

# CHAPTER 1

## Bonds

### THE BETTER INVESTMENT

*Watching your stocks all day long is amusing up to a point, but income is the thing if you're shopping for anything from pajamas to pastrami sandwiches.*

—Joe Mysak,  
Bloomberg columnist

**F**or generations, stocks have gotten top billing over bonds. Stocks, many insist, have outperformed bonds in the past, will outperform bonds in the future, and are not risky if held for 10 years or more. We believe these assertions are myths. In fact, this thinking is now being called into question by sophisticated market players such as Citigroup. Citigroup Global Markets published an article dated September 1, 2010, entitled “The End of a Cult.”<sup>1</sup> The article points out that from 1950 to 1999 global pension funds and individual investors substantially increased their asset allocation to stocks and substantially decreased their asset allocation to bonds. “Back in 1952, U.S. private sector pension funds held just 17 percent of their assets in equities compared to 67 percent in fixed interest. Over the next 50 years, these weightings reversed.”<sup>2</sup> Japanese pension funds in 1998 held 55 percent of their portfolios in equities. By 2010, that percentage dropped to 36 percent.<sup>3</sup>

This movement from bonds to stocks is referred to as the “cult of equities.” However, in the 10-year period from 2000 to 2009, as a result of two 50 percent bear markets and brutal volatility, the cult of equities has reversed as a result of a reassessment by investors of the merits of stocks and bonds. Bonds enable investors to match their needs in retirement with their assets. Aging populations favor bonds over equities. Most importantly, the cult of equities has been severely questioned because bonds have outperformed equities from 2000 to 2009, annual performance of 0.3 percent for equities and 6.9 percent for bonds.<sup>4</sup> The article concludes that an immediate reincarnation of the equity cult seems unlikely.

This chapter makes the case that the stated historical return of 9.8 percent for stocks<sup>5</sup> is merely theoretical because this return is not reduced by taxes, fees, expenses, and investors’ bad timing. It is uncertain that stocks will outperform bonds in the future, and the risk of a severe stock market decline increases as the investment period increases. Stocks are riskier and less predictable than bonds. Ultimately, they are not as good an investment as bonds.

In the holy name of diversification, investors are told to balance the bulk of their investment portfolio between stocks and bonds. We think that’s a mistake. For individual investors, we believe that bonds are a better investment than stocks. Indeed, we believe that the ideal portfolio for individual investors would contain *only* plain vanilla bonds. That’s because after paying taxes, fees, expenses and factoring in the risk of bad timing, the return on stocks is not likely to exceed the return on bonds, particularly when the risks associated with stocks are taken into account. These risks have been clearly demonstrated as a result of the two stock market crashes that occurred from 2000 to 2009.

Even if you believe that stocks will outperform bonds in the future, consider our view that dependable and predictable cash flow from your portfolio is the best solution to your retirement problem. The bonds that we recommend are the safest investments available. If you can achieve your financial goals without taking on substantial risk, why not do so? If you cannot achieve your financial goals without taking on substantial risks, should you do so? Are there alternatives to consider?

We developed the All-Bond Portfolio as a strategy that individuals can use to achieve their financial goals, taking into account their capabilities and limitations. Individual investors can’t use the

advanced techniques or participate in big institutional deals, but they can and do invest in stocks and stock funds, and that puts them at risk. The All-Bond Portfolio does not include investments in stock, stock funds, commodities, real estate, or bond funds. It's a strategy that individuals can use to keep their assets safe and growing.

This chapter examines the myths surrounding the historical returns on stocks and bonds—without equity-colored glasses—in a noninstitutional portfolio. The results will show you why we believe that the All-Bond Portfolio is the best strategy for individual investors. Keep in mind that when we refer to bonds, we mean individual bonds and not bond funds.

### Examining the Myths

To compare historical and potential returns from stocks and bonds, some important questions have to be addressed:

- Is it accurate to say that stocks had an historical return of 9.8 percent?
- If stocks outperformed bonds in the past, why can't we assume that stocks will outperform bonds in the future?
- Does the historical return on bonds compare favorably with the historical return on stocks?
- How can a portfolio of bonds provide both income and growth?
- Are bonds a better investment than stocks?

Our answers to these questions cast doubt on the old assumptions of investing, which the media and most financial advisers accept as gospel. We've developed some new thinking that reflects decades of observing and investing in the financial markets. Let's evaluate stocks and bonds in light of the new thinking we propose and see if you are persuaded that bonds are a better investment than stocks. If you are and you are willing to change your approach to investing, the All-Bond Portfolio can maximize your investment returns with the highest degree of safety.

#### *Historical Annual Return*

##### **Old Assumption**

The historical annual return of stocks is around 9.8 percent.

## New Thinking

The actual annual historical return of stocks is much less than 9.8 percent when taxes, transaction costs, fees and bad timing of the stock market are taken into account.

Morningstar's *Ibbotson SBBI 2010 Classic Yearbook*—SBBI standing for stocks, bonds, bills, and inflation—provides one of the staples for obtaining historical data to compare the returns of stocks and bonds.<sup>6</sup> However, the Ibbotson data are misleading when applied to individual investors. The Ibbotson data reflect a 9.8 percent return on stocks. However, these data are merely theoretical because they do not take into account the actual frictions of real-life investing. You cannot measure the actual performance of a stock portfolio or stock fund for individual investors without taking into account the burden of income taxes, transaction costs, investment management fees, and the possibility of an individual investor's poor timing when he buys and sells stock based on emotion. Because of these real-life costs, it is impossible for individual investors to have realized the stock market returns reported by Ibbotson.

