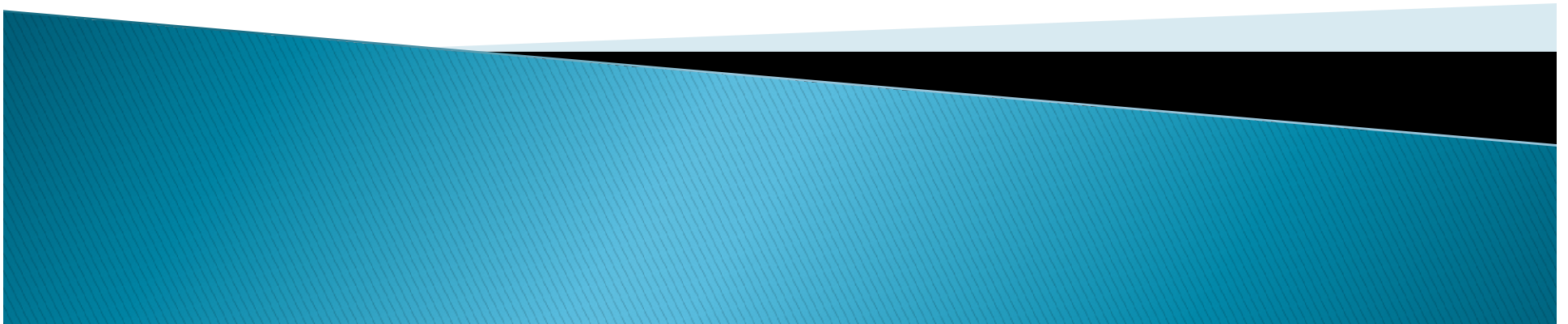


Valuation of Securities

Unit 1

By Ms. Ankita Valera



Meaning of Value in Financial Management

- ▶ Value in financial management means the worth of an asset, company or investment and is determined through various valuation techniques.
- ▶ It is the current value of an expected future stream of cash flows or benefits from an asset, such as risk and market conditions/values in the economy.
- ▶ Value can be understood by different methods like DCF analysis that calculates the present value, mostly from projected cash flows and comparative analysis which tries to evaluate an asset with respect to a similar entity in the market.
- ▶ The intrinsic value represents the true worth of an asset based on fundamental analysis and market value simply denotes your price at that moment.



Importance of Valuation

- ▶ Value is crucial in financial management as it helps in determining the worth of an asset or investment relative to its price.
- ▶ By assessing value through methods like Discounted Cash Flow (DCF) or comparative analysis, investors can identify undervalued or overvalued assets, guiding investment choices and strategic decisions.
- ▶ Accurate valuation is fundamental for effective investment planning, mergers, acquisitions, and overall financial strategy, ensuring that resources are allocated to opportunities that offer the best potential for growth and profitability.



Importance of Valuation

▶ Helps in Buying and Selling Businesses

- **Fair Pricing:** It ensures you do not overpay when buying a business.
- **Smart Selling:** It prevents you from selling your own company too cheaply.
- **M&A Success:** It helps calculate if merging with another company is profitable.

▶ 2. Guides Better Investment Decisions

- **Stock Trading:** It shows if a stock is underpriced (a bargain) or overpriced.
- **Project Selection:** It helps managers pick the most profitable projects to fund.
- **Resource Allocation:** It ensures money is spent where it grows the most.

▶ 3. Secures Loans and Funding

- **Bank Approvals:** Banks demand accurate asset values before lending money.

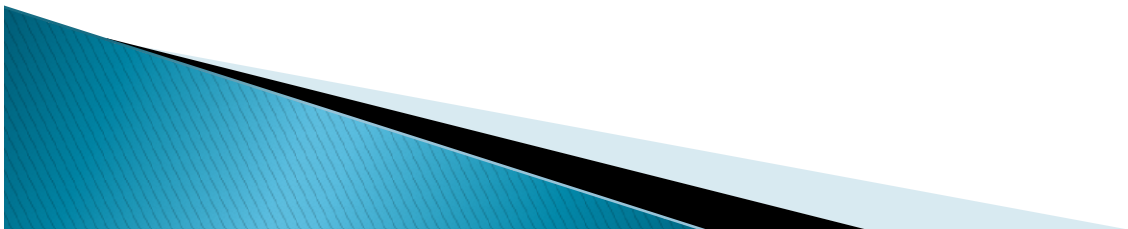
Better Terms: High-value collateral helps a business get lower interest rates.

▶ **4. Maximizes Owner Wealth**

- **Tracking Progress:** It acts as a report card to see if company wealth is growing.
- **Goal Alignment:** It keeps managers focused on building long-term business worth.
- **Shareholder Value:** It directly drives up the ultimate price of company shares.

