**Raising Capital**

**Equity Financing**

# Capital Structure

* Refers to the combination of Assets used to **finance** (Fund) a business
  + **Equity Financing** → Receive investments in exchange for part ownership of the company
  + **Debt Financing** → Borrow an amount in exchange for interest payments
* Investors are willing to invest in firms because they believe that can obtain Equity in the firm at a low price and can **sell their equity at a high price** during:
  + **Acquisitions** → Firm is bought by a larger firm; sell shares to buying firm
  + **Public Offering** → Firm shares become accessible to public; sell shares to public

# Sources of Funding

## Angel Investors

* Wealthy **individuals** who invests in **Start-Ups** in exchange for **Convertible Notes**
* It is hard to value a start-up properly, thus Angels are given Convertible Notes instead - which can be used to **exchange for Equity** at a **DISCOUNT** once the firm has issued Equity

## Venture Capital Firms

* **Firms** that specialize in **raising money** to invest in **Start-Ups** for **Equity**
  + **General Partners** → Venture Capitalists → Invests the money
  + **Limited Partners** → Institutional Investors → Provides the money
  + VC firms make money by charging **Annual Fees** and taking a portion of any Profits generated by the fund (**Carried Interest**)
* VC firms typically demand a great degree of control in return for their investment - Role on the Board of Directors & Key management positions

## Private Equity Firms

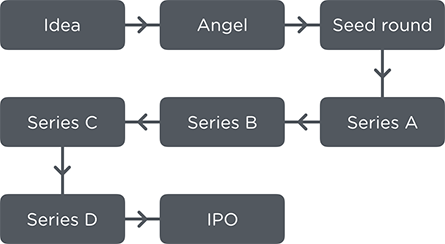
* Very similar to VC firms - the main difference being PE firms will invest in any kind of private firm, NOT limited to just Start-Ups
* PE firms may even fully buy all the shares of a public firm, making it private once again, known as a **Leveraged Buyout** (LBO)

## Others

* **Institutional Investors** → Firm that invests **money of others** on their behalf
* **Corporate Investors** → Firms that invests **their own money**
* Both of these investors can either go through a PE/VC firm to invest or directly go to the company

# Funding Rounds & Valuation

* When a firm raises money with one or more sources, a **funding round** is said to have occurred
* A firm can have as many rounds of funding they like - each round usually has a different underlying purposes for raising capital
* The value of a firm **before a round** is known as the **pre-money valuation** while the value **after a round** is known as the **post-money valuation**
* During each funding round, investors are issued stock at the **stock price before the funding round**









# Start-Up Preferred Stocks

* VCs are typically issued Preferred Stock for investing while Common Stock is typically issued to Employees of the firm
* There are several benefits of Preferred Stock:

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| **Liquidity**  **Preference** | **Minimum amount** that must be paid to Preferred Stockholders before Common |
| **Seniority** | **Seniority** determines the orders that payments occur between multiple investors   * Investors in later rounds have higher seniority to compensate for the risk |
| **Anti-Dilution**  **Protection** | **Option to convert** preferred stock to common stock to maintain ownership levels |
| **Participation**  **Rights** | Ability to receive BOTH Liquidity Preference & Conversion Benefits   * Conversion Value calculated on the remaining value **AFTER** Liquidation * Based on the remaining weights |
| **Board**  **Membership** | Investor has **voting rights** within the company   * May be used to have a place on the board of directors to influence actions |

**Why would Investors want to convert from Preferred to Common Stock?**

* Preferred Stock has **fixed dividends** while Common Stock has **variable dividends** - in a **good year**, the variable dividend declared might be higher, thus it is more worthwhile to convert
* Common Stock price **appreciates much faster** than Preferred Stock - if the common stock is worth **more than the conversion price**, the investor can make an immediate profit
* For Investors *without* Participation Rights, they have to **CHOOSE between both**:

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| **Don't Convert Shares** | **Convert Shares** |
| Get Liquidity Preference | Get **proportion** of firm value after any obligation/liquidation |

**Initial Public Offerings (IPO)**

# Background Information

**Type of Offering**

|  |  |
| --- | --- |
| **Primary Offering** | **Secondary Offering** |
| NEW shares are sold | Existing shares are traded |

