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Crisis and Chaos in Financial Markets

Recent tragic events highlight the uncertain and unpredictable nature of financial markets. I was working on this book about stock market volatility on September 11, 2001, when terrorists attacked the heart of the financial world by devastating the World Trade Center towers in lower Manhattan. Prior to that, the stock market was already in peril. Between March 2000 and September 2001 many stocks had lost more than 90 percent of their value. One measure of the stock market, the Dow Jones Industrial Average, had fallen 15 percent in the four months prior to the terrorist attacks. On the first trading day after September 11, Monday, September 17 (the market was forced to close for several days following the attack), the Dow Jones Industrial Average tumbled 684 points—its worst decline in history.

The difference between what happened before and after the terrorist attacks demonstrates how political, instead of economic, events can impact financial markets. Prior to September 11, stocks were falling. This is quite normal; there have been many episodes in stock market history that have witnessed declines of 15 percent or more in the Dow Jones Industrial Average. The market's tumble after the attacks, however, was owed to extraordinary events investors rarely face. Of course, there were specific economic repercussions stemming from the attack; but the event also served to stir up investor anxiety. It raised concerns about the financial system and triggered widespread political and military uncertainty. Consequently, there was a general fear that swept the country regarding the soundness of the U.S. financial and social system.

Turning back the pages of the history books reveals that the decline in the stock market in 2001–2002 was not extraordinary. There have been at least 11 episodes since the Great Depression of the 1930s that have seen similar declines. Some of these periods were the result of a normal cycle in the stock market in which so-

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What Is the Stock Market?

Today's U.S. stock market includes the trading in shares of more than 5,000 different companies on several different exchanges. Trying to make sense of which stocks are rising or falling on a daily basis is best accomplished by viewing stocks collectively. Market averages serve this purpose. A detailed analysis of market averages can be found in Chapter 2, including how they are calculated and constructed. For now, let's consider two of the more popular indexes:

- ***Dow Jones Industrial Average ($INDU):*** Subject of nightly commentary on the six o'clock news, the Dow Jones Industrial Average, or Dow, dates back to the late nineteenth century. Charles Dow first published the average closing prices of 12 industrial companies in 1896. The Dow was the first index to offer investors a means of seeing the performance of stocks as a whole. Today the index consists of 30 stocks; it is still considered the most widely followed barometer of the stock market. General Electric is the only company of the first 12 that remains part of the Dow Jones Industrial Average.
- ***S&P 500 ($SPX):*** Standard & Poor's created this barometer of stock market performance in the late 1920s. While it is not quite as familiar to the investing public as the Dow, most professionals consider it a better gauge of the stock market. Why? As the name implies, it measures the performance of 500 stocks in comparison to only 30 on the Dow.

called fundamental factors such as falling corporate profits, rising interest rates, a spike in energy prices, or other economic events have traditionally caused stock prices to move lower. Others have been the result of external events, or crises.

The period of greatest stock market volatility began in the late 1920s. The bear market that preceded the Great Depression of the early 1930s began on September 7, 1929. On October 29, 1929, what is now known as Black Tuesday, the stock market crashed and paved the way for a three-year bear market that ended in June 1932. Over the course of those three years, the Standard & Poor's index lost 86.2 percent of its value! That means, on average, investors saw their portfolios lose almost 90 percent of their values.

So, what events led up to the dramatic downturn in the market during the great bear market of the early 1930s? Prior to the great crash of 1929, the stock market was rewarding investors with exceptional returns. Throughout the 1920s, the United States enjoyed economic prosperity, and investing in stocks became a national pastime. The growing popularity of stocks was owed to a number of factors. In 1924, Edgar Lawrence Smith's book *Common Stocks as Long-Term Investments* challenged the conventional view that buying stocks was a speculative endeavor and that true investors bought only high-grade bonds. Smith put forth stock market data that covered the period from the Civil War until the 1920s. The book achieved a wide audience, and investing in the stock market, which prior to the 1920s was considered a highly speculative endeavor, received legitimacy.

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Bull and Bear Markets

- ***Bull market:*** Bulls buck upward with their horns. An extended period of time (months, years, decades) of rising prices is considered a bull market. This can relate to gold, bonds, stocks, or any group of investment vehicles. Because there are periods of time within the bull market that see prices fall, it is sometimes difficult to tell whether it is or isn't a bull market. The general rule is a 20 percent rise from a low in the Dow Jones Industrial Average or other measure of the market is considered a bull market.
- ***Bear market:*** Bears swat down with their claws. An extended period of time that sees the Dow Jones Industrial Average or other market average fall is considered a bear market. Again, the rule of thumb is a 20 percent decline from a previous high.

