

Reading 36: Cost of Capital

Question #1 of 87

Question ID: 414773

A new project is expected to be less risky than the average risk of existing projects. The appropriate discount rate to use when evaluating this project is:

- A) less than the firm's marginal cost of capital.
- B) the firm's marginal cost of capital.
- C) greater than the firm's marginal cost of capital.

Question #2 of 87

Question ID: 414748

Which of the following events will *reduce* a company's weighted average cost of capital (WACC)?

- A) An increase in expected inflation.
- B) A reduction in the market risk premium.
- C) A reduction in the company's bond rating.

Question #3 of 87

Question ID: 414747

Given the following information about capital structure, compute the WACC. The marginal tax rate is 40%.

Type of Capital	Percent of Capital Structure	Before-Tax Component Cost
Bonds	40%	7.5%
Preferred Stock	5%	11.0%
Common Stock	55%	15.0%

- A) 7.1%.
- B) 10.6%.
- C) 13.3%.

Question #4 of 87

Question ID: 485786

An analyst gathered the following information for ABC Company, which has a target capital structure of 70% common equity and 30% debt:

Dividend yield 3.50%

Expected market return	9.00%
Risk-free rate	4.00%
Tax rate	40%
Beta	0.90
Bond yield-to-maturity	8.00%

ABC's weighted-average cost of capital is *closest to*:

- A) 8.4%.
 - B) 7.4%.
 - C) 6.9%.
-

Question #5 of 87

Question ID: 414811

The *most* accurate way to account for flotation costs when issuing new equity to finance a project is to:

- A) increase the cost of equity capital by dividing it by $(1 - \text{flotation cost})$.
 - B) increase the cost of equity capital by multiplying it by $(1 + \text{flotation cost})$.
 - C) adjust cash flows in the computation of the project NPV by the dollar amount of the flotation costs.
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Question #6 of 87

Question ID: 460665

The Garden and Home Store recently issued preferred stock paying \$2 annual dividends. The price of its preferred stock is \$20. The after-tax cost of fixed-rate debt capital is 6% and the cost of common stock equity is 12%. The cost of preferred stock is *closest to*:

- A) 11%.
 - B) 9%.
 - C) 10%.
-

Question #7 of 87

Question ID: 434335

A publicly traded company has a beta of 1.2, a debt/equity ratio of 1.5, ROE of 8.1%, and a marginal tax rate of 40%. The unlevered beta for this company is *closest to*:

- A) 1.071.
 - B) 0.632.
 - C) 0.832.
-

Question #8 of 87

Question ID: 414791

Julius, Inc., is in a 40% marginal tax bracket. The firm can raise as much capital as needed in the bond market at a cost of 10%. The preferred stock has a fixed dividend of \$4.00. The price of preferred stock is \$31.50. The after-tax costs of debt and preferred stock are *closest* to:

	<u>Debt</u>	<u>Preferred stock</u>
A)	6.0%	12.7%
B)	6.0%	7.6%
C)	10.0%	7.6%

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Question ID: 414766

Carlos Rodriquez, CFA, and Regine Davis, CFA, were recently discussing the relationships between capital structure, capital budgets, and net present value (NPV) analysis. Which of the following comments made by these two individuals is *least* accurate?

- A) "For projects with more risk than the average firm project, NPV computations should be based on the marginal cost of capital instead of the weighted average cost of capital."
- B) "A break point occurs at a level of capital expenditure where one of the component costs of capital increases."
- C) "The optimal capital budget is determined by the intersection of a firm's marginal cost of capital curve and its investment opportunity schedule."

Question #10 of 87

Question ID: 434328

A company has a target capital structure of 40% debt and 60% equity. The company is a constant growth firm that just paid a dividend of \$2.00, sells for \$27.00 per share, and has a growth rate of 8%.

- The company's bonds pay 10% coupon (semi-annual payout), mature in 20 years, and sell for \$849.54.
- The company's stock beta is 1.2.
- The company's marginal tax rate is 40%.
- The risk-free rate is 10%.
- The market risk premium is 5%.

The company's after-tax cost of debt is:

- A) 12.0%.
- B) 4.8%.
- C) 7.2%.

Question #11 of 87

Question ID: 414769

Enamel Manufacturing (EM) is considering investing in a new vehicle. EM finances new projects using retained earnings and bank loans. This new vehicle is expected to have the same level of risk as the typical investment made by EM. Which one of the following should the firm use in making its decision?

- A) After-tax cost of debt.
- B) Marginal cost of capital.
- C) Cost of retained earnings.

Question #12 of 87

Question ID: 414805

Arlington Machinery currently has assets on its balance sheet of \$300 million that is financed with 70% equity and 30% debt. The executive management team at Arlington is considering a major expansion that would require raising additional capital. Jeffery Marian, an analyst with Arlington Machinery, has put together the following schedule for the costs of debt and equity:

<i>Amount of New Debt (in millions)</i>	<i>After-tax Cost of Debt</i>	<i>Amount of New Equity (in millions)</i>	<i>Cost of Equity</i>
\$0 to \$49	4.0%	\$0 to \$99	7.0%
\$50 to \$99	4.2%	\$100 to \$199	8.0%
\$100 to \$149	4.5%	\$200 to \$299	9.0%

In a presentation to Arlington's executive management team, Marian makes the following statements:

Statement 1: If we maintain our target capital structure of 70% equity and 30% debt, the breakpoint at which our cost of equity will increase to 9.0% is approximately \$286 million in new capital.

