Vajira Kulatilaka

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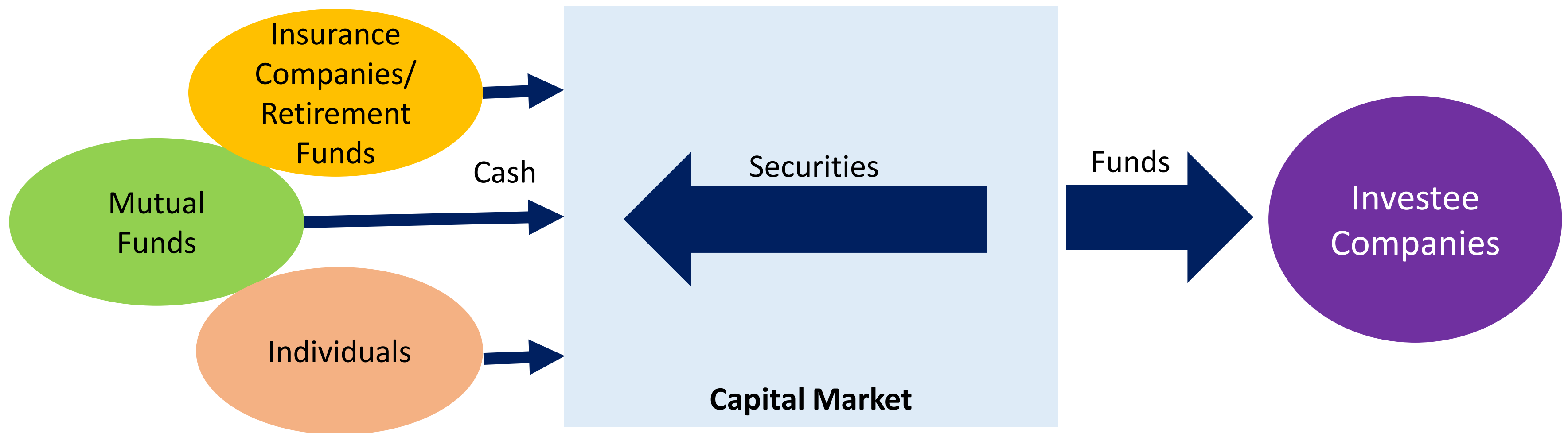
"*It's not how right or how wrong you are that matters but how much $ you make when right and how much you do not lose when wrong*"

George Soros

What is a Capital Market?



- Channels money provided by savers to borrowers through a variety of financial instruments called securities
- A conduit for demand and supply of debt and equity capital
- Disintermediation is sort, resulting in higher returns to investors and lower cost of funds to borrowers
- Capital markets are vital to the functioning of an economy, since capital is a critical component for generating economic output
- The size of a nation's capital markets (debt & equity) is directly proportional to the size of its economy (R^2 =0.87)

Instruments for Accessing Capital Markets

Debt

- No ownership rights
- Precedence over equity incase of liquidation
- Promised flow of cash in the form of interest and capital
- Comparatively lower risks and lower returns for investors and higher risk for the company

Equity

- Gives ownership rights and a share of profits
- Residual claim on company's assets
- Comparatively higher risks and higher returns for investors and lower risks for the company

Hybrid

- A combination of the above two
- Subordinate instruments

Types of Debt Instruments

- A variety of debt instruments are created based on unique investor and issuer needs

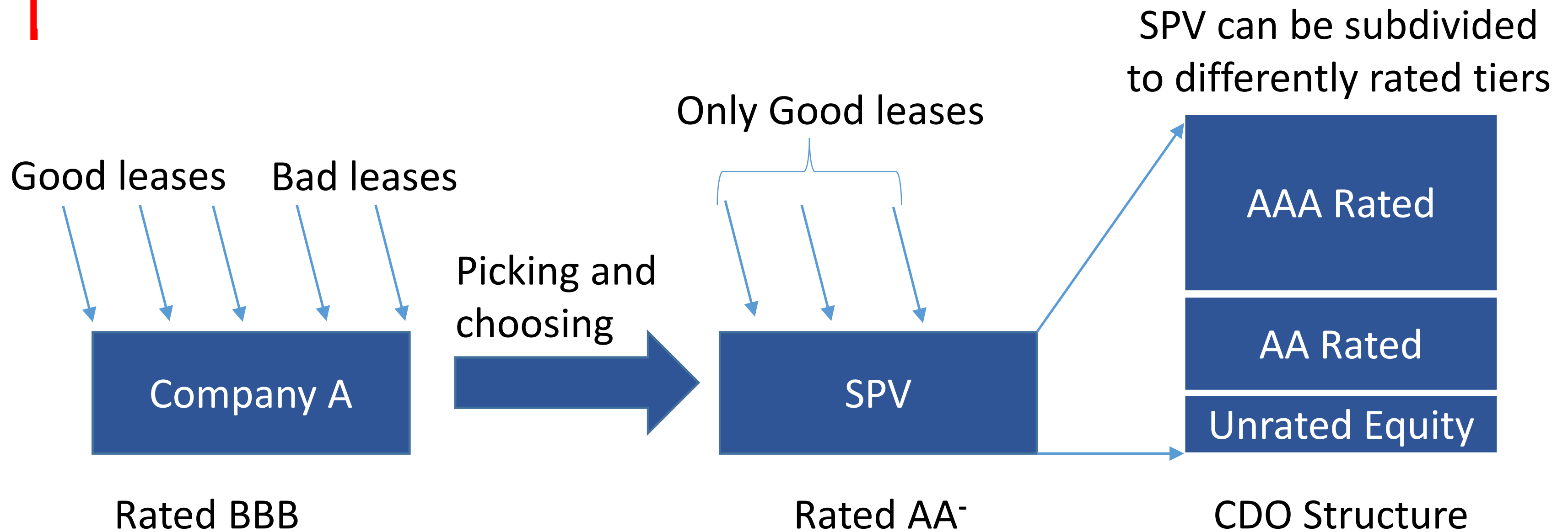
Category	Type	Description
Security	Secured	• In case of a default, assets will be sold and debenture holders will be paid back • Mortgage may be a fixed or a floating charge
	Unsecured	• No charge is created on the assets of the company • The creditworthiness of the company serves as a security
Tenure	Perpetual	• No specified period for redemption • In case of a wound up, have to repay the debenture holders
	Redeemable	• Have to be repaid within a certain specified period
Mode of Redemption	Convertible	• Converted to either ordinary or preference shares • Conversion at a specified rate and date • Conversion may be at the discretion of the company or the debt holders
	Non-convertible	• Redemption is through normal capital repayment