In the late 1920s, thanks to surging stock prices and a growing propensity for investors to take on risk, investing in the stock market became more commonplace. In fact, by the middle of 1928, stock prices were surging sometimes 10 or 15 points in one day. Investors simply couldn't curb their enthusiasm for shares, and many were buying stocks with borrowed money. Brokerage firms allowed margin up to 90 percent! That is, for every $10 of stock investors purchased, they could borrow $90 from their brokerage firms. From 1921 until 1929, margin loans (or money borrowed to buy stocks) increased from $1 billion to $9 billion—a huge sum of money at that time. Indeed, speculative fever engulfed the stock market.

In the fall of 1929, the rapid rise in stock prices proved unsustainable, the floor caved in, and stocks tumbled. Table 1.1 shows the rise and fall of some of the companies that traded during the 1929–1932 bear market that are still trading today. Throughout the 18 months leading up to Black Tuesday, some stocks surged between 150 to 200 percent. Three years later, stocks traded for fractions of their 1928 highs. As noted earlier, from the fall of 1929 until the summer 1932, the Standard & Poor's 500 index plunged nearly 90 percent. In short, during those three years, stock market investors swallowed hefty doses of both volatility and risk. According to David Blitzer, the Chief Investment Strategist at Standard & Poor's, it took until 1954 for the S&P 500 to return to its September 1929 highs, or 25 years!

WHAT CAUSES BEAR MARKETS?

Since World War II, there have been 11 more bear markets—including the one facing investors as I write these words. Table 1.2 lists those market slides in chronological order. Astute observers will notice that two of the last three periods did not witness a 20 percent decline, and therefore do not technically fall into the bear market category. For the purposes of putting today's events into the broader discussion of volatility, however, let us define a bear market as a decline of 19 percent or more.

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Table 1.1 Rise and Fall

Company	*Stock Price 3/3/28*	*High Price 9/3/29*	*Low Price 1932*
American Telephone & Telegraph (T)	179.50	335.63	70.25
Bethlehem Steel (BS)	56.88	140.38	7.25
General Electric (GE)	128.75	396.25	8.50

Table 1.2 Bear Markets Since World War II

Start	*End*	*Duration (Months)*	*Percent Loss in S&P 500*
5/29/46	6/13/49	36.4	–29.6
8/5/56	10/22/57	14.6	–21.6
12/12/61	6/27/62	6.5	–27.9
2/9/66	10/7/66	7.9	–22.2
11/29/68	5/26/70	17.8	–36.1
1/11/73	10/3/74	20.7	–48.2
11/28/80	8/12/82	20.4	–27.1
8/25/87	12/4/87	3.3	–33.5
7/16/90	10/11/90	2.9	–19.9
7/17/98	8/31/98	1.5	–19.3
3/24/00	—	18+	—

Source: "The S&P 500," Speech at the Indexing & ETFs Summit, by David Blitzer, Ph.D., Managing Director and Chief Executive Strategist of Standard & Poor's, March 26, 2001.

What Is Margin Debt?

A margin account allows investors to buy stock on credit or borrow based on the value of stocks, or other investments, already held in the brokerage account. Buying on credit and borrowing are regulated by standards set by the U.S. Federal Reserve and the brokerage firm holding the account. As with any loan, interest is charged on the loan. "Following the stock market crash in 1929, Congress and the public became concerned that personal debt used to finance purchases of common stock had caused or exacerbated the magnitude of the crash. The 1934 Securities Exchange Act gave the Federal Reserve Board the responsibility to set the minimum levels of margin for purchasing common stock. The Fed has not changed its minimum levels of margin requirement since 1974."—G. William, Shwert, "Stock Market Volatility," *Financial Analysts Journal* (May–June 1990): 23–34.

Margin Call: A call for additional funds in a brokerage account triggered by either a drop in the value of investments in a margin account or the purchase of additional securities on margin.

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So what causes bear markets? Of course there are no simple answers; bear markets are often impossible to predict. Perhaps only in hindsight can analysts clearly see the factors that contribute to create a major market decline. For example, the Standard & Poor's 500 index tumbled 36 percent between March 2000 and September 2001—its second largest drop since World War II. The decline can be attributed to four key factors. First, similar to the 1920s, stock prices soared during the 1990s. Over the course of a decade, the S&P 500 surged more than 300 percent! Early in the year 2000, margin debt, or borrowed money used to buy stocks, reached record highs and investor interest in stock ownership reached a feverish pitch. Just like the late 1920s, speculation overcame the market.

