, their return estimates *fell* after that summer's price decline. Now, there is no greater truism in investing than this: The less you pay for an asset, the more money you are likely to make when you eventually sell it. A fall in price, under most circumstances, should lead to a higher expected return. Yet, the Gallup data quoted by Mr. Ip showed just the opposite: The average investor expects a higher return when buying at high prices than when buying at low ones.

Not only were American investors ludicrously overconfident, but their outlook was irrationally influenced by recent returns. Their estimates were grossly inflated by the high returns of the 1990s tech bubble, in which anyone who could fog a mirror could earn, at least for a little while, 20 percent per year.

Unfortunately, the long-term data on market returns showed 10 percent to be normal. Worse, the most commonly accepted methods for estimating future market returns suggested yet lower returns. Worst of all, investors' estimates moved in the *same* direction as stock prices, which is the opposite of what simple logic suggests.

Chapters 5 and 6 focus on dealing with the investment industry to execute the investment strategies devised in the previous chapters. Once you have mastered investment theory, investment history, and your own emotions, this is by far the easiest task.

I emphasize three main principles: first, to not be too greedy; second, to diversify as widely as possible; and third, to always be wary of the investment industry. People do not seek employment in investment banks, brokerage houses, and mutual fund companies with the same motivations as those who choose to work in fire departments or elementary schools. Whether investors know it or not, they are engaged in an ongoing zero-sum, life-and-death struggle with pirhanas, and if rigorous precautions are not taken, the financial services industry will strip investors of their wealth faster than they can say "Bernie Madoff."

Consider this book a lifeboat manual. Tens of millions of Americans, and hundreds of millions abroad, have been tossed onto a turbulent investment sea. The waters are more dangerous than they have been in living memory, but, by the perverse calculus of finance, they should also be more rewarding. I hope that what readers learn here will help them make it to shore.

William J. Bernstein
North Bend, Oregon

CHAPTER 1

A Brief History of Financial Time

Many of life's deepest questions, I have found, get asked over lunch.

This particular midday meal occurred in 2000 at a Chinese restaurant in Manhattan, and my companion was a well-known hedge-fund manager and contributor to the academic finance literature. We puzzled, as did many in finance at the time, over the historically high prices of stocks.

"What I cannot figure out," my friend began, "is whether investors are really smart or really stupid." Seeing my puzzled expression, he continued, "Maybe the equity risk premium is still high, in which case prices will mean revert, which means that stock investors are really stupid. Alternatively, the equity risk premium has gotten a lot lower in the past 10 years, in which case prices will not mean revert, which means stock investors are really smart." Just what did he mean, and why was his question so important?

Since my friend is really smart and has worked in finance all his adult life, I have to translate his question into plain English: "In the past, stocks have had high returns because they have been really risky. But stocks are now so expensive that there are only two possibilities: either they are going to fall dramatically in price and then have higher returns after that (in which case investors are stupid for paying such high prices now), or there will be no big fall in price and little risk, but returns will hereafter be permanently low (in which case investors are smart). So which is it?"

We both knew that the intelligence or lack thereof on the part of investors, from the humblest 401(k) participant to the titans of finance, was of secondary importance. Rather, my friend's question cut to the heart of the nature of investing: the interplay between risk and return.

Sometime in the mid-1990s, people forgot about the risk/return nexus, and although the tech collapse of 2000–2002 briefly roused investors from their complacency, the damage was not deep enough, wide enough, or long enough to leave a lasting impression.

By contrast, by 2009 investors were fully aware of financial risk; whether they remain awake to its nature for another generation, as they did after the market collapse of 1929–1932, or for less than a year, as they did after 2002, remains to be seen. However long the current turmoil lasts, it provides an opportunity to explore a radically altered investing environment. This book focuses primarily on the critical relationship between risk and return and what it means to investors in the current turbulent environment.

