Reading 37: Measures of Leverage

Question #1 of 39

Question ID: 414834

An analyst has gathered the following expenditure information for three different firms, each of which has a sales level of $4 million.

Costs for firms under consideration (in millions)			
	Firm A	*Firm B*	*Firm C*
Variable Costs	$2.00	$2.60	$2.40
Fixed Costs	$1.00	$1.30	$1.40
Interest Expense	$0.20	$0.00	$0.20

Which firm has the *highest* degree of operating leverage (DOL)?

A) Firm A.
B) Firm B.
C) Firm C.

Question #2 of 39

Question ID: 414817

Variability in a firm's operating income is *most closely* related to its:

A) financial risk.
B) internal risk.
C) business risk.

Question #3 of 39

Question ID: 414846

Jayco, Inc., sells blue ink for $4.00 a bottle. The ink's variable cost per bottle is $2.00. Ink has fixed cost of $10,000. What is Jayco's breakeven point in units?

A) 2,500.
B) 5,000.
C) 6,000.

Question #4 of 39

Question ID: 414825

If a 10% increase in sales causes EPS to increase from $1.00 to $1.50, and if the firm uses no debt, then what is its degree of operating leverage?

A) 5.0.

B) 4.2.

C) 4.7.

Question #5 of 39

Question ID: 485789

Myron Jackson is a private equity fund manager specializing in distressed companies. His investment philosophy is based on the principle that capital structure problems can be fixed, but industry characteristics dictate business models. Jackson would *most likely* be interested in distressed firms with which of the following characteristics?

A) High operating risk and high financial risk.

B) High operating risk and low financial risk.

C) High financial risk and low operating risk.

Question #6 of 39

Question ID: 414840

Which of the following is a key determinant of operating leverage?

A) The competitive nature of the business.

B) Level and cost of debt.

C) The tradeoff between fixed and variable costs.

Question #7 of 39

Question ID: 414845

Annual fixed costs at King Mattress amount to $325,000. The variable cost of raw materials and labor is $120 for the typical mattress. Sales prices for mattresses average $160. How many units must King Mattress sell to break even?

A) 2,708.

B) 8,125.

C) 40.

Question #8 of 39

Question ID: 434343

A company's use of financial leverage:

A) increases default risk and decreases potential return on equity.

B) decreases default risk and decreases potential return on equity.

C) increases default risk and increases potential return on equity.

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Question ID: 414822

The uncertainty in return on assets due to the nature of a firm's operations is known as:

A) business risk.

B) tax efficiency.

C) financial leverage.

Question #10 of 39

Question ID: 414823

During a period of expansion in the economy, compared to firms with lower operating expense levels, earnings growth for firms with high operating leverage will be:

A) higher.

B) lower.

C) unaffected.

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Question ID: 434340

The additional risk a firm's common shareholders must bear when a firm uses fixed cost financing is *best* described as:

A) financial risk.

B) operating risk.

C) business risk.

Question #12 of 39

Question ID: 414836

Which of the following *best* describes a firm with low operating leverage? A large change in:

A) the number of units a firm produces and sells result in a similar change in the firm's earnings before interest and taxes.

B) earnings before interest and taxes result in a small change in net income.

C) sales result in a small change in net income.

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Question ID: 414816

Which of the following statements about business risk and financial risk is *least* accurate?

A) Business risk is the riskiness of the company's assets if it uses no debt.

B) The greater a company's business risk, the higher its optimal debt ratio.

C) Factors that affect business risk are demand, sales price, and input price variability.

Question #14 of 39

Question ID: 414841

Which of the following statements regarding the impact of financial leverage on a company's net income and return on equity (ROE) is *most* accurate?

A) If a firm has a positive operating profit margin, using financial leverage will always increase ROE.

B) Using financial leverage increases the volatility of ROE for a level of volatility in operating income.

C) Increasing financial leverage increases both risk and potential return of existing bondholders.

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Question ID: 414835

Jayco, Inc. sells 10,000 units at a price of $5 per unit. Jayco's fixed costs are $8,000, interest expense is $2,000, variable costs are $3 per unit, and earnings before interest and taxes (EBIT) is $12,000. What is Jayco's degree of financial leverage (DFL) and total leverage (DTL)?

	DFL	DTL
A)	1.33	2.00
B)	1.20	2.00
C)	1.33	1.75

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Question ID: 434341

The combination of operating risk and sales risk is known as:

A) gearing risk.

B) financial risk.

C) business risk.

Question #17 of 39

Question ID: 414830

Given the following information on the annual operating results for ArtFrames, a producer of quality metal picture frames, what is the degree of operating leverage (DOL) and the degree of financial leverage (DFL)?

- Sales of $3.5 million
- Variable Costs at 45% of sales
- Fixed Costs of $1.05 million
- Debt interest payments on $750,000 issued at par with an annual 9.0% coupon (current yield is 7.0%)

Which of the following choices is *closest* to the correct answer? ArtFrame's DOL and DFL are:

	DOL	DFL
A)	3.00	1.50
B)	2.20	1.08
C)	2.20	1.50

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Question ID: 414833

All else equal, which of the following statements about operating leverage is *least* accurate?