Indeed, 70 years after the bubble that preceded the Great Depression and bear market of the early 1930s, history repeated itself. Stock prices rose exponentially throughout the 1990s. Investing became a national pastime as investors added a substantial amount of borrowed money to the market. At its height, in March 2000, margin debt—the money borrowed to buy stocks—reached $278.5 billion. Shortly thereafter, on April 4, 2000, the stock market went into a tailspin. Sitting in a San Mateo, California, office with a number of colleagues, we all watched in awe as shares in some of America's best companies fell 15 to 20 percent that morning. Later, there were reports of portfolio liquidations; those investors who had borrowed heavily to finance stock purchases were faced with margin calls. After nearly a decade of soaring stock prices, the slide in the market that started on March 24, 2000, triggered a series of margin calls in early April that helped to fuel the decline. From its high to its low on April 4, the S&P 500 fell 6 percent in just a few hours. From there, the market recovered somewhat, but began a steep descent beginning in late September 2000.

One of the chief reasons for the market slide from September 2000 until September 2001 was the impact of rising interest rates. Seventy years earlier, during the collapse of the stock market bubble in the summer of 1929, the Federal Reserve began raising interest rates to cool the red-hot stock market. At the time, the Federal Reserve was only 16 years old, but its tools for controlling the economy and fighting the forces of inflation were the same—the raising of interest rates. That's exactly what the Fed did in the late 1920s, and some blame their actions for the collapse of the stock market beginning in September 1929. By January 1931, stocks were down 58 percent. As noted earlier, the S&P 500 eventually lost nearly 90 percent of its value. The destruction of wealth drained the capital of many individuals and financial institutions through colossal margin calls. Bank failures wiped out the savings of families and corporations. It was the worst liquidity drain in modern economic history.

Seventy years later, in order to slow a red-hot U.S. economy, the Federal Reserve raised interest rates on six occasions from June 1999 until May 2000. Again, although not as significant as prior to the Great Depression, rising interest rates pulled liquidity out of the system and that, in turn, spelled trouble for the stock market. Third, as the economy started to slow, so did corporate profits. And, as earnings began to deteriorate, the attractiveness of stock ownership started to wane (we will discuss this in detail later). Finally, as noted earlier, the terrorist attack on September 11 caused a great deal of uncertainty and anxiety among market investors. In

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Why Rising Interest Rates Hurt Stock Market Investors

The most common cause of bear markets throughout the history of the stock market has been ascribed to actions of the Federal Reserve. Economists refer to it as "restrictive monetary policy" when the Federal Reserve, or Fed, sets out on a campaign to raise interest rates. Most often, the Fed increases interest rates to slow the economy. Why? When economic growth becomes too robust, it can trigger the forces of inflation, or a period of rising prices. The Fed has a mandate to curb the forces of inflation but, at the same time, keep the economy stable. Historically, rising interest rates can cause havoc on the stock market because they make alternative investments—bonds—more attractive. In other words, investors are less apt to buy stocks when interest rates are rising; alternative investments become more appealing.

In addition, falling interest rates add liquidity to the economy. For instance, when the Federal Reserve lowers the federal funds rate, banks follow suit by lowering prime rate, which will lead to lower mortgage rates. Lower mortgage rates, in turn, lead to refinancing of loans and frees up cash in the hands of the consumer. That cash, in turn, can be used to finance purchases or invest in the stock market. Lower interest rates, therefore, serve to spur the economy by making low-interest loans more available and adding liquidity to the system. In the stock market, many consider the Fed to be a powerful force behind bull and bear markets. There is an old adage that says when the Federal Reserve is lowering interest rates, investors shouldn't bet against the market. Hence the saying, "Don't fight the Fed."

Federal Reserve System: A U.S. system established by the Federal Reserve Act of 1913 to regulate the U.S. monetary and banking system. The primary goals of the Federal Reserve are to stabilize prices, to promote economic growth, and to strive for full employment. These goals are accomplished through managing monetary policy, which is implemented by the Federal Open Market Committee (FOMC). In addition, the Federal Reserve supervises the printing of currency, regulates the national money supply, sets reserve requirements, examines member banks to ensure they meet various regulations, and acts as a clearinghouse for the transfer of funds throughout the banking system.

sum, bear markets can result from a number of factors. During 2000 and 2001, investors had to deal with four of the most significant: the collapse of a speculative bubble, rising interest rates, deteriorating corporate profits, and war.