In the Beginning

In order to understand the story of risk and return, we need to travel back to the dawn of civilization. We can divide the millennia-old saga of investing into three parts: the development of loan capital; the development of equity, or stock capital; and the development of the capital markets themselves.

From the beginning of human civilization, consumers have bought products from farmers and merchants, and all three have needed to borrow. In fact, the very first decipherable cuneiform clay tablets found in Mesopotamia, in what is now Iraq, primarily recorded production and business activity, and much of it consisted of credit transactions. Ordinary people often required credit to purchase food and shelter; farmers needed credit to buy seeds, tools, and both slave and hired labor; and merchants craved capital to outfit their trading expeditions with pack animals, ships, crew, trade goods, and currency.

Like any other commodity, money has its price. What we recognize as "money"—stamped silver, gold, and copper disks—would not be invented until the late seventh century B.C. by the Lydians in Asia Minor. But no matter. Almost any widely traded commodity can fill the bill, and for thousands of years before the invention of coins, grain, silver ingots, and cattle served as capital that could be loaned by creditors and borrowed by debtors.

To the ancient farmer, a bushel of seed grain or a head of cattle was capital enough. He could borrow them in one season and repay them, usually twice over, the next, a practice still observed in present-day primitive agricultural societies. At the origins of human agriculture, this investment return, referred to interchangeably as the "cost of capital" or the "interest rate," was 100 percent per growing season.

Why this very high rate of return? It happened for at least two reasons. The first was supply and demand. So poor were ancient agricultural societies, so great was their demand for capital, and so little was the excess of it available for lending, mainly in the hands of wealthy farmers and businessmen, that the possessors of capital could demand a sky-high price for it. The second factor that drove up the cost of capital was that all loans were considered risky. In those days, an equivalent of the risk-free Treasury bill (T-bill) did not exist, and every loan probably carried with it a significant probability of default. Not until the late medieval period did northern European governments begin to offer very secure "risk-free" notes and bills.

Which of these two factors—supply and demand or default risk—was the primary cause of the high rates? In my opinion, the supply/demand imbalance was the dominant one. Lenders have always demanded collateral in case of default, and in the ancient world, it could be draconian: the seizure of all of the debtor's property, or even his and his family's enslavement. These extreme measures offered lenders reasonable protection against default, and thus increased the supply of capital available to poor borrowers. Legislation that favors borrowers over creditors makes the latter less liable to lend, often causing more ultimate harm than good to the borrower; this is the essential tradeoff of bankruptcy law.

Over the centuries, with the gradual increase in wealth, capital became more abundant, and so its price—the rate of interest—fell. In the third millennium B.C., Sumerian borrowers paid 33 percent per year for loans of grain and 20 percent for loans of silver. A millennium later, the best Babylonian debtors borrowed silver at 10 percent. A millennium after that, the Greeks paid interest rates as low as 6 percent, and at the height of the Roman Empire, they fell as low as 4 percent.[1]

Just why have I spent the past few pages discussing this ancient history? After all, this is a book about modern-day investing. *Because for every consumer of capital, there is, more or less, a provider of capital.* That is where you, the investor—the provider of capital—come into the story. In the jargon of finance, the "cost of capital" to its consumers is exactly the same as the return to the investor, and as an investor, only by understanding the risks and rewards of the consumers of your capital can you truly understand the process.

So far, I have been dealing with what is known in the modern era as "debt financing." But throughout history, capital has also been supplied on another basis, which is through actual ownership shares, known today as "equity financing," in which the owner of excess capital gives it to the businessman or merchant in exchange for a share of the assets and future profits of the venture.

From the merchant or borrower's perspective, this is less risky than borrowing; if the merchant's venture fails, then he owes nothing beyond the investor's share of the residual assets of the venture, since there are no profits to distribute. But from the lender's perspective, providing equity capital is risky indeed, since he can lose capital more easily than with a loan.

