

The Stock Market Crash of 1929

It began on Thursday, October 24, 1929. 12,894,650 shares changed hands on the New York Stock Exchange—a record. To put this number in perspective, let us go back a bit to March 12, 1928 when there was at that time a record set for trading activity. On that day, a total of 3,875,910 shares were traded. As you can see, Wall Street was a very, very busy place, as were markets worldwide. A big problem not mentioned so far in all this was communication

The ticker tape machine had gone through great amounts of perfections since its early applications in the 1870s-80s by Edison and others. Even at telegraphic speed, the volume was having an effect on time. Issues were behind as much as one hour to an hour and a half on the tape. Phones were just busy signals on hooks. It was causing crowds to gather outside of the NYSE trying to get in the communication. Police had to be called to control the strangest of riot masses; the investors of business. It is not yet noon.

The habit of lunch eased the panic somewhat and New York paused for a breath. There were rumblings of bargain grabbing to come in the afternoon, so maybe something could be salvaged. And it did come back to regain much of the losses. For example, a stock like Montgomery-Ward opened at 83 and dropped to 50 and recovered to 74. This was typical for the big name companies. On Friday, the mixture of margin call bargains combined with sells that were waiting from the late tickers on Thursday led to a bit of a gain. The trading was about 6 million shares. There was a short session on Saturday, which brought everything back to the level of Thursday.

The weekend was indeed welcome relief. It gave investors a chance to sort out their portfolios and plan for what might be a rough week. Others, though, had cleverly planned for the crash and kept their money out and were ready to pick up some real bargains. They got set up for even worse ruin. On Monday, October 28, 1929, the volume was huge - over 9,250,000 shares traded. The losses were great as well. But unlike Thursday, there was no dramatic recovery; it was the prelude to Black Tuesday - the most infamous day in Wall Street history.

There is a reckoning that occurs every so often in world history. It is a time when debts are paid, when wars are fought, when disease ravages and passes through a land, when the corn does not grow like it used to, or when the forces of nature itself delivers a brief catastrophic blow. On Black Tuesday, the reckoning of several years of boom, which was based in large part on credit, came due. There were to be 16,410,030 shares traded on that day. People were dumping their securities and causing even more downward pressure on the market. There were despondent stockbrokers, in tears hopelessly trying to get in touch with customers for margin. This time, the panic of selling made sure, once and for all, that there was to be no quick fix, that the recovery would be slow and painful. There was not the nearly the recovery of gains seen on Thursday. The Dow Jones closed at \$230 – down 23% from the opening of \$299. The market had crashed.

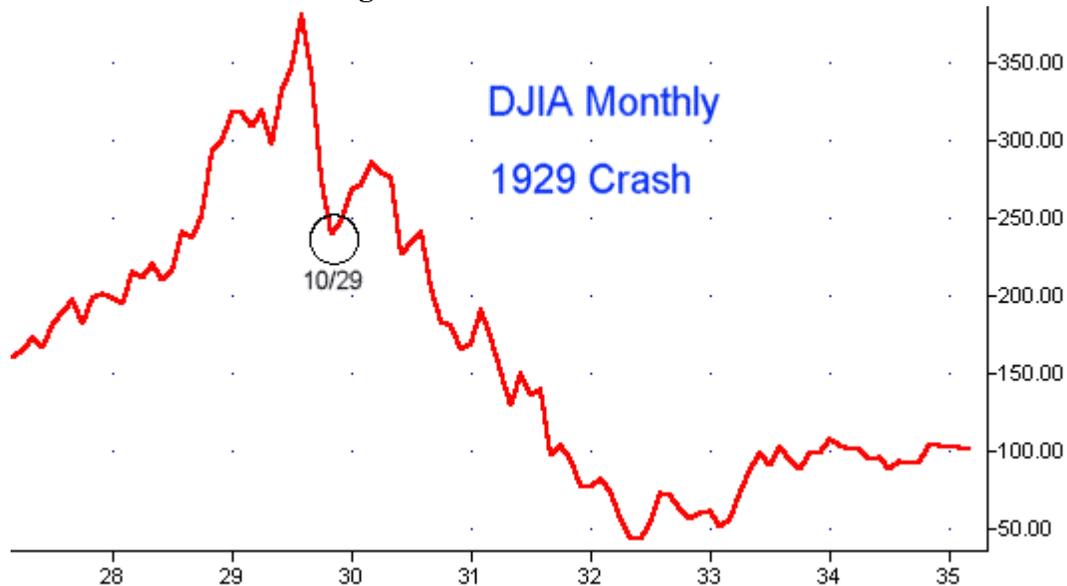
Here are daily, weekly, and monthly charts of the 1929 Crash. The October 28th and October 29th drops look pretty impressive on the daily chart...