### *Unhappy Returns: Uncovering the True Returns on Stock Investments*

To find the actual historical performance of stocks, we must reduce the theoretical Ibbotson stock returns by three elements: taxes, transaction costs, and bad timing:

1. *Taxes.* Individuals are subject to federal and often state and local taxes on income as well as on dividends and capital gains. If stock is held in a stock fund and the fund trades its stock portfolio a great deal, some or all of the reportable gains may be treated as short-term capital gains, which may be taxed at ordinary income rates. The outcome is the same if an individual holds his stock for one year or less before its sale.
2. *Transaction costs.* Individuals must pay transaction costs to buy and sell stocks including commissions on individual stocks, managed account fees, and management fees and other expenses on stock funds. "It's fair to estimate that the all-in annual costs of equity fund ownership now run in the range of 2.5 percent to 3 percent of assets," says John Bogle, founder of the Vanguard Group of mutual funds.<sup>7</sup>

William Bernstein examined fund management fees and reported the following in the April 2001 issue of *Financial Planning*:

- The average actively managed large-cap fund has annual fees and expenses of about 2 percent.
  - The average small-cap and foreign fund has annual fees and expenses of about 4 percent.
  - The average microcap and emerging market fund has annual fees and expenses of almost 10 percent.<sup>8</sup>
3. *Bad timing.* The most costly element of all is the buying and selling habits of individual investors. Investors are generally emotional in their investment choices and often have an atrocious sense of timing. They tend to buy into the stock market when it is “hot” after it has gone up a lot. They often lose their nerve and sell after a severe decline. Making money in stocks requires making two correct decisions: when to buy and when to sell. “From 1983 to 2003 index funds tracking the Standard & Poor’s 500 index returned 12.8 percent and the average mutual fund gained 10 percent annually,” says Michael J. Mauboussin, a strategist at Legg Mason Capital Management. “Meanwhile, the average investor earned only 6.3 percent annual returns.” Mauboussin attributes this seemingly impossible result to poor “market timing” and “the extraordinary proclivity for investors to invest in the wrong place at the wrong time.”<sup>9</sup>

The buy-high, sell-low behavior pattern of individual investors observed by Mauboussin has been verified by research undertaken by Dalbar, Inc., in Boston, which tracked investor behavior for 20 years, beginning in 1986. Through all kinds of markets, “investors achieved an average annualized return of just under 4 percent, compared with a return of nearly 12 percent from a buy-and-hold strategy using the Standard & Poor’s 500 index.”<sup>10</sup> According to the *Journal of Indexes*, “The most recent Dalbar study covering a 20-year period ending in 2009 found that equity mutual fund investors had average annual returns of only 3.2 percent while the S&P averaged 8.2 percent . . .”<sup>11</sup> Why is the actual performance of the dollar-weighted returns so much lower than the traditional reporting methods? “It says something about human nature,” says Ilia Dichev, an accounting professor at the University of Michigan.

“When things are going up, people get excited. That’s when the money pours in.”<sup>12</sup>

A buy-and-hold strategy may not solve the market-timing problem with respect to stocks. Buying and holding works well for stocks in a bull market like the one from 1982 to 1999. But a buy-and-hold strategy results in serious losses and creates a great deal of wear and tear on individual investors in a bear market, such as the one from 2000 to 2002. The Nasdaq lost 77.9 percent of its value during the collapse of this market bubble. As a result of both the banking and real estate crisis of 2008, there was a fear of an economic collapse and depression. As a result, the stock market as represented by the S&P 500 Index declined from an all-time high close of 1,565.15 on October 9, 2007, to a close of 676.53 on March 9, 2009, a fall of 56.78 percent.<sup>13</sup> Over the decade from 2000 to 2009, called the “lost decade,” U.S. large company stocks returned an average annual loss of almost 1 percent.<sup>14</sup> After a review of the history of the stock market Ibbotson comments that “The history of stock market [losses] shows that investing in stocks can be very risky business, and that the current crisis is hardly a once-in-a-century event.”<sup>15</sup> The success of a buy-and-hold strategy depends on the period in which the stock is held.

Consider, for example, the story of Boots, a drugstore chain in the United Kingdom. After making spectacular gains in the 1990s bull market in stocks, it fired its portfolio manager in 2001. Instead of watching its assets decline, the Boots pension plan sold all its stock and purchased high-grade bonds. This action enabled the chain’s management to guarantee that there would be enough assets to satisfy its pension liabilities. The Boots pension fund ended up with a surplus, while many other pension funds had big losses as a result of the bear market in stocks.

Because individual investors have limited life spans, the holding period is of more than theoretical interest. For example, in the years 1965 to 1982, the Dow started out at about 1,000 and ended the period at pretty much the same place. As stated above, the stock market ended 2009 at about the same place where it started in 2000, and this does not take into account reductions caused by taxes, expenses, and bad timing. If you were retired or saving for retirement during one of these periods, you would have been out of luck. It would be no help to you that the historical return on stocks was 9.8 percent.

### *Taxes, Costs, and Risks of Investing in Bonds*

By taking a savvy approach to bond buying, you can minimize your taxes, limit your expenses, reduce your risk, and increase your profit. But let's first examine the taxes, costs, and risks of investing in individual bonds:

1. *Taxes.* If you are in the 25 percent marginal federal income tax bracket or higher, the impact of federal and possibly state income taxes is generally large enough to indicate that you should purchase tax-free municipal bonds for your taxable nonretirement account. By purchasing tax-free municipals, you avoid paying federal income tax and possibly state and local income taxes as well on the interest income. In addition, you will avoid paying the new 3.8 percent Medicare tax on investment income that will apply beginning in 2013. Though the interest rate on tax-free municipals is lower than the interest rate on taxable bonds, after taxes you will come out ahead. Tax-free municipal bonds provide the best legal tax shelter available to individual investors.

Many taxpayers are now subject to the alternative minimum tax (AMT), which is pushing more taxpayers into paying higher federal income taxes. Municipal bond interest is not subject to the AMT, except for the interest income from the municipal bonds called AMT bonds. If you are in a lower federal income tax bracket and live in a high-tax state you can reduce your state income taxes by purchasing Treasuries, home-state taxable municipals ("munis"), and certain agency bonds that are exempt from state and local income taxes, but not from federal income tax.

2. *Transaction costs.* The cost to purchase a bond is called the "spread," which is the difference between the price that the broker paid for the bond and the higher price at which he sells it to you. In addition to a spread, discount brokers may charge you a fee for service. Discount brokers do not save you money in the world of bonds. However, if you buy a bond on its initial public offering, you will receive an institutional price—the best possible price. If you hold an individual bond until it comes due, there are no further transaction costs.
3. *Risk.* With high-quality bonds, you have no significant loss of principal to worry about as long as you hold the bonds

until they come due at their face value. We believe that in a comparison of stocks and bonds, high-quality bonds should be given a significant premium over stocks because these bonds are generally safe, dependable, and pay a steady rate of interest that can be counted on.

