

# "Extreme Values"

## & "Financial Risk"

- Extreme values can cause financial risk
- Financial risk can be caused by extreme values
- Some parts of this course will focus on extreme values
- Other parts of this course will focus on financial risk

What is the use of this course?

- 1) try to minimise the chance of financial disasters
- 2) to determine fraudulent activities when they occur

# FINANCIAL DISASTERS

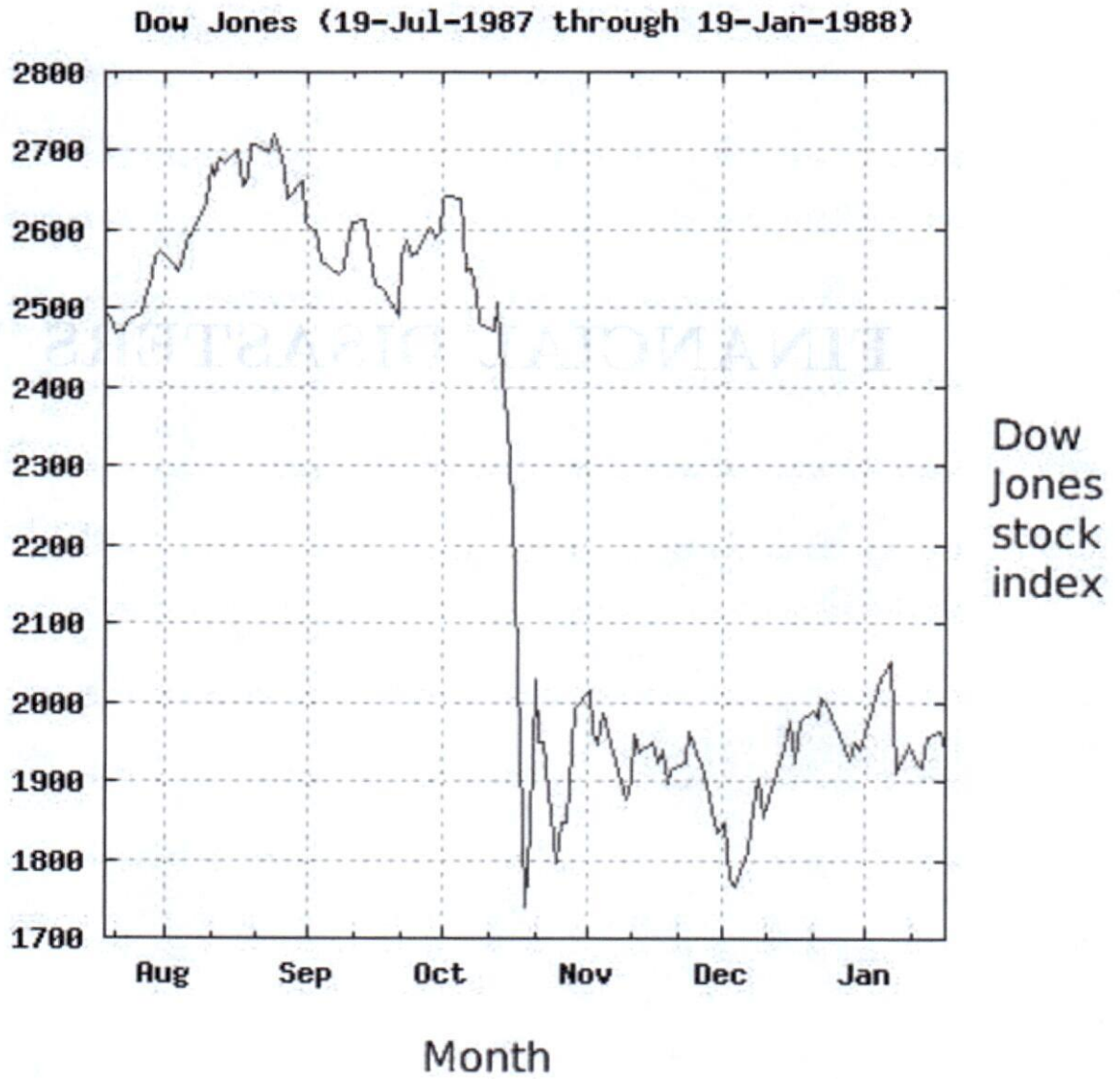


Figure 1: Black Monday crash on 19 October 1987. The Dow Jones stock index crashed down by 22.6 percent (by 508 points). Overall the stock market lost \$0.5 trillion.

