Year	Crisis	Markets
1974	Bank Herstatt	Bank, Forex, Systemic risk
1979	Rise of the Fed Funds	American monetary market
1980	Corner of silver metal	Metals, energy, agricultural products
1982	Debt of Emerging Markets	Bank, Interest rates, Systemic risk
1985	Bank of New York	Bank, Systemic risk
1987	October 1987 krach	Interest rates, Equity, Systemic risk
1989	Junk bonds	Bank, Interest rates
1989	Japanese bubble	Equity, Real estate, Banks
1990	Invasion of Kuwait	Oil, Interest rates
1992 -1993	EMS crisis	Forex, Interest rates
1994	Correction on bond market	Interest rates
1994	Mexican economic crisis	Forex, Interest rates, Systemic risk
1997	Asian economic crisis	Forex, Bank
1997-1998	Brazil	Forex
1998	Russian crisis (LTCM…)	Interest rates, Systemic risk
2000	Internet bubble	Equity
2000	Turkey	Bank, Interest rates, Forex
2000-?	Zimbabwe	Hyperinflation
2001	11 September	Systemic risk
2001	Junk bonds	Interest rates
2001	Argentinean economic crisis	Forex
2002	Brazil	Bond market, Forex
2008-?	Subprime crisis	Real Estate, Bank, Equity, Systemic risk
2008-?	Credit crisis	Real Estate, Bank, Equity, Systemic risk
2010-2012	Credit crisis	Euro Government bonds, Systemic risk

1. 1974 Bank Herstatt Bank, Forex, Systemic risk

Settlement risk is the risk that a counterparty does not deliver a security or its value in cash as per agreement when the security was traded after the other counterparty or counterparties have already delivered security or cash value as per the trade agreement. One form of settlement risk is foreign exchange settlement risk or cross-currency settlement risk, sometimes called Herstatt risk after the German bank that made a famous example of the risk.

On 26 June 1974, the bank's license was withdrawn by German regulators at the end of the banking day (4:30pm local time) because of a lack of income and capital to cover liabilities that were due. But some banks had undertaken foreign exchange transactions with Herstatt and had already paid Deutsche Mark to the bank during the day, believing they would receive US dollars later the same day in the US from Herstatt's US nostro.

After 3:30 pm in Germany and 10:30 am in New York, Herstatt stopped all dollar payments to counterparties, leaving the counterparties unable to collect their payment. The closing of

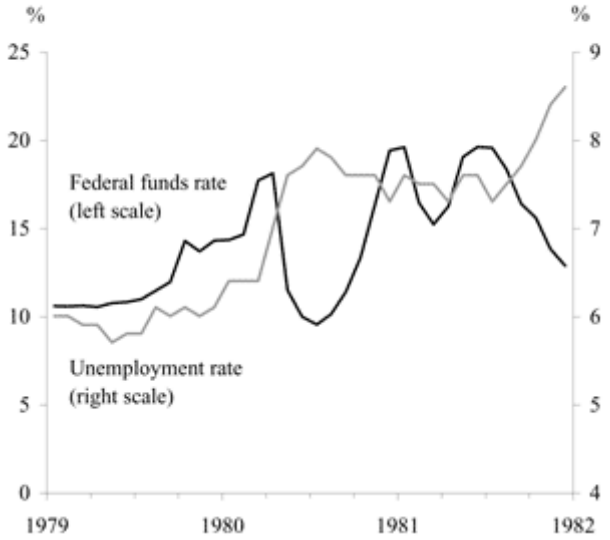
Drexel Burnham Lambert in 1990 did not cause similar problems because the Bank of England had set up a special scheme which ensured that payments were completed. Barings in 1995 resulted in minor losses for counterparties in the foreign exchange market because of a specific complexity in the ECU clearing system.

2. 1979 Rise of the Fed Funds American monetary market

On October 6, 1979, the Federal Reserve adopted new policy procedures that led to skyrocketing interest rates and two back-to-back recessions but that also broke the back of inflation and ushered in the environment of low inflation and general economic stability the United States has enjoyed for nearly two decades. The dramatic policy actions by the Federal Reserve in 1979 represented an important break with the past, both in the way monetary policy was conducted and in the importance placed on controlling inflation.