4. *Bad timing.* The risk of bad timing is small if you hold your bonds until they come due because every bond comes due at its face value, no matter what the price fluctuations might be before its due date. Keep records of your bond purchases so that they are recorded at face value, rather than adjusting their value every month as valued on your brokerage statement. If you keep your bonds recorded at face value, you will be less likely to sell your bonds before they come due and make a market timing mistake.

If you have a bond ladder (that is, you own individual bonds coming due each year or so), you may be able to meet your financial needs out of your current cash flow and have funds to reinvest in the event of rising interest rates. How much is that worth to you in a comparison with volatile stocks and high-quality bonds? We'll discuss the strategy of a bond ladder in Chapter 21.

### *Past Performance*

#### **Old Assumption**

Stocks will outperform bonds in the future.

#### **New Thinking**

It is uncertain that stocks will outperform bonds in the future.

There are two main reasons for the assumption that stocks will outperform bonds in the future: First, it's taken for granted that stocks have always outperformed bonds in the past. Therefore, the assumption is that they will continue to outperform bonds in the future. In fact, as discussed later in this chapter, there have been many long periods of time that bonds have outperformed stocks. More important, as previously discussed, the actual annual historical performance of stocks by our calculations is more like 2 to 4 percent rather than 9.8 percent after taxes, fees, and bad timing.

Second, because stocks are riskier and more volatile than bonds, stocks should have a higher return than bonds to attract investors away from safe government bonds. We readily agree that stocks are riskier. However, that does not prove that stocks will outperform bonds in the future.

We are not suggesting that bonds will outperform stocks in the future. No one knows what will happen in the future. An open mind is essential on this important subject. But if you believe that stocks will always outperform bonds, why would you invest in bonds at all? If you are open to other eventualities, you'll understand the advantages of bonds and why we believe that bonds and the All-Bond Portfolio are a better investment strategy for individual investors.

The present is significantly different from the past, so why should we expect that the past performance of the stock market or the bond market will be repeated in the present or the future? In the past, we had a depression, two world wars and other wars, a massive inflation followed by a deep recession, oil shortages and oil busts, high tax rates, and low tax rates, and high unemployment and low unemployment. Which of these events will recur, and with what consequences?

**Dividends and Possible Stock Appreciation** Influenced by the media, investors often assume that the major factor in stock appreciation is the increase in the value of the stock shares. Awesome bubbles and mini-bubbles form as stock prices in a particular sector rise. However, the classic explanation of stock appreciation is that it is principally driven by two factors:

1. High dividend yields
2. The growth of the dividends over time

Between 1926 and 1959, the dividend yield paid on large company stocks was higher than the interest paid on long-term Treasury bonds. As we can see from Figure 1.1, long-term interest rates during that period never rose above 6 percent, and had a low of 2 percent in 1944, while the average was 4.9 percent. Stocks were rightly considered risky at that time.

From 1926 to 1954, the dividend yield on large company stocks was always above 5 percent, and in 1950, it hit its peak at 8.77 percent.<sup>16</sup> From as late as 1975 to 1985, the dividend yield on large company stocks was generally around 5 percent.<sup>17</sup>

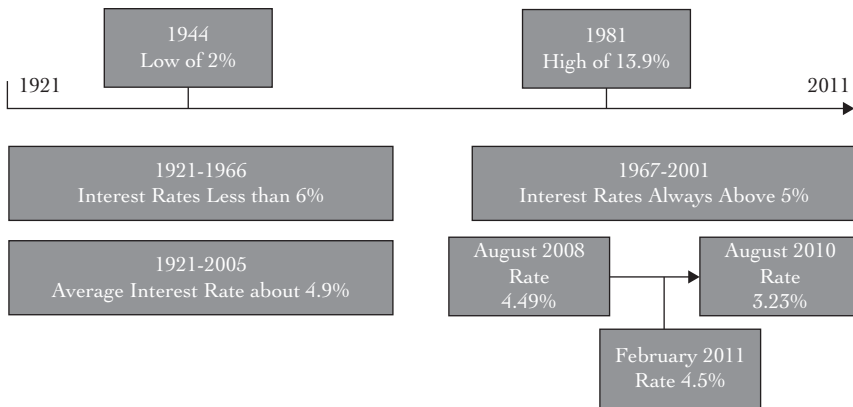


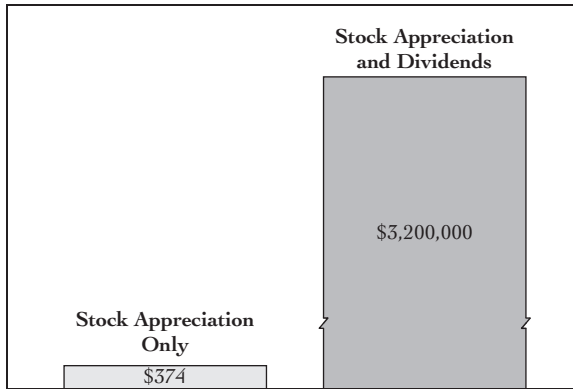
Figure 1.1 Quick History of 20-Year Treasury Bond Interest Rates

With the aid of Modern Portfolio Theory developed between 1950 and 1970s, the Wall Street marketing machine convinced the investing public that an investment in stock was not risky. With the decreased emphasis on dividends and an increased emphasis on stock prices, dividends have declined. The dividend yield on large company stocks in 2010 was less than 2 percent, and at least the majority of midsize and small-company stocks paid no dividends at all. 20-year Treasury bond yields, meanwhile, paid a low of 3.23 percent in August 2010. Have stocks gotten less risky, or do stock owners now believe they are?

The reinvestment of dividends has been the major driver of large stock appreciation. When stock performance includes the reinvestment of all dividends paid on stocks, \$1 invested in 1824 grew to \$3.2 million in 2005 (see Figure 1.2). However, if dividends are left out of the calculation and not reinvested, \$1 invested in 1824 grew to only \$374 in 2005.<sup>18</sup> That's right, \$374, not \$374,000, or \$3.2 million. Since high dividends were the main driver of stock appreciation in the past, why would we expect high appreciation in the future when dividends are much lower?

