

## Valuation of shares Dividend Discount Model

Formulae to Use:

1. Growth Rate:

$$\text{Growth Rate} = \text{ROE} \times (1 - \text{Payout Ratio})$$

2. Value without Growth Opportunities:

$$\text{Value without Growth} = \frac{\text{EPS}}{\text{Required Return}}$$

3. Value of Growth Opportunities:

$$\text{Value of Growth Opportunities} = \text{EPS} \times (1 - \text{Payout Ratio}) \times \frac{\text{Growth Rate}}{\text{Required Return}}$$

4. Value of the Share (Total):

$$\text{Value of the Share} = \text{Value without Growth} + \text{Value of Growth Opportunities}$$

### Problem 1

You are tasked with evaluating the valuation of "**GreenTech Industries Ltd.**", a company in the renewable energy sector. Use the data provided below to compute the following:

1. **Growth Rate**
2. **Value of the Share without Growth Opportunities**
3. **Value of the Growth Opportunities**
4. **Value of the Share (Total)**

#### Data for GreenTech Industries Ltd.:

The company's **Earnings Per Share (EPS)** is ₹2.50, the **Payout Ratio** is 0.50, the **Return on Equity (ROE)** is 0.12, and the **Required Return** is 0.09.

### Problem 2:

You are tasked with evaluating the valuation of "**TechEdge Solutions Ltd.**", a leading software company. Use the data provided below to compute the following:

1. **Growth Rate**
2. **Value of the Share without Growth Opportunities**
3. **Value of the Growth Opportunities**
4. **Value of the Share (Total)**

### Data for TechEdge Solutions Ltd.:

The company has **Earnings Per Share (EPS)** of ₹3.00 and pays a dividend of ₹1.50 per share. The **Return on Equity (ROE)** is 0.10, and the **Required Return** is 0.08.

### Problem 3:

You are tasked with evaluating the valuation of "**EcoHomes Ltd.**", a sustainable housing company. Use the data provided below to compute the following:

1. **Growth Rate**
2. **Value of the Share without Growth Opportunities**
3. **Value of the Growth Opportunities**
4. **Value of the Share (Total)**

### Data for EcoHomes Ltd.:

The company has **Profit After Tax** of ₹50 laksh and **No. of Equity Shares 1,25,000**. Shareholders funds, ₹ 3,12,50,000 The company's **Payout Ratio** is 0.60, and the **Required Return** is 0.12.

### Problem 4

You are tasked with evaluating the valuation of "**FutureSecure Finance Ltd.**", a leading financial services firm. Use the data provided below to compute the following:

1. **Growth Rate**
2. **Value of the Share without Growth Opportunities**
3. **Value of the Growth Opportunities**
4. **Value of the Share (Total)**

### Data for FutureSecure Finance Ltd.:

The company's **Earnings Per Share (EPS)** is ₹4.00, the **Payout Ratio** is 0.55, and the **Return on Equity (ROE)** is 0.15. Use the **Required Return** calculated through CAPM, where the **Risk-Free Rate** is 0.04, the **Beta** is 1.2, and the **Market Return** is 0.10.