The period between October 1979 and October 1982 was characterized by unusually high and volatile short- term interest rates, volatile money growth rates, and-towards the end of the period-a sharp drop in the rate of inflation. Many accounts of this period have attributed these developments to the new procedures.[1]

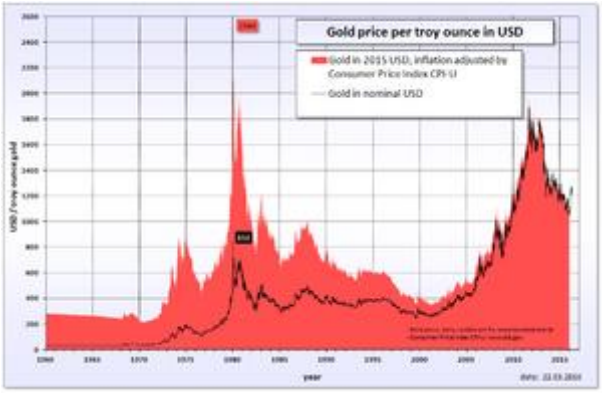
Figure 2: The federal funds rate and the unemployment rate



[1] In the late 1970s the money stock was growing at a faster rate than desired, the rate of inflation was accelerating, and the dollar was steadily depreciating in the foreign exchange markets. In an attempt to reverse these developments the Federal Reserve on October 6, 1979 announced several actions, including a change in its operating procedures to place more emphasis on managing the growth of bank reserves in order to improve monetary control.1 The new procedures are generally thought to have remained in place until October 9, 1982, when Federal Reserve Chairman Paul Volcker announced that the Fed was going to temporarily place less emphasis on the money stock (M1) in its policy decisions. The period between October 1979 and October 1982 was characterized by unusually high and volatile short- term interest rates, volatile money growth rates, and-towards the end of the period-a sharp drop in the rate of inflation. Many accounts of this period have attributed these developments to the new procedures.

1980 Corner of silver metal (Silver Thursday)

Silver price history in 1960–2011 showing the Silver Thursday event in 1980



Gold price history in 1960–2011 showing the Silver Thursday event in 1980

Silver Thursday was an event that occurred in the United States in the silver commodity markets on Thursday, March 27, 1980, following the Hunt brothers attempt at cornering the silver market. A subsequent steep fall in silver prices led to panic on commodity and futures exchanges.

Background

Nelson Bunker Hunt and William Herbert Hunt, the sons of Texas oil billionaire Haroldson Lafayette Hunt, Jr., had for some time been attempting to corner the market in silver. In 1979, the price for silver (based on the London Fix) jumped from $6.08 per troy ounce ($0.195/g) on January 1, 1979 to a record high of $49.45 per troy ounce ($1.590/g) on January 18, 1980, which represents an increase of 713%. The brothers were estimated to hold one third of the entire world supply of silver (other than that held by governments). The situation for other prospective purchasers of silver was so dire that the jeweller Tiffany's took out a full page ad in The New York Times, condemning the Hunt Brothers and stating "We think it is unconscionable for anyone to hoard several billion, yes billion, dollars' worth of silver and thus drive the price up so high that others must pay artificially high prices for articles made of silver".
But on January 7, 1980, in response to the Hunts' accumulation, the exchange rules regarding leverage were changed, when COMEX adopted "Silver Rule 7" placing heavy restrictions on the purchase of commodities on margin. The Hunt brothers had borrowed heavily to finance their purchases, and, as the price began to fall again, dropping over 50% in just four days, they were unable to meet their obligations, causing panic in the markets.