But they pale in comparison to what came later...



The monthly chart shows the eventual market low in 1932. Although investors would have recovered their losses earlier due to dividends, the DJIA did not make it back to its 1929 highs until 1954.



The Causes of the 1929 Crash

While there have been many suggested explanations for the Crash, no one can fully account for it. Here are some of the explanations proposed:

1. Stocks were Overpriced

Many people believe that stocks were overpriced and the crash brought the share prices back to a normal level. However, some studies using standard measures of stock value, such as Price/Earnings ratios and Price/Dividend ratios, argue that the share prices were not too high.

2. Massive Fraud and Illegal Activity

A number of people believe that fraud and illegal activity was one of the causes of the 1929 Crash. However, evidence revealed that there was probably very little actual insider trading or illegal manipulation.

3. Margin Buying

Margin buying is another scapegoat for the cause of the Crash. However, it is not the main reason because there was very little margin outstanding relative to the value of the market (the margin averaged less than five percent of the market value).

4. Federal Reserve Policy

The new President of the Federal Reserve Board Adolph Miller tightened the monetary policy and set out to lower the stock prices since he perceived that speculation led stocks

to be overpriced, causing damage to the economy. Also, starting from the beginning of 1929, the interest rate charged on broker loans rose tremendously. This policy reduced the amount of broker loans that originated from banks and lowered the liquidity of non-financial and other corporation that financed brokers and dealers.

5. Public Officials' Repeated Statements

Many public officials commented that the stock prices were too high. For example, the newly elected President of the United States, Herbert Hoover, publicly stated that stocks were overvalued and that speculation hurt the economy. Hoover's statement suggested to the public the lengths he was willing to go to control the stock market. These kinds of statements encouraged investors to believe that the market would continue to be strong, which could be one of the causes of the Crash.

Did the 1929 crash cause the Great Depression ?

Following the stock market crash of 1929, the US economy fell into a recession that lasted for a decade. At the height of the great depression, GNP was down 40% from its pre-depression levels and unemployment was above 25% (underemployment was at 50%). While the 1929 crash was a significant contributor, there are other important factors.

1. Unequal Distribution of Wealth and Income

Despite rising wages overall, income distribution was extremely unequal. Gaps in income had actually increased since the 1890s. The 1% of the population at the very top of the pyramid had incomes 650% greater than those 11% of Americans at the bottom of the pyramid. The tremendous concentration of wealth in the hands of the few meant that the American economy was dependent on high investment or luxury spending of the rich. However, both high spending and high investment are very susceptible to fluctuations in the economy; they are much less stable than people's expenses on daily necessities like food, clothing, and shelter. Therefore, when the market crashed and the economy tumbled, both big spending and big investment collapsed.

2. Unequal Distribution of Corporate Power

From the late 1870s on, there had been an ongoing movement of consolidations and mergers. During World War I, many would-be competitors were merged into huge corporations like General Electric, making competition nearly nonexistent. In 1929 two hundred of the biggest corporations controlled 50% of the corporate wealth in America. This concentration of wealth meant that if just a few companies went under after the Crash, the whole economy would suffer.

3. Bad Banking Structure

In the 1920s, banks were opening at the rate of 4-5 per day, but with few federal restrictions to determine how much start-up capital a bank needed or how much of its

reserves it could lend. As a result, most of these banks were highly insolvent; between 1923 and 1929, banks closed at the rate of two a day. Until the stock market crash in 1929, prosperity covered up the flaws in the banking system.

4. Foreign Balance of Payments

World War I had turned the U.S. from a debtor nation into a creditor nation. In the aftermath of the war, the U.S. was owed more money -- from both the victorious Allies and the defeated Central Powers -- than it owed to foreign nations. The Republican administrations of the 1920s insisted on payments in gold bullion, but the world's gold supply was limited and by the end of the 1920s, the United States itself controlled most of the world's supply. Besides gold, which was increasingly in short supply, countries could pay their debts in goods and services. However, protectionism and high tariffs kept foreign goods out of the U.S.. This protectionism produced a negative effect on U.S. exports: if foreign countries couldn't pay their debts, they had no money to buy American goods.