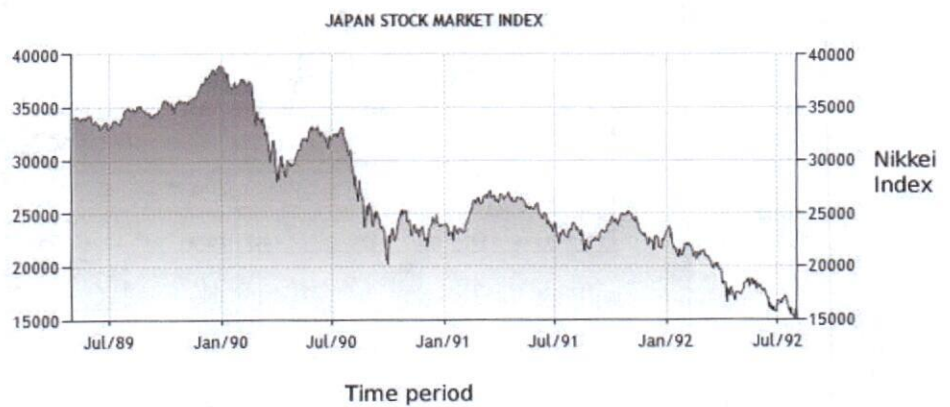


Figure 2: Japan stock price bubble near the end of 1989. A loss of \$2.7 trillion in capital. A recovery happened after mid-1990.

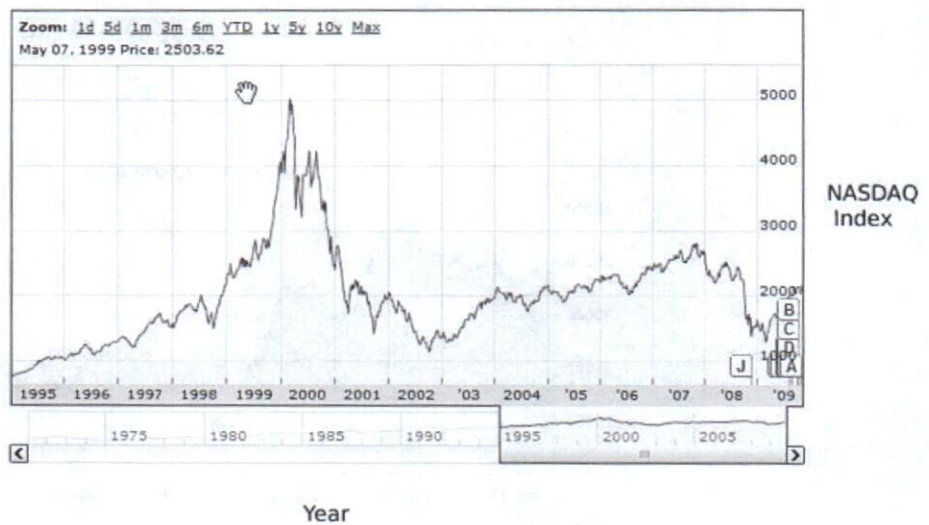


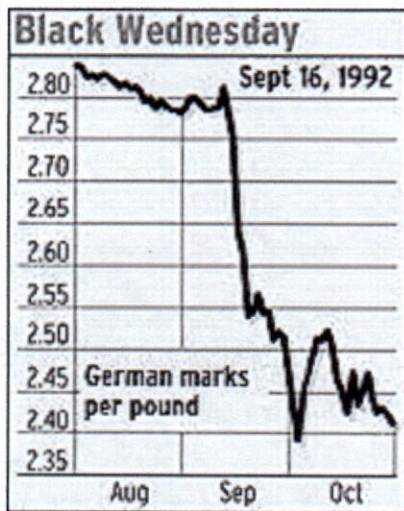
Figure 3: Dot com bubble (the NASDAQ index) during 1999 and 2000. The bubble burst on 10 March 2000. The peak on that day was \$5048.62. There is a recovery after 2002. Never recovered to attain the peak.