Further, the equity investor finds it devilishly hard to calculate the potential upside of an equity investment; it might be astronomical, it might be puny, or it might be lost entirely. In the modern world, most large firms gather both debt capital from banks or from bond issuance and equity capital from shareholders. The lenders of capital—the banks and bondholders—are paid off first. Only then do the equity shareholders—the "residual owners"—get what remains.

> The stock shareholder is last in line to receive the payoff from a business. This is a risky proposition, and thus deserves a higher return, *on average*, than that earned by the bondholders, who get their money back first.

For these three reasons—the increased possibility of loss, the difficulty of estimating future profits, and the residual nature of equity ownership—a substantial return premium *should* be demanded by equity owners. This is the "equity risk premium" that my friend and I puzzled over that day at lunch.

Because of the risks of equity ownership, it did not develop on a large scale until relatively late in history. True, since ancient times small enterprises often spread ownership among individuals, but the first joint stock companies did not see light of day until the medieval period. Around A.D. 1150, a water mill in Bazacle in southern France divided its ownership into shares. When the Paris Bourse opened in the eighteenth century, these shares traded actively until 1946, when that nation's socialist government, apparently lacking a sense of economic history, nationalized the company.[2]

Around A.D. 1600, two much larger ventures, the English and Dutch East India Companies (hereafter referred to as the EIC and VOC, respectively, the latter by its Dutch initials), sold shares in their trading ventures, which were initially aimed at exploiting the fabulously profitable East Asian spice trade. The differences between the two companies spoke volumes about the power, wealth, and sophistication of these two nations, and about how investors were, and are, rewarded.

At that time, England was a backward, weak nation with almost no functioning capital markets. Queen Elizabeth I, who issued the EIC's charter, was, by modern standards, a corrupt monarch whose revenue came mainly from rents on royal lands and the sale of monopolies to court favorites (most famously, the sweet wine franchise to Sir Walter Raleigh). Lenders to the crown demanded high interest rates to compensate for the risk that monarchs could, and frequently did, renounce their debts at will.

Consequently, the cost of capital, that is, interest rates, in Tudor England were high. The lowest rates to high-quality borrowers with generous collateral were in the 10 to 14 percent range, while loan rates to riskier ventures and the crown were higher still.[3] The EIC, an even more uncertain enterprise, could not borrow capital at any price, nor could it even sell conventional shares. Instead, it was forced to offer fractional ownership in each annual expedition, return all of the investor's capital when the company's spice-laden ships returned from the East Indies, then raise capital all over again for the next expedition. Simply put, the EIC lacked permanent capital to sustain ongoing operations.

Fortunately for its investors, the EIC expeditions proved hugely successful, often paying returns in excess of 100 percent. Always remember, investment return and the cost of capital for business ventures are flip sides of the same coin. These very high returns meant that British business ventures paid dearly for their seed cash; this is not the way to grow an economy or make a nation powerful.

By contrast, the Dutch East India Company thrived in the Netherlands' sophisticated and trusted capital markets. By the late sixteenth century, its larger provincial governments and the best private borrowers got their capital at just 4 percent annual interest. When the VOC floated its stock shares, it was as permanent capital. The money was the company's to spend as it saw fit, and investors did not expect to see the initial investment back any time soon, beyond a regular stream of profits as dividends.

Dutch capital markets, with relatively low returns, a safer investment climate, and low-rate loans with which to fuel the nation's entrepreneurs, presented the mirror image to those in England, where investors earned higher returns, but only at the price of higher risk.

We now have two of the three elements in place needed to answer my friend's plaintive lunchtime question in the year 2000: debt and equity capital, and the difference between the costs of the two, the *equity risk premium.* In order to give us some idea of what to expect in terms of risk and return, all that is needed is an appreciation of the markets where they trade.