**Cost-Benefit Analysis of IPOs**

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| **Advantages** | **Disadvantages** |
| Greater Liquidity | Lower Management Influence |
| Greater Access to Capital | Time Consuming |

**Types of IPOs**

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| **Best Effort IPO** | **Firm Commitment IPO** |
| No guarantee that all shares will be sold   * Sold at the best possible price * Usually for Smaller IPOs | Guarantees that all shares will be sold   * Sold at the offer price * Most common form of IPO |

# IPO Process

## Hiring Underwriters

* They are a group of **investment banking firms** that oversees the IPO
  + **Lead Underwriter** is known as the **Underwriter** (Handles Process)
  + **Smaller Underwriters** are known as the **Syndicate** (Follows Lead)

## SEC Filings

* Companies must file a registration statement with the Security Exchange Commission (SEC)
* Meant to provide key financial and other company information to investors
  + **Preliminary Prospectus (Red Herring)** → Investor related information
  + **Final Prospectus** → Details about the IPO

## Underwriter Valuation

* Underwriters conduct an initial valuation to determine the share price of the company
  + Present Value of Future Cashflows
  + Value of other Comparable Firms
* Underwriters market the offer to their clients using this initial price to get a sensing of their opinions on the valuation (**Road Show**)
* Based on the feedback, Underwriters will **adjust the price of the offering** that matches the market sentiments to **increase the IPO's success rate** (**Book Building**)

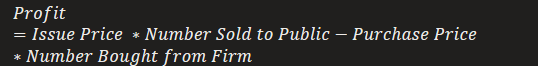
## Underwriters buy shares

* Underwriters guarantee the firm that they will **purchase all the shares at the offer price**
* They will usually buy it from the firm at a discount based and earn the difference between it and the sale price known as the **Underwriting Spread**



## Share Issuance

* **Traditional IPOs** → Underwriters sell the IPO at a **fixed price** through the valuation process
  + However, Roadshows and Book Building are often done with large institutional investors which may not accurately reflect public interest
  + This could lead to the IPO being issued **much lower** than what the public was willing to pay for it reflected through a **sharp price jump afterward (IPO Under-pricing)**
* **Auction IPOS →** Underwriters sell the shares through a **Dutch Auction**
  + Each buyer submits a bid with their **bid price & number of shares to buy**
  + A list is then created with the **highest bid price at the top** with the number of shares desired
  + The underwriter fulfils bids top until all the shares are sold
  + The price of the IPO is the **last (Lowest) price at which a bid was fulfilled** - All investors pay this same price regardless of their bids (AKA Uniform/Descending Price Auction)



### Winners Curse

* Investors who placed a high bid would win the auction and get the shares
* However, they would have likely over-bid as the issue price would be much lower
* They are "winners" due to their high bid but "cursed" because they are holding a stock that is worth much less than they thought

## Underwriter Risk Management

* The profit of the Underwriter is thus dependent on Issue Price & Number of Shares Sold
  + Thus, underwriters tend to **under-price** the IPO (within reason) to increase the chances that all the shares will be sold
* They have two additional tools that help them to manage risk:
  + **Over Allotment Allocation** → Able to Short Sell an **additional proportion** of the IPO
  + **Green Shoe Provision** → Option to **cover these additional shares** from the firm at offer price
  + Note that both of these terms are used **interchangeably** as they refer to the collective process

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| **IPO Succeeds** | **IPO Fails** |
| Market Price > Offer Price | Marker Price < Offer Price |
| Exercise Greenshoe to cover at **lower offer price** | **DO NOT** exercise Greenshoe to cover at **lower market price** |

Regardless of the outcome of the IPO, the Underwriter will gain **additional profit** through the combination of Over-Allotment and Greenshoe



**Debt Financing**

# Corporate Debt (Issued by Corporations)

## Public Debt

* Bonds that trade on **public exchanges** - Higher Liquidity
* They require legally binding agreements known as **Indentures** to ensure investors that the Bond Issuer will uphold their end of the agreement
  + **Bearer Bonds** → Investor holds official Bond Certificate
  + **Registered Bonds** → No certificate; Issuer keeps track of Investors through registry
* They **USUALLY** have the following specifications:
  + Semi Annual Coupons (Some companies do issue Zero Coupon Bonds)
  + Long Term; Maturity of less than 30 years
  + Principal is in increments of $1000