Turning back the pages of the economic history books reveals that bear markets are generally caused by the same factors that wreaked havoc during 2000–2001. One of the longest periods of falling stock prices occurred after World War II. From May 1946 until June 1949, the S&P 500 dropped nearly 40 percent. While the United States was cheering an important military victory, the economic situation was marked by a fair amount of anxiety. The Great Depression left a psychological impact on Americans, and the end of the war signaled a return to the prewar sense of

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economic distress. Predictions of gloom and doom surfaced as 12 million World War II veterans returned home to find unemployment lines and an anemic U.S. economy.

Harry S. Truman was in charge of leading the nation through this period of economic malaise. He proposed tax cuts and instituted other measures to help stimulate the economy. The net result proved to be rampant inflation. In 1946 the rate of inflation soared to 18.2 percent! With the memory of the Great Depression and the 1929–1932 bear market still fresh, the prospect of a slowing economy and rising interest rates curbed any investor enthusiasm for the stock market. The result was a 36-month-long bear market that wiped out nearly one-half the value of the stock market.

The next bear market started in the fall of 1956 and lasted a little over a year. During that time, once again, the stock market suffered as the economy began to falter. Beginning in September 1957, the U.S. economy fell into a seven-month recession. The stock market faired even worse. From August 1956 until October 1957, a 15-month bear market wiped out almost 22 percent of the value of the S&P 500.

The next bear market occurred between December 1961 and June 1962. This time economic worries were not the chief culprit. During that time, investors were fretting over the Cold War and the failed Bay of Pigs invasion in April 1961 stoked fears over the possibility of a nuclear attack. Even though the economy was beginning a decade-long expansion, uncertainty over the political and military outlook posed problems for stock market investors. During that six-and-one-half-month bear market, the S&P 500 tumbled almost 28 percent.

After the market slide in 1961–1962, stocks moved higher until the next bear market began in February 1966. Shortly prior to the market peak, the Federal Reserve instituted a series of interest rate increases in late 1965 due to concern about a rapidly expanding economy and accelerating inflation. By 1967, economic activity in the United States screeched to a halt. The Fed moved swiftly to cut interest rates; but the damage to the stock market had already been done. This resulting bear market lasted slightly less than eight months with the S&P 500 losing 22.2 percent of its

Why a Slowing Economy Punishes the Stock Market

A slowdown in the business activity in the United States generally has a negative impact on the stock market. When the economy slows, profits of many U.S. corporations fall. Shareholders are more inclined to buy stocks when profits are robust and growing. For instance, investors are more disposed to buy stock in a company that is making a lot of money than one that is struggling. Therefore, if there is a perception that profits are deteriorating, the crowd is more likely to sell than buy stocks. Indeed, profits are one of the key drivers of stock prices; and the strength of the overall economy is an important factor that determines the strength of corporate profits. Concerns over the state of the economy and falling corporate earnings often lead to increased market volatility. Today's rampant accounting irregularities continue to increase investors' fears and further fuel the current bear market.

value. The stock market fell again less than two years later. From November 1968 until May 1970, the Standard & Poor's tumbled 36.1 percent. Again, concern over an overheating U.S. economy and the forces of inflation put the Federal Reserve into action. Rising interest rates once again punished stock market investors.

One of the nastiest bear markets in history began shortly after incumbent Richard Nixon defeated George McGovern in a landslide victory. Three months after the election, in January 1973, stocks went into a precipitous free fall. The slide gathered momentum as the Watergate scandal triggered increased uncertainty. Top Nixon advisers resigned on charges of obstruction of justice toward the end of April. By August, the market had tumbled nearly 20 percent. Meanwhile, rampant inflation forced interest rates higher and that, too, was taking a toll on the U.S. economy and stock market. By 1974, the economy fell deep into recession and the rate of unemployment skyrocketed. All this, of course, spelled trouble for investors, and from January 1973 until October 1974 the S&P 500 lost 48.2 percent in value. In less than 21 months, the S&P was nearly cut in half!

As inflation began to subside and political uncertainty waned, the stock market recovered and began to move higher until November 1980. At that time, Ronald Reagan defeated incumbent Jimmy Carter and Republicans took control of the Senate. In April 1981, even after the assassination attempt on Reagan and in the face of a significant increase in interest rates on the part of the Federal Reserve, investors remained fairly optimistic and the bear had not officially paid the markets a visit.

