Our goal in this chapter is to provide a “big picture” overview of:
- Who owns stocks
- How a stock exchange works, and
- How to read and understand the stock market information reported in the financial press.

Private Equity and Venture Capital

- **Private Equity** is used for the rapidly growing area of equity financing for nonpublic companies.
- Banks are generally not interested in making loans to start-up companies, especially ones:
  - with no assets (other than an idea)
  - run by fledgling entrepreneurs with no track record.
- Firms with this profile search for **venture capital (VC)**, an important part of the private equity markets.

Venture Capital, I

- **Venture Capital** refers to financing new, often high-risk, start-ups.
- **Individual venture capitalists** invest their own money.
- **Venture capital firms** pool funds from various sources, like
  - Individuals
  - Pension funds
  - Insurance companies
  - Large corporations
  - University endowments
- Venture capitalists know that many new companies will fail.
- The companies that succeed can provide enormous profits.

Venture Capital, II

- To limit their risk:
  - Venture capitalists generally provide financing in stages.
  - Venture capitalists actively help run the company.
- At each stage, enough money is invested to reach the next stage.
  - **Ground-floor financing**
  - Mezzanine Level financing
- At each stage of financing, the value of the founder’s stake grows and the probability of success rises.
- If goals are not met, the venture capitalists withhold further financing.
- If a start-up succeeds:
  - The big payoff frequently comes when the company is sold to another company or goes public.
  - Either way, investment bankers are often involved in the process.

Selling Securities to the Public

- The **primary market** is the market where investors purchase newly issued securities.
  - **Initial public offering (IPO)**: An IPO occurs when a company offers stock for sale to the public for the first time.
  - **Seasoned equity offering (SEO)**: If a company already has public shares, an SEO occurs when a company raises more equity.
- The **secondary market** is the market where investors trade previously issued securities. An investor can trade:
  - Directly with other investors.
  - Indirectly through a broker who arranges transactions for others.
  - Directly with a dealer who buys and sells securities from inventory.
The Primary Market for Common Stock

- An IPO (and an SEO) involves several steps.
  - Company appoints investment banking firm to arrange financing.
  - Investment banker designs the stock issue and arranges for fixed commitment or best effort underwriting.
  - Company prepares a prospectus (usually with outside help) and submits it to the Securities and Exchange Commission (SEC) for approval. Investment banker circulates preliminary prospectus (red herring).
- Upon obtaining SEC approval, company finalizes prospectus.
- Underwriters place announcements (tombstones) in newspapers and begin selling shares.

The Secondary Market for Common Stock, I.

- The bid price:
  - The price dealers pay investors.
  - The price investors receive from dealers.
- The ask price:
  - The price dealers receive from investors.
  - The price investors pay dealers.
- The difference between the bid and ask prices is called the bid-ask spread, or simply spread.

The Secondary Market for Common Stock, II.

- Most common stock trading is directed through an organized stock exchange or trading network.
- Whether a stock exchange or trading network, the goal is to match investors wishing to buy stocks with investors wishing to sell stocks.

The New York Stock Exchange

- The New York Stock Exchange (NYSE), popularly known as the Big Board, celebrated its bicentennial in 1992.
- The NYSE has occupied its current building on Wall Street since the early 1900’s.
- For 200 years, the NYSE was a not-for-profit New York State corporation.
- The NYSE went public in 2006
  - (NYSE Group, Inc., ticker: NYX)
  - Naturally, NYX stock is listed on the NYSE
- In 2007, NYSE Group merged with Euronext to form NYSE Euronext, the world’s largest exchange.

NYSE Seats and Trading Licenses

- Historically, the NYSE had 1,366 exchange members. These members:
  - Were said to own “seats” on the exchange.
  - Collectively owned the exchange, although professionals managed the exchange.
  - Regularly bought and sold seats (Record seat price: $3 million in 2005)
  - Seat holders could buy and sell securities on the exchange floor without paying commissions.
- In 2006, all of this changed when the NYSE went public.
  - Instead of purchasing seats, exchange members purchase trading licenses:
    - number limited to 1,500
    - In 2007, a license would set you back a cool $55,000—per year.
    - Having a license entitles the holder to buy and sell securities on the floor of the exchange.
Types of NYSE Members, I.

• The largest number of NYSE members are registered as commission brokers.

• Commission brokers execute customer orders to buy and sell stocks.

• Second in number of NYSE members are specialists, or market makers.

• Market makers are obligated to maintain a “fair and orderly market” for the securities assigned to them.

Types of NYSE Members, II.

• When commission brokers are too busy, they may delegate some orders to floor brokers, or two-dollar brokers, for execution.
  – Floor brokers have become less important because of the efficient SuperDOT system (designated order turnaround).
  – SuperDOT allows orders to be transmitted electronically directly to the specialist.

