

## 4.06 Capital Structure

### Question 1

Which of the following companies will most likely employ the greatest amount of debt relative to its equity?

- A. A real estate developer during its initial growth phase
- B. A cyclical car manufacturer during an economic downturn
- C. A consulting firm that uses highly paid consultants and few physical assets

### Question 2

Analysts most appropriately use the company's weighted average cost of capital to determine a project's:

- A. value.
- B. future cash flows.
- C. investment opportunity schedule.

### Question 3

An analyst wants to calculate a company's weighted average cost of capital (WACC) and compiles the following data:

Weight of debt	20%
Market yield on similar BBB debt	8%
Corporate tax rate	30%
Weight of preferred stock	10%
Preferred dividend	£2.00
Preferred stock share price	£40.00
Weight of common stock	70%
Last common dividend	£1.90
Expected common dividend	£2.00
Common dividend growth rate	5%
Common stock share price	£50.00

The analyst believes that the company's debt should be rated BBB. If the analyst uses the debt-rating approach to calculate the cost of debt and the dividend discount model (DDM) approach to calculate the cost of equity, the WACC is *closest* to:

- A. 7.79%
- B. 7.92%
- C. 8.40%

**Question 4**

All else equal, if a firm maintains a larger proportion of equity in its actual capital structure than in its target structure, the most likely reason is that:

- A. the stock is currently trading at a historic low price.
- B. the stock will be included in an index once it reaches a greater market capitalization.
- C. management is raising capital for an infrastructure project that produces stable cash flows.

**Question 5**

Based on the pecking order theory, when a company issues equity, management is most likely signaling that:

- A. the stock is overvalued.
- B. the company can pay larger dividends.
- C. they have confidence in meeting future commitments.

**Question 6**

According to the Modigliani-Miller propositions (with taxes), if a company increases its debt level, its market value will most likely:

- A. decrease since the costs of financial distress are increasing.
- B. remain the same since the market value is unaffected by the capital structure.
- C. increase proportionally to the change in debt.

**Question 7**

A company is evaluating two projects. Project A has an IRR of 6.4%, and Project B has an IRR of 7.5%. The company has the following information:

Next year's dividend	¥40
Dividend growth rate	2.5%
Stock price	¥500
After-tax cost of debt	5.0%
Debt-to-equity ratio	80%

Assuming average risk and no capital constraints, the company should most likely invest in:

- A. both projects.
- B. only Project B.
- C. neither project.

**Question 8**

If senior management is compensated with stock options, that would most likely provide an incentive for it to pursue which of the following strategies?

- A. Decrease leverage
- B. Practice risk avoidance
- C. Increase share buybacks

**Question 9**

An analyst reviews the following information about a company:

	<b>Cost of Capital (Pretax)</b>	<b>Target Weight</b>
Debt	8%	30%
Preferred stock	9%	20%
Common equity	14%	50%

If the company's tax rate decreases from 25% to 20%, then the company's weighted average cost of capital will be *closest* to:

- A. 10.36%
- B. 10.72%
- C. 10.83%

**Question 10**

According to pecking order theory, the sources of capital from least to most attractive are:

- A. bonds, common stock, net operating cash flows.
- B. common stock, bonds, net operating cash flows.
- C. common stock, net operating cash flows, bonds.

**Question 11**

An analyst gathers the following information about a profitable company's target costs of capital:

**Selected Financial Data**

Cost of equity	16%
Pretax cost of debt	8%
Weighted average cost of capital (WACC)	12%

The company has no other sources of capital. All else being equal, if its tax rate changes from 25% to 40%, its new WACC will be *closest* to:

- A. 9.60%
- B. 11.52%
- C. 12.34%

**Question 12**

Which of the following types of capital is most likely to have an after-tax cost that is less than its before-tax cost?

- A. Debt
- B. Common stock
- C. Preferred stock

**Question 13**

According to pecking order theory, the relative attractiveness of different sources of capital is most *likely* based on:

- A. agency costs.
- B. priority of claims.
- C. information asymmetries.

**Question 14**

All else being equal, which of the following factors is least likely to cause a company's actual capital structure to diverge from its target capital structure? The company:

- A. generated greater than anticipated operating cash flow.
- B. refinanced maturing debt at a lower rate to reduce the cost of debt.
- C. issued equity when management perceived company stock was overvalued.

**Question 15**

A company's current financial information includes the following data:

Unlevered value (AUD millions)	1.75
Debt (AUD millions)	0
Cost of equity (%)	8
Tax rate (%)	30

If the company borrows AUD 1 million at a rate of 4% for a stock buyback, then after the buyback and based on the Modigliani-Miller propositions (with taxes), the company's WACC is *closest* to:

- A. 5.71%
- B. 6.83%
- C. 8.00%

**Question 16**

An analyst has compiled the following data for a company:

**Selected Financial Data**

Stock price	\$100
Most recent annual dividend	\$2
Dividend growth rate	5%
Cost of new debt	8%
Tax rate	25%

Using the dividend discount model (DDM) approach and assuming a debt-to-equity ratio of 1.5, the company's weighted average cost of capital (WACC) is *closest* to:

- A. 6.40%
- B. 6.44%
- C. 7.64%

**Question 17**

An analyst gathers the following information about a company with only debt and common equity in its capital structure.