Statement 2: If we want to finance total assets of \$600 million, our weighted average cost of capital (WACC) for the additional financing needed will be 7.56%.

Marian's statements are:

- | <u>Statement 1</u> | <u>Statement 2</u> |
|--------------------|--------------------|
| A) Correct | Incorrect |
| B) Correct | Correct |
| C) Incorrect | Incorrect |

Question #13 of 87

Question ID: 460664

Hanson Aluminum, Inc. is considering whether to build a mill based around a new rolling technology the company has been developing. Management views this project as being riskier than the average project the company undertakes. Based on their analysis of the projected cash flows, management determines that the project's internal rate of return is equal to the company's marginal cost of capital. If the project goes forward, the company will finance it with newly issued debt with an after-tax cost less than the project's IRR. Should management accept or reject this project?

- A) Accept, because the marginal cost of the new debt is less than the project's internal rate of return.
 - B) Reject, because the project reduces the value of the company when its risk is taken into account.
 - C) Accept, because the project returns the company's cost of capital.
-

Question #14 of 87

Question ID: 414814

Nippon Post Corporation (NPC), a Japanese software development firm, has a capital structure that is comprised of 60% common equity and 40% debt. In order to finance several capital projects, NPC will raise USD1.6 million by issuing common equity and debt in proportion to its current capital structure. The debt will be issued at par with a 9% coupon and flotation costs on the equity issue will be 3.5%. NPC's common stock is currently selling for USD21.40 per share, and its last dividend was USD1.80 and is expected to grow at 7% forever. The company's tax rate is 40%. NPC's WACC based on the cost of new capital is *closest* to:

- A) 13.1%.
 - B) 9.6%.
 - C) 11.8%.
-

Question #15 of 87

Question ID: 434336

Affluence Inc. is considering whether to expand its recreational sports division by embarking on a new project. Affluence's capital structure consists of 75% debt and 25% equity and its marginal tax rate is 30%. Aspire Brands is a publicly traded firm that specializes in recreational sports products. Aspire has a debt-to-equity ratio of 1.7, a beta of 0.8, and a marginal tax rate of 35%. Using the pure-play method with Aspire as the comparable firm, the project beta Affluence should use to calculate the cost of equity capital for this project is *closest to*:

- A) 1.18.
 - B) 0.38.
 - C) 0.58.
-

Question #16 of 87

Question ID: 414779

Which of the following is *least likely* to be useful to an analyst when estimating the cost of raising capital through the issuance of non-callable, nonconvertible preferred stock?

- A) The preferred stock's dividend rate.
 - B) The stated par value of the preferred issue.
 - C) The firm's corporate tax rate.
-

Question #17 of 87

Question ID: 414783

Axle Corporation earned £3.00 per share and paid a dividend of £2.40 on its common stock last year. Its common stock is trading at £40 per share. Axle is expected to have a return on equity of 15%, an effective tax rate of 34%, and to maintain its historic payout ratio going forward. In estimating Axle's after-tax cost of capital, an analyst's estimate of Axle's cost of common equity would be *closest* to:

- A) 8.8%.
 - B) 9.2%.
 - C) 9.0%.
-

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Question ID: 414790

A firm has \$3 million in outstanding 10-year bonds, with a fixed rate of 8% (assume annual payments). The bonds trade at a price of \$92 per \$100 par in the open market. The firm's marginal tax rate is 35%. What is the after-tax component cost of debt to be used in the weighted average cost of capital (WACC) calculations?

- A) 5.40%.
 - B) 6.02%.
 - C) 9.26%.
-

Question #19 of 87

Question ID: 414784

A \$100 par, 8% preferred stock is currently selling for \$80. What is the cost of preferred equity?

- A) 10.0%.
 - B) 8.0%.
 - C) 10.8%.
-

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Question ID: 414758

A firm has \$100 in equity and \$300 in debt. The firm recently issued bonds at the market required rate of 9%. The firm's beta is 1.125, the risk-free rate is 6%, and the expected return in the market is 14%. Assume the firm is at their optimal capital structure and the firm's tax rate is 40%. What is the firm's weighted average cost of capital (WACC)?

- A) 5.4%.
 - B) 8.6%.
 - C) 7.8%.
-

Question #21 of 87

Question ID: 434329

DeSoto Corp. 8% coupon bonds have a yield to maturity of 7.5%. The firm's tax rate is 30%. The after-tax cost of debt is *closest* to:

- A) 5.6%.
- B) 5.3%.
- C) 7.5%.

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Question ID: 414789

A firm has \$4 million in outstanding bonds that mature in four years, with a fixed rate of 7.5% (assume annual payments). The bonds trade at a price of \$98 in the open market. The firm's marginal tax rate is 35%. Using the bond-yield plus method, what is the firm's cost of equity risk assuming an add-on of 4%?

- A) 11.50%.
- B) 12.11%.
- C) 13.34%.

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Question ID: 414804

Simcox Financial is considering raising additional capital to finance a takeover of one of the firm's major competitors. Reuben Mellum, an analyst with Simcox, has put together the following schedule of costs related to raising new capital:

<u>Amount of New Debt (in millions)</u>	<u>After-tax Cost of Debt</u>	<u>Amount of New Equity (in millions)</u>	<u>Cost of Equity</u>
\$0 to \$149	4.2%	\$0 to \$399	7.5%
\$150 to \$349	5.0%	\$400 to \$799	8.5%

Assuming that Simcox has a target debt to equity ratio of 65% equity and 35% debt, what are the marginal cost of capital schedule breakpoints for raising additional debt capital and equity capital, respectively?