Asia Dollar Index (ADXY) 114.69 +0.26

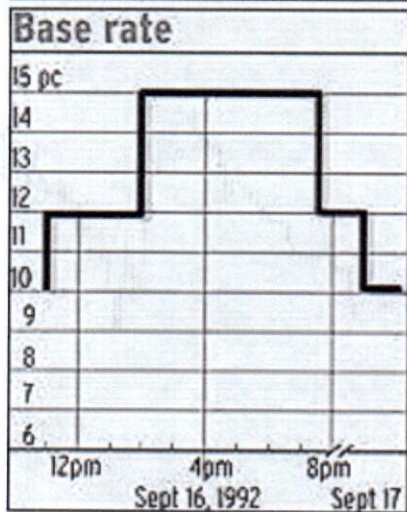
www.fullermoney.com 16 Dec 2010



Figure 4: Asian financial crisis (Asian dollar index) in July 1997. Not fully recovered even in 2011.



Exchange rate of DEM/GBP



UK Interest rate

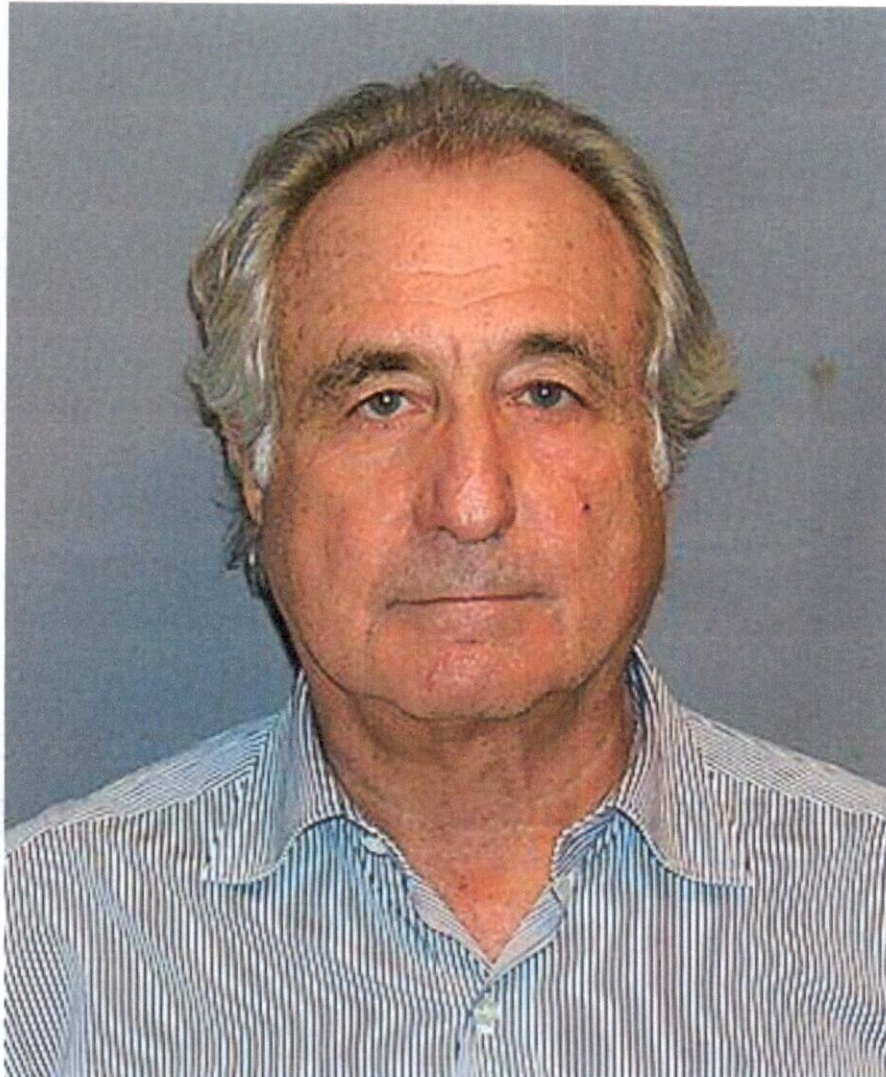
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Figure 5: Black Wednesday crash of 16 September 1992. Top image shows the exchange rate of Deutsche mark to British pounds. Bottom image shows the UK interest rate on the day.



