Stock exchange

Stock Exchange

- A stock exchange is a corporation which provides facilities for stock brokers and traders to trade company stocks and other securities.
- The securities traded on a stock exchange include:
    - Shares issued by companies
    - Unit trusts
    - Other pooled investment products
    - Bonds
    - Derivatives, warrants etc.

Stock Exchange

- To be able to trade on stock exchange, it has to be **listed** there.
- Nowadays trade is less and less linked to such physical place, modern markets are electronic networks, which gives them advantages of **speed** and **cost** of transactions.
- Trade on an exchange is by **members only**.
- The initial offering of stocks and bonds to investors is done in **primary market** and subsequent trading is done in **secondary market.**

List requirements

- Companies have to meet the requirements of the exchanges to have their stocks and shares listed and traded there. This requirements vary by stock exchanges.
  - London Stock Exchange: minimum market capitalization 700 000 pounds, minimum public float 25 % .
  - New York Stock Exchange: issued at least million shares of stock worth 100 million USD and must have earned more then 10 million USD over last 3 years.

PSE

- Market capitalization
  - 1.000.000 EUR
- Volume of bond issuance
  - 200.000 EUR
- Minimal public float
  - 25 %
- Business activities
  - 3 years

Primary market trends

- Bull market
  - A bull market tends to be associated with increasing investor confidence, motivating investors to buy in anticipation of further capital gains. The longest and most famous bull market was in the 1990s when the U.S. and many other global financial markets grew at their fastest pace ever.
  - A bull market is also described as a bull run.

The Charging Bull in Bowling Green, New York is a symbol of the bull market

Primary market trends

- Bear market
  - A bear market is described as being accompanied by widespread pessimism.
  - Investors anticipating further losses are motivated to sell, with negative sentiment feeding on itself in a vicious circle.
  - The most famous bear market in history was 1930 to 1932, marking the start of the Great Depression.
  - A milder, low-level long-term bear market occurred from about 1967 to 1983, encompassing the stagflation economy,
  - energy crises in the 1970s, and high unemployment in the early 1980s.

Stock market crashes

- Wall Street Crash of 1929
- The Crash of 1987
- Dot-com bubble of 1995-2001
- A stock market crash is a sudden dramatic decline of stock prices.
- Crashes are driven by panic as much as by underlying economic factors.
- They often follow speculative stock market bubbles.

Theory of speculative bubbles

- The prices of securities, real estates or commodities tend to excess growth for time and after time without any acceptable reason.
- This excess growth is torn off suddenly and the prices are falling down sharply.
- These process when the prices of underlying are deviated from their balance level are called speculative bubbles.

Theory of speculative bubbles

- What is a reason of establishing and bursting out of speculative bubbles?
- There are three main explications of establishing of bubble:
  - Mass psychology
  - Theory of noise traders
  - Ineffectiveness of market

Mass psychology

- According to mass psychology the establishing of speculative bubble is started by some important event.
- The investors evaluate this event
  - more optimistically
  - more pessimistically
- This excess evaluation implicates following oversize reaction of investors that because of wrong evaluation expected huge decline or growth of prices.
- As the next step investors start buy or sell of particular security that push its price up or down.

Mass psychology

- The feelings in mass are infective and establish wave of optimism or pessimism is spreading and mass is converted in optimistic or pessimistic hysteria.
- In this situation the next investors are buying or selling securities because of clime in capital market. They seek behavior of other investors and continue in buying or selling because of their faith that prices of securities will growth (decline) in the future.
- The optimism (pessimism) is spreading through the mass and bubble is growing.
- The bubble is growing till exist the faith in growth or decline of prices that offer investors high capital revenue.

Mass psychology

- In an instance when the mass loss faith in continue growth (decline) of prices the bubble bursts out.
- Although that excess growth is dangers it is also lure for investors. In the phase when is clear that as established speculative bubble a lot if investors do not finish their participation in it. They are sure that before bubble bust out they get rich.
- If they are wrong in timing of bubble destruction they get heavy loss.

Theory of noise trading

- The fluctuation of securities prices are caused of two type of investors existence
  - Sophisticate investors
  - Non sophisticate investors
- Sophisticate investors
  - Have adequate information
  - Are able to sort out information to relevant and irrelevant according to their skills about capital market
  - They are averse to risk it influences their investment decision and behavior
  - This investors are also called as smart investors.