<u>Breakpoint for new debt capital</u>	<u>Breakpoint for new equity capital</u>
A) \$428.6 million	\$533.3 million
B) \$375.0 million	\$615.4 million
C) \$428.6 million	\$615.4 million

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Question ID: 414761

At a recent Haggerty Semiconductors Board of Directors meeting, Merle Haggerty was asked to discuss the topic of the company's weighted average cost of capital (WACC).

At the meeting Haggerty made the following statements about the company's WACC:

Statement 1: A company creates value by producing a higher return on its assets than the cost of financing those assets. As such, the WACC is the cost of financing a firm's assets and can be viewed as the firm's opportunity cost of financing its assets.

Statement 2: Since a firm's WACC reflects the average risk of the projects that make up the firm, it is not appropriate for evaluating all new projects. It should be adjusted upward for projects with greater-than-average risk and downward for projects with less-than-average risk.

Are Statement 1 and Statement 2, as made by Haggerty CORRECT?

Statement 1 Statement 2

- | | |
|---------------------|-----------|
| A) Correct | Incorrect |
| B) Incorrect | Correct |
| C) Correct | Correct |

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Question ID: 414777

The debt of Savanna Equipment, Inc. has an average maturity of ten years and a BBB rating. A market yield to maturity is not available because the debt is not publicly traded, but the market yield on debt with similar characteristics is 8.33%. Savanna is planning to issue new ten-year notes that would be subordinate to the firm's existing debt. The company's marginal tax rate is 40%. The *most* appropriate estimate of the after-tax cost of this new debt is:

- A)** More than 5.0%.
- B)** 5.0%.
- C)** Between 3.3% and 5.0%.

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Question ID: 414745

Assume a firm uses a constant WACC to select investment projects rather than adjusting the projects for risk. If so, the firm will tend to:

- A)** reject profitable, low-risk projects and accept unprofitable, high-risk projects.
- B)** accept profitable, low-risk projects and accept unprofitable, high-risk projects.
- C)** accept profitable, low-risk projects and reject unprofitable, high-risk projects.

Question #27 of 87

Question ID: 414810

Which of the following is used to illustrate a firm's weighted average cost of capital (WACC) at different levels of capital?

- A)** Schedule of marginal capital break points.
 - B)** Marginal cost of capital schedule.
 - C)** Cost of capital component schedule.
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Question #28 of 87

Question ID: 414746

In calculating the weighted average cost of capital (WACC), which of the following statements is *least accurate*?

- A) The cost of preferred equity capital is the preferred dividend divided by the price of preferred shares.
 - B) The cost of debt is equal to one minus the marginal tax rate multiplied by the coupon rate on outstanding debt.
 - C) Different methods for estimating the cost of common equity might produce different results.
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Question #29 of 87

Question ID: 414750

Helmut Humm, manager at a large U.S. firm, has just been assigned to the capital budgeting area to replace a person who left suddenly. One of Humm's first tasks is to calculate the company's weighted average cost of capital (WACC) - and fast! The CEO is scheduled to present to the board in half an hour and needs the WACC - now! Luckily, Humm finds clear notes on the target capital component weights. Unfortunately, all he can find for the cost of capital components is some handwritten notes. He can make out the numbers, but not the corresponding capital component. As time runs out, he has to guess.

Here is what Humm deciphered:

- Target weights: $w_d = 30\%$, $w_{ps} = 20\%$, $w_{ce} = 50\%$, where w_d , w_{ps} , and w_{ce} are the weights used for debt, preferred stock, and common equity.
- Cost of components (in no particular order): 6.0%, 15.0%, and 8.5%.
- The cost of debt is the after-tax cost.

If Humm guesses correctly, the WACC is:

- A) 9.0%.
 - B) 11.0%.
 - C) 9.2%.
-

Question #30 of 87

Question ID: 434330

A company has the following data associated with it:

- A target capital structure of 10% preferred stock, 50% common equity and 40% debt.
- Outstanding 20-year annual pay 6% coupon bonds selling for \$894.
- Common stock selling for \$45 per share that is expected to grow at 8% and expected to pay a \$2 dividend one year from today.
- Their \$100 par preferred stock currently sells for \$90 and is earning 5%.
- The company's tax rate is 40%.

What is the after-tax cost of debt capital and after-tax cost of preferred stock?

Debt capital

Preferred stock

- A) 4.2% 5.6%

- B) 4.5% 3.3%
- C) 4.2% 3.3%

Question #31 of 87

Question ID: 414764

Agora Systems Inc. has the following capital structure and cost of new capital:

	<i>Book Value</i>	<i>Market Value</i>	<i>Cost of Issuing</i>
Debt	\$50 million	\$58 million	5.3%
Preferred stock	\$25 million	\$28 million	7.2%
Common stock	\$200 million	\$525 million	8.0%
Total capital	\$275 million	\$611 million	

What is Agora's weighted-average cost of capital if its marginal tax rate is 40%?

- A) 7.50%.
- B) 8.02%.
- C) 6.23%.