## **The biggest financial frauds**

There have been many financial frauds in the world. The frauds have been the result of insider trading info or massive Ponzi schemes. Some of the most well known fraudsters are shown in the following pages.



## **Bernard Madoff**

Former stockbroker and investment adviser. His name is connected to the most well known Ponzi scheme fraud. He earned \$62 billion through such fraud and is currently sentenced to a maximum of 150 years in prison.



## **Bruno Iksil**

Former trader for JPMorgan Chase & Co and also known as “the London Whale”. His position in the credit default swap market caused more than \$6.2 billion in losses for the firm in 2012.



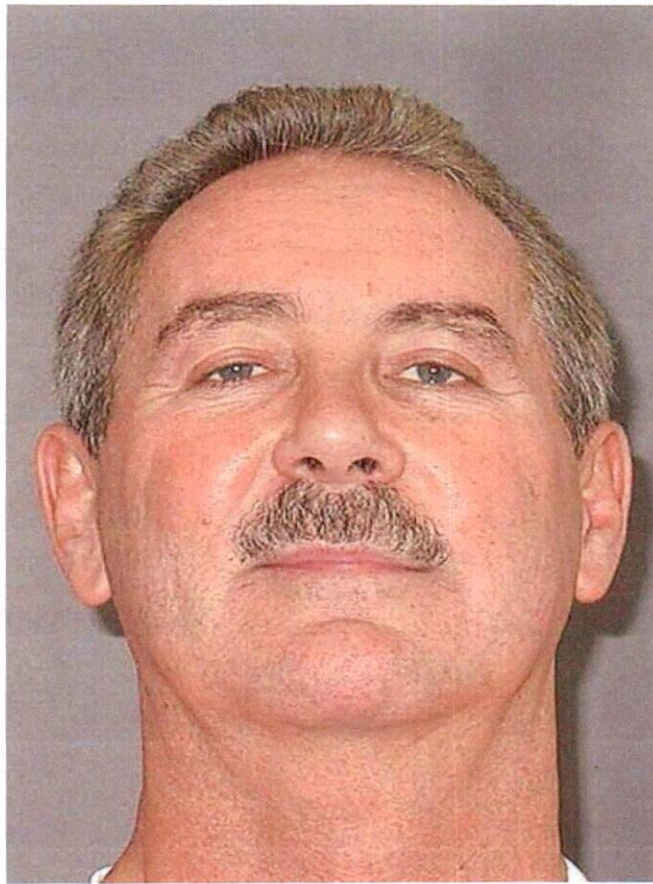
## **Albert H. Wiggin**

Career spanning from head of Chase National Bank and now JP Morgan chase. He shorted his own company with 40000 shares in 1929 and profited immensely to the tune of \$4 million and wasn't even found guilty of breaking any laws.



# Jordan Belfort

Belfort founded the brokerage firm Stratton Oakmont, and went on to defraud investors through sales of stock while employing more than 1,000 people. The firm was shut in 1998. Belfort was charged with money laundering and fraud.