5. Limited or Poor State of Economic Intelligence

Most American economists and political leaders in 1929 still believed in laissez-faire and the self-regulating economy. To help the economy along in its self-adjustment, President Hoover asked businesses to voluntarily hold down production and increase employment, but businesses couldn't keep up high employment for long when they were not selling goods. There was a widespread belief that if the federal budget were balanced, the economy would bounce back. To balance the budget demanded no further tax cuts (although Hoover lowered taxes) and no increase in government spending, which was disastrous in the light of rising unemployment and falling prices. Another problem with economic practices of the day was the commitment of the Hoover administration to remain on the international gold standard. Many suggested increasing the money supply and devaluing the dollar by printing paper money not backed by gold, but Hoover refused. Going off the gold standard was one of the first actions of new President Roosevelt in 1933.

6. Decrease in the Money Supply

The decline in money supply between 1929 and 1933 dampened economic developments. It led to a sharp contraction in output and nominal income, and an extraordinary climb in unemployment. If the Federal Reserve had increased the money supply, the fall in the economic activity could have been moderated considerably.

7. International Factors

The Depression was a global event. The international monetary system of the time (the gold exchange standard) was a fixed-rate system. As long as the rules were observed, economic conditions in various countries would be closely related. Thus, problems in one

large economy would be passed on to others, and ultimately, could be transmitted back to the country of origin

The Stock Market Crash of 1987

From October 14, to October 19, 1987, major indexes of market valuation in the United States dropped 30 percent or more. On October 20, these indexes recovered part of their loss. However, for the next four months, they were often subject to moderately large daily variation. Here are the details of how the Crash affected the Dow Jones Industrial Average and the Standard and Poors 500 Index:

Impact on the Dow Jones Industrial Average

The 1987 stock market crash occurred on "Black Monday" -- October 19, 1987 -- when the Dow Jones Industrial Average fell from 2246 to 1738, losing 22.6% of its total value. From the close of trading on Tuesday, October 13, to the close of trading on Monday, October 19, the Dow fell by almost one third, indicating a loss in value of all outstanding United States stocks of approximately one trillion dollars. This crash marked the end of a five-year "bull" market that had seen the Dow average rise from 776.92 points in August 1982 to a high of 2,722.42 points in August 1987. Fortunately, the market soon recovered after the crash. The Dow Jones Industrial Average had the record of a one-day high gain of 102.27 on October 20, 1987 and 186.64 points two days later. By September 1989, the Dow had regained all it had lost in the crash.

Impact on the Standard and Poor 500 Index (S&P 500)

Another market index, the S&P 500 index peaked on August 25, 1987 at 337.89. It then started to plunge, accelerating downward into Friday, October 16th when the market closed down almost 5.3% for the day. On October 19th, the S&P 500 fell from 282.7 to 225.06 (-20.4 percent) and declined 21.8% for the month of October. The market continued to fall to make new lows for the next month and a half. From the market peak to the October lows the S&P 500 lost 35.9% of its value. The S&P 500 regained the lost value about 2 years later.

What did the '87 Crash LOOK like? Was it really that bad? Take a peek for yourself.

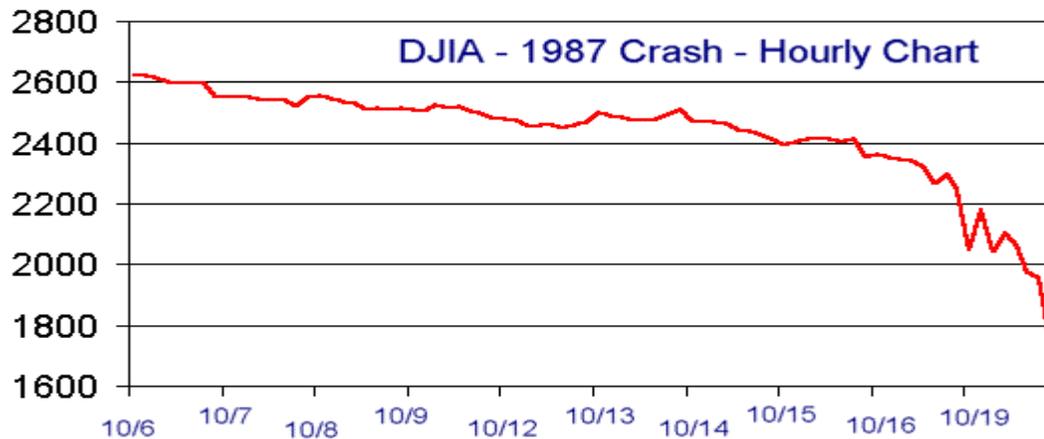


This weekly chart gives a great overview. You can see that the crash took the market back down to levels last seen a year before, in October 1986. You can also see the start of the recovery, as the Dow started to move higher in a choppy style.