That debt and equity capital exist does not necessarily mean markets for them also do. The loan of a bushel of grain by one farmer to another in Mesopotamia in 2500 B.C. remained simply an agreement between these two men. Yes, the loan could be counted as an asset on the part of the lender, but it could not be easily sold by him to another investor. Likewise, until the establishment of the Paris Bourse, the owner of a share in the Bazacle mill could not easily sell it to someone else, although apparently, shares were occasionally traded among private individuals.

Near-Death in Venice

The real story of the capital markets begins in the fifth century A.D., when the collapse of the Roman Empire in the west drove a small group of refugees to seek shelter. They found it in an island group situated in an obscure lagoon nestled in the northern corner of Italy's Adriatic coastline. This tiny city-state, Venice, prospered in the burgeoning maritime trade of the western Mediterranean. By the beginning of the second millennium, its galleys were filled with the most profitable commodities of the era: slaves and grain from the Black Sea, spices from East Asia, incense transshipped from Alexandria and Cairo, and a host of other luxuries from the far corners of the globe.

Venice also found itself almost continuously at war with its more powerful neighbors and trading rivals, especially Genoa and the Ottoman Turks. In order to finance these conflicts, *la Serenissima*—the most serene republic—levied a curious kind of tax upon its wealthiest citizens, the *prestiti*.

Prestiti were bonds issued by the state that yielded 5 percent. The Venetian treasury forced the rich to buy these securities, and their purchase was onerous because the going rate of interest was higher, about 6 percent in peacetime, and as high as 15 to 20 percent in the teeth of a crisis, when the treasury was most likely to issue them.

Citizens paid the principal to a central treasury office, which then remitted periodic interest payments to their registered owners. The modern bond market was born when the treasury allowed owners to reregister these securities in someone else's name. Soon enough, what is now called a "secondary market" in prestiti arose, not only in Venice, but in other nations as well.

Figure 1.1 plots prestiti prices over the two-century span between A.D. 1300 and 1500, and what a saga this graph tells. For the first 75 years of this plot, Venice enjoyed relative tranquility, and prestiti prices remained lofty, trading as high as par (100 percent of face value). As late as 1375, they sold at 92.5 percent of face value.

Then, between A.D. 1377 and 1380, Venice fought a catastrophic war with Genoa. Initially, fiscal shock, not military defeat, damaged prestiti prices; the upcoming war expenditures forced the republic to suspend interest payments and issue a massive amount of new bonds. This depressed their prices as low as 19 percent of face value at the conflict's onset. Worse followed: In 1379, the Genoese penetrated the

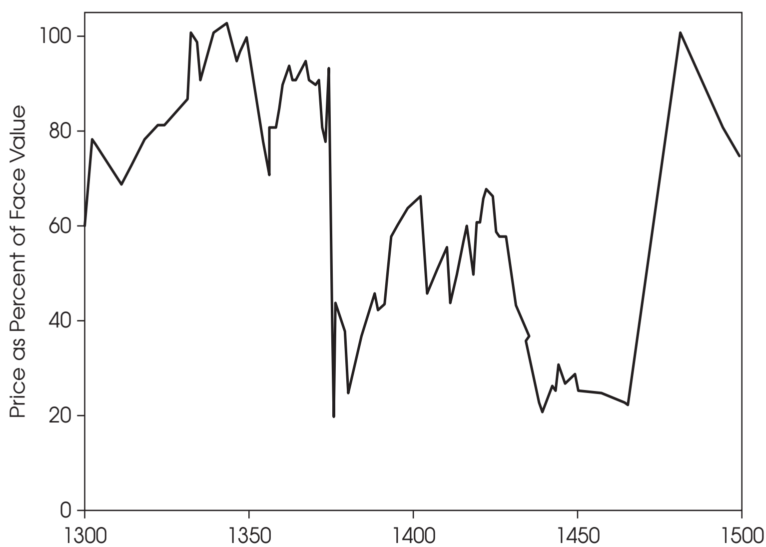

Figure 1.1 Price of Venetian Prestiti A.D. 1300–1500

Source Data: Sidney Homer and Richard Sylla, *A History of Interest Rates* (Hoboken, NJ: John Wiley & Sons, 2005), 99, 107.

