Cost of capital computation

Model -2

Caselet: EcoGrid Renewables Ltd.

EcoGrid Renewables Ltd., a leading player in the renewable energy sector, is evaluating its overall cost of capital for strategic decision-making. The company's capital structure comprises three components: debt, preference shares, and equity. The company has issued 10,000 bonds with a coupon rate of 5.65%. Each bond has a face value of ₹10,000 and is currently trading at ₹11,250 in the market. Flotation costs associated with the bonds are 1.75%, and the applicable tax rate is 20%.

The preference share capital of EcoGrid Renewables consists of 1,00,000 preference shares, each with a face value of ₹100 and a market price of ₹125. These shares pay an annual dividend of ₹5 per share, and flotation costs are 2.75%.

The equity capital structure includes 15,00,000 equity shares. The next year's dividend (D_1) is expected to be ₹2.75, with an annual growth rate of 6%. The shares are currently priced at ₹28.50 each, and flotation costs for new equity are 3%. The company's beta is 1.45, the risk-free rate is 4%, and the market return is 18%.

Task:

1. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
2. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: Akshara Textiles Ltd.

Akshara Textiles Ltd., a reputed company in the textile industry, is conducting a detailed analysis of its capital structure to evaluate funding decisions. The company's capital consists of bonds, preference shares, and equity shares, each playing a critical role in its financial strategy.

The company has issued 8,600 bonds, each carrying a face value of ₹1,000, with a coupon rate of 5.50%. These bonds are trading at a market price of ₹1,125. The bonds have no redemption premium, and flotation costs are 2.00%. The applicable tax rate is 35%.

The preference share capital consists of 1,00,000 shares, each having a face value of ₹100 and trading at ₹125. These shares provide a fixed annual dividend of ₹5 per share, with flotation costs amounting to 2.75%.

Equity financing is a significant part of Akshara Textiles' capital structure, with 15,00,000 shares currently in circulation. The expected dividend for the coming year (D_1) is ₹2.75 per share, with an anticipated annual growth rate of 6%. The shares are currently priced at ₹28.50, and flotation costs are estimated at 3%. The company has a beta of 1.45, a risk-free rate of 4%, and the market return is 18%.

The management aims to assess both the book value and market value of the components to make informed decisions. The results will help finalize the company's weighted average cost of capital (WACC) for further strategic planning.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: Zenith Pharmaceuticals Ltd.

Zenith Pharmaceuticals Ltd., a prominent player in the healthcare industry, is reviewing its capital structure to align with its strategic goals. The company's capital consists of bonds, preference shares, and equity shares, which are pivotal in funding its operations and growth initiatives.

The company has issued 5,000 bonds, each with a face value of ₹50,000 and a coupon rate of 4.75%. The bonds are currently trading in the market at ₹51,250. These bonds have no redemption premium, and the flotation costs are 1.65%. The tax rate applicable to the company is 30%, and the bonds pay interest quarterly.

The preference share capital includes 10,00,000 shares, each with a face value of ₹50. These shares provide an annual dividend of ₹3.50 per share and are trading at a market price of ₹72.40. The flotation costs for preference shares are estimated to be 2.35%.

Equity financing constitutes a significant part of the capital structure, with 15,00,000 shares issued at a face value of ₹5. The expected dividend for the next year (D_1) is ₹0.85 per share, with an annual growth rate of 7.50%. The shares are currently trading at ₹26.25 in the market, with flotation costs of 2.25%. The company's beta is 1.45, the risk-free rate is 4.50%, and the expected market return is 16.50%.

The management seeks to evaluate the book and market values of these capital components and compute the overall weighted average cost of capital (WACC) to guide its funding strategy.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: Horizon Automotives Ltd.

Horizon Automotives Ltd., a well-established name in the automobile industry, is reassessing its capital structure to ensure it remains competitive in a dynamic market. The company's financing structure comprises bonds, preference shares, and equity shares, which together enable it to meet its operational and strategic objectives.

The company has issued 7,500 bonds, each with a face value of ₹10,000, offering a coupon rate of 4.75%. These bonds are currently trading at ₹12,150 per bond in the market. The bonds have no redemption premium, and the flotation costs are 3.15%. The tax rate applicable to the company is 35%, and interest payments are made semi-annually.

The preference share capital of Horizon Automotives comprises 1,00,000 shares, each with a face value of ₹100. These shares pay an annual dividend of ₹12.50 per share and are trading at a market price of ₹112.25. The flotation costs associated with the issuance of preference shares are 2.50%.

Equity financing plays a vital role in Horizon Automotives' capital structure. The company has issued 1,25,00,000 equity shares with a face value of ₹5. The expected dividend for the next year (D_1) is ₹0.65 per share, with a growth rate of 7.50%. The shares are currently priced at ₹16.25, and flotation costs for issuing new equity stand at 4%. The company's beta is 0.90, the risk-free rate is 4.50%, and the expected market return is 17%.