Types of Debt Instruments…

Coupon	Zero coupon	• Issued at a substantial discount • Interest: Difference in face value and issue price
	Fixed	• Rate of interest fixed at the initiation
	Floating	• Interest linked to an external rate such as LIBOR, TB or AWPLR
Registration	Registered	• Interest paid only to the registered holder • Transferred by a transfer deed
	Bearer	• Transferred by mere delivery • No records held on debenture holders • Interest paid to the one who displays the interest coupon attached

- The exchange system should be sophisticated to accommodate unique issuer/investor requirements which could be a constraint

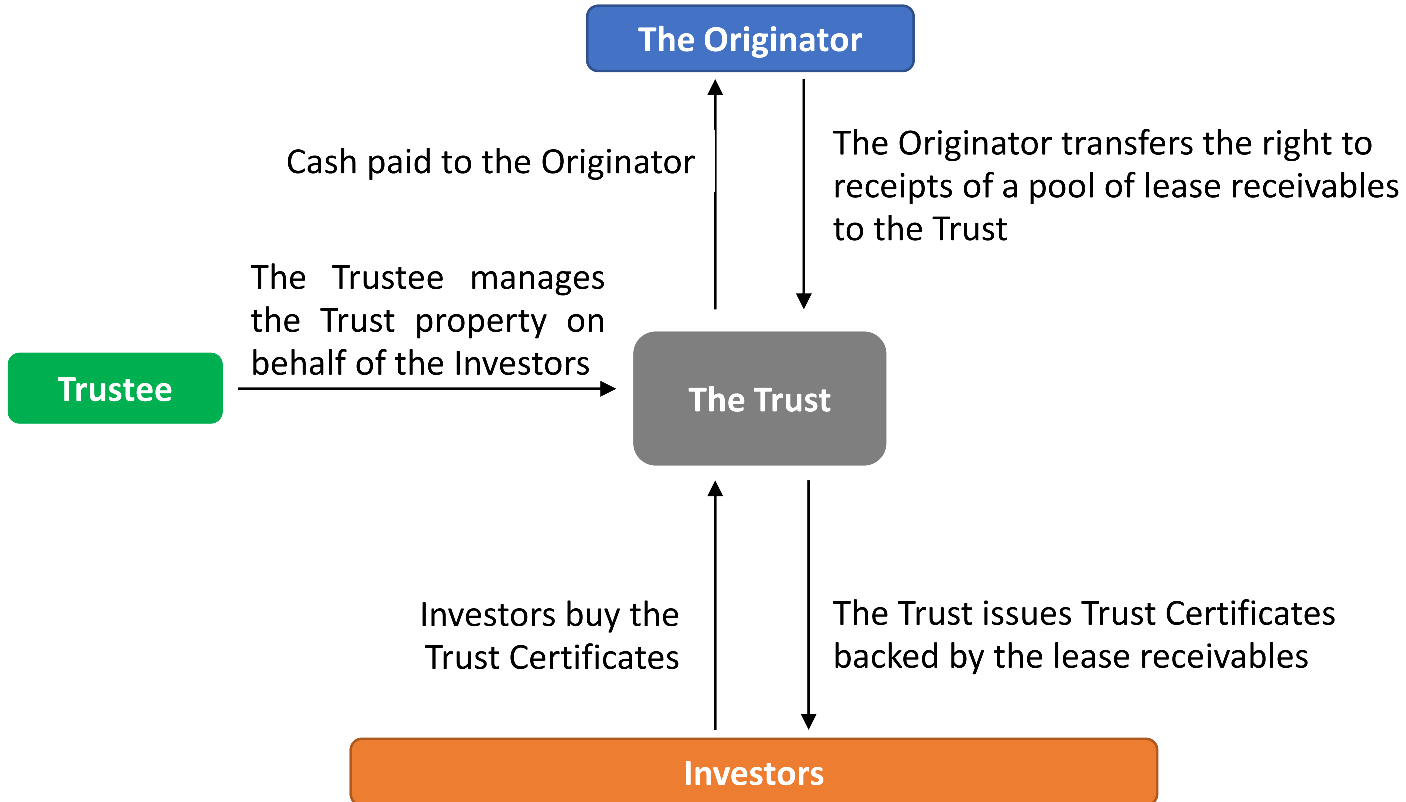
Securitizations



- A process where instruments are created to satisfy specific risk, return and cash flow requirements
- Securitization is a subset of structured products where an issuer financial asset is repackaged
- A credit enhancement will result allowing the issuer to get a better rate for the instrument → cash buffers
- Bankruptcy remote structure

