

Cost of Capital – Model 01 - Casetlets

Caselet 1: Triveni Green Power Ltd. – Integrated Cost of Capital Estimation

Key learning focus: Integrating dividend-growth equity models, CAPM, and detailed bond cash-flow adjustments into WACC estimation.

Triveni Green Power Ltd., a renewable energy firm operating in India, is evaluating its long-term financing strategy to support upcoming capacity expansion projects. The management wants to estimate the firm's overall cost of capital using multiple approaches to equity valuation and a detailed assessment of debt financing costs.

The company reported an EPS of ₹0.75 in 2019, with an expected increase to ₹1.25 by 2024, and a payout ratio of 50%. The current market price of its equity is ₹37.75, and flotation costs for new equity issues are estimated at 1.5%. The firm plans to issue bonds with a face value of ₹25,000, carrying a coupon rate of 4.75% and a maturity of 15 years, with quarterly interest payments. Debt flotation costs are 1.25%, and the bonds will be redeemed at a premium of 5%. The applicable corporate tax rate is 30%. The firm's equity beta is 0.89, the expected market return is 13.50%, and the risk-free rate is 4.10%. The capital structure consists of 40% debt and 60% equity.

Students are required to compute the cost of debt on a periodic, annualized, and after-tax basis; estimate the cost of equity using the growth model for retained earnings, the adjusted model for new equity, and CAPM; and finally compute WACC using each equity cost alternative.

Caselet 2: Aryavarta Infrastructure Finance Ltd. – Equity Cost Comparison within WACC

Key learning focus: Evaluating the impact of payout policy and flotation costs on equity cost and WACC.

Aryavarta Infrastructure Finance Ltd. is an Indian infrastructure financing firm assessing its cost of capital to support long-gestation projects. Management is particularly interested in understanding how different equity cost estimation methods influence the firm's weighted average cost of capital.

The company's EPS in 2019 was ₹4.25, projected to rise to ₹8.25 by 2024, with a payout ratio of 35%. The current market price per share is ₹45.50, and flotation costs for issuing new equity are 2.50%. The firm plans to issue bonds with a face value of ₹50,000, a coupon rate of 4.25%, a maturity of 20 years, and semi-annual interest payments. Debt flotation costs are 1.75%, and the bonds will be redeemed at a discount of 5%. The corporate tax rate is 35%, and the capital structure comprises 50% debt and 50% equity. The equity beta is 0.78, the market return is 14.65%, and the risk-free rate is 3.85%.

Students must compute the cost of debt, estimate the cost of equity using the growth model, adjusted new equity model, and CAPM, and calculate WACC under each equity assumption.

Caselet 3: Navratna Industries Ltd. – Tax and Redemption Effects in Cost of Capital

Key learning focus: Incorporating high tax rates and bond redemption discounts into WACC analysis.

Navratna Industries Ltd. is a diversified Indian manufacturing firm reviewing its financing structure to optimize shareholder value. The firm seeks a comprehensive cost of capital estimate using both dividend-based and market-based equity valuation techniques.

The firm reported an EPS of ₹10.00 in 2019, expected to grow to ₹11.25 by 2024, with a payout ratio of 50%. The current stock price is ₹37.75, and flotation costs for new equity are 2.50%. The proposed debt issue has a face value of ₹10,000, a coupon rate of 5.25%, a maturity of 10 years, and semi-annual payments. Debt flotation costs are 2.75%, and the bonds will be redeemed at a discount of 2.5%. The corporate tax rate is 40%, and the capital structure is evenly split between debt and equity. The equity beta is 0.92, the market return is 15.65%, and the risk-free rate is 5.10%.

Students are required to compute the cost of debt, estimate equity costs under retained earnings, new equity, and CAPM approaches, and calculate WACC under each scenario.

Caselet 4: Samriddhi Banking Corporation – Low-Risk Capital Structure Analysis

Key learning focus: Impact of low beta and higher equity weight on WACC.

Samriddhi Banking Corporation, an Indian financial services institution, is evaluating its cost of capital to guide long-term lending and investment decisions. Given its relatively stable risk profile, management wants to compare dividend-based and CAPM-based equity costs.

The bank reported an EPS of ₹25.00 in 2019, projected to rise to ₹38.50 by 2024, with a payout ratio of 50%. The current share price is ₹267.00, and flotation costs for new equity are 2%. The firm plans to issue bonds with a face value of ₹1,00,000, a coupon rate of 5.25%, and a maturity of 10 years with semi-annual payments. Debt flotation costs are 1.75%, and the bonds carry a redemption discount of 3.25%. The corporate tax rate is 25%, and the capital structure consists of 30% debt and 70% equity. The equity beta is 0.65, the market return is 12.45%, and the risk-free rate is 3.65%.

Students must compute component costs and WACC using alternative equity cost estimates.

Caselet 5: Dakshin Ports & Logistics Ltd. – Long-Term Debt with Premium Redemption

Key learning focus: Evaluating long-term debt instruments with significant redemption premiums.