The management seeks to evaluate the cost and value of its capital components and compute the weighted average cost of capital (WACC) to support financial decision-making.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: BlueWave Logistics Ltd.

BlueWave Logistics Ltd., a key player in the logistics and supply chain sector, is reviewing its financial structure to support its operational efficiency and future expansion plans. The company's financing mix includes bonds, preference shares, and equity shares, which collectively provide the foundation for its capital structure.

The company has issued 2,500 bonds, each with a face value of ₹1,00,000 and offering a coupon rate of 6.25%. The bonds are currently priced at ₹1,04,250 in the market, with flotation costs amounting to 1.75%. These bonds are issued without any redemption premium, and the company faces a 30% tax rate. The bond interest is paid quarterly.

BlueWave's preference share capital consists of 50,000 shares, each with a face value of ₹25. The shares offer an annual dividend of ₹4.50 per share and are currently trading at ₹37.50. Notably, there are no flotation costs associated with the issuance of these preference shares.

The equity share capital comprises 1,25,00,000 shares with a face value of ₹5 each. The expected dividend for the upcoming year is ₹0.55 per share, with a growth rate of 6%. Currently, these shares are priced at ₹22.35 in the market, with flotation costs of 2%. The company's beta is 0.85, the risk-free rate is 3.25%, and the market risk premium is 16%.

The company's management is keen to evaluate the book and market values of these capital components and compute the weighted average cost of capital (WACC) to guide future financial strategies.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: Vista Agro Foods Ltd.

Vista Agro Foods Ltd., a leading company in the agri-food processing sector, is re-evaluating its financial structure to enhance operational sustainability and future growth. The company's financing includes bonds, preference shares, and equity shares, which together form its robust capital structure.

The company has issued 1,000 bonds with a face value of ₹25,000 each, offering a coupon rate of 6.25%. These bonds are currently trading at ₹26,250 in the market. The flotation costs associated with the bonds are 3.25%, and there is no redemption premium. The company's tax rate is 30%, and interest payments are made quarterly.

The preference share capital consists of 5,000 shares, each with a face value of ₹100 and currently trading at ₹112.50. The shares provide an annual dividend of ₹4.25 per share, and flotation costs are 2.75%.

The equity share capital is comprised of 50,00,000 shares with a face value of ₹5 each. The expected dividend for the next year (D_1) is ₹0.65 per share, with an anticipated annual growth rate of 6%. Currently, the shares are trading at ₹17.50 in the market, and flotation costs are estimated at 2%. The company's beta is 1.10, the risk-free rate is 4.25%, and the market risk premium is 17.50%.

The management is focused on determining the value and cost of these capital components and computing the weighted average cost of capital (WACC) to inform future funding decisions.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.

Caselet: Nimbus Hospitality Ltd.

Nimbus Hospitality Ltd., a renowned name in the hospitality industry, is analyzing its financial structure to optimize funding for its future projects and expansions. The company's capital structure includes bonds, preference shares, and equity shares, providing a balanced mix of debt and equity.

The company has issued 10,000 bonds with a face value of ₹5,000 each, offering a coupon rate of 4.75%. These bonds are currently priced at ₹5,125 in the market, with flotation costs amounting to 1.75%. The bonds have no redemption premium, and the company faces a tax rate of 30%. Interest payments are made quarterly.

The preference share capital consists of 75,000 shares, each with a face value of ₹1,000 and currently trading at ₹1,125. These shares provide an annual dividend of ₹75.25 per share, and flotation costs are estimated to be 2.65%.

The equity share capital comprises 20,00,000 shares with a face value of ₹5 each. The expected dividend for the coming year (D_1) is ₹0.65 per share, with a growth rate of 7%. Currently, the shares are trading at ₹28.65 in the market, and flotation costs stand at 3%. The company's beta is 1.35, the risk-free rate is 4.25%, and the market risk premium is 18.50%.

The management intends to evaluate the cost and value of its capital components and compute the weighted average cost of capital (WACC) to ensure strategic financial planning.

Task:

1. Compute the **book value** and **market value** of each capital component: bonds, preference shares, and equity shares.
2. Determine the **total book value** and **total market value** of the capital structure.
3. **Calculate the cost of each capital component**:
    - Cost of debt (after-tax).
    - Cost of preference shares.
    - Cost of retained earnings and cost of new equity.
4. **Compute the overall weighted average cost of capital (WACC)** under the following scenarios:
    - Using retained earnings for equity.
    - Using new equity.

Ensure your calculations consider both book value weights and market value weights for WACC.