

## 5. Maximise firm value

- Two sources of funds: debt, equity
- all assets of the firm can be claimed by either debt holders or shareholders
- Firm's assets (V) = market value of firm's debt (D) + market value firm's equity (E)
- \* Market value of debt and equity are constantly changing as value of equity is changing over time (market's assessment of cash flows, risk is constantly changing)

**Residual claim:** ordinary shareholders who have the right to receive cash flows after all other claimants have been satisfied in full

- Cash available as dividends = Cash flows generated by firm's assets less liabilities

### Difference between maximising profit and maximising shareholder wealth:

- profits focus is on short-term earnings, while the wealth focus is on increasing the overall value of the business entity over time

**Agency Issues:** managers are employed by firm and act as agents for them

- Shareholder-manager conflict: managers may pay salaries for themselves too high, unnecessary expenses
- Shareholder-debt holder conflict: managers are employed by shareholders and they manage assets that generate return for debt holders

### Methods used to minimise agency costs:

- Executive compensation plan: incentives offered to a manager to encourage them to act in the best interests of the owner
- Share options: grants of shares to top managers or the right to purchase shares at a fixed price

### Factors to consider when valuing a firm:

- magnitude of expected cash flows, timing of cash flows (n), risk of expected cash flows (r), efficiency of capital markets

#### SIMPLE INTEREST:

- Method of calculating interest payments without any reference to any accrued interest

\* r : convert percentage to decimal place to use for formula

- Future value

$$FV = P_0(1 + r \times n)$$

- Present value

$$P_0 = \frac{FV}{(1 + r \times n)}$$

#### COMPOUND INTEREST:

- Future value

$$FV_n = P_0(1 + r)^n$$

- Present value

$$P_0 = \frac{FV_n}{(1 + r)^n}$$

\* r: stated/quoted rate, higher frequency of compounding = higher opportunity to earn more interest

### Factors influencing present and future values:

- As Time period (n) increases: FV ↑ and PV ↓
- As Interest rate (r) increases: FV ↑ and PV ↓
- Computing interest: FV ↑ as compounding frequency ↑ and PV ↓ as compounding frequency ↑