Theory of noise trading

- Non sophisticate investors
  - Have a lack of information
  - Have a lack of skills for investment analysis
  - Are known as a noisy trades
- The existence of noisy traders is a reason why there exists deviation of security prices from their balance level.
- Imbalance in capital market contribute to rise of system risk and smart investors are not able to avoid it.

Theory of noise trading

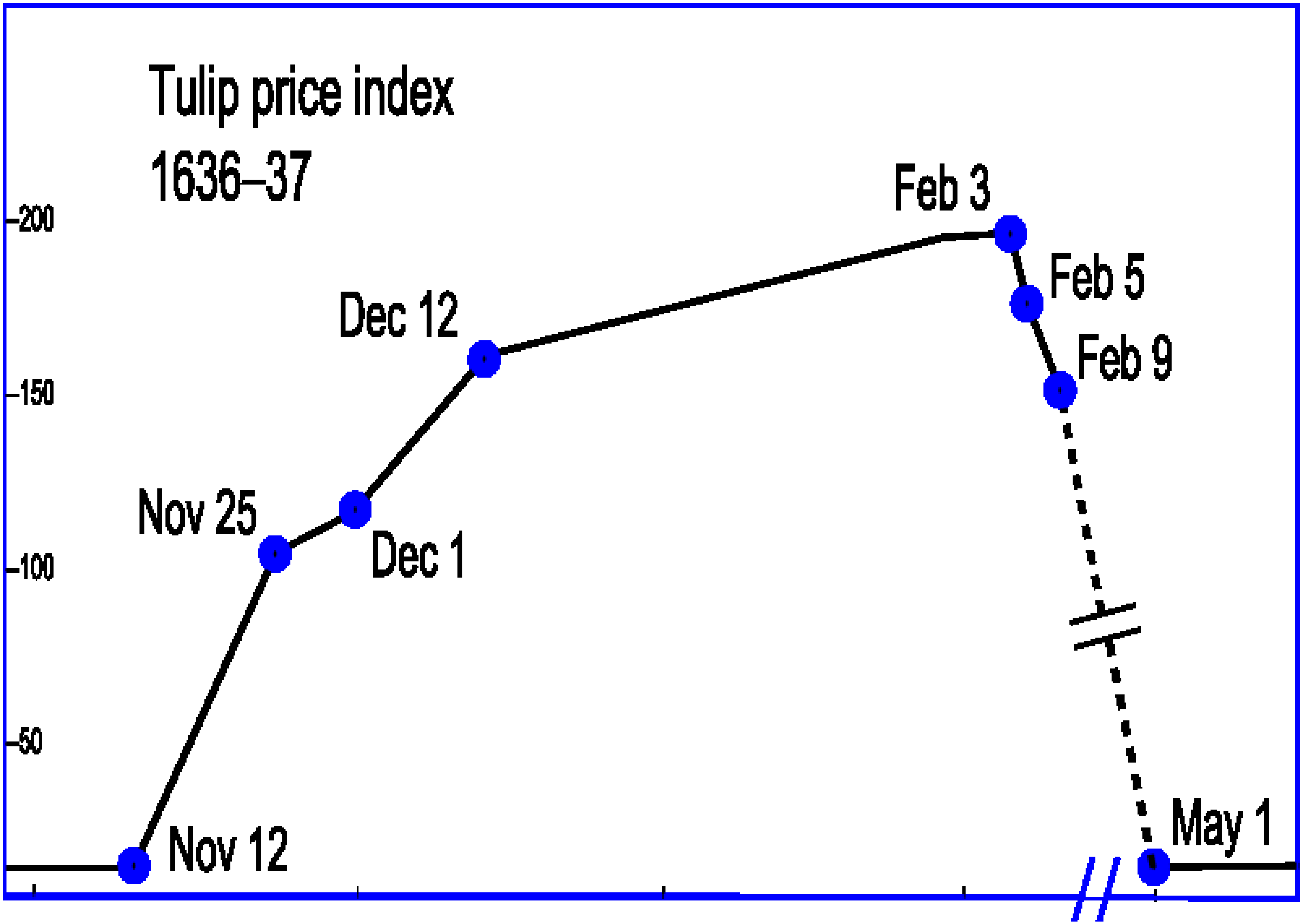
- Because smart investors are averse to risk and in case of risk rising they limited their investment activities and they do not to help to return prices in their balance level.
- The securities prices are rising because of noisy trades activities.
- In effective market this deviation will be slight and should be eliminated in short time period by profit oriented investors.
- In the 1980’s and 1990’s there were introduces several phenomenon in capital market that are contrast with effective capital market.