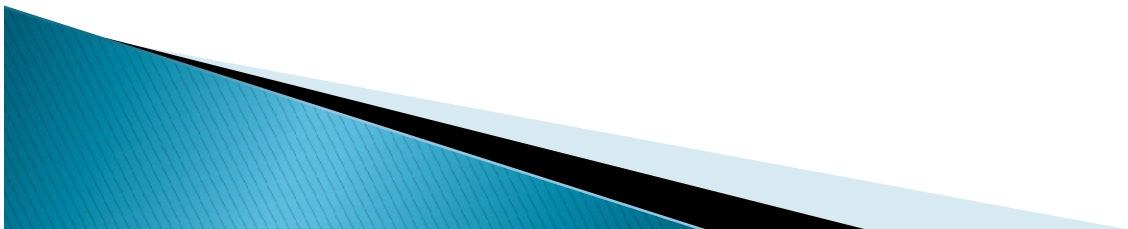
▶ **5. Handles Legal and Tax Requirements**

- **Fair Taxation:** It ensures correct tax payments during property or business transfers.
- **Partnership Changes:** It settles fair payouts when partners join or leave.



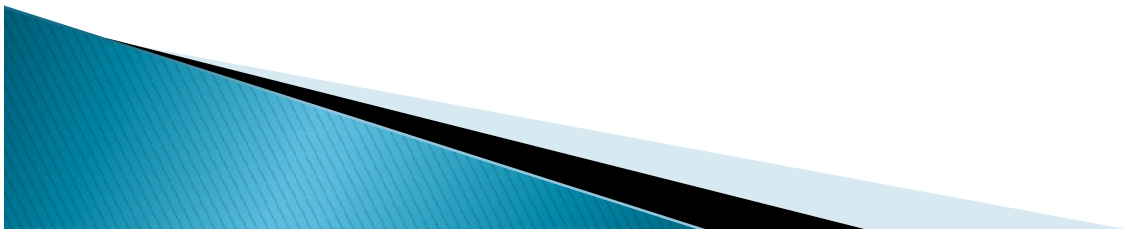
Basic Fundamentals

- ▶ “ The Value of sum of money received today is more than its value received at later stage.”
- ▶ It means future cash flows are less valuable than present cash flows. It is due to
 - Risk: future is Uncertain.
 - Preference for current consumption
 - Investment opportunities



Techniques of Valuation

- ▶ Compounding or Future value determination
- ▶ Discounting or present value determination
- ▶ Compounding and discounting are opposite sides of the Time Value of Money. Compounding finds the future value of a present sum, while discounting finds the present value of a future sum.

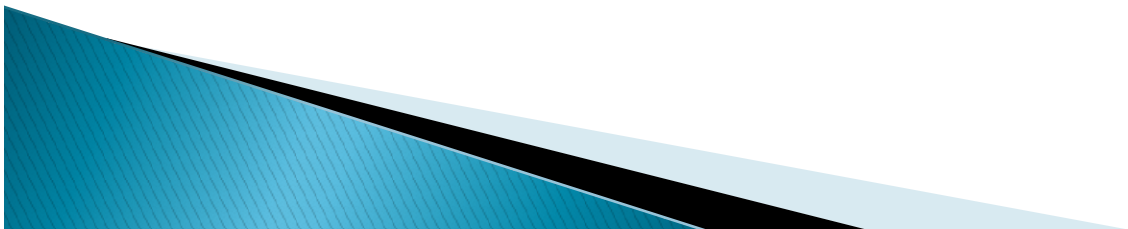


Compounding (Future Value)

$$FV = PV(1 + r)^n$$

Where:

- FV = Future Value
- PV = Present Value (initial principal)
- r = Interest rate (or growth rate) per period
- n = Number of periods (years)

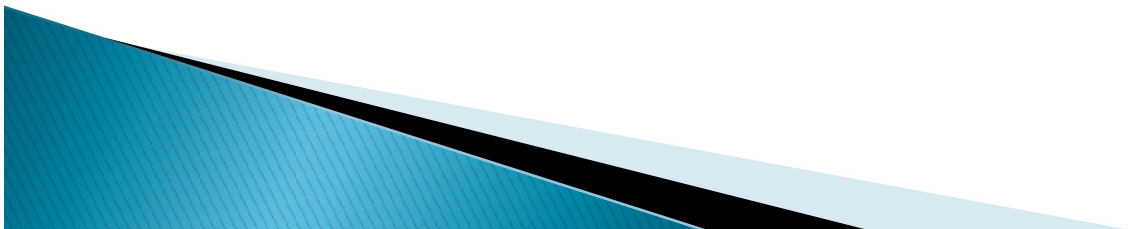


Future Value of Annuity

Ordinary Annuity (payments at the end of each period):

$$FV = PMT \times \frac{(1 + r)^n - 1}{r}$$

- **PMT**: Dollar amount of each periodic payment.
- **r**: Interest rate per period expressed as a decimal.

