

Lecture 8: The Origin and Development of Stock Markets

- Rf: AM-3
- The Rise of the joint-stock, limited-liability corporation
- The Nature of Stock Markets
- Stock Price and Efficient Markets
- The New York Stock Exchange

The Rise of the joint-stock, limited-liability Corporation

- The Rise of the joint-stock, limited-liability corporation:
 - ▣ Joint-stock because the company's capital was jointly owned by multiple investors;
 - ▣ Limited-liability because the separate existence of the company as a legal 'person' protected the investors from losing all their wealth if the venture failed.
 - ▣ Their liability was limited to the money they had used to buy a stake in the company.
- Smaller enterprises might operate just as well as partnerships. But those who aspired to span continents needed the company.

The Nature of Stock Markets

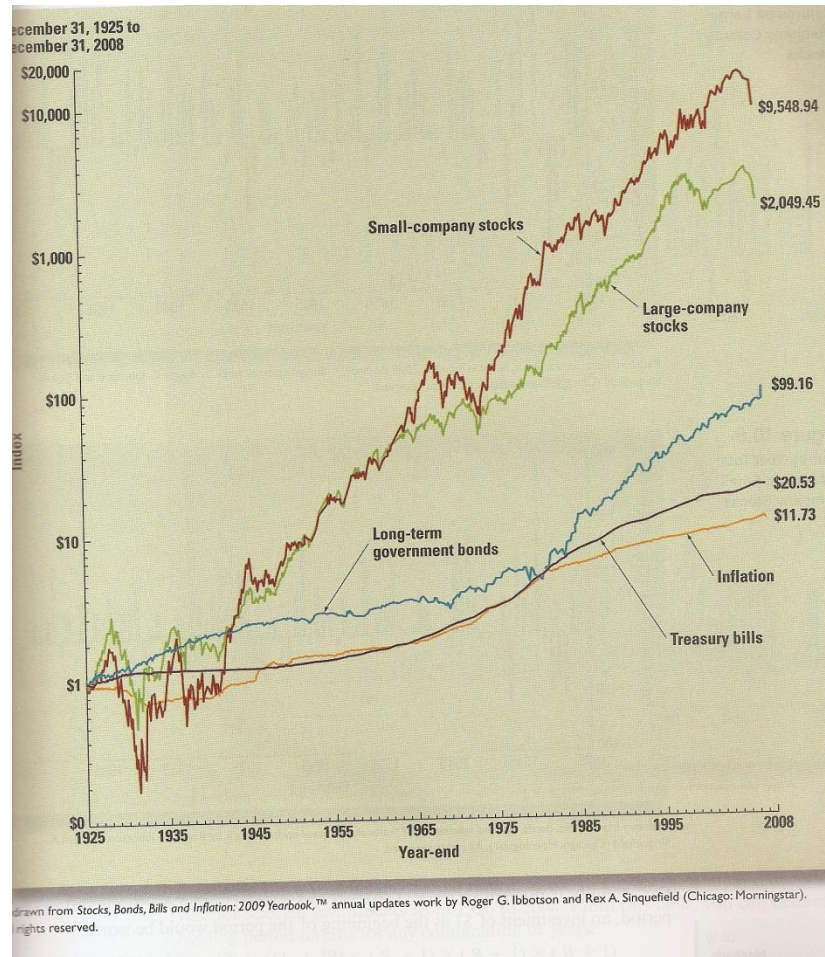
- Separation of Management and Ownership:
- In theory,
 - ▣ the managers of joint-stock companies are supposed to be disciplined by vigilant shareholders, who attend annual meetings, and seek to exert influence directly or indirectly through non-executive directors.
- In practice,
 - ▣ the primary discipline on companies is exerted by stock markets

The Nature of Stock Markets

- the primary discipline on companies
 - ▣ it is exerted by stock markets, where an almost infinite number of small slices of companies (stocks, shares or equities) are bought and sold every day.
 - ▣ In essence, the price people are prepared to pay for a piece of a company tells you how much money they think that company will make in the future.
 - ▣ In effect, stock markets hold hourly referendums on the companies whose shares are traded there: on the quality of their management, on the appeal of their products, on the prospects of their principal markets.