Silver Thursday

The Hunt brothers had invested heavily in futures contracts through several brokers, including the brokerage firm Bache Halsey Stuart Shields, later Prudential-Bache Securities and Prudential Securities. When the price of silver dropped below their minimum margin requirement, they were issued a margin call for $100 million. The Hunts were unable to meet the margin call, and, with the brothers facing a potential $1.7 billion loss, the ensuing panic was felt in the financial markets in general, as well as commodities and futures. Many government officials feared that if the Hunts were unable to meet their debts, some large Wall Street brokerage firms and banks might collapse.[2]

To save the situation, a consortium of US banks provided a $1.1 billion line of credit to the brothers which allowed them to pay Bache which, in turn, survived the ordeal. The U.S. Securities and Exchange Commission (SEC) later launched an investigation into the Hunt brothers, who had failed to disclose that they in fact held a 6.5% stake in Bache.

3. 1985 Bank of New York

On November 21, 1985, the Bank of New York (BoNY) suffered a software failure: an integer (coding the different government securities involved in transactions) increments from 32768 $(= 2^{15})$ to 0…

As a consequence

- More than 2 days without services.
- BoNY had a brief $32 billion overdraft on its cash account at the New York Federal Reserve Bank
- The bank had to borrow 24 billion USD from the New York Fed.
- The Bank of New York was out of pocket about 5 million USD, to pay interest on the money it had to borrow that Thursday.

The software failure left BoNY unable to redeliver securities it had received from other institutions as an intermediary. The result of the failure was that the bank sought and received $22.6 billion in discount window lending from the New York Fed, a record-setting amount. The episode presents a case study for considering when discount window lending and similar interventions are justified as a matter of efficiency, as well as the need for policymakers to take account of possible moral hazard that may lead to inadequate safeguards against failures — whether operational breakdowns or deficient financial strategies.

4. October 1987 krach

In late 1985 and early 1986, the United States economy began shifting from a rapidly growing recovery from the early 1980s recession to a slower growing expansion, which resulted in a brief "soft landing" period as the economy slowed and inflation dropped. The stock market advanced significantly, with the Dow peaking in August 1987 at 2,722 points, or 44% over the previous year's closing of 1,895 points. Further financial uncertainty may have resulted from the collapse of OPEC in early 1986, which led to crude oil price decreasing by more than 50% by mid-1986.

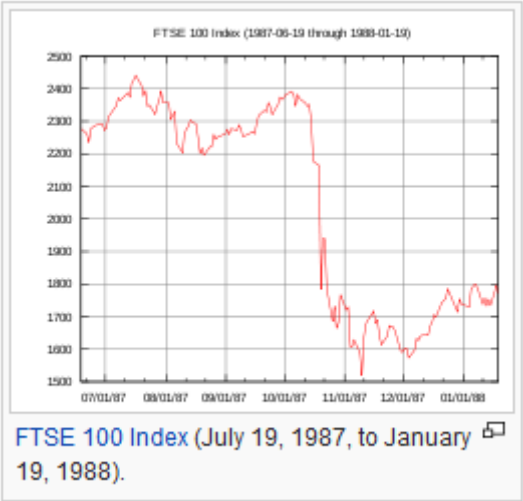
On October 14, the DJIA dropped 95.46 points (3.8%) (a then record) to 2,412.70, and fell another 58 points (2.4%) the next day, down over 12% from the August 25 all-time high.

On Thursday, October 15, 1987, Iran hit the American-owned (and Liberian-flagged) supertanker, the Sungari, with a Silkworm missile off Kuwait's main Mina Al Ahmadi oil port. The next morning, Iran hit another ship, the U.S.-flagged MV Sea Isle City, with another Silkworm missile.

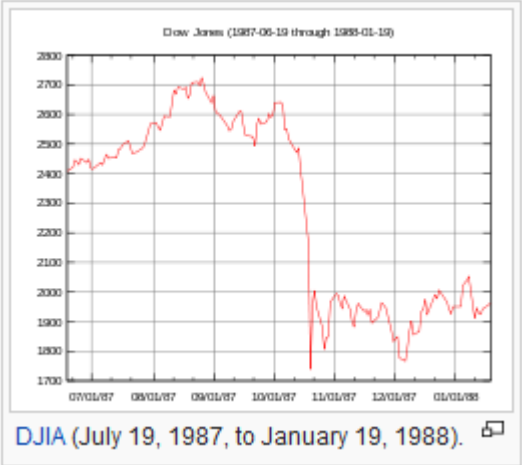
On Friday, October 16, when all the markets in London were unexpectedly closed due to the Great Storm of 1987, the DJIA fell 108.35 points (4.6%) to close at 2,246.74 on record volume. Then-Treasury Secretary James Baker stated concerns about the falling prices.