Consider the following questions:

- Without substantial dividends, will stocks appreciate by the historical 9.8 percent per year after taxes, fees and bad timing?
- Are you willing to bet your retirement on the hope that past performance will be repeated without significant dividends?



**Figure 1.2 Effect of Dividends on Stock Performance, 1824 to 2005**

Source: Data from Roger G. Ibbotson, *Stocks, Bonds, Bills and Inflation: Historical Returns (1926–1987)* (Chicago: Irwin Professional Publishing, (1989), 201.

- Is it significant that a great deal of stock appreciation came from the period 1982 to 1999, when the yield on long-term Treasuries declined from a record rate of 13.34 percent on December 31, 1981, to 6.82 percent on December 31, 1999?<sup>19</sup>

Since 1980 with inflation, interest rates and taxes declining dramatically, there was a powerful environment that favored equities and they exploded on the upside. Since 1720, it is hard to find a more favorable environment for equities that existed since 1980.<sup>20</sup> From the stock market lows in the 1970s, U.S. markets are up 25 times, the FTSE (Financial Times Stock Exchange) All Share index in the United Kingdom is up 43 times, and Hong Kong is up 116 times.<sup>21</sup> These increases are the WOW! factor that draws in market players.

However, this powerful tailwind appears to be over as a result of the crash of 2008 and the Great Recession that followed. In our new economic environment at the beginning of 2011 there is no significant inflation in the United States, Europe, and Japan, and there is near-zero interest rates on high-quality short-term securities. In addition, market volatility and price stability are being challenged by many adverse developments including the following: The United States, Japan, and Western Europe have large and growing deficits and increasing public sector debts. Individuals are paying down their debts resulting in slower growth in the U.S. economy. There

is a competition among major countries to devalue their currency to increase their exports together with growing protectionist policies. The confluence of these factors may weigh heavily on the current performance of the equity markets. What is the prospect for a 9.8 percent annual return in our equity markets in the current environment?

Every financial product provides a disclaimer that past performance may not be repeated. Why don't investors believe this? It seems to be a matter of faith for investors that stocks *must* outperform bonds as stated in our discussion of the cult of equities earlier in this chapter. We think it's unwise for investors to bet their financial lives on this hope. As well-stated by financial planner Michael Dubis, "Hope is not a strategy." That's because the answer to the question of whether stocks will always outperform bonds is simply not knowable. Our purpose is to call into question the paradigm that stocks will always outperform bonds and to open investors' minds to another way of measuring performance. If investors see the validity of such measurement, would their asset allocation to bonds increase because of the greater safety, predictability, and cash flow they provide?

### *Risk*

#### **Old Assumption**

Stocks are not risky if you hold them for 10 years.

#### **New Thinking**

The risk of a severe stock market decline increases as the investment period increases. Stocks are riskier and less predictable than bonds.

Investors love to believe in the possibility of easy gains. Gains, however, must be measured against the risks taken. This concept is known as "risk adjusting" the return on an investment. For example, if you buy a high-tech start-up company, you might make a gain of 20 percent or more over a short time. However, this upside possibility must be balanced against the possibility of a total loss of your investment since high-tech start-up companies have a high failure rate. In this case, the risk-adjusted return would be much less than 20 percent even if the stock appreciated by that much.

Although it is argued that over long periods of time stocks have outperformed bonds, the supporters of this theory fail to disclose or even mention the substantial risks that were undertaken to achieve that result. A well-established measure of risk is volatility, the pace at which stock prices move higher and lower. If the price of a stock moves up and down rapidly over short time periods, it has high volatility and is thus considered risky.

Since stocks are substantially more volatile than bonds, stocks did not outperform bonds taking volatility into account.

Table 1.1 provides the performance of stocks (using the S&P 500 index to represent stocks) and bonds (using 10-year U.S. government bonds to represent bonds) for the 30-year period from October 1979 to October 2009. In addition, the table provides the volatility of stocks and bonds. The table clearly indicates that for the past 5, 10, and 15 years, bonds have outperformed stocks even without taking volatility (risk) into account. For the past 20 years, the performance has been about the same. For the past 25 and 30 years, stocks have nominally outperformed bonds. However, when volatility is taken into account it is clear that bonds outperformed stocks for the past 25 and 30 years as well. Further, from 1900 to 2000, equities and bonds in the United States have generated almost identical nominal returns on a risk-adjusted basis, with bonds slightly outperforming.<sup>22</sup>

Thirty years is as long as most of us invest. Where is the massive upside to stock investors suggested by the Ibbotson data? It is clear from Table 1.1 that over the last 30 years investors were not rewarded for taking substantial risks in the stock market even when

**Table 1.1 U.S. Equities and U.S. Government Bonds, Annualized Returns and Volatility through October 2009**

Time Period	Returns		Volatility	
	U.S. 10-yr Bonds	S&P 500	U.S. 10-yr Bonds	S&P500
5 Years	8.08%	-1.12%	7.36%	22.11%
10 Years	8.17%	-1.71%	6.81%	20.05%
15 Years	8.03%	7.49%	8.52%	21.55%
20 Years	7.77%	7.79%	8.48%	19.43%
25 Years	8.91%	10.13%	9.50%	18.37%
30 Years	9.15%	10.75%	10.04%	17.50%

Source: Bloomberg and Damodaran Online, <http://pages.stern.nyu.edu/~adamodar/>.

compared to Treasury bonds, the safest bonds in the world. And keep in mind that Table 1.1 doesn't take into account the impact of taxes, fees, and bad timing discussed above.

Stocks are risky. Over certain periods of time, stock markets declined and even crashed. The crash of 1929, for example, is infamous. Less well known is that on October 19, 1987, the Dow Jones Industrial Average declined 508 points in one day, a 22.6 percent loss.<sup>23</sup> More recent was the dot-com crash of 2000 to 2002, when the Nasdaq lost 77.9 percent of its value. The next crash occurred in 2008 when large company stocks lost 37 percent.

