

STANDARD & POOR'S

HOW TO INVEST

A Guide to
Buying Stocks,
Bonds and
Mutual Funds.



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WHY INVEST?

People choose to spend their money in many ways. The bulk of most people's income goes for day-to-day living expenses—food, shelter, and clothing. But even if you live a no-frills lifestyle, it is important to make some investments for the future. A relatively small sum set aside each year can make an important contribution to your long-term financial security.

Investing often involves deferring or giving up current consumption. This is done to increase wealth and build future purchasing power. For example, to buy 100 shares of a stock, a vacation might be postponed. If the investment is successful, however, the profits from it could fund future vacations or a year of a child's college education.

Specific investment decisions should be based on a consideration of risk versus reward. Some investments are riskier than others, and investors' tolerance for risk varies. In general, greater risk to the investor should be offset by probability or potential for a greater reward—a greater return on investment. The

return is simply the profit earned on the investment, including capital gains and any interest or dividend payments. Returns are typically reported in pretax dollars.

This publication is a guide to investing, with an emphasis on understanding stocks, bonds, and mutual funds. A qualified investment professional can help you establish a portfolio tailored to your situation, but the more knowledgeable you are about investing, the more likely you are to be successful at it.

The Battle against Inflation

Investments can provide a way to keep up with or stay ahead of inflation. While inflation rates have fallen sharply from the peak levels of 1979-80, the dollar is still shrinking in value. A dollar squirreled away in a safe-deposit box in 1980 had only about 60 cents of buying power in 1991. Although every investment car-

TABLE 1: TOTAL RETURNS OF VARIOUS ASSET CLASSES, 1926-90
(Compound annual rates)

	In current dollars	In inflation-adjusted (real) \$	Standard deviation
Common stocks	10.1%	6.7%	20.8
Corporate bonds	5.2%	2.0%	8.4
U.S. Treasury bills	3.7%	0.5%	3.4

All returns are in pretax dollars. Common stocks represent the performance of the S&P 500 Composite Stock Price Index, with dividends reinvested. Corporate bonds are long-term, with interest reinvested. U.S. Treasury bills are three-month U.S. government debt, with interest reinvested. Inflation represents the Consumer Price Index. Standard deviation measures the risk, or volatility, of rates of return.

Source: Ibbotson Associates.

ries some risk, it may be even more hazardous not to invest.

An investment's so-called real rate of return is measured in terms of purchasing power, which is the nominal rate of profit growth adjusted downward for inflation. Among the kinds of investments shown in Table 1, common stocks historically have provided the best gains in purchasing power over the long term, followed by corporate bonds. U.S. Treasury bills, considered the safest investment of the three listed, recorded a compound annual rate of return of 3.7% over the period from 1926 to 1990, barely outpacing inflation.

The Power of Compounding

Getting started with investing as early as possible can make a big difference in how much wealth is ultimately accumulated. The benefits of saving early in life are greatly magnified by compounding. In this process, the growth of an investment's value is computed on the sum of the original investment, including the assumption that dividends or interest are reinvested in the same asset. For exam-

ple, consider two individuals who can both receive a 10% compound annual return on their investment over a 40-year period. Let's suppose the first person puts in \$2,000 a year for the first eight years, representing a total investment of \$16,000, and then stops. At the end of 40 years, earnings from the original investment will have ballooned to \$515,188 because of compounding. Meanwhile, let's suppose the second individual invests nothing for the first 8 years, then \$2,000 annually for 32 years (Years 9 through 40), representing a total investment of \$64,000. At the end of 40 years, despite having put in four times as much capital, the second individual's earnings will amount to \$378,496—less than 75% of that of the first individual, who started earlier (see Table 2).

The amount of wealth accumulated is also substantially affected by seemingly small differences in the annual rate of return. For example, a \$10,000 initial investment, with nothing added to it other than the reinvestment of earnings, will grow to \$46,610 over 20 years if the compound annual rate of return is 8%. If the rate of return is 10%, however, that same initial investment of \$10,000 will increase to \$67,275—or 44% more.

TABLE 2: THE POWER OF COMPOUNDING

If you invest \$2,000 a year for the first eight years of a 40-year period with annual compounding at 10%, you will earn more than someone who invests \$2,000 a year from years nine through 40. The latter's total contribution would be four times greater, yet it would earn 27% less.