As the Federal Reserve increased interest rates to all-time highs in May 1981, however, the floor began to crack. By July, the S&P 500 was trading at its lowest levels of the year. At the same time, a series of international events started to erode investor confidence beginning in early 1982. A major conflict erupted between Britain and Argentina over the Falkland Islands. Tensions in the Middle East escalated as Israeli troops invaded Lebanon. When Syria became involved, concern about a full-out war in the Middle East rattled the markets. Skyrocketing inflation and the impact of record-high interest rates sank the U.S. economy deep into recession. Beginning in November 1981, the Federal Reserve responded to the worsening economic situation by lowering interest rates. The Fed continued to cut rates

Who Were the Nifty Fifty?

Although higher interest rates and political uncertainty were important factors causing the bear market of the early 1970s, the downdraft was also the result of a speculative bubble. At that time, stocks of major companies—the largest U.S. concerns with shares listed for trading on the stock exchanges—received enormous investor interest. Shares of Avon Products, Eastman Kodak, Walt Disney, and Hewlett Packard rose dramatically in value. The investment crowd fell in love with roughly four dozen companies that became known as the Nifty Fifty. These stocks later suffered enormous losses during the 1973–1974 bear market.

throughout 1982. During the month of August, the Fed lowered the rates on three separate occasions, which finally restored investor confidence. August 12, 1982, marked the end of the 20.4-month bear market that drove the S&P 500 index 27.1 percent lower.

The next bear market stands out in the minds of many investors as one of the most volatile in history, but the duration of the decline was among the shortest. From August 1987 until December of that same year, the S&P 500 declined 33.5 percent. The violent downturn can be traced to a number of factors. Once again, the Fed was vigilant and interest rates were on the rise. There were also political events causing uncertainty in the marketplace. Burton Malkiel wrote an insightful assessment of these events in his book, *A Random Walk Down Wall Street* (W. W. Norton & Company, 1990):

> In addition [to rising interest rates], a number of events created significantly increased risk perceptions in the market. In early October, Congress threatened to impose a "merger tax" that would have made merger activity prohibitively expensive and could well have ended the merger boom. . . . The risk that merger activity might be curtailed increased risks throughout the stock market by weakening the discipline over corporate management that potential takeovers provide. Also James Baker, then secretary of the Treasury, had threatened in October to encourage a further fall in the price of the dollar, increasing risks for all foreign investors and thereby frightening domestic investors as well.

The net culmination of these events triggered the market slide that saw the S&P 500 shed 20.5 percent on Monday, October 19, 1987. The bear market lasted from August 25, 1987, until December 4 of that same year and saw the S&P 500 decline 33.5 percent in a little over three months.

The next bear market occurred roughly three years later. The market decline was brought about largely by three events. First, Iraq's invasion of Kuwait triggered a renewed bout of concern surrounding a larger war in the Middle East. The subsequent Persian Gulf War also led to a sharp rise in crude oil prices and caused concern over the prospect of rising inflation. Finally, economic activity in the United States was faltering and the economy entered a recession during the mid-1990s. War, rising inflation, and a slowing economy all served to rattle investors, and from July until October 1990 the market suffered a three-month, nearly 20 percent decline.

WHAT MAKES TODAY'S MARKET DIFFERENT?

A recent period of market volatility serves to highlight the changing nature of financial markets today as well as the new risks investors face. Although the decline spanned only one and a half months and the S&P 500 didn't officially enter a bear market (because the index fell only 19.3 percent instead of 20 percent), the events from July 17 through August 1998 serve to illustrate how global financial events can trigger extreme bouts of stock market volatility in the United States.

Events started to unfold in midsummer 1997 when South Asian currency markets collapsed. The uncertainty from the impact of the crisis eventually caused a 6.2 percent six-day drop in the S&P 500 beginning on August 6, 1997. The index recovered, but once again volatility struck the market roughly one year later when it became known that Russia along with countries in Latin America and parts of Asia were no longer paying their debts. The Global Financial Crisis, as it has become known, triggered the collapse of a prominent U.S. hedge fund, Long Term Capital Management, which owed billions of dollars to various investors around the world. The collapse of that fund threatened the solvency of major U.S. banks. A bailout of the fund through a special committee formed by the U.S. Federal Reserve, banks, and major brokerage firms helped avert a major financial catastrophe.

The Global Financial Crisis served to highlight the impact that international events can have on the U.S. stock market. In less than two months, from July until September 1998, the S&P 500 lost almost 20 percent of its value. At the same time, a global financial crisis has been happening with near regularity over the past dozen years. There was, of course, the crash of 1987 that sent not only U.S., but global financial stock markets into a tailspin. Two years later, the Japanese stock market collapsed. When the exchange rate system collapsed in 1992–1993, Europe's currency troubles also caused mayhem throughout the global financial community. In 1994, a collapse in the U.S. bond market and the Mexican peso catastrophe occurred. Crises in Asia, Latin America, and Russia rattled markets in the United States in 1998. All of these events serve as reminders that, besides speculative bubbles that have existed since the history of humankind, interest rate increases by the Federal Reserve, war, and economic recessions, today's investors have to contend with a relatively new force that can trigger market volatility: contagion.