Stock Markets: Performances

□ Asset growth



Stock Price and Efficient Markets

- How the Market Sets Prices?
 - ▣ The price is set by the buyer willing to pay the highest price
 - ▣ The market price will be set by the buyer who can take best advantage of the asset
 - ▣ Superior information about an asset can increase its value by reducing its perceived risk
- Information is important to value each asset.
 - ▣ When new information is released about a firm, expectations and prices change.
 - ▣ Market participants constantly receive information and revise their expectations, to change prices frequently.

Stock Price and Efficient Markets

- Theory of Rational Expectations
 - ▣ Expectations will be identical to optimal forecasts using all available information
- Even though a rational expectation equals the optimal forecast using all available information, a prediction based on it may not always be perfectly accurate
 - ▣ It takes too much effort to make the expectation the best guess possible
 - ▣ Best guess will not be accurate because predictor is unaware of some relevant information

Stock Price and Efficient Markets

- Formal Statement of Rational Expectations Theory

$$X^e = X^{of}$$

X^e = expectation of the variable that is being forecast

X^{of} = optimal forecast using all available information

- Implications

- ▣ If there is a change in the way a variable moves, the way in which expectations of the variable are formed will change as well
- ▣ Changes in the conduct of monetary policy (e.g. target the federal funds rate)
- ▣ The forecast errors of expectations will, on average, be zero and cannot be predicted ahead of time.

Application Investing in the Stock Market

- Recommendations from investment advisors cannot help us outperform the market
- A hot tip is probably information already contained in the price of the stock
- Stock prices respond to announcements only when the information is new and unexpected
- A “buy and hold” strategy is the most sensible strategy for the small investor

Stock prices in reality

- Assessments of companies' future profitability
 - ▣ They are bound to vary. Simultaneously processing all the available information and arriving at the same conclusion are all but impossible.
 - ▣ prone to myopia and to mood swings.
 - ▣ When stock market prices surge upwards in sync, as they often do, it is as if investors are gripped by a kind of collective euphoria: irrational exuberance, as the former chairman of the Federal Reserve Alan Greenspan memorably called.

Stock prices in reality

- Assessments of companies' future
 - ▣ Conversely, when investors' 'animal spirits' flip from greed to fear, the bubble of their earlier euphoria can burst with amazing suddenness.
 - ▣ Zoological imagery of stock market culture:
Bulls vs Bears
 - ▣ Bulls or bear markets, an integral part of stock market culture.

Stock prices in reality

- Bulls or bear markets:
 - ▣ Optimistic buyers of stocks are bulls, pessimistic sellers are bears.
 - ▣ Investors these days are said to be an electronic herd, happily grazing on positive returns one moment, then stampeding for the farmyard gate the next.
- The stock markets are mirrors of the human psyche:
 - ▣ Like homo sapiens, they can become depressed. They can even suffer complete breakdowns.
 - ▣ Yet hope (or is it amnesia?) always seems able to triumph over such bad experiences.

Behavioral Finance

- The lack of short selling (causing over-priced stocks) may be explained by loss aversion
- The large trading volume may be explained by investor overconfidence
- Stock market bubbles may be explained by overconfidence and social contagion

Generalized Dividend Valuation Model

The value of stock today is the present value of all future cash flows

$$P_0 = \frac{D_1}{(1+k_e)^1} + \frac{D_2}{(1+k_e)^2} + \dots + \frac{D_n}{(1+k_e)^n} + \frac{P_n}{(1+k_e)^n}$$

If P_n is far in the future, it will not affect P_0

$$P_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+k_e)^t}$$

The price of the stock is determined only by the present value of the future dividend stream

NYSE

- New York Stock Exchange
- Location: [New York City](#), United States
- Founded: March 8, 1817
- Currency: United States dollar
- No. of listings: 2,317
- [MarketCap](#): US\$13.39 trillion (Dec 2010)
- Volume: US\$1.439 trillion (Nov 2010)
- Indexes: [NYSE Composite](#), [Dow Jones Industrial Average](#), [S&P 500](#)

NYSE

□ New York Stock Exchange

- ▣ located at 11 [Wall Street](#) in [Lower Manhattan](#), New York City, USA.