Dakshin Ports & Logistics Ltd. is an Indian infrastructure company planning major port expansion projects. The firm wants to estimate its cost of capital while accounting for long-term bonds issued at a redemption premium.

The company's EPS stood at ₹15.25 in 2019 and is expected to grow to ₹26.75 by 2024, with a payout ratio of 25%. The current stock price is ₹315.00, and flotation costs for equity are 2.65%. The firm plans to issue bonds with a face value of ₹10,000, a coupon rate of 4.15%, a maturity of 20 years, and semi-annual payments. Debt flotation costs are 2.25%, and the bonds will be redeemed at a premium of 10%. The corporate tax rate is 35%, and the capital structure consists of 50% debt and 50% equity. The equity beta is 0.95, the market return is 16.25%, and the risk-free rate is 3.75%.

Students must compute cost of debt, cost of equity using three models, and WACC under different equity cost assumptions.

Caselet 6: Vistaar Telecom Services Ltd. – Quarterly Coupon Debt Financing

Key learning focus: Impact of payment frequency and high flotation costs on financing decisions.

Vistaar Telecom Services Ltd. is an Indian telecommunications firm evaluating its cost of capital to support network expansion. The firm's financing plan includes quarterly coupon bonds and relatively high issuance costs.

The company reported an EPS of ₹5.50 in 2019, expected to increase to ₹12.25 by 2024, with a payout ratio of 40%. The stock price is ₹65.75, and flotation costs for equity are 3.25%. The proposed bonds have a face value of ₹50,000, a coupon rate of 5.25%, a maturity of 10 years, quarterly payments, flotation costs of 2.25%, and a redemption premium of 10%. The corporate tax rate is 25%, and the capital structure consists of 35% debt and 65% equity. The equity beta is 0.75, the market return is 14.25%, and the risk-free rate is 4.75%.

Students are required to compute the cost of capital components and WACC under alternative equity assumptions.

Caselet 7: Bharatiya Auto Manufacturing Ltd. – High-Value Equity and Long-Term Debt

Key learning focus: Cost of capital estimation for high-priced equity and high-coupon long-term debt.

Bharatiya Auto Manufacturing Ltd. is an Indian automobile producer reviewing its financing strategy to support capacity expansion and product development. The firm's equity trades at a high market price and its debt carries a relatively high coupon rate.

The company's EPS was ₹100.00 in 2019 and is expected to grow to ₹165.00 by 2024, with a payout ratio of 40%. The current share price is ₹4,250.00, and flotation costs for equity are 2.50%. The firm plans to issue bonds with a face value of ₹50,000, a coupon rate of 8.50%, a maturity of 20 years, and quarterly payments. Debt flotation costs are 3.25%, with no redemption premium or discount. The corporate tax rate is 40%, and the capital structure is 50% debt and 50% equity. The equity beta is 0.82, the market return is 18.25%, and the risk-free rate is 5.25%.

Students must estimate the cost of capital and compute WACC using multiple equity cost models.

Caselet 8: Nirmaan Pharma Labs Ltd. – Balanced Capital Structure Analysis

Key learning focus: WACC estimation with moderate growth and balanced financing.

Nirmaan Pharma Labs Ltd. is an Indian pharmaceutical company assessing its cost of capital to fund future research and development initiatives. The firm operates with a balanced mix of debt and equity financing.

The company's EPS was ₹55.25 in 2019, expected to grow to ₹75.45 by 2024, with a payout ratio of 25%. The stock price is ₹555.00, and flotation costs for equity are 2.50%. The firm plans to issue bonds with a face value of ₹10,000, a coupon rate of 6.25%, a maturity of 10 years, and quarterly payments. Debt flotation costs are 1.75%, and the bonds carry a redemption premium of 2.75%. The corporate tax rate is 25%, and the capital structure consists of 50% debt and 50% equity. The equity beta is 0.92, the market return is 16.25%, and the risk-free rate is 5.75%.

Students must compute component costs and WACC using retained earnings, new equity, and CAPM-based equity costs.

Caselet 9: Shakti Cement & Materials Ltd. – High Dividend Payout Scenario

Key learning focus: Effect of high payout ratios on growth-based equity cost and WACC.

Shakti Cement & Materials Ltd. is an Indian construction materials company planning long-term capacity expansion. The firm follows a high dividend payout policy and uses long-term debt financing with redemption discounts.

The company's EPS was ₹11.00 in 2019 and is expected to rise to ₹17.50 by 2024, with a payout ratio of 75%. The current stock price is ₹75.25, and flotation costs for equity are 2.45%. The firm plans to issue bonds with a face value of ₹50,000, a coupon rate of 5.25%, a maturity of 20 years, and semi-annual payments. Debt flotation costs are 1.25%, and the bonds will be redeemed at a discount of 10%. The corporate tax rate is 35%, and the capital structure consists of 50% debt and 50% equity. The equity beta is 0.75, the market return is 14.25%, and the risk-free rate is 5.10%.

Students estimate the cost of debt, cost of equity using alternative models, and compute WACC accordingly.