• A small number of NYSE members are floor traders, who independently trade for their own accounts.

NYSE Listed Stocks

• In 2006, the total number of companies listed on the NYSE represented a total global market value of about $25 trillion.

• Initial and annual listing fees are charged based on the number of shares.

• To apply for listing, companies have to meet certain minimum requirements with respect to:
  – The number of shareholders
  – Trading activity
  – The number and value of shares held in public hands
  – Annual earnings

Operation of the New York Stock Exchange

• The fundamental business of the NYSE is to attract and process order flow.

• In 2007, the average trading volume on the NYSE was over 2 billion shares a day.

• Volume breakdown:
  – About one-third from individual investors.
  – Almost half from institutional investors.
  – The remainder represents NYSE-member trading, mostly from specialists acting as market makers.

NYSE Floor Activity

• There are a number of specialist’s posts, each with a roughly figure-eight shape, on the floor of the exchange.

• At the telephone booths, commission brokers:
  – Receive customer orders.
  – Walk out to specialist’s posts where the orders can be executed.
  – Return to confirm order executions, and receive new customer orders.

• Coat colors indicate the person’s job or position.

Stock Market Order Types

<table>
<thead>
<tr>
<th>Order Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market order</td>
<td>Buy at best price available for immediate execution.</td>
</tr>
<tr>
<td>Limit order</td>
<td>Buy at best price available, but not more than the greatest best price.</td>
</tr>
<tr>
<td>Stop order</td>
<td>Convert to a market order to buy when the stock price crosses the stop price.</td>
</tr>
<tr>
<td>Stop-limit order</td>
<td>Convert to a limit order to buy when the stock price crosses the stop price.</td>
</tr>
<tr>
<td>Sell</td>
<td>Sell at best price available for immediate execution.</td>
</tr>
<tr>
<td></td>
<td>Sell at best price available, but not less than the lowest best price.</td>
</tr>
<tr>
<td>Step order</td>
<td>Convert to a market order to sell when the stock price crosses the stop price.</td>
</tr>
<tr>
<td>Step-limit order</td>
<td>Convert to a limit order to sell when the stock price crosses the stop price.</td>
</tr>
</tbody>
</table>
NASDAQ, I.

- The name “NASDAQ” is derived from the acronym NASDAQ, which stands for National Association of Securities Dealers Automated Quotations system.
- NASDAQ is now a proper name in its own right.
- Introduced in 1971, the NASDAQ market is a computer network of securities dealers who disseminate timely security price quotes to NASDAQ subscribers.
- The NASDAQ has more companies listed than the NYSE.
- On most days, volume on the NASDAQ exceeds the NYSE volume.

NASDAQ, II.

- NASDAQ trading is almost exclusively done through dealers who buy and sell securities for their own inventories.
- Like NYSE specialists, NASDAQ dealers use their inventory as a buffer to absorb buy and sell order imbalances.
- NASDAQ is actually made up of three separate markets:
  - The Global Select Market
  - The Global Market
  - The Capital Market
- In the late 1990s, the NASDAQ system opened to electronic communications networks (ECNs)
- ECNs are basically websites that allow investors to trade directly with one another.

The NASDAQ System

- The NASDAQ network provides bid and ask prices as well as recent transaction information.
- The bid and ask prices for the NASDAQ represent inside quotes.
  - The highest bid
  - The lowest ask
- For a small fee, you can have access to “Level II” quotes.
  - Displays all bids and asks
  - Frequently displays the market maker identity

NYSE and NASDAQ Competitors

- The third market is an off-exchange market for securities listed on an organized exchange.
- The fourth market is for exchange-listed securities in which investors trade directly with one another, usually through a computer network.
- For dually listed stocks, regional exchanges also attract substantial trading volume.

Stock Market Information

- The most widely followed barometer of day-to-day stock market activity is the Dow Jones Industrial Average (DJIA), or “Dow” for short.
- The DJIA is an index of the stock prices of 30 large companies representative of American industry.

Stock Market Indexes, I.

- Indexes can be distinguished in four ways:
  - The market covered,
  - The types of stocks included,
  - How many stocks are included, and
  - How the index is calculated (price-weighted, e.g. DJIA, versus value-weighted, e.g. S&P 500).
- Stocks that do not trade during a time period cause index staleness over that time period.
  - That is, we do not know the “true” index level if all the stock prices are not updated, i.e., fresh.
Stock Market Indexes, II.

- For a **value-weighted** index (i.e., the S&P 500), companies with larger market values have higher weights.

- For a **price-weighted** index (i.e., the DJIA), higher priced stocks receive higher weights.
  - This means stock splits cause issues.
  - But, stock splits can be addressed by adjusting the index divisor.
  - Note: As of March 8, 2008, the DJIA divisor was a nice "round" 0.122834016!