This daily chart gives a great feel for how quickly the Crash came

after the market top in late August, and just how precipitous the decline was. You can also see how the Dow retested the October lows in early December.



This hourly chart shows the market deteriorating right into October 19th, and how the selling intensified on the 19th into the close.

The Causes of the 1987 Crash

Although a number of people tried to account for the 1987 Crash, no one can provide a complete explanation. Many suspects have been rounded up, but there is insufficient evidence to convict any of them for the crime. Here are some of the main explanations people have come up with:

1. Computer Trading and Derivative Securities

In searching for the cause of the crash, many analysts blame the use of computer trading (also known as program trading) by large institutional investing companies. In program trading, computers were programmed to automatically order large stock trades when certain market trends prevailed. However, studies show that during the 1987 U.S. Crash, other stock markets that did not use program trading also crashed, some with losses even more severe than the U.S. market. Some analysts found fault with the use of index futures or derivative securities. They claim that these practices increased the variability, risk and uncertainty of the U.S. stock markets. Nevertheless, none of these techniques or practices existed in previous large sudden market declines occurred in 1914, 1929, and 1962. As a result, we cannot conclude that computer trading and derivative securities were the major cause of the Crash.

2. Illiquidity

During the Crash, trading mechanisms in financial markets were not able to deal with

such a large flow of sell orders. Many common stocks in the New York Stock Exchange were not traded until late in the morning of October 19 because the specialists could not find enough buyers to purchase the amount of stocks that sellers wanted to get rid of at certain prices. As a result, trading was terminated in many listed stocks. This insufficient liquidity may have had a significant effect on the size of the price drop, since investors had overestimated the amount of liquidity. However, negative news to investors about the liquidity of stock, option and futures markets cannot explain why so many people decided to sell stock at the same time.

3. Trade and budget deficits

One belief is that the large trade and budget deficits during the third quarter of 1987 might have led investors into thinking that these deficits would cause a fall of the U.S. stocks compared with foreign securities (this was the largest U.S. trade deficit since 1960). However, if the large U.S. budget deficit was the cause, why did stock markets in other countries crash as well? Presumably if unexpected changes in the trade deficit were bad news for one country, it would be good news for its trading partner.

4. Overvaluation

Many analysts agree that stock prices were overvalued in September, 1987. Price/Earning ratio and Price/Dividend ratios were too high. Does that imply that overvaluation caused the 1987 Crash? While these ratios were at historically high levels, similar Price/Earning and Price/Dividends values had been seen for most of the 1960-72 period. Since no crash happened during that period, we can assume that overvaluation did not trigger crashes every time.

The U.S. Government's Reaction to the Crash

The U.S. central bank supplied liquidity through the open market purchase of U.S. government securities, adding \$2.2 billion in non-borrowed reserves between the reserve periods ended October 7 and November 4. In addition, the Federal Reserve provided help to commercial banks by making the discount window available when they encountered heavy reserve needs. The Chairman of the Board of Governors, Alan Greenspan also reassured the public that the Federal Reserve would serve as a source of liquidity to support the economic and financial system. Interest rates on short- and long-term instruments fell in order to provide liquidity. For example, the rate on three-month Treasury bills dropped from 6.74 percent on October 13 to 5.27 percent on October 30, while the federal funds rate declined by 179 basis points over this interval, and the rate on 30-year Treasury bonds fell from 9.92 percent to 9.03. Further, banks' increasing lending to securities firms during October 19-23 enabled firms to finance the inventories of securities accumulated by their customers' sell orders. Partially due to the Federal Reserve and banks assistance, the stock price recovery period was much shorter than the 1929 crash.