Based on Target Capital Structure	
Cost of common equity	10.0%
Pretax cost of debt	5.0%
Weighted average cost of capital (WACC)	7.5%

All else being equal, if the company's tax rate decreases from 25% to 15%, the company's new WACC will be *closest* to:

- A. 7.50%
- B. 7.70%
- C. 7.83%

**Question 18**

All else equal, it would be most attractive for a firm to issue debt instead of equity if:

- A. the stock price is very high.
- B. the firm's creditworthiness is about to deteriorate.
- C. the firm is financing the acquisition of a start-up company.

**Question 19**

Which of the following is correct according to the pecking order theory? Managers prefer:

- A. issuing new equity more than issuing debt.
- B. issuing debt more than using internal financing.
- C. using internal financing more than issuing new equity.

**Question 20**

Information for a company is shown below:

Book value of assets	\$70 million
Market value of assets	\$92.5 million
Book value of equity	\$20 million
Market value of equity	\$30 million
Cost of equity	13%
Percentage of liabilities that is debt	80%
Corporate tax rate	30%

If the company's weighted average cost of capital (WACC) is 8.0%, its pretax cost of debt is *closest* to:

- A. 5.0%
- B. 5.7%
- C. 7.1%

#### Question 21

A firm uses comparable companies' capital structures to estimate its target capital structure and gathers the following data:

Company	Book value of debt to book value of equity	Market value of debt to market value of equity
A	0.8	0.6
B	0.6	0.2
C	0.7	0.3

If the firm's cost of equity is 11% and its after-tax cost of debt is 7%, the firm's WACC is *closest* to:

- A. 9.35%
- B. 9.53%
- C. 9.93%

#### Question 22

According to Modigliani-Miller Proposition I without taxes, if a company reduces the amount of debt in its capital structure, most *likely* the company's:

- A. value will increase.
- B. cost of equity will be unchanged.
- C. weighted average cost of capital will be unchanged.

#### Question 23

An analyst gathers the following information about a company:

Total capital	\$2 billion
Debt-to-equity ratio	25%
Cost of common equity	9.0%
Pretax cost of debt	5.0%
Tax rate	20%

If the company has only common equity and debt in its capital structure, the company's weighted average cost of capital (WACC) is *closest* to:

- A. 7.75%
- B. 8.00%
- C. 8.20%

#### Question 24

A company's WACC increased from 4.8% to 5.2%. All else equal, which of the following is most *likely* the reason? The company's:

- A. equity beta increased.
- B. effective tax rate increased.
- C. preferred stock price increased.

#### Question 25

An analyst has compiled the following data for a company:

	Common Stock	Preferred Stock
Shares outstanding	1,000,000	800,000
Issue price	£ 20.00	£ 25.00
Current price	£ 47.60	£ 28.00
Dividend	£ 1.00	£ 1.80
Equity beta	1.2	
Risk-free rate	3%	
Equity risk premium (ERP)	5%	
Tax rate	20%	

The company recently issued £30 million in debt with a 6% yield. Assume that beta remains stable. Using the CAPM approach, which of the following is *closest* to the company's weighted average cost of capital (WACC)?

- A. 6.72%
- B. 7.16%
- C. 7.34%

**Question 26**

Information for a company is shown below:

Pretax cost of debt	8%
Cost of equity	12%
Debt-to-equity ratio	0.6
Corporate tax rate	30%

The company's weighted average cost of capital (WACC) is *closest* to:

- A. 8.2%
- B. 9.6%
- C. 10.5%

**Question 27**

Management wishes to limit a company's use of debt since its operating cash flows are unpredictable, despite the company's current lenders offering low rates. The company is most *likely* in its:

- A. mature phase.
- B. growth phase.
- C. start-up phase.

**Question 28**

An analyst is estimating a company's weighted average cost of capital (WACC) based on the following data:

After-tax cost of debt	5.8%
Cost of preferred stock	5.9%
Return on the market	7.4%
Risk-free rate	3.0%
Marginal tax rate	28.0%
Weight of debt	42.0%
Weight of equity	53.0%
Weight of preferred stock	5.0%

If the analyst estimates the company's beta as 1.61, then the company's WACC is *closest* to:

- A. 7.35%
- B. 8.08%
- C. 10.64%



**Question 29**

An analyst is estimating a company's weighted average cost of capital (WACC) and compiles the following information:

Pretax cost of debt	5.8%
Cost of common equity	7.1%
Preferred stock share price at issuance	\$30.00
Current preferred stock share price	\$50.00
Preferred dividend	\$2.60
Weight of debt	61.0%
Weight of common equity	35.0%
Weight of preferred stock	4.0%
Marginal tax rate	25.0%

Based on only this information, the WACC is *closest* to:

- A. 5.35%
- B. 5.48%
- C. 6.25%

**Question 30**

A manufacturer with industry-average financial leverage is issuing debt to fund expansion of production capacity. All else equal, the stakeholder group most likely to benefit from the increase in financial leverage is the company's:

- A. bondholders.
- B. common shareholders.
- C. preferred shareholders.

**Question 31**

Which of the following is most likely characteristic of a firm in its mature life cycle phase?

- A. The cost of equity is cheaper than the cost of debt.
- B. The firm has access to more sources of unsecured debt.
- C. The firm deleverages debt by engaging in share buybacks.

**Question 32**

An analyst gathers the following information for a company:

Book value of existing debt	¥150 million
Book value per share of common stock	¥16
Market value of existing debt	¥170 million
Current stock price	¥25
Common shares outstanding	10 million
YTM on existing debt	5%
Risk-free rate	3%
Expected market return	12%
Corporate tax rate	35%

Based on this information, if the appropriate beta is 1.2, the company's WACC is closest to:

- A. 9.5%
- B. 10.4%
- C. 11.7%