Question #32 of 87

Question ID: 414751

When calculating the weighted average cost of capital (WACC) an adjustment is made for taxes because:

- A) the interest on debt is tax deductible.
- B) equity earns higher return than debt.
- C) equity is risky.

Question #33 of 87

Question ID: 500869

One of the primary limitations of using beta in calculating the cost of equity in a developing country is:

- A) beta does not capture country risk.
- B) beta does not capture inflation risk.
- C) the market portfolio in developing countries is often not well diversified.

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Question ID: 414782

Which of the following statements is *most* accurate regarding a firm's cost of preferred shares? A firm's cost of preferred stock is:

- A) the market price of the preferred shares as a percentage of its issuance price.
 - B) approximately equal to the market price of the firm's debt as a percentage of the market price of its common shares.
 - C) the dividend yield on the firm's newly-issued preferred stock.
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Question #35 of 87

Question ID: 414812

Meredith Suresh, an analyst with Torch Electric, is evaluating two capital projects. Project 1 has an initial cost of \$200,000 and is expected to produce cash flows of \$55,000 per year for the next eight years. Project 2 has an initial cost of \$100,000 and is expected to produce cash flows of \$40,000 per year for the next four years. Both projects should be financed at Torch's weighted average cost of capital. Torch's current stock price is \$40 per share, and next year's expected dividend is \$1.80. The firm's growth rate is 5%, the current tax rate is 30%, and the pre-tax cost of debt is 8%. Torch has a target capital structure of 50% equity and 50% debt. If Torch takes on either project, it will need to be financed with externally generated equity which has flotation costs of 4%.

Suresh is aware that there are two common methods for accounting for flotation costs. The first method, commonly used in textbooks, is to incorporate flotation costs directly into the cost of equity. The second, and more correct approach, is to subtract the dollar value of the flotation costs from the project NPV. If Suresh uses the cost of equity adjustment approach to account for flotation costs rather than the correct cash flow adjustment approach, will the NPV for each project be overstated or understated?

Project 1 NPV Project 2 NPV

- A) Understated Understated
 - B) Understated Overstated
 - C) Overstated Overstated
-

Question #36 of 87

Question ID: 598675

A company has the following data associated with it:

- A target capital structure of 10% preferred stock, 50% common equity and 40% debt.
- Outstanding 20-year annual pay 6% coupon bonds selling for \$894.
- Common stock selling for \$45 per share that is expected to grow at 8% and expected to pay a \$2 dividend one year from today.
- Their 5%, \$100 par preferred stock currently sells for \$90.
- The company's tax rate is 40%.

What is the weighted average cost of capital (WACC)?

- A) 10.3%.
 - B) 9.2%.
 - C) 8.5%.
-

Question #37 of 87

Question ID: 414778

Which of the following is *least likely* to be useful to an analyst who is estimating the pretax cost of a firm's fixed-rate debt?

- A) The yield to maturity of the firm's existing debt.
 - B) Seniority and any special covenants of the firm's anticipated debt.
 - C) The coupon rate on the firm's existing debt.
-

Question #38 of 87

Question ID: 487759

A company primarily engaged in the production of cement has the following characteristics:

- Beta = 0.8.
- Market value debt = \$180 million.
- Market value equity = \$540 million.
- Effective tax rate = 25%.
- Marginal tax rate = 34%.

The asset beta that should be used by a company considering entering into cement production is *closest to*:

- A) 0.725.
 - B) 0.640.
 - C) 0.656.
-

Question #39 of 87

Question ID: 414770

The optimal capital budget is the amount of capital determined by the:

- A) point of tangency between the marginal cost of capital curve and the investment opportunity schedule.
 - B) upward sloping marginal cost of capital curve's intersection with a downward sloping investment opportunity schedule.
 - C) downward sloping marginal cost of capital curve's intersection with a upward sloping investment opportunity schedule.
-

Question #40 of 87

Question ID: 460667

To finance a proposed project, Younghan Corporation would need to issue £25 million in common equity. Younghan would receive £23 million in net proceeds from the equity issuance. When analyzing the project, analysts at Younghan should:

- A) add the £2 million flotation cost to the project's initial cash outflow.
- B) not consider the flotation cost because it is a sunk cost.
- C) increase the cost of equity capital to account for the 8% flotation cost.

Question #41 of 87

Question ID: 460663

Elenore Rice, CFA, is asked to determine the appropriate weighted average cost of capital for Samson Brick Company. Rice is provided with the following data:

- Debt outstanding, market value \$10 million
- Common stock outstanding, market value \$30 million
- Marginal tax rate 40%
- Cost of common equity 12%
- Cost of debt 8%

Samson has no preferred stock. Assuming Samson's ratios reflect the firm's target capital structure, Samson's weighted average cost of capital is *closest to*:

- A) 10.4%.
- B) 9.8%.
- C) 10.2%.

Question #42 of 87

Question ID: 460662

An analyst gathered the following information about a capital budgeting project:

- The proposed project cost \$10,000.
- The project is expected to increase pretax net income and cash flow by \$3,000 in each of the next eight years.
- The company has 50% of its capital in equity at a cost of 12%.
- The pretax cost of debt capital is 6%.
- The company's tax rate is 33%.

The project's net present value is *closest to*:

- A) \$1,551.
- B) \$6,604.
- C) \$7,240.

Question #43 of 87

Question ID: 414793

The following information applies to a corporation:

- The company has \$200 million of equity and \$100 million of debt.
- The company recently issued bonds at 9%.
- The corporate tax rate is 30%.
- The company's beta is 1.125.

