Equity Financing

Types of Equity Securities

- Common stock
- Preferred stock
- Warrants

Common Stock

- It is a **share of ownership** in a corporation that usually **entitles its holders to vote** on the corporation’s affairs
- The common **stockholders** of a firm are generally viewed as **a firm’s owners**
- Some firms have two classes of common stocks – **dual-class shares** with different in the term of **votes per shares**
  - Class A
  - Class B

Common Stock

- Dual-class shares are typical **for firms** that are majority **controlled by some person or group**
  - Ford Motor, Reader's Digest, etc
- These firms were family-owned firms until they grew too large to be financed by the family alone
- Because the **families did not want to give up control**, they created two classes of common stock with one class having more votes per shares than other class
- In these situations, family members will usually own the majority of shares with the greater voting power

Common Stock

- The stocks in a number of different countries outside the United States are divided into A and B classes **with foreigners restricted to holding the B shares**, which often have no voting rights or
- Shares B have voting rights, but not enough to permit foreigners to control the firm

Preferred Stock

- It is a financial instrument that gives its holders a **claim on a firm's earrings** that **must be paid before dividends** on its common stocks can be paid
- Preferred stock is used much less than common stock as a source of capital
- He biggest issuers of preferred stock have historically been electric utilities which have been allowed to claim the dividends as an expense when selling electricity rates

Preferred Stock

- Preferred shares are almost always **cumulative**
  - If the corporation stops paying dividends, the **unpaid dividends accumulate** and must be paid in full before any dividends can be paid to common shareholders
  - At the same time, a firm generally cannot be forced into bankruptcy for not paying its preferred dividends
- Voting rights of preferred stocks differ from instrument to instrument
  - preferred stocks do not always have voting rights or
  - they obtain voting rights when preferred dividends are suspended

Preferred Stock

- Convertible Preferred
  - Stocks that can be converted into the common stock of the issuer
  - Standard features of convertible preferred stock specifies the number of common shares into which each preferred share can be converted
- Adjustable-Rate Preferred
  - About half of preferred stock issued in the 1990's was some variant of adjustable-rate-preferred stock an instrument that was invented in the 1980's
  - In each form of adjustable-rate preferred stock, **the dividend is adjusted quarterly (sometimes monthly) by an amount determined by the change in some short term interest rate**
  - Most of these stocks is sold by financial institutions seeking **deposits** and so bought by corporate financial managers seeking tax-advantaged **investment for short-term funds**
  - ARPS – adjustable-rate preferred stock
  - DARTS – Dutch auction rate stock
  - APS – auction preferred stock
  - RP – remarketed preferred

Preferred Stock

- MIPS
  - Monthly Income Preferred Securities
  - One of the biggest advantages of preferred stocks is that it **allows corporations to issue a debtlike securities without lowering the rating** on their existing debt
  - However, in contrast to debt securities whit tax-deductible interest, preferred stock has the disadvantage that its **dividends are not tax deductible**
  - A key distinction between a MIPS and a typical preferred security is that the MIPS can defer the **dividends for only 5 years** while standard preferred stock can defer the dividends indefinitely and
  - Unlike standard preferred stock, MIPS **can force the firm into a bankruptcy** for failure to pay the dividend on this instrument

Warrants

- It is a **equity-related security**
- Warrants are the **call long-term options** on the issuing firm's stock
- Call options give their holders **the right to buy shares** of the firm at a **prespecified price** for a **given period of time**
- These options are often included as part of a unit offering, which includes two or more securities offered as a package
  - E.g. firms might try to sell one common share and one warrant as a unit
- This kind of unit offering serves as a form of staged financing in which investors have an option to either invest more in the firm if it is successful or to shut it down by refusing to invest as the option's prespecified price

Secondary Markets for Equity

- Publicly traded securities is that they can be sold later in public secondary market
- Types of Secondary Markets for Equity
  - Secondary Equity market
    - Can be organized as an **exchange** or as an **Over-the-counter-market**
    - An exchange is a physical location where buyers and sellers came together to buy and sell securities
    - An OTC market in contrast, allow buyers and sellers to transact without meeting at one physical place
      - The National Association for Security Dealers Automated Quotation System