Here are some of the changes in the U.S. financial market, which took place after the 1987 Crash:

1. "Circuit Breakers"

In response, the New York Stock Exchange (NYSE) restricted some forms of program trading. The NYSE and the Chicago Mercantile Exchange also instituted a "circuit breaker" mechanism by which trading would be halted on both exchanges for one hour if the Dow Jones average fell more than 250 points in a day, and for two hours if it fell more than 400 points. Some believe that this halt will provide time for brokers and dealers to contact their clients when there are large price movements and to get new instructions or additional margin. Other argue that trading halt can increase risk by inducing trading in anticipation of a trading halt.

2. Uniform Margin Requirements

Uniform margin requirements is another change that was introduced after the Crash. It aims to reduce volatility for stocks, index futures, and stock options.

3. Computer Systems

After the crash, some stock exchanges changed their computer systems in order to improve data management effectiveness and increase accuracy, efficiency, and productivity.

Impact on the Economy

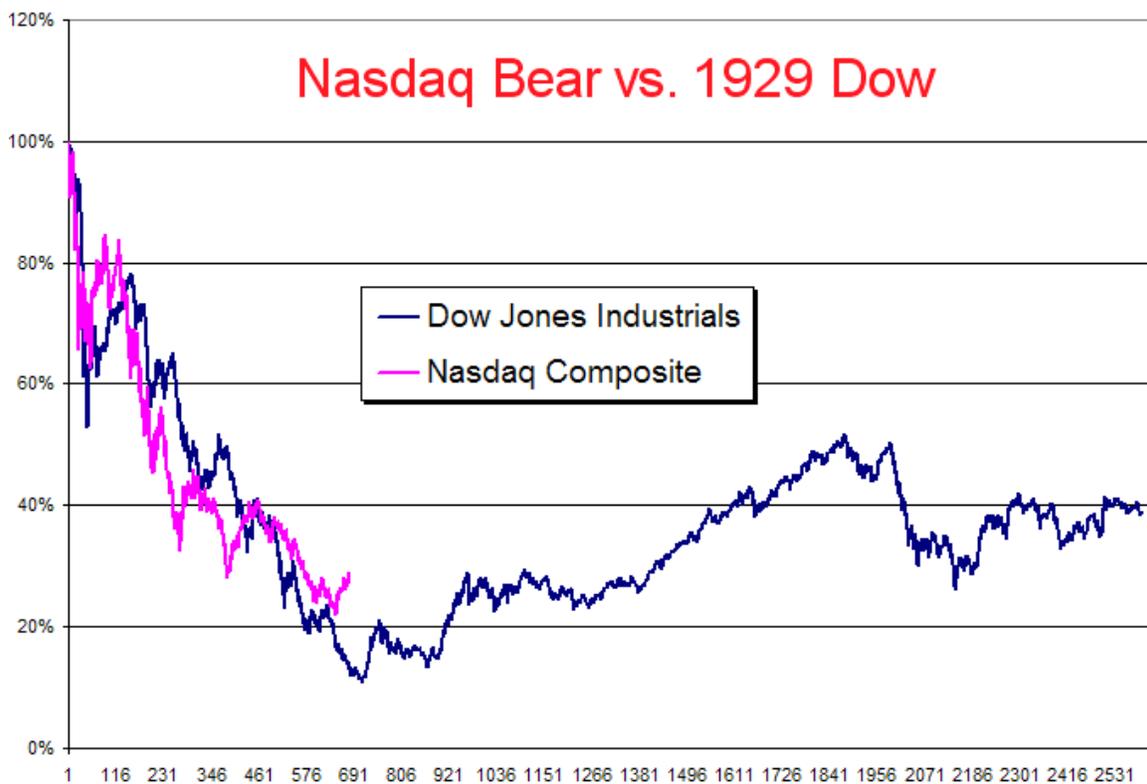
There was widespread fear that the 1987 Crash would bring on a devastating recession. However, there was no recession within the next two years and there was no instant concern about the solvency of the financial system. In fact, fallout from the '87 crash was remarkably light, partly due to intervention by the central bank of the U.S., the Federal Reserve. Also, most of the industries that were not directly tied to the stock markets were not influenced by the Crash.