lagoon, occupied Chioggia at its southern edge, used it to blockade la Serenissima, and nearly overran the island city. By 1380, when the city seemed about to capitulate, a daring last-ditch, counter-blockade of Chioggia by the Venetians broke the will of the Genoese and forced them to retreat.[4]

Thereafter, Venice's military fortunes improved, but continued high military expenses meant equally heavy issuance of prestiti, which kept their prices in the secondary market relatively low for nearly a century until the republic's debt was refinanced in 1482.

Once again, just what does all this medieval history have to do with today's markets? Everything and more, for the history of the prestiti demonstrates, at a relatively early point in financial history, the close relationship between risk and return. Venetians who purchased prestiti at high prices in the secondary market during the calmest years earned the lowest returns. Contrariwise, those who bought at low prices when things looked the bleakest reaped the largest rewards. The brave soul who purchased prestiti in 1377 at a price of 19 percent of face value in the secondary market collected not only 26.3 percent interest (5 percent divided by 0.19), but also a large dollop of subsequent capital appreciation as well. Of course, the risk that la Serenissima could have fallen to the Genoese, thus rendering the prestiti worthless, was substantial; hence the term *risk premium*.

This roller coaster ride aside, the price series of Venetian prestiti was a relatively happy one; la Serenissima continued to issue debt and pay interest on it for more than four centuries after its near-death experience in 1377–1380. Among developed nations, recovery from military and economic travail is the rule, and very high returns are usually made by those brave enough to invest when the sky is blackest.

Markets, however, do not always recover. Until World War I shut down the St. Petersburg exchange in 1914, the Russian stock and bond markets were among the world's most respected and active. They never reopened. During the twentieth century alone, military and political upheaval rendered not just St. Petersburg's bourse, but also many other once-vigorous securities markets, defunct, or at least moribund: Cairo, Bombay, Buenos Aires, and Shanghai, to name a few.

> For the past 200 years, things have always worked out well in the long run for the owners of U.S. stocks. History shows that it is entirely possible that our luck will run out one day.

Here is the central question for today's investor: Are we in Venice in 1377, or in St. Petersburg in 1914? In most aspects, today's financial markets resemble the former. They are indeed distressed, and for good reason. Although there is every probability that the world economy, and the securities markets along with it, will recover and provide courageous investors with high returns, as did prestiti in 1377, it is also possible that things will turn out worse than most predict. We just do not know for certain. Again, this is the very definition of a risk premium: the reward for bearing the risks of the unknown. Further, the greater the perceived risk, the greater the reward if things eventually turn out well.

The Incredible Shrinking Risk Premium

Eight years after lunch with my friend in the Chinese restaurant, the markets seem to have answered his question with a vengeance. Stock investors had indeed been stupid because they did not learn the lesson of just how risky even the seemingly safest assets can become, and even more critically, for accepting a low equity risk return premium for taking those risks.

In 2000, many finance professionals did indeed grasp the shrinking equity risk premium. Unfortunately, many of them, particularly my friend's brethren in the hedge fund world, made a fatal mistake: Since risk premiums were low, they reasoned, the only way to earn higher returns was by borrowing large amounts of capital to multiply—"leverage," in financial parlance—those paltry premiums. As so elegantly put by the dean of American financial writers, James Grant, in a slightly different context:

> Imagine a man at the top of a stepladder. He is up on his toes reaching for something. Call that something "yield." Call the stepladder "leverage." Now kick the ladder away. The man falls, pieces of debt crashing to the floor around him.[5]

Summary

- Throughout history, there have always been providers and consumers of capital; today it is no different.
- Also throughout history, that capital has taken two basic forms: loans (including bonds) and equity (partnership or stock). The latter has a lower legal standing than the former, and it is thus riskier and necessitates a higher long-term return to attract investors.
- During times of great social, political, and military turbulence, the prices of both stocks and bonds usually decline precipitously. Most often, this sets the stage for high future returns. Less frequently, however, the losses can be permanent and even total. Financial history demonstrates vividly the fact that just because this has not happened in the U.S. stock and bond markets *yet* is no guarantee that it might not occur in the future.