These are the headline events over the last 80 years. But there is much more to understand regarding the relative risks of stocks and bonds. The history is laid out clearly in the 2009 ground breaking article by Robert Arnott titled "Bonds, Why Eoher?" in the May–June 2009 *Journal of Indexes*.<sup>24</sup> In this article, Arnott responds to the myth that stocks have beaten bonds by 5 percent a year for many decades without substantially more risk. He makes the following points:

Stocks didn't outperform bonds for the last 40 years. "Starting any time we choose from 1979 through 2008, the investor in 20-year Treasuries (consistently rolling to the nearest 20-year bond and reinvesting income) beats the S&P 500 investor. In fact, from the end of February 1969 through February 2009, despite the grim bond collapse of the 1970s, our 20-year bond investors win by a nose. We're now looking at a lost 40 years!"<sup>25</sup>

Arnott then examines the performance of stocks and bonds from 1801 to the present. Here are his findings:

- 1803–1871, 68-year span, bonds beat stocks.
- 1929–1949, 20-year span, bonds beat stocks.
- 1968–2009, 41-year span, bonds beat stocks.<sup>26</sup>

"From the peak in 2000 to year-end 2008, the equity investor lost nearly three-fourths of his or her wealth, relative to the investor in long Treasuries," Arnott observes, concluding, "that the widely accepted notion of a reliable 5 percent [advantage of stocks over bonds] is a myth. Over this full 207-year span, the average stock market yield and the average bond yield have been nearly identical."<sup>27</sup>

Consider also the huge decline in Japanese stocks. From 1989 to 2010, a 21-year period, the Nikkei 225, representing Japanese stocks declined by about 75 percent. On December 29, 1989, the Nikkei reached its peak of 38,957 and on November 8, 2010, it closed at 9,695.

Investors who take on a lot of risk can never be confident that they have succeeded until they sell their investments. Until then their “chips are on the table.” In the financial markets, when a trader makes big money for many years and then dramatically loses it all and a lot more, he is considered to have “blown up.” Yogi Berra, the famous baseball player and common man’s philosopher, summed this up in the expression, “It ain’t over till it’s over.”

The longer investors go without encountering a rare event, the more vulnerable they will be to it. This is how bubbles form in stocks, real estate, and commodities. Investors get comfortable and are very happy with the appreciation of their assets and invest more at or near the top. It looks like a sure thing. Despite the message endlessly repeated by the media that stocks are safe in the long run, stocks have been risky in the past and they will likely be risky in the future. Nassim Taleb, author of *The Black Swan*, points out that unforeseeable events, outliers, have always occurred and will continue to occur, adding huge risk to stocks and other speculative investments.

Risk has two dimensions, explains Zvi Bodie, professor of finance at Boston University School of Management and world-renowned investment consultant. “There’s the probability of a bad thing happening but the other dimension is the severity of the bad thing happening.” The risk of a stock market crash happening increases as the investment period increases, says Bodie. To prove his point, he reminds us that the longer the life of a put option, the greater its cost. A put option gives an investor the right, but not the obligation, to sell securities at a fixed price within a specified period of time. If a put option for one year costs about \$8,000, the same option for 25 years would cost about \$40,000. Bodie concludes that if stocks are really less risky the longer you hold them, then the cost of the put option should go down and not up when the option period increases.<sup>28</sup>

In his book *Worry-Free Investing*, Bodie tells readers that conventional wisdom is wrong.<sup>29</sup> Stocks do not always produce the highest return, diversification does not always protect you against loss, and

the risk of owning stocks does not always decline the longer you hold them. Stocks are risky and will remain risky, no matter how long you own them.

When a market goes up dramatically, the media quotes the financial services industry, which periodically insists, "This time it's different." The analysts will then backfit the current data to a new theory. This partly explains why investors wind up buying when asset prices are rising, often buying at or near the top. When the market declines, they can't stand the pain and often sell at the bleakest bottom. This predictable behavior is why there are so few investors who actually reap the reported gains from a long-term rising market in stocks, commodities, or real estate.

A review of the actual year-by-year historical returns of stocks shows that they are unpredictable. They are random. Random movements of stock in the past make for highly unreliable predictors of future stock prices. If stock prices are random, it follows that stocks retain substantial risk no matter how long you hold them; and you should not build a financial plan around them.

### *Growth and Income*

#### **Old Assumption**

Bonds are for income and stocks are for growth.

#### **New Thinking**

Bonds can provide both growth and income.

Financial advisers generally tell investors that stocks should form the major part of their investment portfolio because stocks will provide so much more growth than bonds provide income. Stock appreciation, however, is not predictable, and from 2000 to 2009, stocks generally provided no growth. On the other hand, bond income is predictable. When you invest in stocks, you should do so counting on your dividends and hope for stock appreciation only as icing on the cake. But the dividend icing has been around 2 percent since 1998, while bond interest remains more attractive.

**Zero-Coupon Bonds** Investors who hold the old assumption that bonds provide only income have never heard of zero-coupon bonds. A zero-coupon bond pays no interest currently and sells for

a price that is significantly below its face value, but comes due at its face value. For example, in 2006, we purchased a U.S. agency zero-coupon bond that comes due in 12 years. The bond is also non-callable, which means that the agency can't buy the bond back from the investor before its due date. The unit price for the bond was 50 and it will come due at a price of 100 in 12 years. Therefore, in 12 years these bonds will double in value. There is no question that the bonds will double if held to maturity because a U.S. agency bond is essentially risk free. Is this doubling in value income or growth? Would you be interested in a guaranteed 100 percent return in 12 years without the possibility of a loss? Zero-coupon bonds show the power of compounding. (Zero-coupon Treasury bonds are discussed in detail in Chapter 6.)

Instead of investing in a zero-coupon bond, you might purchase a coupon bond paying current interest and reinvest the interest in additional bonds rather than spending the interest income. In this strategy, you would have the cash flow as well as the growth. Should the increase in your principal be considered income or growth?

## A Second Look at Risks and Returns

The media make finding undervalued assets seem easy. Volatile markets, whether in stocks, commodities, or real estate, always attract a lot of media attention. Investors want to get rich quick, and the media are happy to tell them how.

There is another, more subtle reason why the markets seem to be going up more than they actually are. Consider two examples in which the movement of the markets is described in percentages (see Figure 1.3).