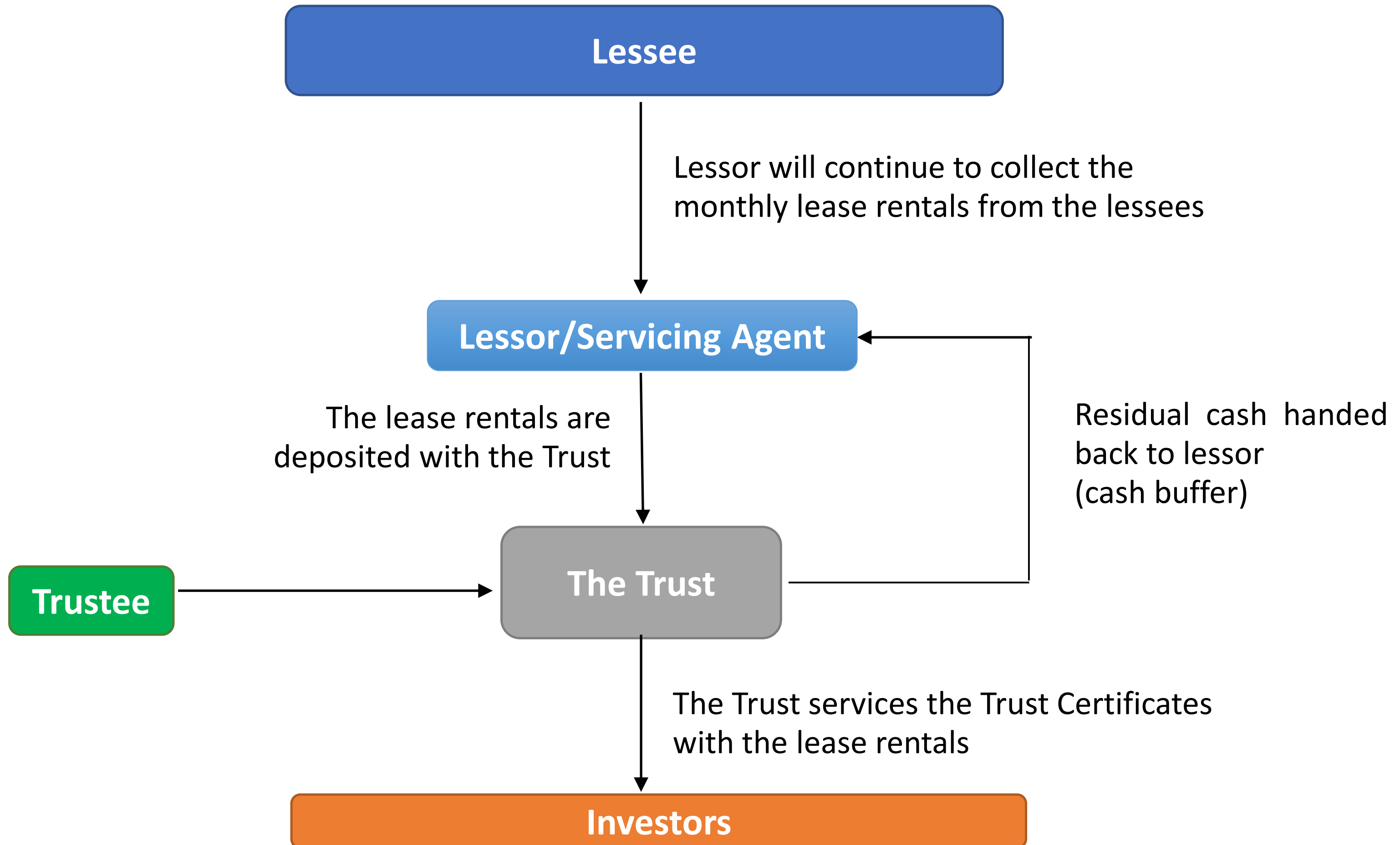
Securitization Process

Issuing of instruments



Securitization Process

Servicing of instruments



- Future Sales can also be securitized

Equity

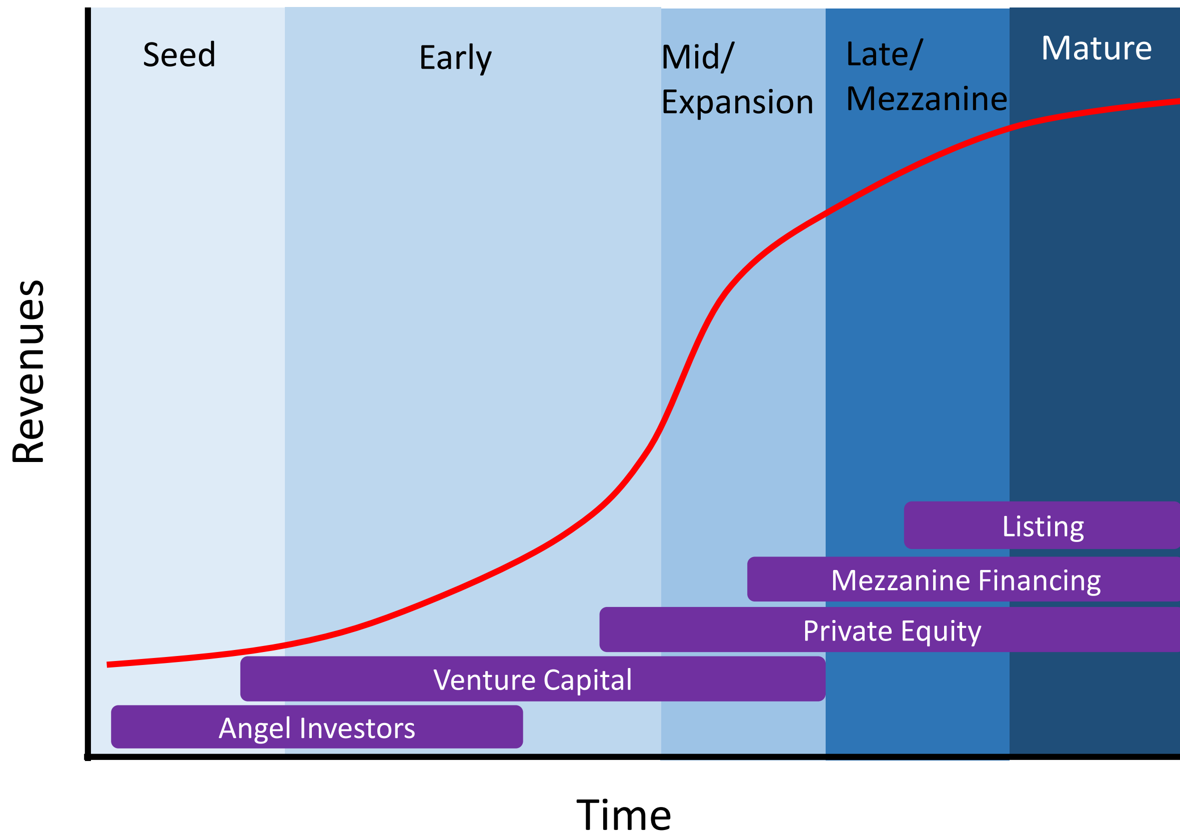
Classes of Equity

Class	Features
Ordinary shares	• Gives the holder ownership rights • The last to recover investment in case of a liquidation
Non-voting/differential voting shares	• Carry no/less rights to vote • Preferred by investors who has no control interest • Trade at a discount to ordinary shares
Redeemable shares	• The company will buy these shares back at a future date • The redemption date may be fixed or at the directors' discretion • Statutory restrictions could be present on the redemption
Preference shares	• Preferential right to a fixed amount of dividend • The dividend may be cumulative or non-cumulative • Preference shares are often non-voting and redeemable which make them more equivalent to debt than equity

- Prices of different classes will vary depending on the importance given to each type of right by the investors
- Maximum 10% of ordinary shares can be issued as other classes of shares according to the CSE Listing rules

Sources of Equity Capital

- Source of capital will depend on stage, size and type of business



Sources of Equity Capital…

- Personal savings, friends and family
  - Limited funds available
  - Inherent dangers in obtaining funds from friends and family
- Angel investors
  - Private investors who back emerging entrepreneurial companies with their own money
  - An excellent source of "patient money" for investors needing relatively small amounts of capital
  - Angels can add value by sharing their experience and know-how
  - Difficulty is finding them
  - Angels almost always invest their money locally and can be found through "networks"
- Venture capitalists
  - Capital infusions are just one benefit; corporate partners may share marketing and technical expertise