Secondary Markets for Equity

- Two alternatives of the traditional exchange-based and OTC-base markets are known as **third** and **fourth market** including elements of both OTC and exchange markets
- Third market is composed of **exchange-listed stocks** that can be bought and sold **over the counter by brokers**
- Fourth market consists of **large investors** who **traded** exchange listed stocks **among themselves**, bypassing the exchange
- Although it is difficult to obtain data on transaction costs from alternative markets, an estimate of the cost of trading on exchange floor is 0.05$ to $0,1 per share
- In contrast, costs of trading in the off-exchange markets can be as low as $0.01 per share

Secondary Markets for Equity

- In all markets, trading is done by **brokers**, **dealers**, or both
- A broker facilitates a trade between a buyer and a seller by **bringing the two parties together**
  - Brokers profit by charging brokerage commission fee for this service
- Alternatively, dealers buy and sell securities **directly**, that is, they maintain an inventory in the security and stand willing to take the opposite side of a buy or sell
  - Dealers make their money on the **bid-ask spread**, buying at the bid price and selling at the ask

Equity Market Information Efficiency and Capital Allocation

- There exists various methods that can be used to value equities
- All these methods assume that security prices satisfy what financial economists call he **efficiency markets hypothesis**
  - **Fama (1970)** summarizes the idea of efficient markets as a “market in which prices “*fully reflect available information*”
  - *In other words, financial market prices are quite close to their fundamentals values and hence do not offer investors high expected returns without exposing them to high risks*

Equity Market Information Efficiency and Capital Allocation

- Economist are concerned about the efficiency of stock prices because stock prices affect how capital is allocated throughout the economy
  - Netscape's initial public offering (IPO) in August 1995, which launched the Internet boom in the half of the 90's
    - The underwriters that issued the shares originally anticipate an offering at around $14 a share, but because of strong demand at that price, the offering price was raised to $28.
    - During the initial trading to stock price rose from $28 per share to more than $70 before closing at $58.25 per share
- The market's enthusiastic acceptance of the Netscape IPO had a major effect on the Internet industry
  - After Netscape IPO, it was widely acknowledge that public markets were providing equity financing at very favorable terms for internet firms
  - As a result, a substantial amount of capital flowed into newly formed internet firms and a major new industry was born

The Market for Private Equity

- Along with the boom in the public equity markets during the 1990's, the role for private equity increased in importance
- By private equity it means equity that is not registered with Security Commission and cannot be traded in the public equity markets
- Individuals and families hold the largest portion of private equity with personal investments in relative small private businesses
- In additional, there are large institutions that provide private equity to companies

The Market for Private Equity

- These institutions can be classifies as those specializing in **venture capital**, o providing equity capital for emerging new companies, and those specializing in **restructuring,** or providing equity capital for more mature firms that are making fundamental changes in the way that they are doing business

The Decision to Issue Shares Publicly

- Many economists believe that the relative liquid equity market and the active new issues market provide a competitive advantage to young firms
- Without access to good capital market, many entrepreneurs and venture capitalists would find it difficult or impossible to cash out or diversify their holdings
- That in turn would make starting a firm more expensive and reduce the rate at which firms are created

Demand and Supply-Side Explanations for IPO Cycle

- There are both demand-side and supply side explanations for **cyclical nature of the IPO market**
- On the demand side, there are period when an especially **large number of new firms**, which are unlikely to obtain private funding in attractive terms, **have investment projects that need to be funded**
  - The internet start-ups from 1995-1998 are goods examples
- On the supply side, there might be periods when **investors and institutions** that traditionally invest in IPOs **have a lot of money to invest**
  - If a large inflow of money went into mutual funds that invest in small stocks

Demand and Supply-Side Explanations for IPO Cycle

- A firm considering going public would be interested in knowing whether **hot issue periods**
  - Periods during which large number of firms going public – are driven
    - A large demand for public funds by firms that need financing or,
    - Alternatively, by a large supply of public funds that need to be invested