Year	EARLY FUNDING		LATE FUNDING	
	Contribution	Year-end Value	Contribution	Year-end Value
1	\$2,000	\$2,200	\$0	\$0
2	2,000	4,620	0	0
3	2,000	7,282	0	0
4	2,000	10,210	0	0
5	2,000	13,431	0	0
6	2,000	16,974	0	0
7	2,000	20,871	0	0
8	2,000	25,158	0	0
9	0	27,674	2,000	2,200
10	0	30,441	2,000	4,620
11	0	33,485	2,000	7,282
12	0	36,834	2,000	10,210
13	0	40,517	2,000	13,431
14	0	44,569	2,000	16,974
15	0	49,026	2,000	20,871
16	0	53,929	2,000	25,158
17	0	59,322	2,000	29,874
18	0	65,254	2,000	35,061
19	0	71,779	2,000	40,767
20	0	78,957	2,000	47,044
21	0	86,853	2,000	53,948
22	0	95,583	2,000	61,643
23	0	105,092	2,000	69,897
24	0	115,601	2,000	79,087
25	0	127,161	2,000	89,196
26	0	139,877	2,000	100,316
27	0	153,865	2,000	112,548
28	0	169,252	2,000	126,003
29	0	186,177	2,000	140,803
30	0	204,795	2,000	157,083
31	0	225,275	2,000	174,991
32	0	247,803	2,000	194,690
33	0	272,583	2,000	216,359
34	0	299,841	2,000	240,195
35	0	329,825	2,000	266,415
36	0	362,808	2,000	295,257
37	0	399,089	2,000	326,983
38	0	438,998	2,000	361,881
39	0	482,898	2,000	400,269
40	0	531,188	2,000	442,496
Investment		\$16,000		\$64,000
Earnings		\$515,188		\$378,496

Source: S&P's *The Outlook*.

PHYSICAL AND FINANCIAL ASSETS

There are many kinds of assets in which people can invest. Physical assets—those that are tangible—constitute one category. This includes items such as houses, coins, and works of art. Some physical assets, such as a house, can both meet current living needs and serve as an investment, since house prices have historically risen in value over time. Also, physical assets often provide their owners with an emotional return that is separate from any financial reward. Examples include the pride of home ownership and the sense of beauty that a work of art can bring.

Financial assets, a second category, include stocks and bonds issued by companies to raise capital for the operation and expansion of their businesses. After the initial sale is completed, these securities are often available for resale through markets such as the New York Stock Exchange (NYSE). In addition to stocks and bonds, various other financial assets are readily available to the public. Among them are debt securities issued by the federal, state, and local governments; money market funds; traditional bank accounts; certificates of deposit; mutual funds; options; and futures.

While financial assets represent much more than just pieces of paper, they are an indirect and less tangible form of wealth. Another way in which financial assets differ from physical assets is that they often generate cash income for the owners in the form of dividend or interest payments. Physical assets, in contrast, may require cash outlays during the period in which they are owned. For

example, maintenance, repairs, and insurance on a building must be paid by the owner. However, a primary investment aim of owning either physical or financial assets is to be able to sell them at some future time for more than it cost to acquire them.

Data from the investment firm Salomon Brothers shows that stocks have been the best performing financial asset in recent decades and the second best of any asset class. Over a 20-year period, only old masters paintings—which are relatively scarce and owned by only a few people—have provided a better return. Table 3 shows the compound annual returns (that is, profits, if any, plus any dividend or interest income) from various kinds of assets during 10- and 20-year periods ending June 1, 1991.

Liquidity

Some spectacular gains in value have come from physical assets. During portions of the past two decades, real estate prices boomed and rare-art auctions generated record prices. As prices paid for these physical assets began to soften toward the end of the 1980s, however, a significant drawback became more apparent: a lack of liquidity. Whereas most financial assets can be bought or sold at a moment's notice, it's harder to sell a physical asset such as a house. This is largely because huge quantities of financial assets are bought and sold every day and the marketplace for them is a national one. Furthermore, for any given company, one share of common stock is identical to every

other. Often, in a single day, such shares have hundreds of buyers and sellers who establish, through their transactions, the current value of the asset. In contrast, a house or a painting is generally a unique asset; nothing else exactly like it is available for sale. This quality of uniqueness adds to the complexity of finding a buyer and seller who can agree on a sale price for the asset.

How readily an asset can be turned into cash—the ease with which buyers and sellers can be brought together and can agree on a price—is called liquidity. Assets that are less liquid tend to have a wider spread between the “bid” (the price offered

by a would-be buyer) and the “ask” (the seller’s asking price). Among financial assets, some are more liquid than others—an important consideration in assessing risk. Some limited partnerships, for example, have little or no liquidity and should be bought only with the expectation of holding them until maturity. The illiquidity of such partnership interests largely reflects the absence of a public market for the trading of partnership shares. In addition, the structure and assets (e.g. specific pieces of real estate) of such partnerships may be tailored to the financial needs of a relatively small group of investors, which may narrow the resale potential of a partner-