  - Business plans are subjected to an extremely rigorous review – less than 1% accepted
  - Most venture capitalists take an active role in managing the companies in which they invest
  - Many venture capitalists focus their investments in specific industries with which they are familiar
  - Most often, venture capitalists invest in a company across multiple stages

Sources of Equity Capital…

- Private equity
  - Main difference with VC firms is that PE firms invest at a later stage
  - Similar to venture capitalists they select companies after a rigorous process
  - PE firms take an active role in managing the companies in which they invest and also provides their management and technical expertise
  - Styles can vary
    - Majority holding
    - Leveraging on the company
    - Minority with some controlling rights
  - What do private equity companies look for when investing?
    - Competent management
    - Competitive edge
    - Growth industry
    - Viable exit strategy
  - Approaching PE at the right time is crucial
  - Presenting an acceptable exit is also vital

Sources of Equity Capital…

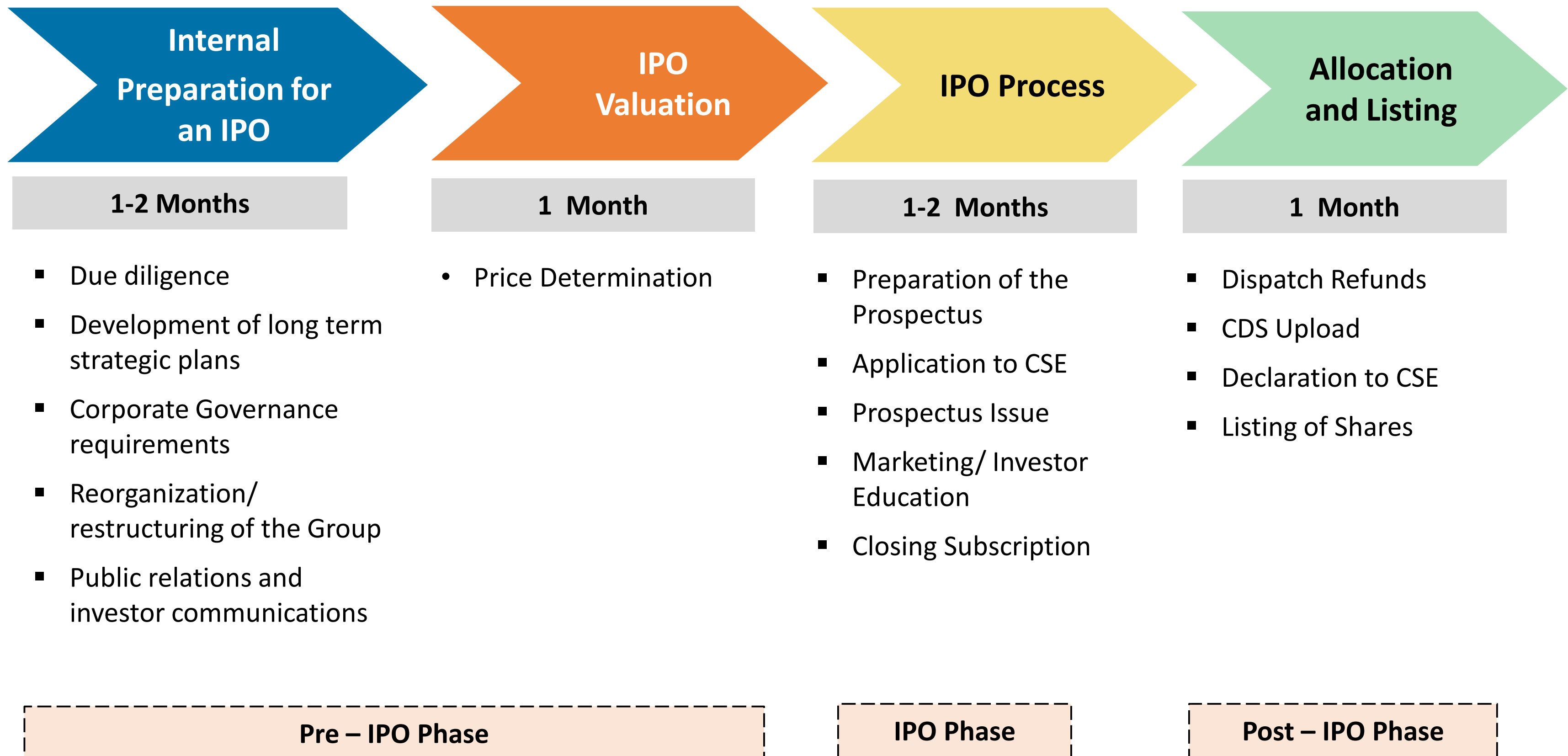
- Listing
  - Listing allows large amounts of capital to be raised initially through an IPO as well as on a continuous basis through secondary issues
  - There should be a willingness on the part of original owners and management to accommodate a minority → attitude has to change
  - Governance and control has to improve
  - In the long term, the expectation is that the high standards imposed through listing will positively influence a firm
- Advantages of "Going Public"
  - Ability to raise large amounts of capital
  - Improved corporate image
  - Improved access to future financing
  - Attracting and retaining key employees (ESOP + Listing)
  - Using stock for acquisitions
- Disadvantages of "Going Public"
  - Dilution of founder's ownership → loss of control
  - Information disclosure → disclosing too much to competitors