What is happening here? The investment is going up and down by 50 percent, but in both cases you lost 25 percent. If you translate the percentages into cash, you started with \$100 and ended up with \$75 in both cases. It is not much consolation to know that you are up 50 percent in the second case if you still have an overall loss.

Let's take a real-life example. The Nasdaq hit a high of 5,048 on March 10, 2000, before it declined to 1,114 on October 9, 2002, in the bear market. To get back to its all-time high of about 5,048, from 1,114, the Nasdaq would have to appreciate by almost 400 percent. The media, however, were happy to report that the Nasdaq doubled when it went from 1,114 to over 2,000. That sounds great, except

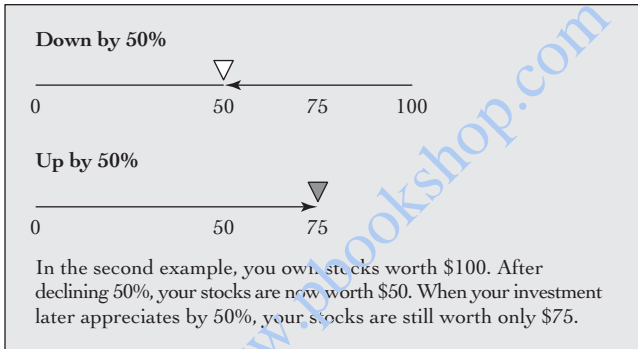
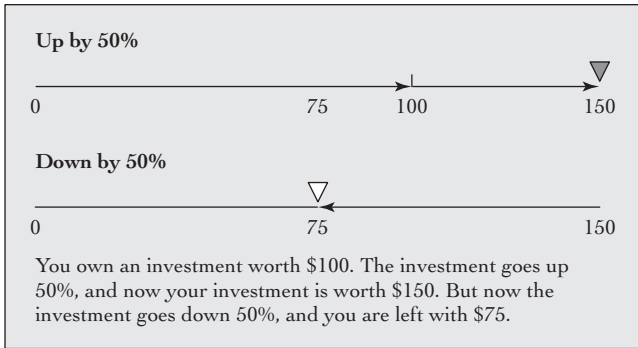


Figure 1.3 Why the Stock Market Always Seems to Be Going Up

that at around the 2,000 level it is still down almost 60 percent from its high of 5,042. If you had invested \$100 at the high point, you would have only \$40 after the double. If you had invested in bonds, you would still have your \$100 and the accumulated interest paid on that investment. We can learn from these examples that a stock loss is murderous and may take decades to recover, if ever. On the other hand, compounding of interest over time is the most powerful force in finance.

It is now clear that the strategy of buying and holding stocks and other risky assets does not work anymore in our current volatile environment, as evidenced by the two stock crashes of 50 percent or more in the years from 2000 to 2009. If you invest in stocks and other risky assets, you must constantly monitor your investments and be ready to trade out. Our strategy is to avoid losses by staying away from risky assets. By keeping our money in high-quality bonds,

we can stay invested and effectively maximize our compounding over time.

The evaluation of risk and return can be quite elusive. Stock, commodity, and real estate funds can appear to go up more than they actually are because of what's called "survivorship bias." For example, many losing funds are no longer visible because they were terminated or merged into other, better-performing funds so that the losing funds do not show up in the databases anymore. Funds may also appear to be doing better than they actually are because there are more than 6,000 mutual funds. At any point in time, some of them will be doing very well. The best performing of these winning funds are the ones advertised heavily to the public.

We value a large and predictable cash flow more than the possibility of speculative gains. Our strategy is to produce the largest sustainable cash flow possible from a diversified portfolio of high-quality bonds. We do not look for trading gains, but to structure the cash flow to satisfy a client's financial needs.

In the high-tech bull market of the 1990s, some stocks increased dramatically in value only to crash some years later. The increase and decrease in asset values of these stocks looked random to us, and the gains looked to be brought about by luck. We do not depend on the rising asset values produced by a bull market for our success with bonds; we have no fear of a bear market collapse. In fact, high-quality bonds generally increase in value when there is a bear market in stocks, commodities, or real estate because of the so-called flight to quality that generally follows a market collapse. This is exactly what happened after the stock market crash of 2008—high-quality bonds such as Treasury bonds went up dramatically in value.

## **Stock Market Volatility: The Impact on Retirement Planning**

Let's assume for the moment that stocks do outperform bonds over every 10-year period while you are in the accumulation phase of your retirement planning. Let's further assume that when you retire you are depending on withdrawals from your nest egg of stocks to fund your retirement, and you have significant losses in your early retirement years. In this case, you may run out of money even if there are good returns in future years and they average 10 percent

per year. Consider what would have happened if you retired in one of the following years:

- 1973: market loss of 14.6 percent
- 1974: market loss of 26.5 percent
- 2000: market loss of 9.1 percent
- 2001: market loss of 11.9 percent
- 2002: market loss of 22.1 percent
- 2008: market loss of 37 percent<sup>31</sup>

If you had the misfortune to retire in one of those years, you might have a problem meeting your retirement goals. In Figure 1.4, we take a simplified example of what might happen if you had losses in the year or years immediately after your retirement by looking at the story of Bob Goodtiming.

Bob Goodtiming had \$1 million in stocks at the date of his retirement. Bob believed that he would receive the historical return of 10 percent per year on stocks and could withdraw 10 percent, or \$100,000 per year, from his \$1 million nest egg. In the first year of his retirement, Bob's stocks declined 10 percent, and he withdrew \$100,000 to live on. In the next year, stocks also declined