The crash began in Far Eastern markets the morning of October 19, but accelerated in London time—very largely because London had closed early on October 16 due to the storm—by 9.30am the London FTSE100 had fallen over 136 points. Later that morning, two U.S. warships shelled an Iranian oil platform in the Persian Gulf in response to Iran's Silkworm missile attack on the Sea Isle City.

Fasten your seat belts…



FTSE 100 Index (July 19, 1987, to January 19, 1988).



DJIA (July 19, 1987, to January 19, 1988).

5. 1989 Japanese asset price bubble

The bubble economy of Japan in the 80s closely resembled the tulip mania of the 1630s where the price of land, art and even golf club membership rose to extraordinarily high levels. The total value of land in Japan in 1980 at one point was over four times the real estate value of the entire United States. Land ownership in Japan projects status for its owners, for a country that is generally mountainous, real estate was seen as a very limited and priced commodity.

Land development is scarce because of the nature of the Japanese terrain, this made it look certain that real estate values would always rise due to its scarcity. However, that proved to be a false assumption. Land is already one of the most illiquid assets to own, the Japanese solidified real estate's status by encouraging "long termism". The government raised short term property gain to 150%, a number that only the most desperate home sellers would take. At the same time, Japanese banks raised their capital reserve ratio allowing them to technically print or create money in the form of new real estate backed loans. With this in

place, Japanese banks capital grew in size as a direct result of investor valuations of its stocks.

The increased capital allowed banks to lend more, providing more fuel for the already blazing hot real estate market. As the financial sector's stocks rose so did the rest of the stocks across the board. The result of this was a country with a very tight fiscal policy as shown with the ridiculously high short term capital gains tax and at the same time a very loose monetary policy that allowed banks to provide more fuel for the bubble economy.

The accelerating growth in terms of Japanese asset prices is closely associated with a significant drop in short-term interest rates, notably between 1986 and 1987. The BoJ had slashed the official discount rate from 5.00% (January 30, 1986) to 2.50% (February 23, 1987). The official discount rate remained unchanged until May 30, 1989.

BOJ official discount rates:

Effective date	Official discount rate
January 30, 1986	5.00% to 4.50%
March 10, 1986	4.50% to 4.00%
April 21, 1986	4.00% to 3.50%
November 1, 1986	3.50% to 3.00%
February 23, 1987	3.00% to 2.50%
February 24, 1987 – May 30, 1989	Unchanged at 2.50%

Bank of Japan governor Yasushi Mieno was well aware that an asset bubble is already in place and his objective was to slowly deflate it allowing a smooth landing instead of a crash. Mieno raised the discount rate in December of 1989 and by January of the following year, the Nikkei index fell from a peak of 38,915 to 35,000. He also expressed publicly that the aim of Bank of Japan was to slowly deflate real estate prices. The same party that manipulated the ascent of asset prices in Japan cannot successfully control its way down, instead, the stock market fell and it brought down the property market with it.
The move to a higher interest rate surely got its consequence in the form of an equities market crash. By 1992, property prices in Tokyo fell to as much as 60% in value. The central bank of Japan gradually lowered interest rates in an effort to counter the crash. The discount rate got so low that banks were offering a negative interest on deposits.

In 1995 Japan has experienced its first bank run when depositors rushed to their banks in order to withdraw their money. A total of 60 billion Yen was withdrawn that day. The continued decline in property prices sent real estate companies into a financial meltdown. The government bailed out most of these mortgage companies.

This scenario was so recent that in logical terms, it could take a long time before this mistake is repeated elsewhere. However, the same exact scenario happened across the pacific 12 years after the fact. This time it took place in the United States with its own housing market bubble as if planet finance turned a blind eye on logic when faced with potential quick gains.