} Sometimes falsely perceived

Sources of Equity Capital…

Roadmap for Listing

- A typical IPO transaction will require approximately 6 months to complete



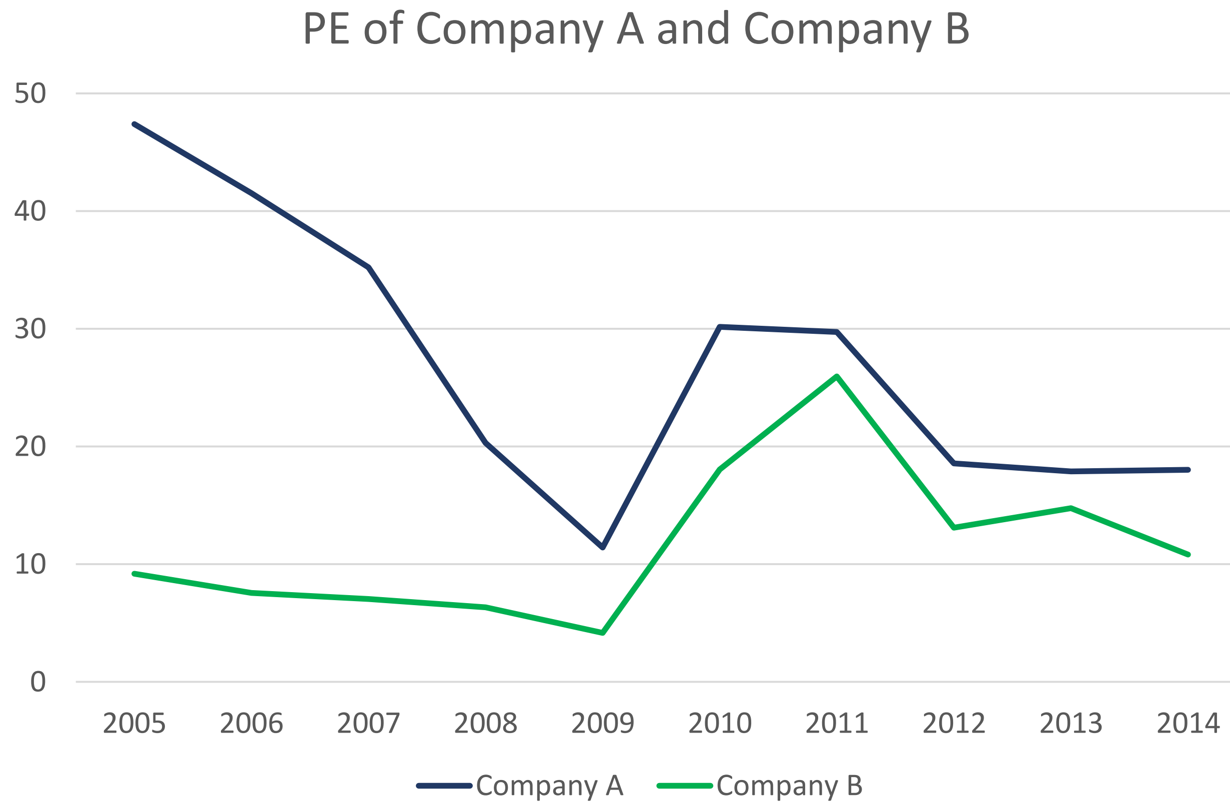
Sources of Equity Capital…

How Facebook raised capital

Date	Amount Raised (USD)	Type of Investor	
June 2004	500,000	Angel Investor	Peter Thiel
May 2005	12,700,000	Angel Investor + Venture Capitalist	Peter Thiel, Accel Partners
April 2006	27,500,000	Angel Investor + Venture Capitalist	Peter Thiel, Accel Partners, Greylock Partners and Meritech
October 2007	240,000,000	Private Equity	Microsoft
November 2007	60,000,000	Private Equity	Li Ka-Shing
January 2008	15,000,000	Private Equity	Founders Fund
March 2008	60,000,000	Private Equity	Li Ka-Shing
May 2008	100,000,000	Debt Funding	Triple Point Capital
May 2009	200,000,000	Private Equity	Digital Sky Technologies
November 2009	90,000,000	Private Equity	Elevation Partners
June 2010	120,000,000	Private Equity	Elevation Partners
January 2011	500,000,000	Private Equity	Goldman Sachs, Digital Sky Technologies
May 2012	16,000,000,000	IPO	