TABLE 3: LONG-TERM TOTAL RETURNS* FROM DIFFERENT TYPES OF ASSETS FOR THE PERIOD ENDING JUNE 1, 1991

Asset category	TOTAL INVESTMENT RETURN	
	10-year compound annual return	20-year compound annual return
Old masters	15.8%	12.3%
Stocks	16.0%	11.6%
Chinese ceramics	8.1%	11.6%
Gold	-2.9%	11.5%
Diamonds	6.4%	10.5%
Stamps	-0.7%	10.0%
Bonds	15.2%	9.4%
Oil	-5.9%	8.9%
U.S. Treasury bills	8.8%	8.6%
Houses	4.4%	7.3%
Consumer Price Index	4.3%	6.3%
Farmland	-1.8%	6.3%
Silver	-9.3%	5.0%
Foreign exchange	3.8%	4.5%

* Including dividend or interest income, if any.

Source: Salomon Bros., as reported in *The Wall Street Journal*.

ship interest. In contrast, money market funds, a type of mutual fund that invests in short-term debt instruments, are so liquid they are considered to be cash equivalents. Most brokerage firms will automatically place your uninvested funds in a money market fund, where you will earn a slightly better rate of return than you would with a savings account at a bank, and your money will normally be immediately available.

Other Risks

All prospective investments should be evaluated in terms of the trade-offs between risk and reward (see Chart 1). The expected return on an investment may be based largely on its historical performance, but, because there is no guarantee that the future

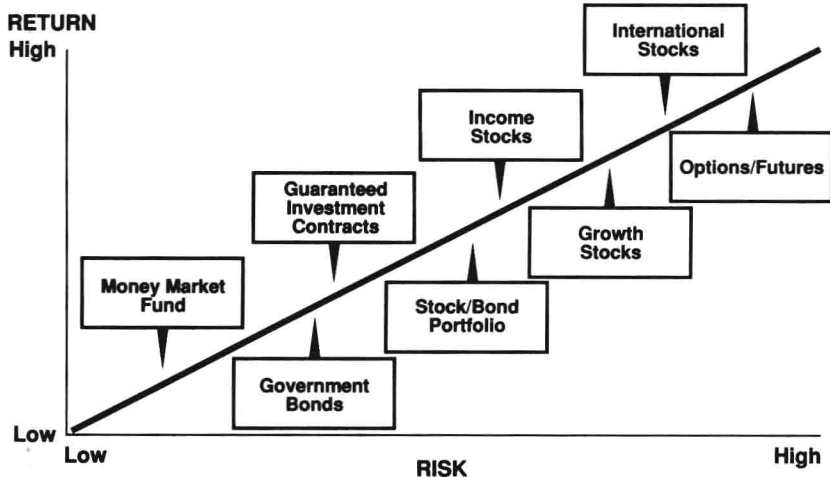
will repeat the past, you should assess the possibility that you won't reap your target profit.

One measure of risk and return is the range of possible outcomes. With a U.S. Treasury bond, you are assured of getting a series of modest interest payments and your principal (the amount of your initial investment) will be preserved if you hold the bond to maturity. With the riskiest of investments, such as the speculative purchase of a stock option, you may quadruple your money—or you may lose it all. In addition to the matter of liquidity, there are at least three other kinds of risk to consider—credit risk, interest rate risk, and price volatility.

Credit risk and interest rate risk are the primary concerns with bonds and other fixed-income securities. The role that each of these two risks plays

CHART 1: THE RISK-REWARD TRADEOFF

The return from various investment choices tends to vary according to the risk.



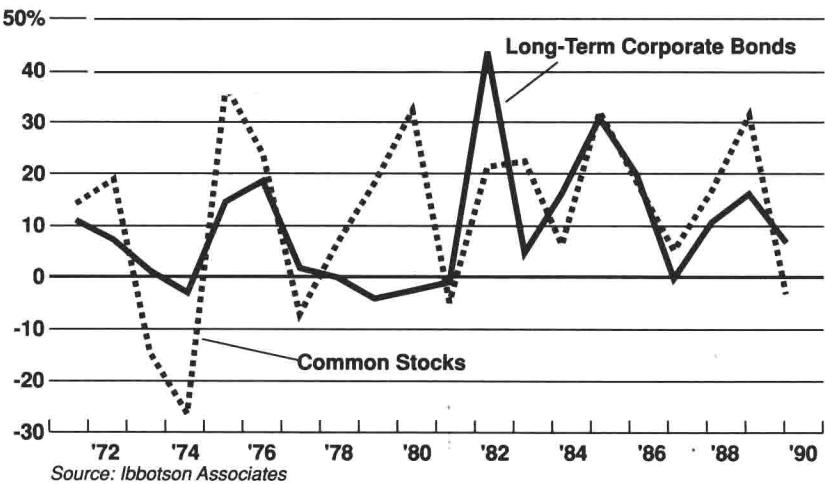
Note: The depiction above is intended to indicate general, long-term levels of relative risk and return.

varies according to the type of investment. U.S. government securities, for example, have very little credit risk because it is highly unlikely that the federal government will default on its commitment to pay interest and principal on debt. Because of this low credit risk, the long-term rate of return on such government securities tends to be lower than that available with other investments. Government securities, however, do share a risk with other fixed-income instruments—the interest rate risk. If an investor elects to sell such a security prior to maturity, the market price will depend largely on the prevailing interest rate environment. If rates have risen since the security was purchased, the investor will likely have to sell the security for less than the purchase price.