6. 1989 junk bonds

The components of that crisis are increasing leverage, a market shock, forced liquidation and an evaporating investor base.

The junk bond market grew exponentially during the 1980s from a mere $10B in 1979 to a whopping $189B by 1989—an increase of more than 34% each year. Throughout this decade, junk bond yields averaged around 14.5% with default rates just a little over two at 2.2%, resulting in annual total returns for the market somewhere around 13.7%.

However, in 1989 a political movement involving Rudolph Giuliani and others who had dominated the corporate credit markets prior to the rise of high yield bonds caused the market to temporarily collapse resulting in Drexel Burnham's bankruptcy. In a change that took perhaps as little as 24 hours, new junk bonds basically disappeared from the market with no rebound for about a year. This resulted in investors losing a net 4.4% on the high-yield market in 1990—the first time the market had returned negative results in more than a decade.

Junk bonds were the mainstay of the LBO and hostile takeover strategies of the 1980s. These strategies started out as good ideas that were selectively applied in the most promising of situations**. But over time more and more questionable deals chased after the prospect of huge returns, and judgement was replaced with avarice. Dealmakers continued working full throttle even as the universe of leveragable companies declined. They maintained deal volume by lowering the credit quality threshold of LBO candidates**. The failed buyout of UAL in 1989 is one example of this; airlines are cyclical and until that time had not been considered good candidates for a highly levered capital structure. Leverage in the LBOs also increased over the course of the 1980s. Cashflow multiples increased from the 5x range in 1985 to the 10x range in 1988. This turned out to be fatal for many companies; by 1989 defaults started to increase.

On the other side of the issuers were the junk bond investors. High yield bonds wormed their way into the Savings and Loan industry. **A number of Savings and Loans, many with the coaching of Drexel salesmen, found that government guarantees could essentially convert their risky bonds into government insured deposits**; the S&L investors could capture the spread between the bond returns and the risk free return provided to the depositors. **The government responded with the Financial Institutions Reform, Recovery and Enforcement Act in 1989, which barred S&L's from further purchases of high yield bonds and required them to liquidate their high yield bond portfolios over the course of five years**. Seeing the writing on the wall, S&L's had already begun to reduce their holdings; in early 1989 S&L junk bond holdings dropped by 8%, compared to an increase in holdings in the previous quarter of 10%.

Investors reacted quickly to the rise in defaults and the liquidations coming from the S&Ls. In July 1989 high yield bond returns turned negative. Over the third quarter of 1989 the N.A.V. of high yield mutual funds declined by as much as 10 percent. For investors who did not understand the risk of high yield bonds, the negative returns were a rude wake up call. The implications of erosion of principal – coupled with media reports of the defaults looming in the high yield market -- led to a wave of selling.

7. 1998 Russian crisis

August 13th, 1998

The Russian stock, bond and currency markets collapse as a result of fears for a rubble devaluation and a default on domestic debt. These fears had arisen during the previous months due to ongoing interest rate rises, capital outflows and the corresponding erosion of investor confidence in emerging markets. Annual yields on rubble-denominated bonds rise to more than 200%. Furthermore, the stock market is closed down for 35 minutes when stock prices fall sharply. Stocks have lost more than 75% of their value since the beginning of the year

August 17th, 1998

The government announces a set of emergency measures in order to prevent a further escalation of the crisis:

- A significant devaluation of the rubble; the bounds of the corridor in which the rubble is allowed to fluctuate are widened from 5.27-7.13 to 6.00-9.50 rubble to the US Dollar;
- A default on short-term Treasury Bills known as GKOs, as well as longer-dated rubble denominated bonds named OFZs;
- A 90-day moratorium on payments by commercial banks to foreign creditors.