Governance Impact on Pricing of Equity

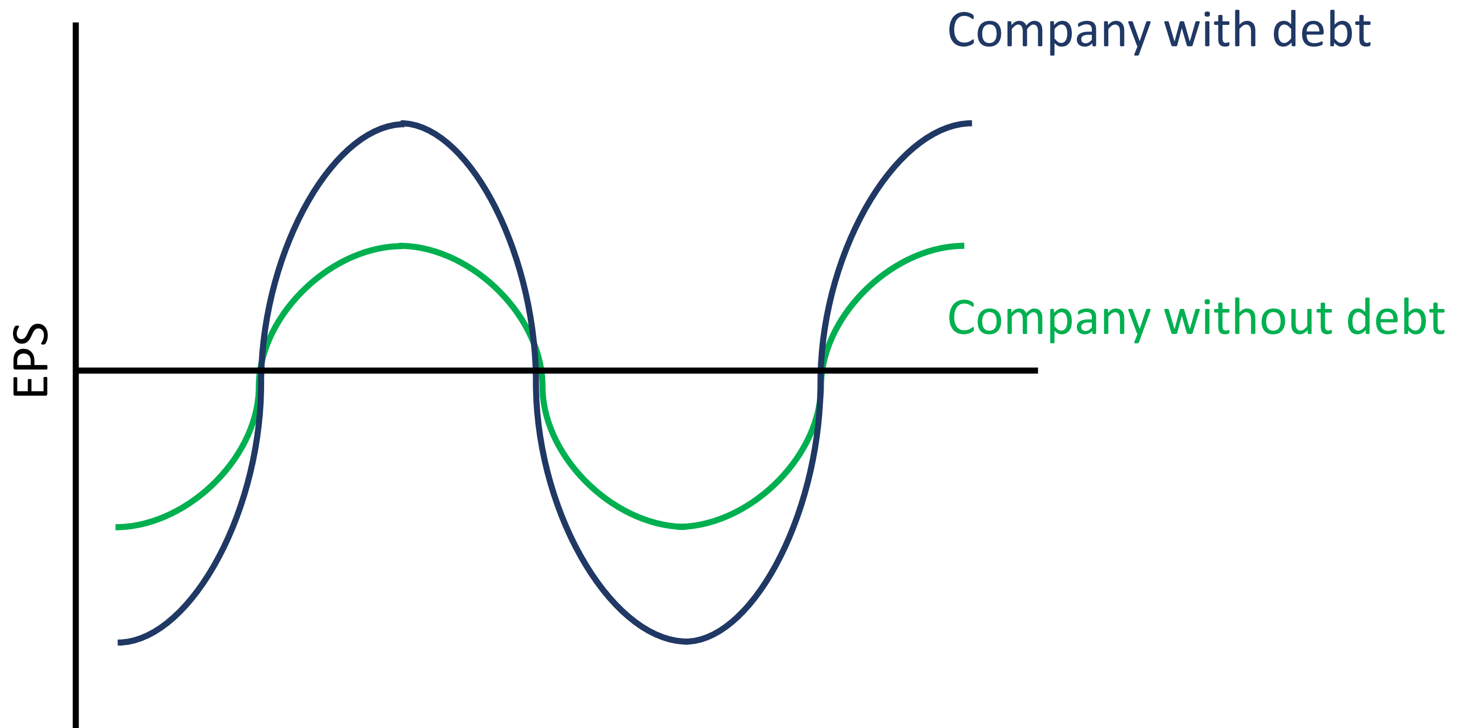
- High PEs can be seen in companies with good governance



Optimal Debt Ratio

How to decide between debt and equity?

- Decision is mostly a judgment call based on common sense
  - Optimize business risk and financial risk
- Management and directors should decide on the optimum leverage
- Leveraging increases the volatility of a company's performance



Optimal Debt Ratio

Some Considerations

- Four theoretical approaches can be used to assist management to arrive at the optimal mix of debt and equity

Cost of Capital Approach	The optimal debt ratio is the one that minimizes the cost of capital for a firm
Adjusted Present Value Approach	The optimal debt ratio is the one that maximizes the overall value of the firm
Sector Approach	The optimal debt ratio is the one that brings the firm closes to its peer group in terms of financing mix
Life Cycle Approach	The optimal debt ratio is the one that best suits where the firm is in its life cycle

Valuations

Valuation via Discounted Cash Flows

- Basic idea is to decide on the future cash flows and discount at a specific rate of return to arrive at the Present Value

Debt Value is easier to calculate since most parameters are known:

$$Debt\ Value = \frac{C_1}{(1+r)} + \frac{C_2}{(1+r)^2} \dots\dots\dots\dots\dots. + \frac{C_n}{(1+r)^n}$$

Equity Value depends on more subjective assumptions:

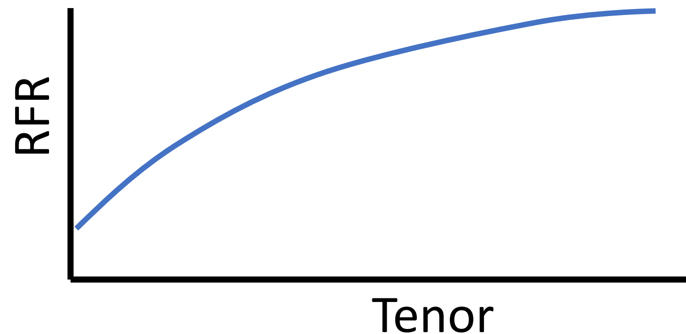
$$Equity\ Value = \frac{C_1}{(1+r)} + \frac{C_2}{(1+r)^2} + \dots\dots\dots + \frac{C_n}{(1+r)^n} + \cdots\dots\dots + \frac{C_\infty}{(1+r)^\infty}$$

Need to apply a terminal value to capture these terms

Valuations

Calculation of “r”

- Starting point to calculate the relevant discount rate is the Risk Free Rate
- RFR will vary based on the time period according to the yield curve



- When arriving at the discount rate, risk premiums will be added to the RFR based on specific risks faced
  - Debt → easier to decide on premiums
  - Equity → difficult to decide and the premiums would be more judgmental
- FCF to the Firm → includes Debt so have to use WACC
- FCF to the Equity → Cost of Equity used