In addition, many U.S. corporations announced that they would repurchase the stocks, implying that they felt that the price fall was unnecessary. Moreover, continuous good news about the U.S. economy speeded the recovery from the market collapse. The worst economic losses occurred on Wall Street itself, where 15,000 jobs were lost in the financial industry

The “Crash” of 2000

After years of historic gains in the late 90's, the Nasdaq has suffered a devastating bear market in 2000, 2001, and 2002. We began comparing this Nasdaq bear market to the 1929 bear market in mid 2000. In the last couple of years, the financial press has finally started making similar comparisons.

This chart shows the current Nasdaq bear market compared to the Dow Jones Industrials in 1929:



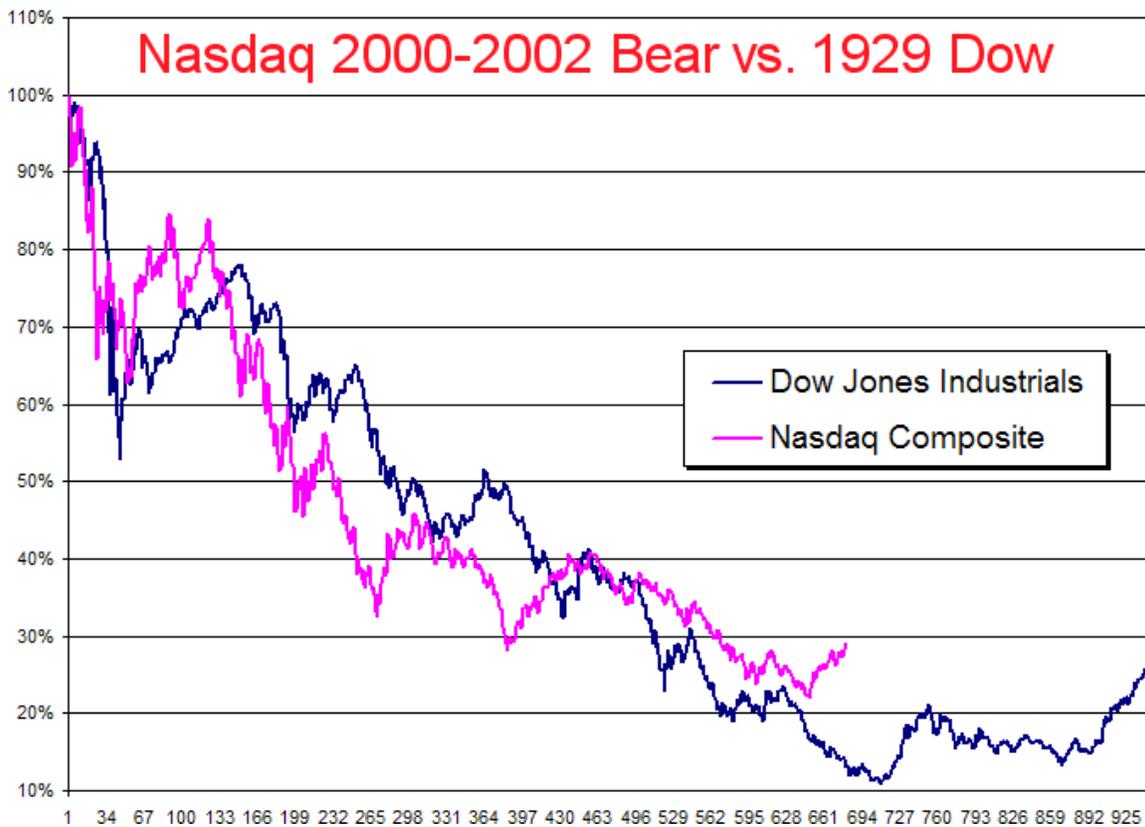
The black line shows the Dow bear market that started on September 3rd, 1929. After that drop, the Dow didn't make it back to its highs until 1954!! The magenta line is the Nasdaq bear market that started on March 11th, 2000. There are several immediate observations that jump right out on the above chart. The first is the startling similarity between the current Nasdaq bear market and the 1929 crash. A second observation is that the pace of this bear market has been flirting with the pace of the 1929 crash right from the beginning. In fact, in the first year of the current crash, the pace was actually ahead of the pace of the 1929 market. But perhaps the scariest thing about this chart is just how much lower and how much longer a bear market can go.