Demand and Supply-Side Explanations for IPO Cycle

- It the hot issue periods are demand driven
  - Entrepreneurs may wish to avoid going public during that time because of competition for funds would suggest that the firm might get better price by waiting
- The Supply-side explanation would suggest the opposite
  - IPOs are observed frequently in some years and not in others because entrepreneurs are able to time their initial public offerings to correspond with the greater supply of available findings and thereby get better deals in the hot issue period

Demand and Supply-Side Explanations for IPO Cycle

- **Loughran and Ritter's** empirical study (1995) suggested that the **post-issue stock returns** of firms that go public **in hot issue periods** are **quite low**, which support the supply-side explanation
- What this means is that **entrepreneurs may benefit from timing their IPOs** so that they come out in hot issue periods
  - For an investor's perspective, this would not be a good time to buy IPOs

The Benefits of Going Public

- Firms go public for a number of reasons
- First, firms may be able to **obtain capital** at more attractive terms from the public markets
  - Emerging Internet firms may have found public market to be a cheaper source of financing because of investor enthusiasm for their products
- A number of firms go public issue very few shares in their initial public offering and do not really need the capital that is raised
  - This was the case when Microsoft went public

The Benefits of Going Public

- Microsoft stated that one reason it went public was to **provide liquidity through the public markets** to firm's managers and other insiders who were previously compensated with shares and who might otherwise be locked into an illiquid investment
- Similarly, the stock of a publicly traded firm may be considered a **more attractive** for of compensation than the stock of a private firm, making it easier for the public firm to attract best employees
  - Being public means that the original owners, investors and old and new managers can cash out the firm and diversify their portfolios

The Benefits of Going Public

- An addition advantage of being public is that stock prices in the public markets provide a **valuable source of information** for managers of the firm
  - Every day, investors buy and sell shares, thereby rendering their judgments about the firm's prospects and it can be useful reality check
    - A falling stock price indicates that a number of investors and analysts have unfavorable information about a firm's prospects, which would tend to imply that an expansion would not be warranted

The Benefits of Going Public

- Finally, some managers believe that going public is **good publicity**
  - Listing the firm's stock n a national exchange may bring name recognition and increase the firm's credibility with its customers, employees and suppliers

The Costs of Going Public

- It costs a lot of money to go public
  - Costs of hiring an investment banker, attorney and accountants
- But by far the largest expense is the **underwriting fee**
- The total **direct costs** associated with taking a firm public are **about 11 percent** for the amount of money raised
- While direct cost may be large, there existed an additional and equally important cost of going public
  - The price at which the investment banker sells the issue to the original investor is generally **10 to 15 percent below** the price at which the stock trades in the secondary market shortly thereafter
  - Regardless of the reason for the observed **underpricing of new issues**, firms should add the typical **10 to 15 percent underpricing to their cost of going public**
- **Total costs** of going public could **exceed 25 percent** of the amount raised in the initial public offering

The Costs of Going Public

- Once a firm is public, it faces other costs that private firms do not bear
  - Public firms are required to provide several statements and quarterly and annual reports
- Because a public corporation is more visible than a private company, it may be **pressured to do things in ways that it would not otherwise do**
  - E.g. shareholders may put pressure on managers to make “socially responsible” investment choice
    - Pull investments out of South Africa before the abandonment of apartheid
    - Pressure to avoid using nuclear energy

The advantages and disadvantages of going public are as follows

- Better access to capital market
- Shareholders gain liquidity
- Original owners can diversify
- Monitoring and information are provided by external capital market
- Enhance the firm's credibility with customers, employees, and suppliers

- Expensive
- Costs of dealing with shareholders
- Information revealed to competitors
- Public pressure

Stock Return Associated with IPOs of Common Equity

- We noted previously that, on average IPOs are underpriced
  - E.g. Netscape’s stock was issued at $28 a share and closed the first day at $58.25, which suggested that the underwriter underpriced the shares by 108 percent ((58.25-28)/28)

Stock Return Associated with IPOs of Common Equity

- The cost associated with the underpricing of new issues is a major cost associated with going public and has been researched extensively
  - Underpricing is measured as the average initial returns measured over the first trading day (the percentage increase from the offering price to the first closing price)