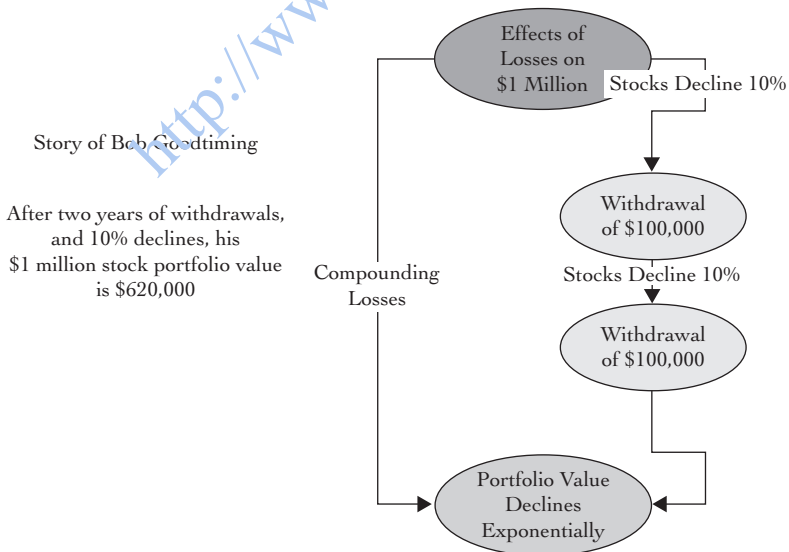


Figure 1.4 Effects of Losses Early in Retirement

10 percent, and Bob took out another \$100,000 with the belief that there was bound to be a recovery in the third year. However, at the beginning of Bob's third year of retirement, his nest egg was worth only \$620,000, and that Wal-Mart job was looking very attractive because he concluded that his retirement fund was now inadequate.

## Why Bonds Are a Better Investment than Stocks

We've seen that Ibbotson data indicate that the historical annual return is 9.8 percent on stocks and 5.42 percent on bonds.<sup>32</sup> However, even if the historical return of 9.8 percent were achieved, after paying taxes, fees, and expenses, the return on stocks in the real world would be a great deal less.<sup>33</sup>

We believe with Bill Gross and Mohamed El Erian of PIMCO, and many others, that we are now in what they call the "New Normal," and we won't be going back to business as usual any time soon. The New Normal will result in equity returns of between 5 and 6 percent, according to Bill Gross, rather than the historic return of 9.8 percent.<sup>34</sup> The factors causing the New Normal include the financial meltdown, slower economic growth, high continuing unemployment, the decline of inflation and short-term U.S. government interest rates at near zero, huge governmental fiscal deficits resulting in growing and unsustainable public sector debt, individuals paying down their debts, and growing protectionist governmental policies even from former free-trade countries.<sup>35</sup>

Furthermore, when you take into account the possibility of significant losses on stocks, the risk of bad timing, and the stomach-churning volatility, we conclude that bonds are a better investment vehicle to save for your retirement, education expenses, and other financial goals.

Think about this: If you believed that the return to stocks as a result of the New Normal would be 5 to 6 percent and then further reduced that return by taxes, fees and transaction costs, your net return on equities would be about 2 to 3 percent. In that case, how much of your money would you move from stocks to high-quality bonds? How much is it worth for you to know that your nest egg is not at risk and will be there when you need it?

Compound interest is a most powerful force. You can harness that force by staying invested in high-quality bonds and avoiding

large losses resulting from investments in risky assets. If you can eliminate losses, you will be able to compound your money more effectively over time.

### **Individual and Institutional Investors: How They Differ**

Until the stock market crash of 2008, there were many news stories on the outsized gains that certain large institutional investors, such as the Harvard and Yale endowments, earned on their investment portfolios. If you are an individual investor, why not invest like Harvard and Yale to capture these large gains?

The investment model used by Harvard and Yale became known as the “Endowment Model” and was copied by many other university endowments and other institutional investors such as large pension funds. The Endowment Model is typically a diversified portfolio invested in U.S. equities, foreign equities, private equity, venture capital, hedge funds, real estate, and commodities. The hallmark of the Endowment Model is a heavy emphasis toward equity risks, illiquid investments, and leverage. The market usually pays a premium for illiquid investments, those investments that can’t be readily sold when you want to sell or need to sell. Leverage, the use of borrowed money, will juice returns in a rising market.

While individual investors were gearing up to emulate the Endowment Model and capture large gains, the crash of 2008 took the wind out of their sails. During the fiscal year ended June 30, 2009, institutions using the Endowment Model lost 20 to 40 percent of their portfolios.<sup>36</sup> Yale’s endowment fell from about \$23 billion to \$16.3 billion, a loss of almost 30 percent and Harvard’s endowment fell from \$36.9 billion to \$26 billion, a decline of almost 30 percent.<sup>37</sup> Making matters worse, a substantial portion of their portfolios were illiquid, so that meeting their obligations was difficult. Selling some of these illiquid assets resulted in large losses.<sup>38</sup> As a result of the 2008 crash, individuals have learned that emulating the Endowment Model is very risky, very expensive and very illiquid. The crash of 2008 is a powerful lesson to individual investors as to why they are different from institutional investors and why they should not adopt the Endowment Model.

In addition, there are many significant differences between individual investors and institutional investors. Let’s take Harvard as an example and consider what some of those differences are.

The Harvard endowment, that is, the portfolio of the Harvard Management Company, Inc. (HMC)—was worth \$27.4 billion in June of 2010.<sup>39</sup> That enormous wealth enables HMC to hire the most experienced and competent money managers in the world. These managers can evaluate and get access to the best and most complex investment opportunities available. Individual investors simply do not have enough assets to buy into such deals.

Because of the huge size of the Harvard endowment, it can take significant risks and still survive a crash. In addition, the Harvard endowment has a limitless time horizon for its investments because it will be sustained indefinitely and can adjust the amount of money that is withdrawn each year.

Individual investors have a different time line and pockets that are not nearly as deep. They generally stop accumulating money when they stop working, at which point, they start to take distributions, which ultimately reduce the size of their nest egg. If their investment portfolio does not make a consistent return, they may run out of money. A bull market in one year may not undo the damage the bear market did the year before. What's more, individuals are subject to the inevitable emergencies, illnesses, and bumps in the road that require cash.

### *Institutional Bond Investors*

As a result of the dot-com crash of 2000 to 2002 and the crash of 2008, many U.S. pension managers now recognize that it is better to match their pension plan's expected income to the expected need to pay benefits to their retirees with the least risk possible, rather than to rely on the hope of stock market appreciation.<sup>40</sup> The *Wall Street Journal* has reported that major pension funds are fleeing stocks for the safety of bonds. "A growing number of pension managers are concluding their pursuit of maximum returns was a mistake."<sup>41</sup> For example, from 2005 to 2009, IBM's pension plan reduced its percentage invested in stocks from 64 percent to 35 percent. Similarly, Boeing reduced its percentage invested in stocks from 61 percent to 34 percent and Ford from 73 percent to 46 percent. These pension funds do not want to be left to the mercy of good and bad years in the stock market and the uncertainty that there will be enough resources to pay all their retirees on time.