Equity Valuation

Absolute vs Relative Valuation

- Two main categories of equity valuation

Absolute Valuation Methods	Relative Valuation Methods

• Focus is on fundamentals
  • Dividends
  • Free cash flows
  • Growth rate
	• Focus is on comparing to other similar companies
	• Issues may arise on finding proper comparable firms

• Methods:
  • Dividend discount model
  • Discounted cash flow model
  • Residual income model
  • Asset based models
	• Methods:
	  • Price to earnings based
	  • Price to NAV based
	  • Price to sales based
	  • Price to cash flow based
	  • Enterprise Value to EBITDA based

Equity Valuation…

Dividend Discount Model

- One of the oldest methods

Basic idea: Any stock is ultimately worth no more than what it will provide investors in current and future dividends

$$Value = \frac{Div_1}{(1+r)^1} + \frac{Div_2}{(1+r)^2} + \cdots + \frac{Div_n + Terminal\,Value}{(1+r)^n}$$

$$Terminal\,Value = \frac{Div_{n+1}}{(r-g)}$$

***r*- Cost of Equity**

- Needs to make assumptions about dividend payout
- Certain companies may lack a correlation between company performance and dividend payment

Equity Valuation…

Discounted Cash Flow Model

- An improvement on DDM so that no need to assume a dividend payout

Basic idea: Any company is ultimately worth no more than what it will generate in current and future free cash flows

$$Value = \frac{FCFE_1}{(1+r)^1} + \frac{FCFE_2}{(1+r)^2} + \cdots + \frac{FCFE_n + Terminal\ Value}{(1+r)^n}$$

$$Terminal\ Value = \frac{FCFE_{n+1}}{(r-g)}$$

***r*- Cost of Equity**

- Recent accounting scandals has given new importance to DCF based valuations since it is **harder to fool the cash register**
- Meaningful valuations depend on the user's ability to make solid cash flow projections → need to look at the total picture
- Ease of calculation is sacrificed for accuracy
- DCF can prevent investors from buying into a market bubble

Equity Valuation…

Residual Income Model

- A method that can be used for companies that does not pay dividend or generate positive cash flows

Basic idea: Investors require a rate of return from equity that at a minimum compensates them for their opportunity cost and level of risk

$$RI = Net\ Income\ - Equity\ Capital \times Cost\ of\ Equity$$

$$Value = Net\ Book\ Value + \frac{RI_1}{(1+r)^1} + \frac{RI_2}{(1+r)^2} + \cdots + \frac{RI_n/(r-g)}{(1+r)^n}$$

- Makes use of data readily available from a firm's financial statements
- Residual income model look at the economic profitability of a firm rather than just its accounting profitability
- Value is recognized earlier under the RI approach, and thus less sensitivity to terminal value

Equity Valuation…

Relative Valuation Models

- A "catch-all" method if all the other methods cannot be used or a quick valuation is necessary

Basic idea: A stock's price multiples to its peers determine if the stock is relatively undervalued or overvalued

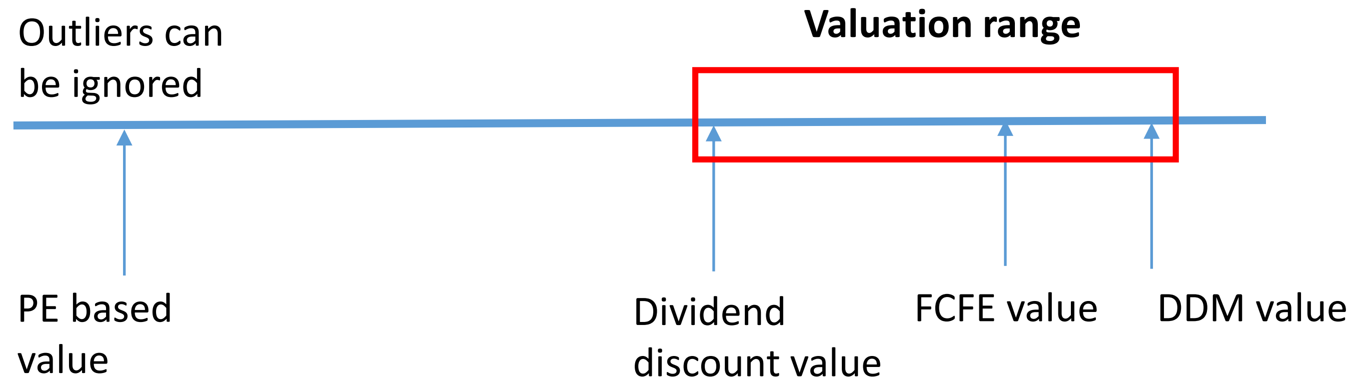
$$Share\ Price = Price\ Multiple\ \times Parameter$$

- Any price multiple such as P/E, P/BV, P/S, P/CF or EV/EBITDA can be used
- Based on "Law of one price", which states that two similar assets should sell for similar prices
- Act like a beauty contest: stocks are compared to each other rather than judged on intrinsic value
- Parameter used (earnings, sales etc) should not be too volatile
- Could be subjected to manipulation through accounting practices
- Analysing trends will be important in these methods

Equity Valuation…

The Bottom Line

- No one valuation method is perfect for every situation
- Need to select a method that best suits the situation
- Best practice is to use multitude of methods to arrive at a range of valuations
- Averaging methods such as mean, median can be used if a single figure is necessary



Four Strategies for Growth

	Pros	Cons
Organic Growth	• A strong culture may develop • Growth will be at a pace comfortable to the owner	• Resource limitations can hinder growth • Competition may thwart growth beyond a certain point • May take time
Strategic Alliance	• Flexibility to switch partners based on the requirement	• Loose arrangement could be too informal for long term achievement of objectives
Joint Venture	• Different parties could combine their varied expertise • Diversification of risk	• Parties could have competing objectives • Slow decision making
Merger or Acquisition	• Can leap frog growth, instantly increasing assets, market presence etc • Personnel at new business can bring expertise and know-how	• Very risky strategy with many failures • Management capabilities needs to be greatly enhanced • Could loose track of the primary business