If the risk-free rate is 6% and the expected return on the market portfolio is 14%, the company's after-tax weighted average cost of capital is *closest to*:

- A) 12.1%.
 - B) 10.5%.
 - C) 11.2%.
-

Question #44 of 87

Question ID: 414744

A company is planning a \$50 million expansion. The expansion is to be financed by selling \$20 million in new debt and \$30 million in new common stock. The before-tax required return on debt is 9% and the required return for equity is 14%. If the company is in the 40% tax bracket, the marginal weighted average cost of capital is *closest* to:

- A) 10.0%
 - B) 10.6%.
 - C) 9.0%.
-

Question #45 of 87

Question ID: 414749

The following data is regarding the Link Company:

- A target debt/equity ratio of 0.5
- Bonds are currently yielding 10%
- Link is a constant growth firm that just paid a dividend of \$3.00
- Stock sells for \$31.50 per share, and has a growth rate of 5%
- Marginal tax rate is 40%

What is Link's after-tax cost of capital?

- A) 12.0%.
 - B) 12.5%.
 - C) 10.5%.
-

Question #46 of 87

Question ID: 414755

Assume that a company has equal amounts of debt, common stock, and preferred stock. An increase in the corporate tax rate of a firm will cause its weighted average cost of capital (WACC) to:

- A) rise.
 - B) more information is needed.
 - C) fall.
-

Question #47 of 87

Question ID: 414754

A company has the following capital structure:

- Target weightings: 30% debt, 20% preferred stock, 50% common equity.
- Tax Rate: 35%.
- The firm can issue \$1,000 face value, 7% semi-annual coupon debt with a 15-year maturity for a price of \$1,047.46.
- A preferred stock issue that pays a dividend of \$2.80 has a value of \$35 per share.
- The company's growth rate is estimated at 6%.
- The company's common shares have a value of \$40 and a dividend in year 0 of $D_0 = \$3.00$.

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

- A) 10.53%.
 - B) 9.28%.
 - C) 9.84%.
-

Question #48 of 87

Question ID: 414785

The expected dividend one year from today is \$2.50 for a share of stock priced at \$22.50. The long-term growth in dividends is projected at 8%. The cost of common equity is *closest* to:

- A) 15.6%.
 - B) 19.1%.
 - C) 18.0%.
-

Question #49 of 87

Question ID: 414713

A firm is considering a \$200,000 project that will last 3 years and has the following financial data:

- Annual after-tax cash flows are expected to be \$90,000.
- Target debt/equity ratio is 0.4.
- Cost of equity is 14%.
- Cost of debt is 7%.
- Tax rate is 34%.

Determine the project's payback period and net present value (NPV).

Payback Period NPV

- A) 2.43 years \$18,716
 - B) 2.22 years \$18,716
 - C) 2.22 years \$21,872
-

Question #50 of 87

Question ID: 414722

A firm is considering a \$5,000 project that will generate an annual cash flow of \$1,000 for the next 8 years. The firm has the following financial data:

- Debt/equity ratio is 50%.
- Cost of equity capital is 15%.
- Cost of new debt is 9%.
- Tax rate is 33%.

Determine the project's net present value (NPV) and whether or not to accept it.

<u>NPV</u>	<u>Accept / Reject</u>
A) +\$33	Accept
B) +\$4,968	Accept
C) -\$33	Reject

Question #51 of 87

Question ID: 434332

Genoa Corp. pays 40% of its earnings out in dividends. The return on equity (ROE) is 15%. Last year's earnings were \$5.00 per share and the dividend was just paid to shareholders. The current price of shares is \$42.00. The firm's tax rate is 30%. The cost of common equity is *closest* to:

- A) 16.1%.
 - B) 14.2%.
 - C) 13.8%.
-

Question #52 of 87

Question ID: 414781

Justin Lopez, CFA, is the Chief Financial Officer of Waterbury Corporation. Lopez has just been informed that the U.S. Internal Revenue Code may be revised such that the maximum marginal corporate tax rate will be increased. Since Waterbury's taxable income is routinely in the highest marginal tax bracket, Lopez is concerned about the potential impact of the proposed change. Assuming that Waterbury maintains its target capital structure, which of the following is *least likely* to be affected by the proposed tax change?

- A) Waterbury's after-tax cost of noncallable, nonconvertible preferred stock.
 - B) Waterbury's after-tax cost of corporate debt.
 - C) Waterbury's return on equity (ROE).
-

Question #53 of 87

Question ID: 434338

Cullen Casket Company is considering a project that requires a \$175,000 cash outlay and is expected to produce cash flows of \$65,000 per year for the next four years. Cullen's tax rate is 40% and the before-tax cost of debt is 9%. The current share price for Cullen stock is \$32 per share and the expected dividend next year is \$1.50 per share. Cullen's expected growth rate is 5%.

Cullen finances the project with 70% newly issued equity and 30% debt, and the flotation costs for equity are 4.5%. What is the dollar amount of the flotation costs attributable to the project, and that is the NPV for the project, assuming that flotation costs are accounted for correctly?

	<u>Dollar amount of flotation costs</u>	<u>NPV of project</u>
A)	\$5,513	\$32,872
B)	\$7,875	\$30,510
C)	\$5,513	\$30,510

Question #54 of 87

Question ID: 414768

The marginal cost of capital is:

- A) the cost of the last dollar raised by the firm.
- B) tied solely to the specific source of financing.
- C) equal to the firm's weighted cost of funds.