The Teachers Retirement System (TRS) of Texas in contrast, took a different path. The fund invested in stocks and lost its bet in the bear market of 2000 to 2002. Fund assets dropped to \$79 billion in 2003 from a high of \$90 billion in 2000. To make up the \$16 billion budget gap, it decided to put its money into hedge funds and other higher yielding asset classes.<sup>42</sup> Unfortunately, it landed on the losing side of a hedge fund disaster. Amaranth Advisers revealed that in September 2006 it had lost roughly \$6 billion, or 65 percent of its assets, on misplaced bets in the natural gas market. When a \$10 billion hedge fund drops by 65 percent in one month, the repercussions reverberate throughout the institutional investing community. What new risky investments will have to be made to make up for this and other shortfalls?

Many companies are shutting down their pension plans in favor of shifting the responsibility for pensions to their employees. Now employees are being asked to do what the pension fund managers, with all their education and experience, are often unable to do. Although pension funds can receive a cash infusion from their sponsoring company or be terminated for all employees, what can individuals do in the face of underperforming retirement returns? How would you make up the shortfall if your investments did not achieve the expected return?

With all investments, except safe individual bonds, your “chips are on the table” until you sell. Either you make two right decisions, when to buy and when to sell, or you are just wrong and you lose. Until you close your position by selling, your money is at risk. Although stocks, real estate, and commodities might have performed well in the past during certain periods, there is no way to know whether they will have significant losses or gains in the future. Holding high-quality individual bonds, however, helps you to avoid this problem. With individual bonds, you do not need to make two right decisions—when to buy and when to sell. Bonds require only one decision: the decision to buy and hold until they come due. Your principal plus interest is returned to you without another decision.

We believe that you should only invest for positive returns. When we invest our clients’ money we do not seek to maximize returns, but to manage risk and provide a steady cash flow from a portfolio of bonds. We look at our clients’ objectives and structure bond portfolios to satisfy their needs.

## Key Questions to Ask about Whether You Should Invest in Stocks rather than Bonds

In determining whether you should invest in stocks, rather than bonds, consider the following questions:

- What risks are you prepared to take in the stock market?
- How much are you willing to lose?
- How long can you afford to sit out a bad stock market?
- If you have invested in stock, have you gotten the published return or the return you expected after taxes, fees and bad timing?
- What stories do you tell your friends about your successes in the financial markets?
- After a loss, what are your “yeah, but” rationalizations that you do not share with friends?
- Are you playing in someone else’s game?
- How much time do you have to allocate to investment management?

## Notes

1. Citigroup Global Markets, “The End of a Cult,” *Corporate Securities Strategy: Global Equity Strategist* (September 1, 2010).
2. Ibid., 4.
3. Ibid., 7.
4. Ibid., 8.
5. *Ibbotson S&P 500 Classic Yearbook* (Chicago: Morningstar, 2010) 26. This is the compounded annual growth rate from December 31, 1925 to December 31, 2009.
6. Ibid.
7. John Bogle, “What Went Wrong in Mutual Fund America?” *Journal of Indexes*, July–August, 2006, p. 30.
8. William Bernstein, “Sucker’s Bet,” *Financial Planning*, April 2001, pp. 183–184.
9. Michael Mauboussin, “Mauboussin on Strategy,” *Legg Mason Capital Management*, May 18, 2006, p. 9.
10. Charles A. Jaffee, “New Way to Gauge Fund Performance,” *Philadelphia Inquirer*, October 15, 2006, p. E7.
11. “The Power of Passive Investing” by Richard Ferri, *Journal of Indexes*, May/June 2011, p. 29.
12. Jonathan Clements, “Curb Your Enthusiasm: Why Investors Often Lag behind the Market Indexes,” *Wall Street Journal*, October 18, 2006, p. D1.
13. *Ibbotson S&P 500 Classic Yearbook*, 13.
14. Ibid., 19.

15. Ibid., 149.
16. *Ibbotson SBBI 2006 Classic Yearbook* (Chicago: Ibbotson Associates), 228.
17. Ibid., 229.
18. Ibid., 201.
19. Ibid., 39.
20. Steven Drobny, *The Invisible Hands* (Hoboken: John Wiley & Sons, 2010), 352.
21. Ibid., 353.
22. Ibid., 18–19.
23. Zvi Bodie and Michael J. Clowes, *Worry-Free Investing* (Upper Saddle River, NJ: Prentice Hall, 2003), 83.
24. Robert Arnott, “Bonds, Why Bother?” *Journal of Indexes*, May–June 2009, p. 10.
25. Ibid., 11.
26. Ibid., 12.
27. Ibid., 13.
28. Raymond Fazzi, “Stocks Not for the Long Run?” *Financial Advisor*, January 2004, 51.
29. Bodie and Clowes, 83–103.
30. Fazzi, 57.
31. *Ibbotson SBBI 2006 Classic Yearbook*, 37.
32. *Ibbotson SBBI 2010 Classic Yearbook*, 19
33. Bernstein, 184.
34. Bloomberg News, “Investment Wars: Birinyi’s Old Normal Stomping Pimco’s New Normal,” *InvestmentNews*, December 7, 2009, <http://www.investmentnews.com/article/20101101/FREE/101109999>.
35. Drobny, xvi.
36. Ibid., 17.
37. Ibid., 20.
38. Ibid., 17.
39. “Harvard Endowment Gets a Middling Grade,” *Wall Street Journal*, September 10, 2010, C3.
40. E. S. Browning, “Pension Funds Flee Stocks in Bid for Less-Risky Investments,” *Wall Street Journal*, October 18, 2010, pp. A1, A16.
41. Ibid., A1.
42. Elizabeth Albanese, “Alternative Assets,” *The Bond Buyer*, October 27, 2003.