

► Capital Structure Theory:

Target dan doa: Mahasiswa mampu memahami Modigliani & Miller's Capital Structure



PERTEMUAN KE 6

Teori struktur modal Marco
Modigliani dan Merton
Miller

Modigliani-Miller
model tanpa pajak
perusahaan

Modigliani-Miller
model dengan pajak
perusahaan

Miller model dengan
pajak perusahaan
dan pajak
perorangan

IDENTIFIKASI WACC BERBAGAI ALTERNATIF STRUKTUR MODAL
DENGAN BERBAGAI PENDEKATAN TEORI STRUKTUR MODAL (MM
DAN MILLER) DAN REVIEW JURNAL PENELITIAN

CONTOH SOAL

- ▶ identifikasi WACC berbagai alternatif struktur modal dengan berbagai pendekatan teori struktur modal (MM dan Miller)

REVIEW JURNAL PENELITIAN
ANALISIS FAKTOR-FAKTOR STRUKTUR
MODAL.PDF



ILUSTRASI 10

PT. ASD, Tbk memperkirakan akan meraih NOI (EBIT) sebesar \$40,000. Manajemen akan menganalisis pengaruh perubahan struktur modal terhadap cost of firm (weighted average cost of capital) dan Firm Value. Untuk itu manajemen menetapkan skenario struktur modal sebagai berikut :

Skenario I	: Leverage Factor	= 0.0 (0.0 % Debt dan 100 % Equity)
Skenario II	: Leverage Factor	= 0.25 (25 % Debt, dan 75 % Equity)
Skenario III	: Leverage Factor	= 0.50 (50 % Debt dan 50 % Equity)
Skenario IV	: Leverage Factor	= 0.75 (75 % debt dan 25 % equity)

Cost of debt $K_D = 14\%$ dan Cost of Equity pada leverage factor = 0 (unleverage) = $K_{su} = 20.0\%$. Bilamana diasumsikan :

1. Tidak ada pajak
2. Perubahan leverage dilakukan dengan cara menambah debt untuk membeli kembali outstanding Common Stock atau emisi Common Stock baru untuk membayar utang
3. Seluruh laba bersih dibayarkan untuk dividend
4. Net Operating Income (NOI) konstan

Tentukan besarnya WACC dan Value of Firm masing-masing skenario tersebut

JAWABAN ILUSTRASI 10

Skenario - I : LF = 0.0



$$\begin{aligned} \text{Debt (D)} &= 0(\$200,000) = \$0, \\ \text{Proporsi } W_D &= 0/200,000 = 0,0 \end{aligned}$$

$$\begin{aligned} \text{Equity (S)} &= 1,0 (\$ 200,000) = \$200,000, \\ \text{Proporsi } W_S &= 200,000 / 200,00 = 1,00 \end{aligned}$$

$$\text{WACC} = W_S K_{SU} + W_D K_D$$

$$\text{WACC} = 1 (20\%) + 0 = 20 \%$$

$$V_U = \frac{\text{EBIT}}{K_{SU}} + D \longrightarrow V_U = \frac{40,000}{0.20} + 0 = \$ 200,000$$

Skenario - II : LF = 0.25



$$\begin{aligned} \text{Debt (D)} &= 25 \% (\$200,000) = \$50,000, \\ \text{Proporsi } W_D &= 50,000/200,000 = 0.25 \end{aligned}$$

$$\begin{aligned} \text{Equity (S)} &= 75 \% (\$ 200,000) = \$150,000, , \\ \text{Proporsi } W_S &= 150,000 / 200,00 = 0,75 \end{aligned}$$

$$\begin{aligned} K_{SL} &= K_{SU} + (K_{SU} - K_D) (D/S) \\ K_{SL} &= 20 \% + (20 \% - 14 \%) (50,000/150,000) \\ K_{SL} &= 22 \% \end{aligned}$$

$$\text{WACC} = (0.25)(14 \%) + (0.75)(22 \%) = 20 \%$$

$$V_L = \frac{40,000 - 0,14 (50,000)}{0.22} + 50,000$$

$$V_L = \$ 200,000$$

Skenario - III : LF = 0.50



$$\begin{aligned} \text{Debt (D)} &= 50 \% (\$ 200,000) = \$ 100,000 , \\ \text{Proporsi } W_D &= 100,000/200,000 = 0.50 \end{aligned}$$

$$\begin{aligned} \text{Equity (S)} &= 0,50 \% (\$ 200,000) = \$100,000 , , \\ \text{Proporsi } W_S &= 100,000 / 200,00 = 0,50 \end{aligned}$$

$$\begin{aligned} K_{SL} &= K_{SU} + (K_{SU} - K_D) (D/S) \\ K_{SL} &= 20 \% + (20 \% - 14 \%) (100,000/100,000) \\ K_{SL} &= 26 \% \end{aligned}$$

$$\text{WACC} = (0.5)(14 \%) + (0.5)(26 \%) = 20 \%$$

$$V_L = \frac{40,000 - 0,14 (100,000)}{0.26} + 100,000$$

$$V_L = \$ 200,000$$

Skenario - IV : LF = 0.75



$$\begin{aligned} \text{Debt (D)} &= 75 \% (\$ 200,000) = \$ 150,000 , \\ \text{Proporsi } W_D &= 150,000/200,000 = 0.75 \end{aligned}$$