Another measure of risk is price

volatility. Although prices for bonds and other fixed-income investments fluctuate as interest rates change, these fluctuations are usually small. Even though normally less volatile than the options market, stock market returns do vary widely. As a result, investors in the stock market should have a longer time frame and a greater risk tolerance than is advised for some other, less volatile forms of investment. Although historical returns on long-term stock investments have been relatively high, stock prices tend to move more rapidly and to greater extremes than prices of most other kinds of financial assets. Potential stock market investors should reflect on how much their financial and emotional comfort could be tested in periods of declining prices. Charts 2 and 3 below show the annual total returns of stocks and corporate

CHART 2: ANNUAL TOTAL RETURNS OF STOCKS AND BONDS



bonds, plus the volatility within each year, for a recent 20-year period. During the 1980s, in particular, the return from bonds was unusually high, largely due to declines in interest rates.

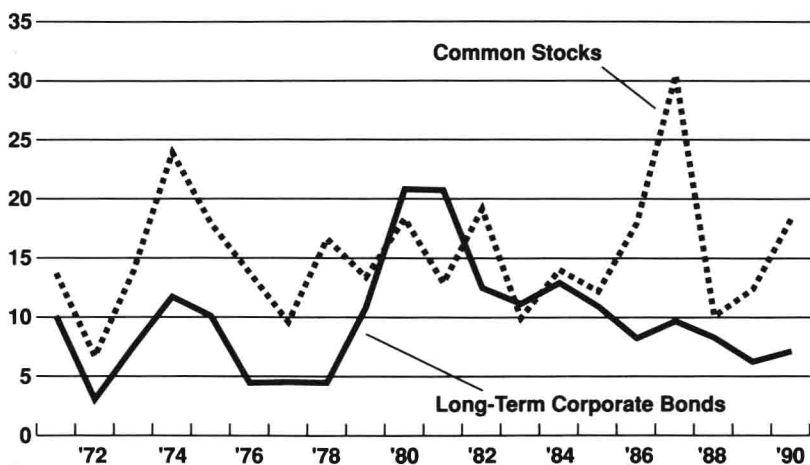
In an extreme example, the stock market declined more than 20% in value on a single day in October 1987, wiping out the gains of more than two years. Investors shaken by this experience may have sold their shares and put their money into a safe haven, such as a money market fund. In doing so, however, they would have missed out on the above average gains from stocks that followed. If \$10,000 had been left in the stock market following that dramatic 1987 decline, it would have grown to about \$18,200 in value by the end of 1991, excluding any dividends received. In comparison, the same

\$10,000 in a money market fund would have grown to only roughly \$13,300. Of course, there have been other periods, of even five years and longer, when stocks have declined in value and the returns from other safer, or less volatile, kinds of investments would have been significantly better. But for investors who have a long-term time horizon and who are willing to ride out the volatility, history indicates that to earn a high return, a meaningful portion of their invested capital should be in stocks.

The Importance of Diversification

Diversification of investment holdings is the most important shield against risk. Because some investments rise

CHART 3: ANNUAL RISK LEVELS OF STOCKS AND BONDS



Note: Annual risk level above is measured by standard deviation of monthly returns.

Source: Ibbotson Associates

in value while others fall, diversification smooths out much of the volatility of the overall return from a portfolio. Diversification sacrifices some of the upside potential, but this should be more than offset by the benefits of a lower level of risk.

The point is: Don't put all of your eggs in one basket. Although the attractiveness of stocks over the long term is stressed in this publication, all your investment capital should not go into this class of assets. In addition, you should diversify your holdings even within each class of assets. For instance, a list of 20 stocks, spread

across different industries, provides adequate diversification for an equity portfolio. To diversify a fixed-income portfolio, securities should be held with different risk levels and different dates of maturity.

Anyone with less than \$20,000 to invest in stocks or bonds should seriously consider mutual funds because of the diversification they provide. Also, for both small and large investors, placing some money in funds can offer relief from the task of selecting individual securities. (For a fuller discussion of mutual funds, see Page 48.)

GETTING STARTED