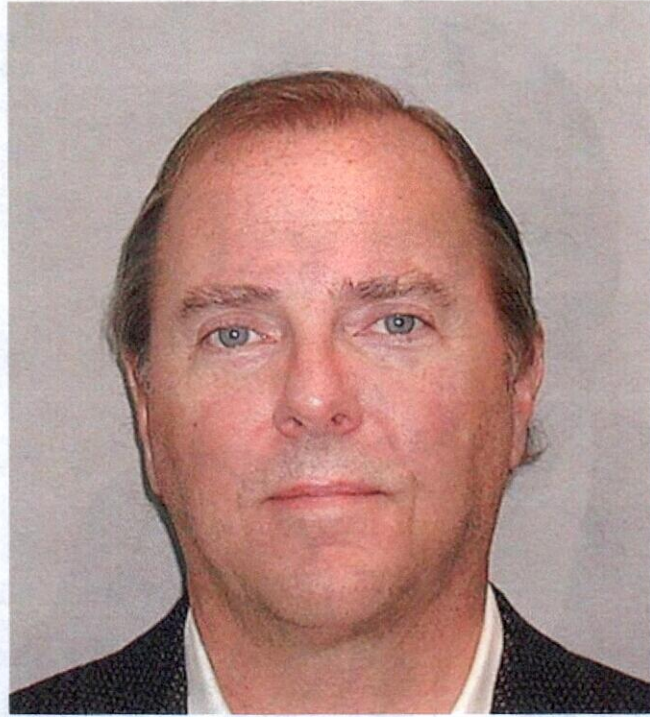
## **Allen Stanford**

Stanford is serving a 110 year prison sentence, having been convicted of charges of fraud. Stanford was the chairman of the now defunct Standord Financial Group of companies.



## Ivan Boesky

Boesky is a former American stock trader who is notable for his prominent role in a Wall Street insider trading scandal that occurred in the US in the mid-1980s. In 1987, Boesky was sentenced to 3 years in prison.



## Jeff Skilling

Jeff was the CEO of Enron Corp. He was convicted of federal felony charges relating to Enron's financial collapse and is currently serving 14 years prison sentence.





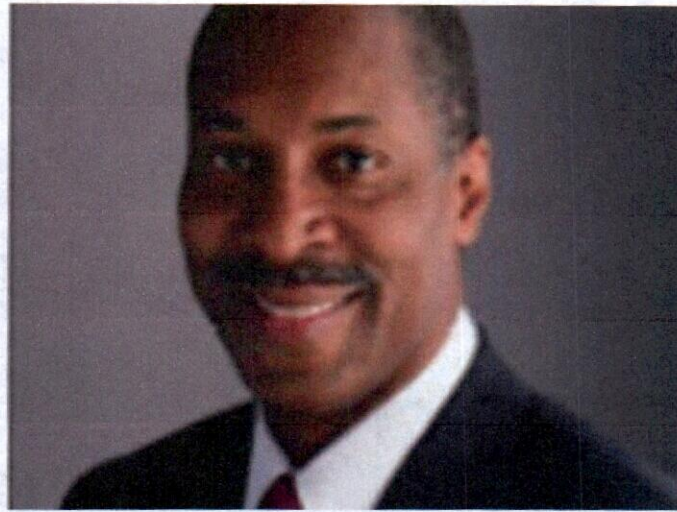
## Barry Minkow

Founded ZZZZ Best which appeared to be an immensely successful carpet cleaning and restoration company. However, it was actually a front to attract investment for a massive Ponzi scheme. It collapsed in 1987 costing investors and lenders \$100 million.



# Martha Stewart

Martha is an American businesswoman, writer and television personality. In 2004, Stewart was convicted relating to the ImClone insider trading affair and sentenced to prison.



# Donald Johnson

Executive of stock exchange for Nasdaq's. Convicted in 2011 of using insider information to trade shares of United Therapeutics, Honda and other companies from 2006 to 2009. He was sentenced to 3 and half years in prison for a total of \$755,000 of fraud.



## **Bernard Ebbers**

A Canadian born businessman and cofounded the telecommunications company WorldCom. In 2005, he was convicted of fraud and conspiracy as a result of WorldCom's false financial reporting. He was sentenced to 25 years for his role in an \$11 billion accounting fraud. It is the largest accounting scandal in US history.



## **Doug Whitman**

Managing more than \$100 million through his Whitman Capital hedge fund. He was convicted in August 2012 of insider trading charges involving stocks of Google, Polycom and Marvell Technology Group. The total value of his fraud accumulated to \$1 million and lead to 2 years in prison.



## Raj Rajaratnam

Former head of Galleon Capital. He received the longest insider trading sentence in history of 11 years for securities fraud and five counts of conspiracy. He was ordered to pay back the \$53.8 million of fraud.