Question #55 of 87

Question ID: 414757

Hatch Corporation's target capital structure is 40% debt, 50% common stock, and 10% preferred stock. Information regarding the company's cost of capital can be summarized as follows:

- The company's bonds have a nominal yield to maturity of 7%.
- The company's preferred stock sells for \$40 a share and pays an annual dividend of \$4 a share.
- The company's common stock sells for \$25 a share and is expected to pay a dividend of \$2 a share at the end of the year (i.e., $D_1 = \$2.00$). The dividend is expected to grow at a constant rate of 7% a year.
- The company has no retained earnings.
- The company's tax rate is 40%.

What is the company's weighted average cost of capital (WACC)?

- A) 10.18%.
- B) 10.59%.
- C) 10.03%.

Question #56 of 87

Question ID: 414802

In order to more accurately estimate the cost of equity for a company situated in a developing market, an analyst should:

- A) add a country risk premium to the market risk premium when using the capital asset pricing model (CAPM).

- B)** use the yield on the sovereign debt of the developing country instead of the risk free rate when using the capital asset pricing model (CAPM).
 - C)** add a country risk premium to the risk-free rate when using the capital asset pricing model (CAPM).
-

Question #57 of 87

Question ID: 414792

If central bank actions caused the risk-free rate to increase, what is the *most* likely change to cost of debt and equity capital?

- A)** One increase and one decrease.
 - B)** Both increase.
 - C)** Both decrease.
-

Question #58 of 87

Question ID: 414807

A North American investment society held a panel discussion on the topics of capital costs and capital budgeting. Which of the following comments made during this discussion is the *least* accurate?

- A)** A project's internal rate of return decreases when a breakpoint is reached.
 - B)** Any given project's NPV will decline when a breakpoint is reached.
 - C)** An increase in the after-tax cost of debt may occur at a break point.
-

Question #59 of 87

Question ID: 414767

Levenworth Industries has the following capital structure on December 31, 2006:

	Book Value	Market Value
Debt outstanding	\$8 million	\$10.5 million
Preferred stock outstanding	\$2 million	\$1.5 million
Common stock outstanding	\$10 million	\$13.7 million
Total capital	\$20 million	\$25.7 million

What is the firm's target debt and preferred stock portion of the capital structure based on existing capital structure?

- | | <u>Debt</u> | <u>Preferred Stock</u> |
|-----------|-------------|------------------------|
| A) | 0.41 | 0.10 |
| B) | 0.41 | 0.06 |
| C) | 0.40 | 0.10 |
-

Question #60 of 87

Question ID: 414806

Which one of the following statements about the marginal cost of capital (MCC) is *most* accurate?

- A) The MCC is the cost of the last dollar obtained from bondholders.
 - B) A breakpoint on the MCC curve occurs when one of the components in the weighted average cost of capital changes in cost.
 - C) The MCC falls as more and more capital is raised in a given period.
-

Question #61 of 87

Question ID: 414756

Ravencroft Supplies is estimating its weighted average cost of capital (WACC). Ravencroft's optimal capital structure includes 10% preferred stock, 30% debt, and 60% equity. They can sell additional bonds at a rate of 8%. The cost of issuing new preferred stock is 12%. The firm can issue new shares of common stock at a cost of 14.5%. The firm's marginal tax rate is 35%. Ravencroft's WACC is *closest* to:

- A) 13.3%.
 - B) 12.3%.
 - C) 11.5%.
-

Question #62 of 87

Question ID: 414774

Which of the following is *most* accurate regarding the component costs and component weights in a firm's weighted average cost of capital (WACC)?

- A) The weights in the WACC should be based on the book values of the individual capital components.
 - B) The appropriate pre-tax cost of a firm's new debt is the average coupon rate on the firm's existing debt.
 - C) Taxes reduce the cost of debt for firms in countries in which interest payments are tax deductible.
-

Question #63 of 87

Question ID: 414771

Which of the following statements is *least* accurate regarding the marginal cost of capital's role in determining the net present value (NPV) of a project?

- A) The NPVs of potential projects of above-average risk should be calculated using the marginal cost of capital for the firm.
- B) Projects for which the present value of the after-tax cash inflows is greater than the present value of the after-tax cash outflows should be undertaken by the firm.

- C) When using a firm's marginal cost of capital to evaluate a specific project, there is an implicit assumption that the capital structure of the firm will remain at the target capital structure over the life of the project.
-

Question #64 of 87

Question ID: 414772

Which of the following statements about the role of the marginal cost of capital in determining the net present value of a project is *most* accurate? The marginal cost of capital should be used to discount the cash flows:

- A) for potential projects that have a level of risk near that of the firm's average project.
 - B) of all projects the firm is considering.
 - C) if the firm's capital structure is expected to change during the project's life.
-

Question #65 of 87

Question ID: 434333

Degen Company is considering a project in the commercial printing business. Its debt currently has a yield of 12%. Degen has a leverage ratio of 2.3 and a marginal tax rate of 30%. Hodgkins Inc., a publicly traded firm that operates only in the commercial printing business, has a marginal tax rate of 25%, a debt-to-equity ratio of 2.0, and an equity beta of 1.3. The risk-free rate is 3% and the expected return on the market portfolio is 9%. The appropriate WACC to use in evaluating Degen's project is *closest to*:

- A) 8.9%.
 - B) 9.2%.
 - C) 8.6%.
-

Question #66 of 87

Question ID: 414753

A company has the following information:

- A target capital structure of 40% debt and 60% equity.
- \$1,000 par value bonds pay 10% coupon (semi-annual payments), mature in 20 years, and sell for \$849.54.
- The company stock beta is 1.2.
- Risk-free rate is 10%, and market risk premium is 5%.
- The company's marginal tax rate is 40%.

