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| 5 CAPITAL STRUCTURE AND PAYOUT POLICY  * Financial leverage: when companies use debt in their capital structure * Levered company: company with debt on its balance sheet * Unlevered company: finances operations entirely with equity * Levered: debt magnifies a company’s financial performance * Recapitalisation: alteration of a company’s capital structure to change the relative mix of debt and equity financing * Effects of financial leverage   + Expected rate of return on equity ↑   + Variability of returns to shareholders ↑   + ↑ leverage involves a trade-off between risk and return   Modigliani-Miller   * Perfect capital market conditions:  1. Firms and investors can trade the same set of securities at competitive market prices 2. There are no taxes, transaction costs or issuance costs 3. Firms have a fixed investment policy, and their investment decisions are not affected by their financing decisions 4. We also assume perpetual cash flows (earnings) to simplify the analysis   3 states:   1. State 1: Economic recession  * EPS ↓; ROE↓  1. State 2: Economic normality  * EPS ↑; ROE↑  1. State 3: Economic boom  * EPS ↑; ROE↑                 SUMMARY OF CURRENT AND PROPOSED CAPITAL STRUCTURES   |  |  |  | | --- | --- | --- | |  | Current | Proposed | | Assets   * Assets = EBIT/Required rate of return * Assets = Equity + Debt |  |  | | Equity |  |  | | Debt |  |  | | Debt-to-equity ratio   * D/E |  |  | | EBIT   * Expected EBIT = (⅓)$ EBIT normal growth + (⅓) $ EBIT recession + (⅓) $ EBIT boom |  | Unchanged | | Shares outstanding |  |  | | Share price |  |  | | Interest rate on debt |  |  |   EXPECTED CASH FLOWS TO SHAREHOLDERS AND BONDHOLDERS UNDER THE CURRENT AND PROPOSED CAPITAL STRUCTURES   * Assuming EBIT = $\_\_\_ and economy grows at a normal rate  |  |  |  | | --- | --- | --- | |  | Current Structure | Proposed Structure | | EBIT |  |  | | Interest (\_\_%) |  |  | | Net Income |  |  | | Shares outstanding |  |  | | Earnings per share (EPS)   * EPS = (EBIT - Interest) / Number of shares * Earnings = EBIT - Interest * EPS= (⅓)$ EPS normal growth + (⅓) $ EPS recession + (⅓) $ EPS boom |  |  | | Return on equity (ROE)   * ROE = Net income/Equity * ROE = EPS/Share Price * ROE = Earnings/EBIT * ROW = (⅓)$ ROE normal growth + (⅓) $ ROE recession + (⅓) $ ROE boom |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | State of Economy | Recession | | Normal | Boom | |  | Current | Proposed | Current | Proposed | Current | Proposed | | EBIT |  |  |  |  |  |  | | Interest on debt |  |  |  |  |  |  | | Net Income |  |  |  |  |  |  | | Shares outstanding |  |  |  |  |  |  | | Earnings per share (EPS) |  |  |  |  |  |  | | Return on Assets (ROA)   * ROA=EBIT/Assets |  | Unchanged |  | Unchanged |  | Unchanged | | Return on equity (ROE)   * Net income/Equity |  |  |  |  |  |  |  * Breakeven Level of EBIT (EBIT\*)   + When two capital structures result in the same EPS   + EPS (current) = EPS (proposed)   + EPS (current/proposed) = (EBIT\* - Interest) / Number of shares   + Solve for EBIT\* * Breakeven ROA   + ROA = EBIT/Assets * Security Market Line (SML) equation   + - : Expected return from your investment     - : Expected return from the market     - : Risk-Free return * If not mentioned, tax rate = 30% | | | |
| 1 | Debt-to-equity ratio |  |  |
|  | Value |  | the company’s market value equals the present value of the EBIT it generates regardless of the capital structure it chooses |
|  | Debt-to-value ratio |  |  |
|  | Equity-to-value ratio |  |  |
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| Symbol | Meaning | Units |
|  | (Market Value of) Debt |  |
|  | (Market Value of) Equity |  |
|  | Value/Market value of assets |  |
| EBIT | Earnings before interest and taxes | Net operating income stream each year for the foreseeable future |
| EPS | Earnings per share | Net income/Number of shares |
| ROE | Return on equity | Net income/Market value of equity |
| ROA | Return on assets | EBIT/Market value of firm |