CHAPTER 2

The Nature of the Beast

No balls, no blue chips.

—Old Wall Street adage

If you learn nothing else from this book, it should be that risk and return are inextricably intertwined. In almost every country where economists have studied securities returns, stocks have had higher returns than bonds.[1] Further, if you want those high stock returns, you are going to have to pay for them by bearing risk; this is a polite way of saying that in the course of earning those higher returns, your portfolio is going to lose a truckload of money from time to time. Conversely, if you desire perfect safety, then resign yourself to low returns. It really cannot be any other way.

Of Ravens and Returns

Let's start our journey through the land of risk and return by imagining a clear, crisp winter afternoon in the halcyon days of late 1998. You are out for a stroll, and as your thoughts turn to your financial health, your mood elevates. Your portfolio, which consists of a mix of judiciously picked stocks and bonds, has doubled in value during the roaring bull market of the past four years. While you have not done as well as your acquaintances, who are flush with dot-com options and aggressive tech funds, your modest portfolio has landed you squarely on the road to a comfortable retirement.

Suddenly, a winged creature lands on your shoulder. *Ah,* you say to yourself optimistically, *the bluebird of happiness!* Well, no; closer inspection reveals plumage of a darker hue. "Hello," it intones gravely, "I am the raven of capital market disaster."

This somber omen does not bring glad tidings. No, not at all: It warns you that within the next decade, there will be not one, but two historic market collapses. On each occasion, the broad market indexes will be cut approximately in half.

"Oh wise black bird," you implore, "please tell me when these two calamities will occur, so I may avoid grievous losses." You swear you see a smirk on its beak as it flies off silently.

Indeed, the raven got things exactly right; in the next 10 years you would suffer not one, but two of the five worst bear markets in the past century. Table 2.1 shines a bright light on these 10 years, showing returns for these two bear markets, plus the entire decade from 1999 to 2008, for some major classes of stocks and bonds.

The table illuminates the landscape of risk and return for the decade between 1999 and 2008. It displays a lot of data, so let's explore them column by column.

The first column simply lists the asset classes we are examining; the first 12 of them are the major foreign and domestic equity (that is, stock) classes, separated by three different criteria: location (United States, foreign developed nations, and foreign emerging-market nations), company size (large versus small), and whether the companies are of the "value" or "market" type. (The "market" designation means the broadest measure of stocks, which tend to be dominated by expensive glamorous companies, while "value" means the cheapest, least-liked companies that consequently

Table 2.1 Total Returns of Various Stock and Bond Asset Classes 1999–2008

Asset Class	Sept. 2000–Sept. 2002	Nov. 2007–Nov. 2008	Jan. 1999–Dec. 2008
U.S. Large Market Stocks	−44.92%	−40.48%	−13.77%
U.S. Large Value Stocks	−10.10%	−46.05%	+23.71%
U.S. Microcap Stocks	−17.58%	−45.18%	+86.63%
U.S. Small Value Stocks	+0.69%	−45.83%	+102.63%
Real Estate Investment Trusts	+26.28%	−54.77%	+107.14%
Intl. Large Market Stocks	−40.94%	−48.46%	+13.23%
Intl. Large Value Stocks	−25.87%	−54.12%	+59.02%
Intl. Small Market Stocks	−17.20%	−53.52%	+97.34%
Intl. Small Value Stocks	−5.68%	−52.42%	+148.23%
Emerging Markets Large Market Stocks	−32.61%	−56.13%	+147.67%
Emerging Markets Value Stocks	−26.79%	−62.01%	+251.38%
Emerging Markets Small Market Stocks	−27.59%	−62.91%	+196.43%
1–10-Year Treasury Bonds	+22.76%	+12.36%	+73.64%
1–10-Year Corporate Bonds	+22.80%	−5.45%	+60.41%