CORPORATE MISCONDUCT

A few years after dealing with the forces of contagion that emerged during the Global Financial Crisis of 1998, investors had to grapple with yet another risk that threatened to completely undermine investor confidence—corporate malfeasance. The S&P 500 had managed to recapture the losses recorded immediately following

What Is Contagion?

Contagion is a term popularized during the Global Financial Crisis of 1998. It refers to the idea that events in one economic system can cause repercussions throughout other nations. Like the spread of a disease, volatility in one financial market finds itself infesting others.

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the terrorist attacks of September 11 with a 20 percent advance, but in mid-March 2002 another decline ensued. A host of uncertainties already weighed on investor confidence. Some stemmed from worries regarding the U.S. economy. Others were related to corporate profits and a relatively bleak earnings outlook. Yet nothing could prepare for the wave of systemic corporate accounting scandals that shook investor confidence in the first half of 2002.

The chain of events related to corporate misconduct started with the high-profile collapse of energy giant Enron. Problems began to arise in July 2001 when Enron warned investors that it would post a large loss in its quarterly earnings report. The energy trader cited the effects of the California energy crisis and mistimed investments in India and South America for its surprisingly poor results. Later, in August, CEO Jeffrey Skilling resigned after holding the position for only six months. The news was completely unexpected. Skilling said the departure was for "personal reasons." Nevertheless, the news shocked investors and raised questions about the stability of Enron.

In the fall of 2001, the Securities and Exchange Commission began a formal inquiry into Enron's massive losses. In October, Enron said that losses on its broadband division, its partnerships, and international subsidiaries would force the company to cut shareholder value by $1.2 billion. Two weeks later, Enron fired chief financial officer Andrew Fastow. The company alleged that the CFO arranged deceptive partnerships that were being used to hide millions of dollars in losses. The SEC investigation intensified.

Enron told investors in November that it had overstated profits by nearly 16 percent, or $600 million. The company's auditor, Arthur Andersen, warned investors not to rely on any of the company's financial statements issued prior to June 2001. Shareholders panicked on the news, and sent the stock into a tailspin. The company's market value plunged and its credit rating was reduced. Consequently, the company was forced to pay back millions of dollars of debt immediately, but couldn't attain additional financing due to its lowered credit rating. Faced with the prospect of insurmountable debt, corporate executives agreed to file for Chapter 11 bankruptcy in December 2001. In less than six months, from the time the company issued its earnings warning in July 2001 until December when the company filed for bankruptcy, Enron completely collapsed and left shareholders and employees with no recourse whatsoever.

From that point forward, investors had to navigate through a meteor shower of corporate accounting scandals. While some high-profile companies such as Global Crossing and Adelphia also shocked investors by filing for bankruptcy, SEC probes into corporate accounting practices began to mount. In 2002, Bristol-Myers, Tyco International, Xerox, and a host of other high-profile companies were being scrutinized regarding accounting issues. As news related to accounting misstatements surfaced seemingly daily, investors were left stunned and wondering whether they could any longer trust the financial statements that served as the foundation for so many investment decisions.

If investors were growing uneasy in early 2002, WorldCom completely shattered investor confidence in June of that year. On June 25, 2002, WorldCom admitted that it had misreported nearly $4 billion in expenses in 2001. The shocking admission

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meant that, instead of recording a profit, the second largest U.S. long distance company actually lost money for the year. Just like Enron and many other companies, WorldCom had violated accounting rules and was likely to head down the road to bankruptcy. The news sent shares of WorldCom as well as stocks around the globe into a freefall.

On July 21, 2002, the *Wall Street Journal* reported that WorldCom, which faced $41 billion of debt and an accounting scandal that destroyed its access to capital, filed for bankruptcy court protection. Prior to the announcement, the market, as measured by the S&P 500, had suffered a two-week 14.5 percent decline—one of its swiftest drops in history. On Monday, July 22, 2002, when the markets opened for trading immediately after the news, the S&P 500 dropped another 3 percent. Consequently, July 2002 proved to be one of the most volatile periods of trading in stock market history.