Theory of ineffective market

- According this theory investors tend to overreact to every unexpected, new information.
- Or investor overreact information that is not in way of particular security but that can have impact in security price according their opinion.
- History of stock and commodity markets offers several examples that speculative bubble are not only theory but that they exist, growth and burst out.

Tulip madness 1634-1637

- The oldest example of speculative bubble.
- Tulips appeared in Europe in 1554.
- In the 17th century they became fashion item.
- The tulip demand was rising and their prices rising as well.
- Holland was suffered by tulip madness.
- Tulip prices were pushed by speculation of aristocrats, traders with tulips or farmers. And tulips prices got exorbitant price.
- Tulips convert from flower to luxury item for speculation.
- In 1637 city Alkmaar sold 120 tulips in price 50.000 gold coins
- As sudden as tulip prices rose up they also collapsed in February 1637.
- Till summer 1637 the tulip prices declined about 80-90 percentage.



Tulip price index
1636–37
200
150
100
50
Nov 12
Nov 25
Dec 1
Dec 12
Feb 3
Feb 5
Feb 9
May 1

Great Crash of 1929

- The Wall Street Crash was one of the most devastating stock market crashes in American history.
- This collapse has two phases **Black Thursday** (Oct 24 1929) – initial crash and **Black Tuesday** (Oct 29 1929) - the crash that caused general panic five days later.
- The collapse continued for a month but it was the catastrophic downturn of Black Tuesday that accelerated widespread panic.
- Some consider that it was beginning of Great Depression, but most believe it was just one symptom rather than the cause.
- Great Crash caused
  - GDP decline (30% in USA)
  - Growth of unemployment from 3% to 25 % (1929, 1933)
  - Bankrupts of companies, banks and farms (100.000, 12.000.000 unemployment)

Great Crash of 1929

- At that time New York had grown to be a major capital and metropolis.
- NYSE was the largest stock market in the word.
- Initial impulses for starting of bull market in 1924 were follows:
  - Underestimated securities
  - Enough free financial resources
  - Development of companies that promises growth in company securities value
- The roaring twenties a time of prosperity and excess in the city, and, despite warnings of speculation, many believed that the market could keep high levels.
- Irvin Fisher proclaimed shortly before crash:
  - *Stock prices have reached what look like a permanent high plateau.*

Great Crash of 1929

- During 1928 played important role in capital market psychological and political factors.
  - There was almost 4 years long bull market – the faith of investors in continue of this trend
  - In 1928 American president elected H.C. Hoover – supporter of strong regulation in capital market – the faith in “fair-play conditions in capital market
- The euphoria and financial gains of the great bull market were ruined on Oct 24, 1929, Black Thursday, when share prices on the NYSE collapsed.
- In days before Black Thursday the market was unstable.
- Periods of panic selling and high volumes of trading were interrupted by brief periods of rising prices and recovery.
- Investor got rid of securities for every price.

Great Crash of 1929

- After an amazing five-year run that saw the Dow Jones Industrial Average increase in its value five times, prices peak at 381,17 (100 points in 1924) was reached on September 1929.
- Then market fell sharply for a month, losing 17% of its value. Prices were recovered more than half of the losses over the next week.
- The decline was accelerated into the so-called **Black Thursday (Oct 24).**
- **A record number of 12,9 million shares were traded on that day.**