Before we go on, let's have a few explanations about this chart. The lines show the percentage drop from the highs made before each bear market started. The numbers on the left show the percentage of the market high. So the 40% line on the chart represents a 60%

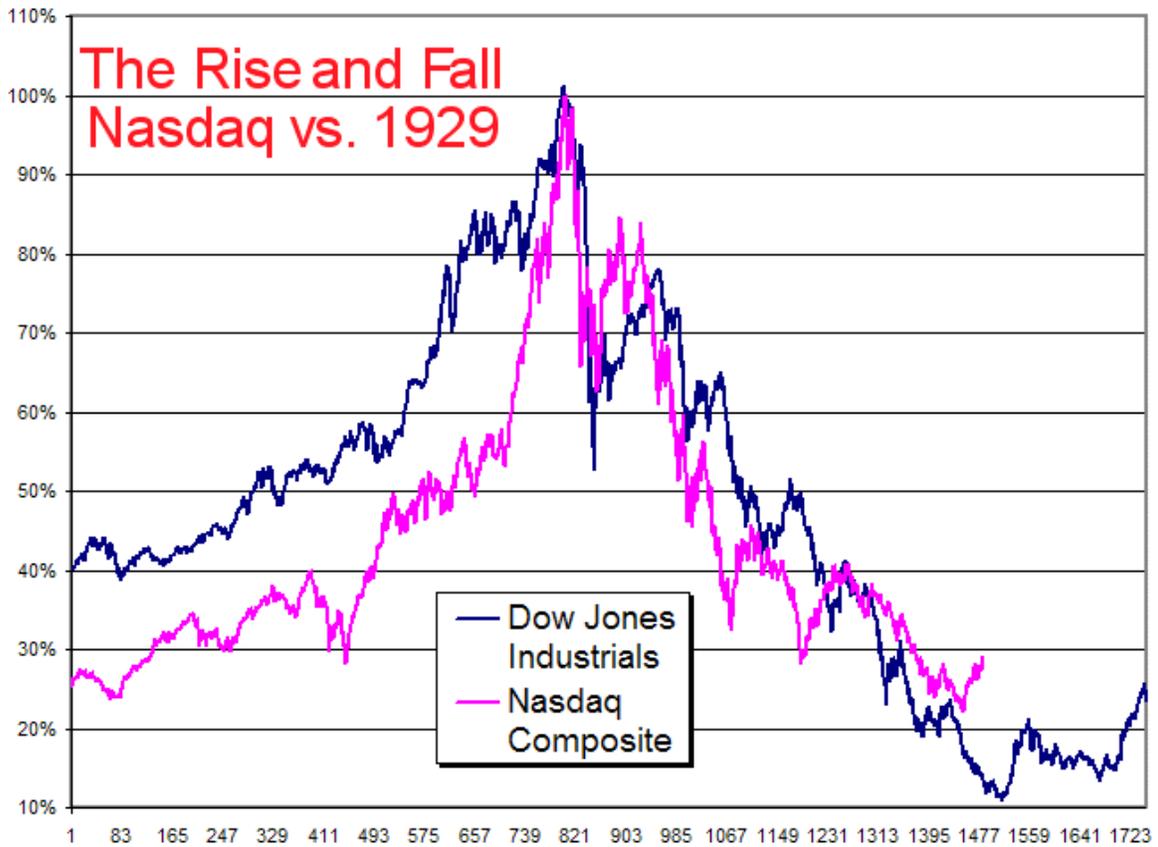
drop from the all time high. The numbers across the bottom are the number of days that have passed since the market top. In the case of the Dow, we are showing approximately 2600 trading days (over 10 years) from the high in September, 1929. As you can see, the Nasdaq bear market is following very closely in the footprints of the 1929 Crash. Here is a quick comparison of the current Nasdaq bear market and the 1929 crash:

	Percent decline	Length (in days)
1929 Dow	-89.2%	714 days
2000-02 (so far)	-77.8%	648 days

The length is measured from the high to the low. The percent decline is on a closing basis, from the high to the low. The length is in market days...there are approximately 250 market days per year. Let's take a closer look at this comparison to the 1929 market...this is a much shorter time frame, covering just over a year's time. Once again, this chart shows the percentage drop from the highs.



To give a bit more perspective, we backed up the chart to show a portion of the rally up to the highs that preceded these bear markets:



As you can see, the rise in the Nasdaq in the three years before the top was far steeper than the rise in the Dow in the 20's. What this means for the future is unclear. But there were clearly some huge excesses in the Nasdaq in the years leading up to the March, 2000 top.

Comparing the Crashes: 1929, 1987, and 2001