Obviously, the bankruptcies of both WorldCom and Enron, concerns over accounting scandals, and tumbling stock prices weighed heavily on investor confidence in the first half of 2002. Angst in the stock market was already high for a variety of other reasons. Wall Street analysts were under fire for not warning clients of pending troubles and, in some cases, making unsuitable investment recommendations. Mutual fund managers were being questioned for taking on large positions in troubled companies just before their collapse. Scandals and systemic corporate fraud seemed to permeate every sector of U.S. business activity. Even Martha Stewart was being investigated for insider trading after she coincidentally sold 40,000 shares of ImClone the day before the Food and Drug Administration refused to consider an application for the company's cancer-fighting drug. There was also ongoing uncertainty regarding the impact of plunging stock prices on an already frail U.S. economy. All of the events served to cast a dark cloud over the stock market and the U.S. economy. The subsequent volatility turned Wall Street into a minefield for investors.

BUY AND HOLD?

Ultimately, the stock market rises more than it falls. In other words, there are more bull markets than bear markets. If not, there would be few reasons to want to own a portfolio of stocks. In fact, since its inception during the mid 1920s, the S&P 500 has risen at an average annual rate of roughly 11 percent. Over the course of 75 years, the average has risen 54 times and posted losses on only 21 occasions. Given the long history of growing ever higher, some investors naturally consider stocks to be the best vehicles for long-term investment funds. While there are inevitably bear markets, corrections, and pullbacks, stocks are ultimately the best vehicles for building wealth.

Yet, while stocks have historically offered the best returns, the investor, or owner of stocks, must be prepared to withstand periods of declining stock prices. As noted earlier, the S&P 500 has moved lower 21 times in the past 75 years, or roughly one-third of the time. Given that historically the stock market eventually recovers from the bite of the growling bear, some financial advisers recommend building a portfolio for the long haul by investing in not one or two stocks, but the entire market.

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Indeed, the notion of simply buying the market has developed widespread appeal among investors. For that reason, the growth and increasing popularity of mutual funds have been exceptional during the recent past. Thanks to a surging bull market in the 1990s, which produced generous average annual returns in excess of 18 percent for the S&P 500, the notion of simply buying the market seemed to be a no-lose proposition. Investors piled into mutual fund shares. As of September 2001, there were more than 3,600 mutual funds investing in the stock market, with combined assets of $3 trillion. According to the Investment Company Institute, in 1983 42.4 million Americans owned stocks through mutual funds. By 1999, that number had mushroomed to 78.7 million—an 86 percent increase!

In fact, one of the largest mutual funds today tracks the performance of the S&P 500. As of this writing, the Vanguard S&P 500 mutual fund is the second largest mutual fund and commands a whopping $66 billion worth of assets. While it is not the only mutual fund that attempts to mirror the performance of the U.S. stock market (in this case the Standard & Poor's 500 index), it is by far the largest. The fund is also among the oldest, and its origins can be traced back to 1976 and the inception of a fund known as the First Index Investment Trust. Its recent performance speaks for itself. During the decade ending December 2000, the fund boasted an average annual return in excess of 17 percent—not bad when one considers the 2 percent return paid by most bank accounts during that time.

Despite the superior performance of the S&P 500 during the 1990s, I do not advocate the buy-and-hold philosophy of investing. Shares of mutual funds are not immune to the forces of volatility. Indeed, a stock mutual fund represents a basket of stocks. For instance, buying shares of an index fund is the same thing as owning the S&P 500 index, which has been in 21 bear markets during the past 75 years. When the market feels the bite of the bear, the psychological damage to passive investors can prove severe. For me, bear markets are simply too painful to ride out. In addition, there are times when stocks move sideways for prolonged periods. In that case, the investor doesn't lose money but doesn't profit, either.

Bear Market Terminology

- ***Normal decline or pullback:*** A 5 percent loss in the major averages. Expect, on average, three per year.
- ***Correction:*** A drop of 10 percent, which occurs roughly once a year during a bull market. A "severe" correction takes the market down 15 percent. Since World War II, there have been 15 corrections—eight of which led to a bear market.
- ***Bear market:*** A 20 percent fall in the Dow Jones Industrial Average or Standard & Poor's 500. Since the inception of the Dow in 1896, there have been 32 bear markets—including the one we are experiencing at the start of the new millennium. The average duration is roughly 13 months.

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What Is a Mutual Fund?

Mutual funds are investment vehicles that allow investors to participate in the stock market. In essence, mutual fund investors are pooling their money with other investors. That pool of money, in turn, is invested in a variety of stocks, bonds, and other securities. Mutual funds are extraordinarily popular today, but they cannot be used to trade volatility, and therefore, with the exception of this discussion, are not covered throughout this book.