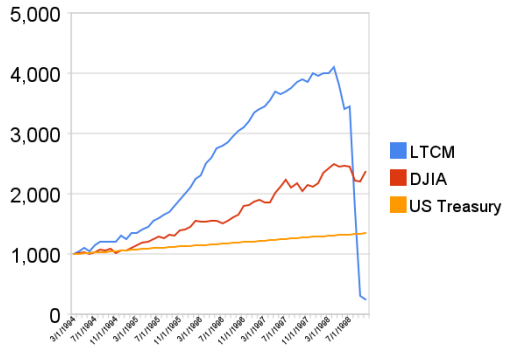
September 2nd, 1998

The Russian Central Bank's decides to remove the currency corridor and makes the rubble a freely floating currency. The rubble soon starts to depreciate sharply; in 3 weeks the currency loses two thirds of its value. The strong depreciation results in sharp price increases. Inflation rises to 27.6% in 1998 and 85.7% in 1999. As a result of food price increases, social unrest grows and citizens start to demonstrate in various cities.

8. 1998 LTCM

The convergence of the bond markets of the future Euro zone coming from the monetary union of January 1999 provides initially easy and important profits to LTCM due to leverage ratio very important.

The fund LTCM has then, unknown to everybody, positions completely unthinkable for the time, which represent more than 1200 billion of dollars, for example the equivalent of the France GDP at the beginning of the years 1990. After the Asian crisis of 1997, LTCM bets that the bond rates will come back to normal by the end of 1998, except that the Asian crisis propagates to Russia. At the end of summer 1998, the default of the Russia Federation, during the financial Russian crisis of 1998, creates another shock on the bond markets that goes to exact opposite of LTCM anticipations. LTCM sees then its capital disappearing almost instantaneously, in few days.



The value of $1,000 invested in LTCM, the Dow Jones Industrial Average and invested monthly in U.S. Treasuries at constant maturity.[2]

9. 2000 Internet bubble

The internet bubble of the late-1990s is often considered a benchmark case of investors abandoning fundamentals in their search for the next big thing. As consumers flocked to the internet, investors were afraid that not becoming involved would be a huge missed opportunity. Venture capital companies and speculators poured money into internet startups during the 1990s in the hope that those companies would one day become profitable.

The dot-com bubble was a historic speculative bubble covering roughly 1995–2001 during which stock markets in industrialized nations saw their equity value rise rapidly from growth in the Internet sector and related fields.

The period was marked by the founding (and, in many cases, spectacular failure) of several new Internet-based companies commonly referred to as dot-coms. **Companies could cause their stock prices to increase by simply adding an "e-" prefix to their name or a ".com" suffix, which one author called "prefix investing."**

A combination of rapidly increasing stock prices, market confidence that the companies would turn future profits, individual speculation in stocks, and widely available venture capital **created an environment in which many investors were willing to overlook traditional metrics, such as P/E ratio, in favour of basing confidence on technological advancements**. By the end of the 1990s, the NASDAQ hit a price-to-earnings (P/E) ratio of 200, a truly astonishing plateau that dwarfed Japan's peak P/E ratio of 80 a decade earlier.

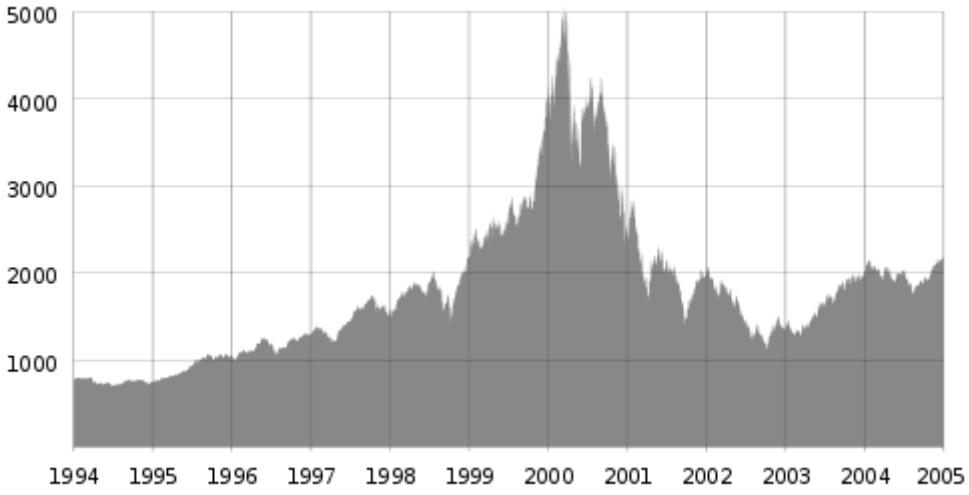
At the height of the boom, it was possible for a promising dot-com to make an initial public offering (IPO) of its stock and raise a substantial amount of money even though it had never made a profit—or, in some cases, earned any revenue whatsoever. In such a situation, a company's lifespan was measured by its burn rate: that is, the rate at which a non-profitable company lacking a viable business model ran through its capital.