Great Crash of 1929

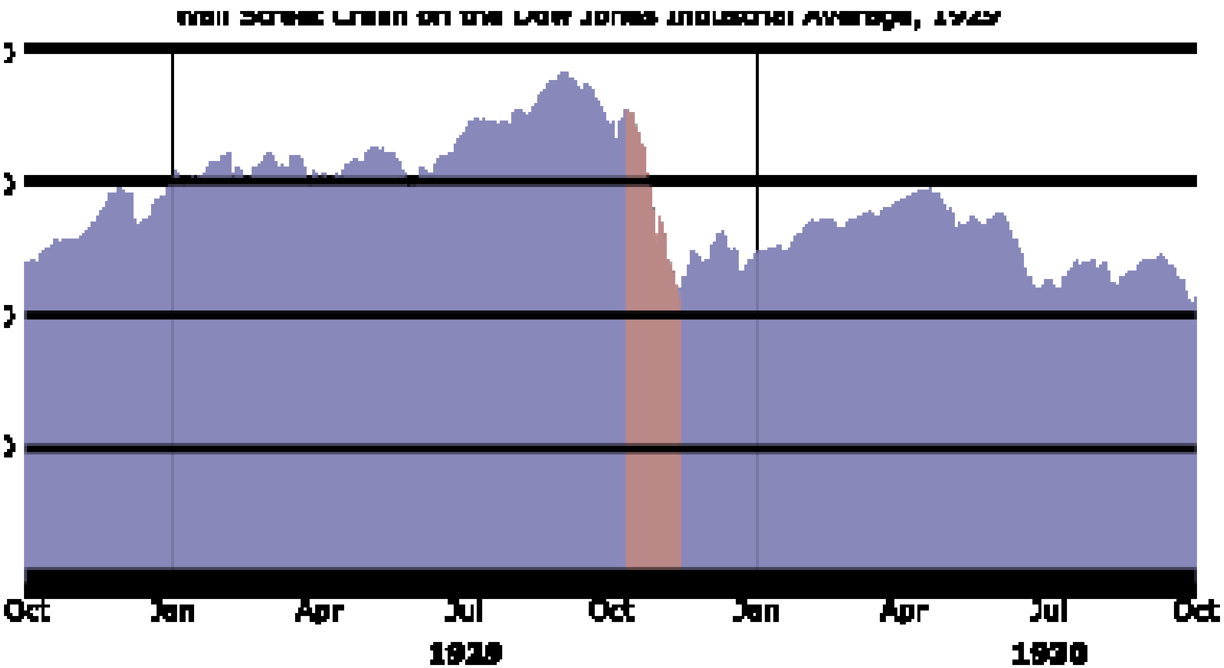
- At 1 p.m. On Friday, Oct 25, several leading Wall street bankers met to find a solution to the panic and chaos on the trading floor.
- There was placed a bit to purchase a large block of shares in U.S. Steel at a price well above the current market. This tactic was similar to a tactic that ended the Panic in 1907, and succeeded in halting the slide that day. But the recovery was only temporary.
- In this project there were 6 largest bank every invested 40 millions USD.

Great Crash of 1929

- Over the weekend, the events were dramatized by the newspapers across the United States. On Monday, Oct 28, more investors decided to get out of the market and slide continued with loss 13 % in the Dow for the day. The next day **Black Tuesday** was traded 16,4 million shares.
- Rockefeller family and another financial giants buy large quantities of stocks in order to demonstrate to the public their confidence in the market but this also does not stopped decline.
- After Oct 28 market was closed till Nov 4
- After opening on Oct 4 investors that hesitated about sale started to sell.
- Market declined till the end of 1929

- The market loss 14 billion USD in value that day and continued to 30 billion USD loss for week, it means ten times more than the annual budget of the federal government and more that U.S. had spent in all of WWI.
- As late as April 1942, U.S. stock prices were still 75% below their 1929 peak and would not revisit that level until November 1954 almost a quarter of a century later.

Great Crash of 1929



Great Crash of 1929

- The crash followed speculative boom that that taken hold in the late 1920's which had led millions of Americans to invest heavily in the stock market, a significant number event borrowing money to buy more stock.
- By August 1929 brokers were routinely lending small investors more than 2/3 of the face value of the stocks that they were buying. There was over 8,5 billion of loans it.
- The rising share prices courage people to invest. Speculation thus fuelled further rises and creation an economic bubble.

Czech speculative bubble

- Establishing and bursting out of bubble that was driven by exaggerate expectation of investors was also in the Czech Republic.
- After renewal of operations in PSE in 1993 and starting trading with stocks form 1st and wave of voucher privatization.
- It evoked enthusiasm and optimistic expectations about possible revenues from stock trading.

Czech speculative bubble

- High demand of foreign and domestic investors about stocks evoked sharp increase in stocks prices in autumn and winter 1993/94.
- But speculative bubble was only short time.
- At the beginning of 1994 companies published their annual reports that were differ from expectations.
- Investors were disappointed and demand declined.
- Speculative bubble burst out and prices declined.