The weighted average cost of capital (WACC) is closest to:

- A) 13.5%.
 - B) 13.0%.
 - C) 12.5%.
-

Question #67 of 87

Question ID: 485788

The following is a schedule of Tiger Company's new debt and equity capital costs (\$ millions):

<u>Amount of New Debt</u>	<u>After-tax Cost of Debt</u>	<u>Amount of New Equity</u>	<u>Cost of Equity</u>
< \$30	3.5%	< \$60	8.5%
\$30 - \$60	4.0%	\$60 - \$90	10.3%
> \$60	4.7%	> \$90	12.5%

The company has a target capital structure of 30% debt and 70% equity. Tiger needs to raise an additional \$135.0 million of capital for a new project while maintaining its target capital structure. The company's second debt break point and its marginal cost of capital (MCC) are *closest to*:

Debt Break Point #2 MCC

- A) \$200 million 10.0%
- B) \$200 million 8.4%
- C) \$100 million 8.4%

Question #68 of 87

Question ID: 414794

A company's outstanding 20-year, annual-pay 6% coupon bonds are selling for \$894. At a tax rate of 40%, the company's after-tax cost of debt capital is *closest to*:

- A) 7.0%
- B) 4.2%.
- C) 5.1%

Question #69 of 87

Question ID: 414752

An analyst gathered the following data about a company:

<i>Capital Structure</i>	<i>Required Rate of Return</i>
30% debt	10% for debt
20% preferred stock	11% for preferred stock
50% common stock	18% for common stock

Assuming a 40% tax rate, what after-tax rate of return must the company earn on its investments?

- A) 10.0%.
- B) 13.0%.
- C) 14.2%.

Question #70 of 87

Question ID: 414759

A firm is planning a \$25 million expansion project. The project will be financed with \$10 million in debt and \$15 million in equity stock (equal to the company's current capital structure). The before-tax required return on debt is 10% and 15% for equity. If the company is in the 35% tax bracket, what cost of capital should the firm use to determine the project's net present value (NPV)?

- A) 9.6%.
 - B) 12.5%.
 - C) 11.6%.
-

Question #71 of 87

Question ID: 434331

A company has a target capital structure of 40% debt and 60% equity. The company is a constant growth firm that just paid a dividend of \$2.00, sells for \$27.00 per share, and has a growth rate of 8%.

- The company's bonds pay 10% coupon (semi-annual payout), mature in 20 years, and sell for \$849.54.
- The company's stock beta is 1.2.
- The company's marginal tax rate is 40%.
- The risk-free rate is 10%.
- The market risk premium is 5%.

The cost of equity using the capital asset pricing model (CAPM) approach and the discounted cash flow approach is:

<u>CAPM</u>	<u>Discounted cash flow</u>
A) 16.0%	16.0%
B) 16.6%	15.4%
C) 16.0%	15.4%

Question #72 of 87

Question ID: 414775

Ferryville Radar Technologies has five-year, 7.5% notes outstanding that trade at a yield to maturity of 6.8%. The company's marginal tax rate is 35%. Ferryville plans to issue new five-year notes to finance an expansion. Ferryville's cost of debt capital is *closest* to:

- A) 4.4%.
 - B) 2.4%.
 - C) 4.9%.
-

Question #73 of 87

Question ID: 414765

Hans Klein, CFA, is responsible for capital projects at Vertex Corporation. Klein and his assistant, Karl Schwartz, were discussing various issues about capital budgeting and Schwartz made a comment that Klein believed to be incorrect. Which of the following is *most likely* the *incorrect* statement made by Schwartz?

- A) "Net present value (NPV) and internal rate of return (IRR) result in the same rankings of potential capital projects."
- B) "It is not always appropriate to use the firm's marginal cost of capital when determining the net present value of a capital project."
- C) "The weighted average cost of capital (WACC) should be based on market values for the firm's outstanding securities."
-

Question #74 of 87

Question ID: 434334

Utilitarian Co. is looking to expand its appliances division. It currently has a beta of 0.9, a D/E ratio of 2.5, a marginal tax rate of 30%, and its debt is currently yielding 7%. JF Black, Inc. is a publicly traded appliance firm with a beta of 0.7, a D/E ratio of 3, a marginal tax rate of 40%, and its debt is currently yielding 6.8%. The risk-free rate is currently 5% and the expected return on the market portfolio is 9%. Using this data, calculate Utilitarian's weighted average cost of capital for this potential expansion.

- A) 4.2%.
- B) 5.7%.
- C) 7.1%.
-

Question #75 of 87

Question ID: 467819

The 6% semiannual coupon, 7-year notes of Woodbine Transportation, Inc. trade for a price of 94.54. What is the company's after-tax cost of debt capital if its marginal tax rate is 30%?