$$\begin{aligned} \text{Equity (S)} &= 0,25 \% (\$ 200,000) = \$ 50,000 , , \\ \text{Proporsi } W_S &= 50,000 / 200,00 = 0,25 \end{aligned}$$

$$\begin{aligned} K_{SL} &= K_{SU} + (K_{SU} - K_D) (D/S) \\ K_{SL} &= 20 \% + (20 \% - 14 \%) (150,000/50,000) \\ K_{SL} &= 38 \% \end{aligned}$$

$$\text{WACC} = (0.75)(14 \%) + (0.25)(38 \%) = 20 \%$$

$$V_L = \frac{40,000 - 0,14 (150,000)}{0.38} + 150,000$$

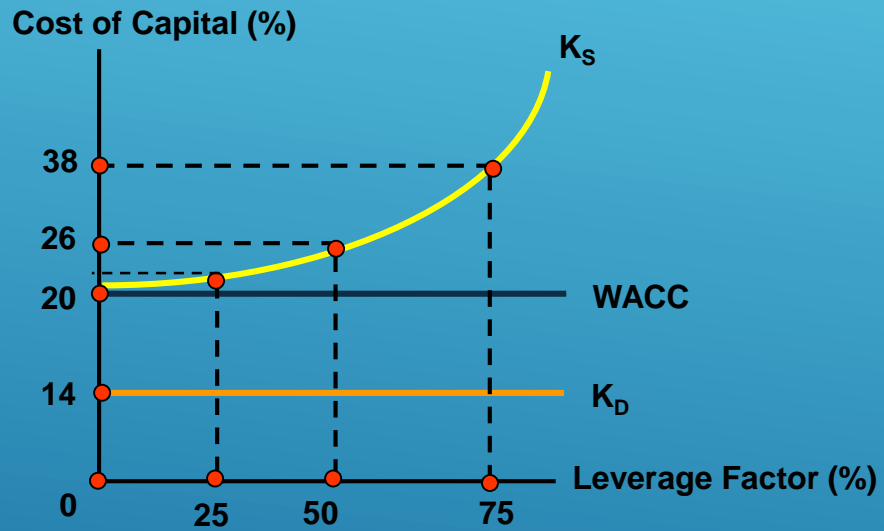
$$V_L = \$ 200,000$$



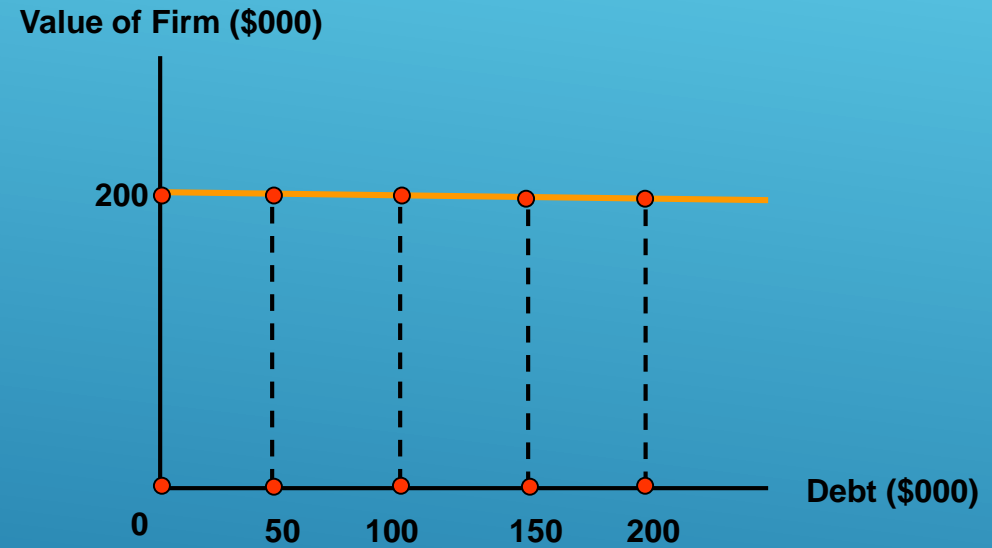
KESIMPULAN MODEL MM

Skenario	Proporsi		Cost of		WACC = $W_D K_D + W_S K_S$
	Debt (W_D)	Equity (W_S)	Debt (K_D)	Equity (K_S)	
I	0.00	1.00	14.0 %	20.0 %	20.00 %
II	0.25	0.75	14.0 %	22.0 %	20.00 %
III	0.50	0.50	14.0 %	24.0 %	20.00 %
IV	0.75	0.25	14.0 %	38.0 %	20.00 %

Gambar 2.4 Hubungan antara LF dengan COC



Gambar 2.5 Hubungan antara VF dengan Debt



- Semakin besar Leverage Factor (LF) diikuti oleh semakin besarnya Cost of Equity (K_S)
- WACC dan market Value of Firm tidak dipengaruhi oleh struktur modal

CAPITAL STRUCTURE THEORY

- Traditional Capital Structure Theory
- Modigliani & Miller (MM) Model
- MM Model Without Tax
- MM Arbitrage Model
- MM Model With Corporate Tax
- Miller Model With Corporate and Personal Tax
- Trade-off Theory
- Pecking Order Theory
- Signaling Theory
- Market Timing Model

CAPITAL STRUCTURE THEORY.....