Source Data: Dimensional Fund Advisors, Barclays/Lehman Brothers.

sell for low prices.) Suffice it to say, this is the way that many finance professionals categorize stocks. The final two rows list different fixed-income (that is, bond) asset classes, generally perceived as being reasonably “safe.”

The second column tabulates the return of these asset classes during the 2000–2002 bear market. The five years immediately preceding this, from 1995 to 1999, saw what was arguably the biggest stock bubble in the history of mankind. Investors went so gaga over the potential of the Internet that they regularly threw millions, and sometimes even billions, at 20-something entrepreneurs with only the vaguest of business models. Simply adding "dot com" at the end of a drywall company's name could double its stock price.

This madness also inflated the prices of the world's largest growth companies, which investors saw as the wired world's primary beneficiaries. Every other stock asset class languished. Real estate, represented by real estate investment trusts (REITs)? Bricks-and-mortar businesses were obsolete. Small Banking? Manufacturing? Retail Concerns? Toast in the New Economy.

As 2000 wore on to 2001 and 2002, the dot-com comets gradually burned through their cash and went broke, at first one by one, then en masse. The composite index of the over-the-counter (NASDAQ) market system, where the shares of nearly all of the new firms traded, fell by over three-quarters and the S&P 500 fell by nearly half.

But as seen in the second column, small stocks, value (that is, unglamorous) stocks, and REITs, which did not participate in the madness of the 1990s, held up very nicely, thank you, during the 2001–2002 bear market with REITs enjoying mid-double-digit positive returns.

The more recent bear market, shown in the third column, was an entirely different kind of grizzly. While the 2000–2001 decline was triggered when overextended, overenthusiastic tech companies ran out of cash, the current one began when overextended, overenthusiastic consumers ran out of credit. Furthermore, whereas the market froth of the 1990s confined itself mainly to tech stocks, the S&P 500, and its foreign equivalent, the Europe, Australia, and Far East (EAFE) index, by 2007 all stock asset classes had become overpriced as prices ran up dramatically in nearly every nation. Consequently, every stock asset class experienced similar severe declines. In 2000–2002, a few stock asset classes provided shelter from the bear—not so in 2007–2008.

The final column of Table 2.1 delivers the punch line: Even though our prescient bird correctly warned you about the two calamities that struck the markets between 1999 and 2008, it would not have helped over the whole decade. Fully eight of the 12 stock asset classes in Table 2.1 beat safe bonds during that period, as would have most reasonably diversified portfolios split among the 12. Had you heeded the raven's warning and avoided equities entirely over the next decade, you might have missed the salutary returns of a well-diversified portfolio. Worse, you would now be faced with the problem of when to buy back into stocks.

> Diversification among different kinds of stock asset classes works well over the years and decades, but often quite poorly over weeks and months.

The last column of Table 2.1 also gives the lie to something often heard today: Diversification does not do any good. True, on a day when the U.S. market is down 5 percent, the rest of the world will follow, usually with even larger losses, and in a year that the S&P 500 is down more than 40 percent, most other asset classes may do just as poorly, if not worse.

Investment wisdom, however, begins with the realization that long-term returns are the only ones that matter. Investors who can earn an 8 percent annualized return will multiply their wealth tenfold over the course of 30 years, and if they have half a brain, they will care little that many days, or even years, along the way their portfolios will suffer significant losses. If they are, in fact, anguished by the bad days and years, they can at least comfort themselves that the rewards of equity ownership are paid for in the universal currencies of financial risk: stomach acid and sleepless nights.