- A) 4.2%.
- B) 4.9%.
- C) 2.1%.
-

Question #76 of 87

Question ID: 460666

The following information applies to World Turn Company:

- 10% rate of interest on newly issued bonds.
- 7% growth rate in earnings and dividends.
- The last dividend paid was \$0.93.
- Shares sell for \$16.
- Stock's beta is 1.5.
- Market risk premium is 6%.
- Risk-free rate of interest is 5%.
- The firm is in a 40% marginal tax bracket.

If the appropriate risk premium relative to the bond yield is 4%, World Turn's equity cost of capital using the dividend discount model is *closest to*:

- A) 12.8%.

- B) 13.2%.
- C) 14.0%.

Question #77 of 87

Question ID: 414763

Deighton Industries has 200,000 bonds outstanding. The par value of each corporate bond is \$1,000, and the current market price of the bonds is \$965. Deighton also has 6 million common shares outstanding, with a book value of \$35 per share and a market price of \$28 per share. At a recent board of directors meeting, Deighton board members decided not to change the company's capital structure in a material way for the future. To calculate the weighted average cost of Deighton's capital, what weights should be assigned to debt and to equity?

	<u>Debt</u>	<u>Equity</u>
A)	56.55%	43.45%
B)	53.46%	46.54%
C)	48.85%	51.15%

Question #78 of 87

Question ID: 414760

Which of the following choices *best* describes the role of taxes on the after-tax cost of capital in the U.S. from the different capital sources?

	<u>Common equity</u>	<u>Preferred equity</u>	<u>Debt</u>
A)	No effect	Decrease	Decrease
B)	Decrease	Decrease	No effect
C)	No effect	No effect	Decrease

Question #79 of 87

Question ID: 414803

Stolzenbach Technologies has a target capital structure of 60% equity and 40% debt. The schedule of financing costs for the Stolzenbach is shown in the table below:

<u>Amount of New Debt (in millions)</u>		<u>After-tax Cost of Debt</u>		<u>Amount of New Equity (in millions)</u>		<u>Cost of Equity</u>	
\$0 to \$199		4.5%		\$0 to \$299		7.5%	
\$200 to \$399		5.0%		\$300 to \$699		8.5%	
\$400 to \$599		5.5%		\$700 to \$999		9.5%	

Stolzenbach Technologies has breakpoints for raising additional financing at both:

- A) \$400 million and \$700 million.
- B) \$500 million and \$1,000 million.
- C) \$500 million and \$700 million.

Question #80 of 87

Question ID: 414762

A financial analyst is estimating the effect on the cost of capital for a company of a decrease in the marginal tax rate. The company is financed with debt and common equity. A decrease in the firm's marginal tax rate would:

- A) increase the cost of capital because of a higher after-tax cost of debt.
- B) increase the cost of capital because of a higher after-tax cost of debt and equity.
- C) decrease the cost of capital because of a lower after-tax cost of debt and equity.

Question #81 of 87

Question ID: 414787

The expected annual dividend one year from today is \$2.50 for a share of stock priced at \$25. What is the cost of equity if the constant long-term growth in dividends is projected to be 8%?

- A) 15%.
- B) 18%.
- C) 19%.

Question #82 of 87

Question ID: 414808

BPM Ltd. has the following capital structure: 40% debt and 60% equity. The cost of equity is 16%. Its before tax cost of debt is 8%, and its corporate tax rate is 40%. BPM is considering between two mutually exclusive projects that have the following cash flows:

	Today	Year 1	Year 2	Year 3
Project X	Cost = 100 million	+ 50 million	+ 30 million	+ 50 million
Project Y	Cost = 150 million	+ 50 million	+ 60 million	+ 80 million

Which project should BPM choose?

- A) Project Y because its NPV is \$22 million.
- B) Project X because its NPV is \$16 million.
- C) Project X because its NPV is \$5 million.

Question #83 of 87

Question ID: 414780

The after-tax cost of preferred stock is always:

- A) higher than the cost of common shares.
 - B) equal to the before-tax cost of preferred stock.
 - C) less than the before-tax cost of preferred stock.
-

Question #84 of 87

Question ID: 414786

The cost of preferred stock is equal to the preferred stock dividend:

- A) divided by the market price.
 - B) divided by its par value.
 - C) multiplied by the market price.
-

Question #85 of 87

Question ID: 414799

Tony Costa, operations manager of BioChem Inc., is exploring a proposed product line expansion. Costa explains that he estimates the beta for the project by seeking out a publicly traded firm that is engaged exclusively in the same business as the proposed BioChem product line expansion. The beta of the proposed project is estimated from the beta of that firm after appropriate adjustments for capital structure differences. The method that Costa uses is known as the:

- A) build-up method.
 - B) accounting method.
 - C) pure-play method.
-

Question #86 of 87

Question ID: 434337

The before-tax cost of debt for Hardcastle Industries, Inc. is currently 8.0%, but it will increase to 8.25% when debt levels reach \$600 million. The debt-to-total assets ratio for Hardcastle is 40% and its capital structure is composed of debt and common equity only. If Hardcastle changes its target capital structure to 50% debt / 50% equity, which of the following describes the effect on the level of new investment at which the cost of debt will increase? The level will:

- A) decrease.
 - B) change, but can either increase or decrease.
 - C) increase.
-

Question #87 of 87

Question ID: 414788

A company has \$5 million in debt outstanding with a coupon rate of 12%. Currently the YTM on these bonds is 14%. If the tax rate is 40%, what is the after tax cost of debt?