

Optimal Capital Structure: A Summary

This lecture explores the complexities of optimal capital structure, moving beyond the idealized world of Modigliani-Miller (MM) propositions. It delves into real-world factors like financial distress, managerial incentives, and asymmetric information that influence a firm's debt-to-equity mix.

Costs of Financial Distress

- **Financial Distress:** A situation where a firm struggles to meet its debt obligations.
- **Default:** Failing to make required interest or principal payments on debt, potentially leading to bankruptcy.
- **Bankruptcy Costs:** Both direct (e.g., legal fees) and indirect (e.g., lost customers, suppliers, employees) costs associated with bankruptcy.
- **MM Proposition I & Perfect Markets:** In a perfect market, a firm's total value is independent of its capital structure, meaning there's no disadvantage to debt financing.
- **Reality & Financial Distress Costs:** Bankruptcy isn't frictionless. Its costs reduce the value of a levered firm, contradicting MM Proposition I.

Tradeoff Theory

- **Tradeoff Theory:** The optimal capital structure balances the tax benefits of debt with the costs of financial distress.
- **Optimal Leverage:** Firms should increase leverage until the point where the tax savings are offset by the increased risk of financial distress costs.
- **Implications:** The theory explains why firms might not fully exploit the interest tax shield and the differences in leverage across industries.

Agency Costs

- **Agency Costs:** Costs arising from conflicts of interest between stakeholders (e.g., managers and shareholders, shareholders and bondholders).
- **Debt Overhang Problem:** Equity holders may avoid positive-NPV projects because the benefits accrue to bondholders when the firm is in financial distress.
- **Asset Substitution Problem:** Shareholders might favor risky, negative-NPV projects in financial distress, as they gain at the expense of bondholders.
- **Wasteful Investment:** Managers may overinvest in negative-NPV projects, especially when the firm has excess cash flow.
- **Free Cash Flow Hypothesis:** Leverage can reduce wasteful investment by committing the firm to future interest payments, reducing free cash flow.

Asymmetric Information & Pecking Order Theory

- **Asymmetric Information:** One party (e.g., managers) has more information than another party (e.g., investors).
- **Signalling Theory:** Leverage can be used as a signal to investors, communicating a firm's positive prospects.
- **Adverse Selection:** Buyers (investors) are wary of being exploited by sellers (managers) with private information.
- **"Lemons Principle":** Buyers discount the price of a good when the seller has private information, fearing adverse selection.

- **Pecking Order Theory:** Firms prefer internal financing (retained earnings) first, followed by debt, and finally equity as a last resort. This preference is driven by the negative signaling effects of equity issuance and the associated adverse selection risks.

Real-World Implications

- **Market Timing Theory:** Firms adjust their capital structure based on market conditions.
- **Stylised Facts:** Data analysis reveals several consistent patterns in firm leverage, including stability in aggregate leverage over time, correlation between leverage and profitability, and frequent adjustments in debt levels.
- **Implications for Theories:** The data suggest that firms might employ a "target-range" for leverage rather than a single optimal ratio.

Conclusion

Optimal capital structure is a complex balancing act between the benefits of debt financing and the various costs associated with it. It's a dynamic process influenced by numerous factors, including taxes, financial distress costs, agency costs, and asymmetric information. While there's no single correct answer, understanding these factors and the "stylized facts" about firm leverage provides valuable insights for making informed capital structure decisions.