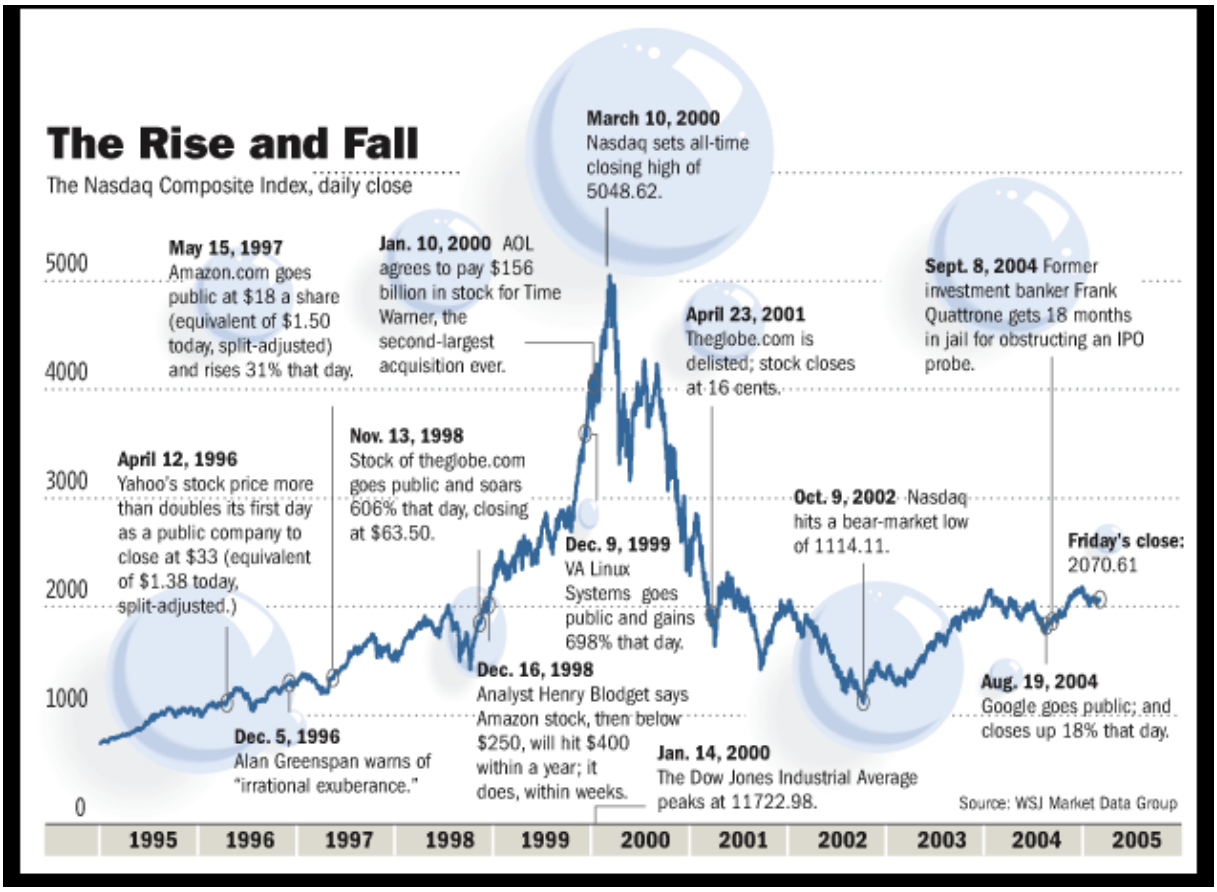
---

[2] « LTCM » par JayHenry — Travail personnel. Sous licence Domaine public via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:LTCM.png#/media/File:LTCM.png

The stock market crash of 2000–2002 caused the loss of $5 trillion in the market value of companies from March 2000 to October 2002. The September 11, 2001, attacks accelerated the stock market drop; the NYSE suspended trading for four sessions. When trading resumed, some of it was transacted in temporary new locations.