Mergers, Acquisitions and Joint Ventures

Critical Steps

- Develop a growth strategy to maximize shareholder value
- Choose the best alternative: merger, acquisition, joint venture, or strategic alliance
- Evaluate the fit between the target and your corporate strategy and culture
- Identify the value drivers and perform a financial evaluation
- Be an effective negotiator
- Manage post-merger or alliance integration successfully

Try not to bring Ego or Greed

Consideration for M&A

Cash Consideration

- Methods of raising cash:
  - Rights issue by Buyer
  - Debt issue by Buyer
  - Internally generated cash of Buyer
- Pros:
  - Simple and easily defined
  - Provides an exit route to Target company's shareholders
  - Target has an idea about exact amount paid
- Cons
  - Buyer may have to raise necessary finances
  - Requires Buyer to assume all performance risk once the deal is closed

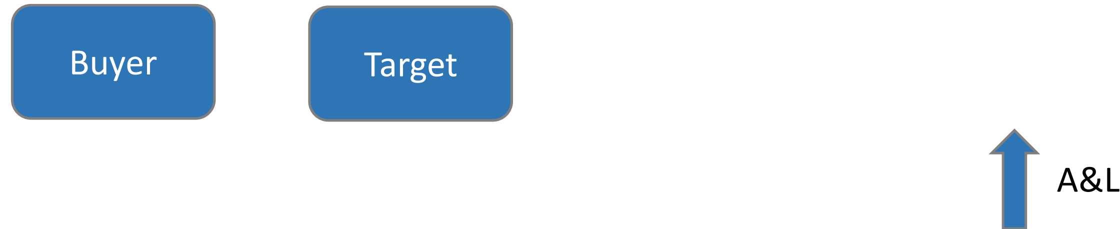
Share Consideration

- Buyer's shares are provided as payment to Target company
- Pros:
  - Target's shareholders' interests will be aligned with the Buyer
  - No need for a major cash outflow from the Buyer
- Cons
  - Sometimes complex, especially when securities used as consideration carries special rights or restrictions
  - Valuation is often difficult and sometimes uncertain, especially when non-public stock is used
  - Buyer company's shareholders may be diluted

Apart from the above two, 'debt' and 'assumption of liabilities' is also sometimes given as consideration

M&A Structures

Option 1: Transfer of A&L of Target to Buyer



- Pros:
  - Buyer's balance sheet will be strengthened if shares are issued
- Cons:
  - Target will cease to exist, requiring extensive marketing to keep customer loyalty
  - Would be detrimental if assets and liabilities of Target includes hidden pitfalls – needs to be managed through due diligence
  - Transfer of assets will result in associated fees including stamp duty and VAT as well as Goodwill write off
  - Legal complications could ensue and moral of Target could be damaged

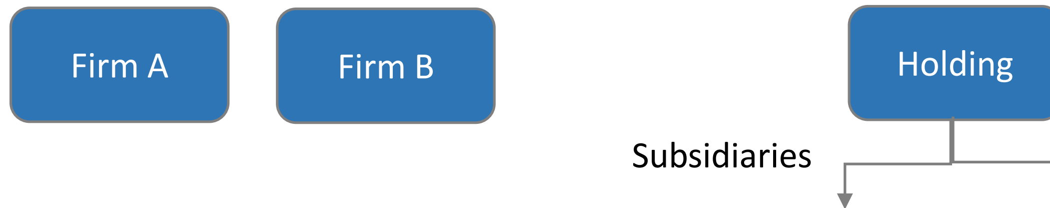
M&A Structures…

Option 2: Merger with Continuation of Buyer

- Pros:
  - If properly managed, operational strengths of both the companies could be taken forward
- Cons
  - If not properly managed, could be seen as a discontinuation of Target, alienating existing customers – rebranding
  - Goodwill write off

M&A Structures

Option 3: Both Become Subsidiaries of a New Holding Firm



- Usually an interim measure, prior to a full merger
- Pros:
  - Individual identities are maintained (brands)
- Cons:
  - Certain functions may be duplicated
  - Synergies may be reduced
  - Large goodwill write off

M&A Structures

Option 4: Creation of a New Combined Entity

- Pros:
  - Could favourably be perceived as a merger of two equals
  - If properly managed, operational strengths of both companies could be taken forward
- Cons
  - If not properly managed, could be seen as a discontinuation of two established players and the creation of a new entity, alienating existing customers of both – rebranding
  - Goodwill write off

Joint Ventures

- A business agreement in which the parties agree to develop, for a finite time, a new entity and new assets by contributing equity
- Two parties exercise control over the enterprise and consequently share revenues, expenses and assets
- The venture can be,
  - For one specific project only (as the building of the Channel Tunnel)
  - For a continuing business relationship
- A joint venture allows both parties to share the burden of the project, as well as the resulting profits
- While there is a logical justification for JVs, around the globe, more than 50% of the JVs fail
- Main reasons for failure,
  - Wrong Strategies
  - Incompatible partners
  - Weak management
  - Unrealistic or inequitable deals

Joint Ventures

Successes and Failures

Volvo and Eicher successfully combined Volvo's technology with Eicher's Indian market know-how to launch a successful range of buses and trucks in India

SONY

Sony Ericsson

JV between Sony and Ericsson failed when there was lack cohesion between the parties on innovation which ultimately led to loss of market share to Apple, Samsung and LG

Three rivals in the TV business got together to setup the highly successful online video streaming service 'Hulu', which combined the content on all three networks

Supply Side of Excess Cash

- Capital markets can also be used by companies as a place to park their excess cash
- Considerations for investment:
  - Time horizon
  - Anticipated withdrawals or deposits
  - Liquidity requirements
  - Tolerance level for risk and volatility
  - Tax effects

Thank You..