Stock Return Associated with IPOs of Common Equity

Year	Number of Offerings	Average Initial Return, %	Gross Proceeds, $ Millions
1960–69	2,661	21.2	7,988
1970–79	1,640	9	6,868
1980–89	4,759	15.3	80,946
1990–99	5,316	20.6	353,923
Total	14,376	17.4	449,725

- The average initial returns averaged about 17% during this time period

Stock Return Associated with IPOs of Common Equity

- IPOs are underpriced all over the world
- The magnitude of the underpricing is especially large in some the less developed capital markets e.g. Malaysia, Brazil, etc.

Average Initial Returns of IPOs in 25 countries

Country	Average Initial Return (percent)	Period Studied	Sample Size
Malaysia	80%	1980–1991	132
Brazil	79	1979–1990	62
Korea	78	1980–1990	347
Thailand	58	1988–1989	32
Portugal	54	1986–1987	62
Taiwan	45	1971–1990	168
Sweden	39	1970–1991	213
Switzerland	36	1983–1989	42
Spain	35	1985–1990	71
Mexico	33	1987–1990	37
Japan	33	1970–1991	472
New Zealand	29	1979–1991	149
Italy	27	1985–1991	75
Singapore	27	1973–1987	66
Hong Kong	18	1980–1990	80
Chile	16	1982–1990	19
United States	15	1960–1992	10,626
United Kingdom	12	1959–1990	2,133
Australia	12	1976–1989	266
Germany	11	1978–1992	170
Belgium	10	1984–1990	28
Finland	10	1984–1992	85
Netherlands	7	1982–1991	72
Canada	5	1971–1992	258
France	4	1983–1992	187

What are the Long-term Returns of IPOs?

- The **long-term return** to investing in IPOs is surprisingly **low**
- Examining the shareholder return to owning a portfolio of IPOs for up to five years after companies went public, these studies find annual return to be in the range of 3 percent to 5 percent, far below other benchmark returns
- The value of an IPO portfolio after five years is only **70 percent to 80 percent** of the value of a portfolio that invested in all NYSE stocks or portfolio invested in S&P 500 Index
- But if the performance o IPOs is measured relative to comparison stocks with equivalent size and book to market ratios the underperformance of IPOs disappears
  - Most IPOs can be categorized as **small growth stocks**, and these stocks have **historically had extremely low return**

What Explains Underpricing

- The tendency of IPOs to be underpriced is interest for variety of reasons
- The **underpricing of IPOs increases the cost of going public** and may thus deter some firms from going public
- In setting an offering price underwriters will weigh the costs and benefits of raising or lowering the issue's price
  - Pricing an issue **too low** adds to **the cost of going public** and therefore, to **attract client**, underwriters try to price their issues as high as possible
  - This tendency is offset by the possibility that the issue may not sell if it is priced too **high**, leaving the underwriter saddled with unsold shares

What Explains Underpricing

- There exists a potential **conflict of interest** between underwriters and issuing firms that arise because of their **differing incentives** and the underwriter’s better information about market conditions
- The underwriter incentive is to set the offering price low enough to ensure that all the shares will sell without much effort and without subjecting the underwriter to excessive risk
- **Underpricing the issue makes the underwriter’s job easier and less risky**
  - Often firms go pubic as a precursor to a large seasoned issues in the near future. This allows managers to first test the water with small issues and, it that issue is successful, to subsequently raise additional equity capital

Results

- The stock market plays an **important role in allocation capital**. Sectors of the economy that experience favorable stock returns can more easily raise new capital for investment. The stock market is likely to more efficiently allocate capital if market prices accurately reflect the investment opportunities within an industry
- IPOs are **observed frequently in some years and not in other years**. The available evidence suggests that the hot issue periods are characterized by a large supply of available capital. Given this interpretation, firms are better off going public during the hot issue period
- We mentioned several advantages and disadvantages of going public. In general, a firm should **go public when the benefits of doing so exceed the costs**

Thank you for your attention