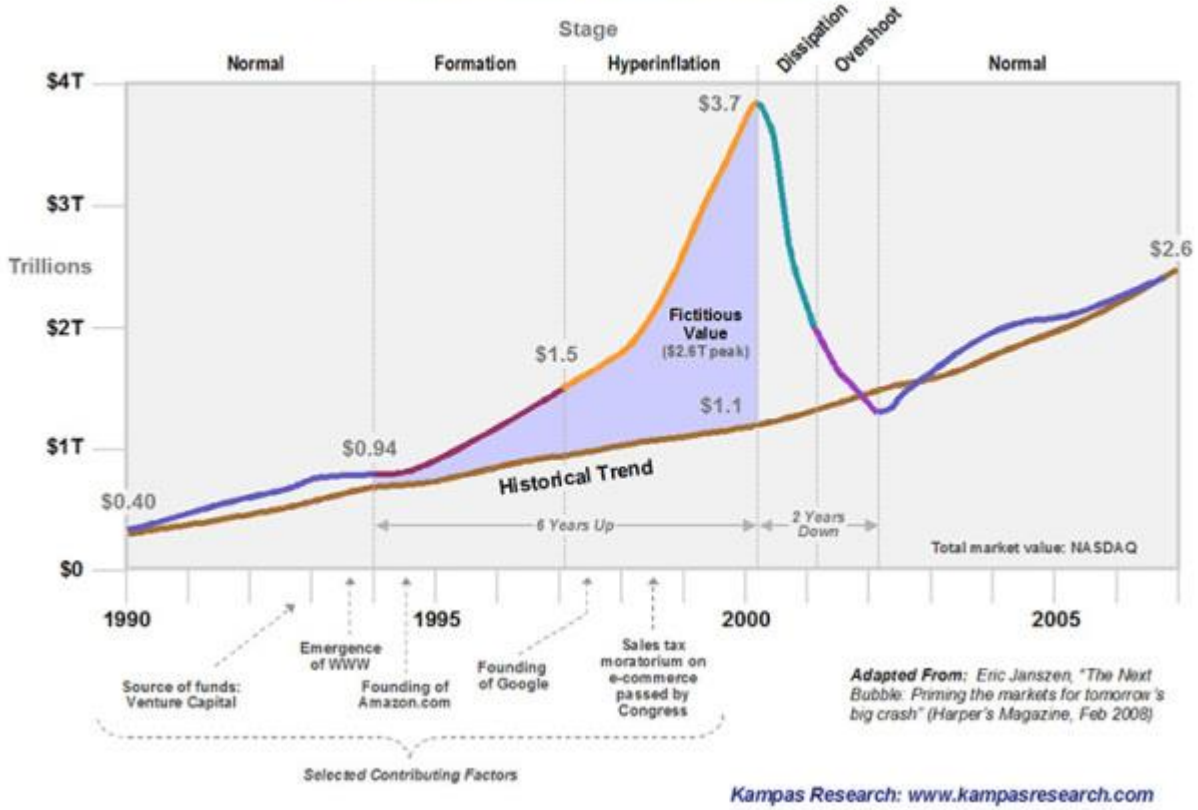
Figure[3]: The NASDAQ Composite index spiked in the late 1990s and then fell sharply as a result of the dot-com bubble





[3] By « Lalala666 » on Wikipedia: https://commons.wikimedia.org/w/index.php?curid=3189816

Dot.com Technology Bubble: 1994-2002



Kampas Research: www.kampasresearch.com