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| **Unsecured Bonds** | **Secured Bonds** |
| **No Collateral** Needed  Claim to **Non-Collateral** Assets | **Collateral** Needed  Claim to **Collateral** Assets |
| Lower Seniority (Subordinated)  **After** higher Seniority | Higher Seniority  **First Claim** to Assets |
| Notes & Debentures | Mortgage & Other Asset Backed Bonds |

## International bonds

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| --- | --- | --- | --- |
| **Name** | **Origin** | **Currency** | **Target Audience** |
| **Domestic Bonds** | Local | Local | Foreign |
| **Foreign Bonds** | Foreign | Local | Local |
| **Euro Bonds** | Local/Foreign | Different from Origin | Local/Foreign |
| **Global Bonds** | Any | Any | Any |

Foreign Bonds have different names based on the country - Yankee (US), Samurai (JPN) & Bulldogs (UK)

## Private Debt

* Bonds that **trade directly** with the issuing entity - Advantage is that **no registration cost (CHEAPEER)** with the disadvantage of **ill-liquidity**
* Since the deal is private, **Promissory Notes** are often used in place of Indentures
* Common examples:
  + **Term Loans** → Bank Loan directly to customer (Multiple banks known as *Syndicate* Loan)
  + **Private Placement** → Bonds sold directly to investors
* Private Debt is overall **larger and more common** than Public ones

# Government Debt (Issued by Government)

## Sovereign Debt

* Issued by Federal Governments - Taxable at the Federal Level but **NOT the State or Local level**
* They are directly issued to the public via Auction by the US Treasury
  + **Non-Competitive Bid** → Guaranteed Fulfilment at a fixed price
  + **Competitive Bid** → Non-Guaranteed Fulfilment; highest price bidders fulfilled first
  + There are usually **fixed allocations** of Competitive and Non-Competitive bids
    - Highest priced competitive bidders are fulfilled first
    - The last bidder to get allocated has the lowest price → **Highest Yield (Stop Out Yield)**
    - This is the yield that the **non-competitive bidders** will purchase at

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| **Treasury Bills** | Zero Coupon  Lesser than 1 Year Maturity |
| **Treasury Notes** | **Semi-Annual** Coupons  1-10 year Maturity |
| **Treasury Bonds** | **Semi-Annual** Coupons  More than 10 year Maturity |
| **Treasury Inflation**  **Protection Security** | **Semi Annual** Coupon Payments are adjusted for Inflation |

Unless otherwise stated, ALL Bond Coupons are always semi-annual

### Additional Note on TIPS

* **Principal Payments** are protected against BOTH inflation and deflation:
  + **Inflation Protection** → Principle payment increases with inflation
  + **Deflation Protection** → Principle payment **does NOT decrease** with deflation
* **Coupon Payments** are only protected against Inflation - the payments will **increase or decrease with inflation** no matter what

## Municipal Bonds

* Issued by State or Local Governments - **NOT Taxable at the Federal Level** but sometimes at the State/Local Level

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| **Revenue Bonds** | **General Obligation Bonds** |
| **Backed by revenue** of the project the bond is financing | Backed by the **full faith and credit** of the State or Local Government |

Municipal Bonds backed by both are known as Double Barrelled Bonds

# Asset Backed Securities

* Security made up of other securities - Cashflows are *backed* by the cashflows of underlying securities
* The process of converting the underlying securities into an ABS is known as **Securitization**
* The underlying assets used are often Debt - Home Mortgages, Student Loans, Credit Loans etc
  + Debt Payments from these will be passed on to the MBS owners
  + Since these Debt can be partially or fully repaid early, this introduces volatility in the timing of cashflows for ABS investors, known as **Prepayment Risk**
* An ABS can be used to back another ABS - Forming a **Collateralized Debt Obligation** (CDO)
  + The Cashflows for CDOs are split into tranches of different priorities
  + Lower priority tranches will not receive any cashflows until higher priority ones are fulfilled