Prague Stock Exchange

Prague Stock of Exchange

- Prague stock exchange was established in 1871.
- Initially, both securities and commodities were traded at the Prague exchange. The Prague exchange enjoyed great success in the sugar trade, becoming a key market for the whole Austro-Hungarian Empire.

Prague Stock of Exchange

- After World War I, however, this type of transaction declined, so thereafter only securities were traded.
- For the Prague exchange, the interwar period became the era of its greatest boom.
- The Prague exchange even surpassed the Vienna exchange in importance.
- This period of prosperity was, however, interrupted by the arrival of World War II, bringing an end to trading at the Prague exchange for more than 60 years. Not until after the fall of Communism was it possible to follow up on the exchange's heritage of success and prosperity.

1938 Stock exchange building in the pre-war period

1938 Stock exchange interior in the pre-war period

1938 Brokers on the trading floor in the pre-war period

Prague Stock Exchange

- The Prague Stock Exchange opened its door to investors and issuers again in 1993.
- The Prague Stocks Exchange is the largest organiser of the security market in the Czech Republic and it is membership-based joint stock company.
- It means that only licensed traders who are also members of the Exchange have access to the trading system.
- The activity of PSE are supervised by the Czech National Bank.

PSE Trading Data

- The Prague Stock Exchange publishes on its web pages, during the course of the Exchange day, a continuous stream of information on trading, with a delay of 15 minutes.
- In addition, on each Exchange day - after 5pm, there are published, on its web pages, the final results of trading i.e. the Official Exchange List.

Markets of the Exchange

- The market of PSE is divided in several markets for better transparency of trading:
  - Regulated market – divided in official market with commercial instruments and special market with other financial instruments e.g. futures.
    - Official market is further divided in primary market, secondary market, free market and new market.
      - Primary and Secondary markets are used for high volume of issues. The company trading in this market must continuously inform about their business. The trading in this market is prestigious for issuers.
      - Free market is used by companies that want trade their securities in the market but do not fulfil all prescribe conditions of primary or secondary market.

Markets of the Exchange

    - New market – no titles in this market. This market is determined for young, modern high tech companies but there are strict conditions for issuer.
- Beside regulated (organized) market there is also unregulated market provided by PSE.
  - The are no information disclosure duties and there is also possible to trade with securities without the issuer request.
  - The condition for trading in unregulated market is publishing of commercial instrument prospectus.

Important changes in Prague Stock Exchange in 2006

- In March was indices PX 50 and PX-D replaced by general PX index.
- Beginning of trade with investment certificates
- Beginning of trade with futures
- Beginning of trade with warrants
- Nowadays PSE trades with stocks, bonds, investments certificates, warrants and futures.

System for support stock and bond market

- SPAD is a system for support of stock and bond market. This system consists of the most liquid and most trading titles with the higher demand.
- Their aim is contribute to liquidity in the market.
- SPAD is the most important segment of PSE.
- In this system there are trading only the most important securities and only in standard volume - lot or in its multiple.

Initial Public Offering

- In the Czech Republic initial public offering usually does not function as a source of finance for joint stock companies.
- The absence of initial public offerings effected the structure and development of the Czech capital market. There were only 4 IPO in the Czech Republic
  - Zentiva – 2004
  - ECM Real Estate – 2006
  - Pegas Nonwovens – 2006
  - AAA Auto - 2007
  - New World Resources – 2008 (Prague, London, Warsaw)

Exchanges Indices

- PX Index: PX index is the official index of the Prague Stock Exchange.
- The PX index was first calculated on 20 March 2006 when replaced PX 50 and PX-D indices.
- The PX index took over historical values of the Stock Exchanges old index, the PX 50 and continues in its development.

RM-System

- Since 1993, the RM–SYSTEM has been active at the securities market as an organiser of off-exchange trading.
- The activities of RM-S have been authorised by the Czech capital markets regulator - the Czech National Bank. The Company is headquartered in Prague and is owned by FIO-credit bank.
- Since December 2008 RM – Systém was transfered from the OTC market into Stck Exchange
  - RM-Systém index
  - Same securities as in the PSE
  - Main market + Free market
    - CEZ, Erste Group, Komercni banka, Philip Morris, Telefonica O2, Unipetrol
    - NWR, Pegas, VIG