The origin of the NYSE

□ The origin of the NYSE

- ▣ the NYSE can be traced to May 17, 1792, when the Buttonwood Agreement was signed by 24 stock brokers outside of 68 Wall Street in New York under a buttonwood tree on Wall Street.
- ▣ On March 8, 1817, the organization drafted a constitution and renamed itself the "New York Stock & Exchange Board."
- ▣ The Stock Exchange at 10–12 Broad street, in 1882



the Origins of NYSE

- The U.S. experience in the area of Wall Street
 - ▣ The U.S. experience during the first half-century after the new federal government seated itself in 1789 under the Constitution is essentially coterminous with the NYSE's early history.
 - ▣ The NYSE traces its origins to 1792, and within a few decades it became the central U.S. securities market.
 - ▣ The United States and the NYSE, as it were, grew up together, to such an extent it can almost be said that the history of one cannot be understood without reference to that of the other.

New Amsterdam and New York

- the Dutch heritage

- Financial historians contend that the Dutch East India Company issued the first tradable equity share in 1609.
- That very year, the company commissioned an expedition led by Henry Hudson, an English explorer, who sailed into what eventually became known as New York harbor on September 3.

the Dutch heritage of NYSE

- the Dutch East India Company
 - The company established a small settlement on present-day Governors Island in New York harbor in 1624.
 - Some of these settlers moved the short distance to Manhattan Island in 1625, and in 1626 Peter Minuit, a company official, bought Manhattan from the local Indians for a variety of goods valued at 60 guilders, or \$24.
- New Amsterdam
 - In 1653, the Dutch built a defensive wall from the Hudson to the East River at the northern border of their Manhattan colony, which they had named New Amsterdam.

the Dutch heritage of NYSE

- New Amsterdam and New York
 - The English, who by 1664 had planted colonies to the north and south of New Amsterdam, considered New Amsterdam by the Dutch, a potential threat In March 1664, English monarch Charles II granted the Dutch territory to his brother James, Duke of York (later King James II).
 - In August, James sent a fleet of four warships and several hundred soldiers into the harbor to assert his claim to New Amsterdam.
- In early September, the Dutch peacefully surrendered the colony to the English, who renamed it New York City.

the Dutch heritage of NYSE

- New Amsterdam and New York
 - ▣ Treaties of 1667 and 1674, which ended the second and third Anglo-Dutch wars, formalized English control of New York. In 1688, the English in the Glorious Revolution deposed James II, replacing him with the Dutch leader Willem of Orange, the husband of James's daughter Mary. Willem of Orange became William III of England.
 - ▣ For potential as a future American and world financial center, New York City could not have been more fortunate in its dual national origins.

the Dutch heritage of New York as a financial center

- the Dutch heritage of New York as a financial center
 - ▣ Dutch power in the seventeenth century derived in great part from a financial revolution that occurred in the Dutch Republic at the beginning of that century.
- The Dutch Financial Innovations:
 - ▣ Innovation of tradable equity shares in 1609
 - one element of the Dutch financial revolution.
 - ▣ the Dutch public finance
 - The Dutch had established sound public finances and a public debt market, which the Republic used to finance its long war of independence from Spain, as well as the later wars with England.

the Dutch heritage of New York as a financial center

- The Dutch Financial Innovations:
 - The year 1609 brought another innovation, the Bank of Amsterdam,
 - a central banking institution that discounted foreign and domestic bills of exchange and did much to stabilize the value of the Dutch guilder.
 - With a public debt market in place, it proved simple for the Dutch to add to it trading in the equity shares of the bank and the Dutch East and West India Companies.