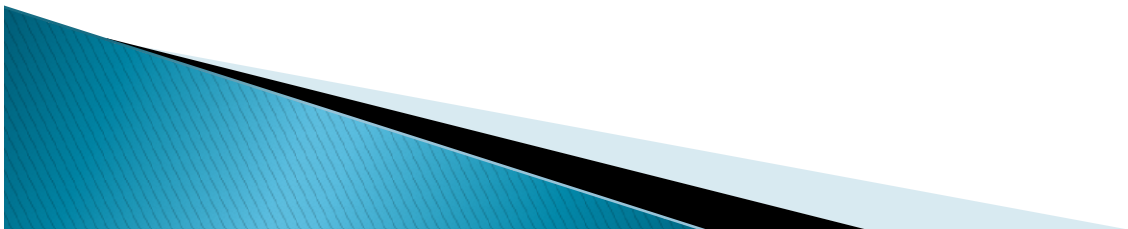


Discounting Formula (Present Value)

To find the present value, use this basic equation:

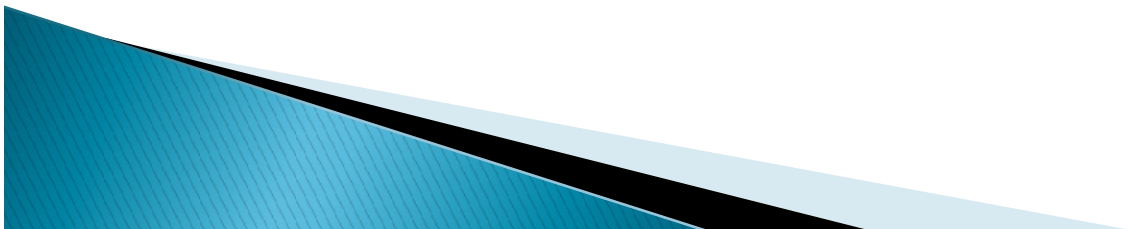
$$PV = \frac{FV}{(1 + r)^n}$$

- **PV:** Present Value
- **FV:** Future Value (the money you expect later)
- **r:** Interest or discount rate (as a decimal)
- **n:** Number of periods or years 



Present value of Annuity

- **Ordinary Annuity:** Use $PV = PMT \times \frac{1-(1+r)^{-n}}{r}$ when payments occur at the *end* of each period.
- **PV:** Current worth of the future stream of payments.
- **PMT:** Dollar amount of each regular payment.
- **r:** Interest or discount rate for that specific period (annual rate divided by number of payment periods per year).



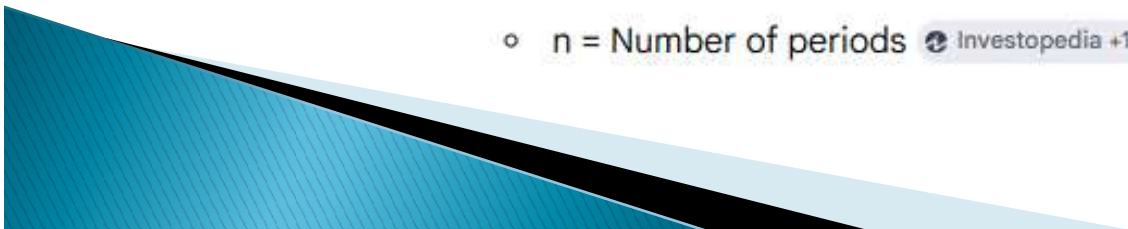
Bond Valuation

- ▶ A bond is valued by discounting its periodic interest payments (coupons) and its final par value back to the present

- **Formula (Standard Coupon Bond):**

$$V_0 = \sum_{t=1}^n \frac{C}{(1+r)^t} + \frac{F}{(1+r)^n}$$

- V_0 = Present value / Price of the bond
- C = Coupon payment per period
- F = Face value (Par value) at maturity
- r = Required rate of return / Yield to maturity (YTM) per period
- n = Number of periods [Investopedia +1](#)



Preference share Valuation

- ▶ Preference shares pay a fixed dividend. They are usually treated as perpetuities (no maturity date), though redeemable preference shares behave similarly to bonds.

Formula (Perpetual/Irredeemable Preference Share):

$$P_0 = \frac{D}{r_p}$$

- P_0 = Value of the preference share
- D = Annual preference dividend
- r_p = Investor's required rate of return for preference shares



Equity Valuation

- ▶ Equity represents residual ownership with variable growth. The most common approach is the **Gordon Growth Model** (Constant Growth Dividend Discount Model)

Formula (Constant Growth Model):

$$P_0 = \frac{D_1}{r_e - g}$$

- P_0 = Current value of equity share
- D_1 = Expected dividend at the end of year 1 ($D_0 \times (1 + g)$)
- r_e = Required rate of return on equity
- g = Constant growth rate of dividends