BEAR MARKETS DO NOT MEAN LOST WEALTH

Ultimately, while I don't recommend riding out periods of high market volatility, bear markets inevitably surface and must be acknowledged as part of any long-term investment plan. History has shown that bear markets are a part of the investment world; while some investors view them as risky periods to ride out or a reason not to keep money safe in certificates of deposit at the local bank, my trading approach will keep you invested and making profits.

Ultimately, I'm bullish on our financial markets. Like the buy-and-hold advocates, I believe stock prices will move higher over the long term and that the U.S. financial system remains sound. Since stocks began trading under the buttonwood tree at 68 Wall Street, the size of the stock market has grown exponentially. For instance, on December 15, 1886, the New York Stock Exchange saw its first one million share day—the number of shares bought and sold exceeded one million for the first time! During the great stock market crash on October 29, 1929, 16,410,000 shares traded hands, which was enormous by the standards of the day. The first 100 million share day occurred in August 1982. Today, it is not unusual to see trading volume on the New York Stock Exchange top 1.5 billion shares.

Since the creation of the Philadelphia Stock Exchange in 1790, a number of new stock and options exchanges have emerged. In 1971, the Nasdaq Stock Market was created and today sees more trading activity than the New York Stock Exchange. The first organized options exchange—the Chicago Board Options Exchange—emerged in 1973. Today, there are five different exchanges that offer options trading and an even larger number of stock exchanges. In brief, trading of stocks and options has mushroomed, and the buy-and-hold investor can rest assured that 20 or 30 years from now, the stock market will be larger and more active than it is today.

My trading approach is practically the polar opposite to the traditional buy-and-hold approach to the market. Trading volatility doesn't offer investors the luxury of sitting passively and awaiting the bull to drive stock prices higher. Thus, the strategies reviewed in this book, while enabling investors to make money in rising, falling, or sideways-moving markets, also force investors to actively make decisions on an ongoing basis. However, during periods of rising market volatility, falling prices do not necessarily put capital at risk. In fact, a number of strategies

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actually benefit from rising market volatility enabling investors to make additional profits as volatility rises. Bottom line, volatility does not equal risk.

CONCLUSION

History has shown that periods of uncertainty, although quite serious, are also the reality of the game. It shows that the stock market can absorb shocks and persevere. As traders, our aim is to detach ourselves from the emotional responses triggered by unexpected events and shift the focus back to trading. Throughout history, that has been the key to long-term success in the financial markets. Since the inception of stock trading in the United States, it has never been profitable to bet against the financial system over the long term. The U.S. stock market is batting 1,000.

There have been episodes in history that have clearly left their mark on investors. Periods of extreme market volatility—like the crash of 1987, fall 1998, spring 2000, September 2001, and others—serve as memorable events with wide-reaching consequences. For instance, on one day the Dow Jones Industrial Average plunged from 2,247 to 1,739: 22.6 percent! That, of course, was Monday, October 19, 1987, when the stock market crash wiped out a vast number of trading accounts. Unfortunately, I was one of the victims of Bloody Monday. These kind of turbulent times not only make headlines, but for many investors can also prove ruinous.

Periods of high volatility, however, are the exception. More often than not, financial markets swing, but do not collapse. While occasional spikes in volatility can destroy the trading accounts of novice investors, they also serve as profit opportunities for the astute trader. At the same time, there are also prolonged periods of low volatility. Stock prices can move sideways as well as trend gradually higher or lower for periods of months, even years. While the periods of high volatility make the newspaper headlines, the periods of low volatility generally do not. The fact of the matter is: panic, chaos, and mayhem sell newspapers and drive advertising revenues. The financial press makes a living by reporting on the unusual and sensational events. Most of the time, however, there is no crisis to report. Successful traders must make an effort to generate profits in both environments. One of the important elements in doing so is being able to measure and quantify volatility. When volatility is high, your trading strategy will differ greatly from when volatility is low.

As stated earlier, our aim in writing this book is twofold. The first task is to teach readers what volatility is and how it affects the market. Our second goal is to teach the reader how to trade it. In later chapters, the reader will learn how to incorporate volatility into his or her own trading strategies and how to use past prices to identify trading opportunities.

Before launching our discussion on volatility, however, the reader must have a thorough understanding of stocks and indexes. While our discussion of volatility can be applied to commodities and futures markets, the focus of discussion within this book is the stock market, which includes stocks, or equities, indexes, exchange-traded funds, and options. The next few chapters serve that purpose.