A) Firms with high operating leverage experience greater variance in operating income.

B) Operating leverage reflects the tradeoff between variable costs and fixed costs.

C) Lower operating leverage generally results in a higher expected rate of return.

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Question ID: 414827

Which of the following statements about leverage is *most* accurate?

A) An increase in fixed costs (holding sales and variable costs constant) will reduce the company's degree of operating leverage.

B) A decrease in interest expense will increase the company's degree of total leverage.

C) If the company has no debt outstanding, then its degree of total leverage equals its degree of operating leverage.

Question #20 of 39

Question ID: 414848

Nelson, Inc. has fixed financing costs of $3 million, fixed operating costs of $5 million, and variable costs of $2.00 per unit. If the price of Nelson's product is $4.00, Nelson's operating breakeven quantity of sales is:

A) 4.0 million units.

B) 2.5 million units.

C) 1.0 million units.

Question #21 of 39

Question ID: 414821

The two major types of risk affecting a firm are:

A) financial risk and cash flow risk.

B) business risk and collection risk.

C) business risk and financial risk.

Question #22 of 39

Question ID: 414842

Wanton's San Y'isidro Co. manufactures custom door knobs for international clients. Average Revenue is $35 per unit, variable costs are $15 per unit, and total costs are $200,000. If sales are 10,000 units, what is the firm's breakeven sales quantity?

A) 2,500 units.

B) 1,750 units.

C) 3,000 units.

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Question ID: 414819

Hughes Continental is assessing its business risk. Which of the following factors would *least likely* be considered in the analysis?

A) Debt-equity ratio.

B) Input price variability.

C) Unit sales levels.

Question #24 of 39

Question ID: 485790

Given the following information on the annual operating results for ArtFrames, a producer of quality metal picture frames:

- Sales of $3,500,000.
- Variable costs at 45% of sales.
- Fixed costs of $1,050,000.
- Debt interest payments on $750,000 issued at par with an annual 9.0% coupon; market yield is currently 7.0%.

ArtFrames's degree of operating leverage (DOL) and degree of financial leverage (DFL) are *closest to*:

	DOL	DFL
A)	3.00	1.50
B)	2.20	1.50
C)	2.20	1.08

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Question ID: 414831

Which of the following statements regarding leverage is *most* accurate?

A) A firm with high business risk is more likely to increase its use of financial leverage than a firm with low business risk.

B) A firm with low operating leverage has a small proportion of its total costs in fixed costs.

C) High levels of financial leverage increase business risk while high levels of operating leverage will decrease business risk.

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Question ID: 414824

As financial leverage increases, what will be the impact on the expected rate of return and financial risk?

A) One will rise while the other falls.

B) Both will fall.

C) Both will rise.

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Question ID: 414815

All else equal, a firm's business risk is higher when:

A) variable costs are the highest portion of its expense.

B) fixed costs are the highest portion of its expense.

C) the firm has low operating leverage.

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Question ID: 414847

Yangtze Delta High Technology produces multimedia-enabled wireless phones. The factory incurs rent, depreciation, salary, and other fixed costs totaling RMB 10 million per year. Also, the company incurs annual interest of RMB 3 million on debt. Each phone sold by Yangtze Delta sells for RMB 200. The variable cost per phone is RMB 150. Yangtze Delta's operating breakeven quantity of sales is *closest to*:

A) 260,000.

B) 65,000.

C) 200,000.

Question #29 of 39

Question ID: 434342

FCO, Inc. (FCO) is comparing EBIT forecasts to help determine the impact its capital structure has on net income.

	Expected EBIT	**EBIT + 10%**
EBIT	$80,000	$88,000
Interest expense	15,000	15,000
EBT	65,000	73,000
Taxes	26,000	29,200
Net income	39,000	43,800

Liabilities	200,000
Shareholder equity	250,000
Return on equity	15.60%

FCO's degree of financial leverage is *closest* to:

A) 1.25.

B) 0.60.

C) 0.80.

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Question ID: 414838

Additional debt should be used in the firm's capital structure if it increases:

A) earnings per share.

B) the value of the firm.

C) firm earnings.

Question #31 of 39

Question ID: 414849

Steven's Bakery produces snack cakes and bread. Listed below are the operating costs for the snack cakes division and the bread division.

	Snack cakes	Bread
Price per package	$2.00	$2.50
Variable cost per package	$1.00	$1.30
Fixed operating costs	$25,000	$30,000
Fixed financing costs	$10,000	$10,000

Compared to the snack cakes division, the operating breakeven quantity for the bread division is:

A) greater.

B) less.

C) the same.

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Question ID: 414829

Stromburg Corporation's sales are $75,000,000. Fixed costs, including research and development, are $40,000,000, while variable costs amount to 30% of sales. Stromburg plans an expansion which will generate additional fixed costs of $15,000,000, decrease variable costs to 25% of sales, and permit sales to increase to $100,000,000. What is Stromburg's degree of operating leverage at the new projected sales level?

A) 4.20.

B) 3.75.

C) 3.50.

Question #33 of 39

Question ID: 414828

The following information reflects the projected operating results for Opstalan, a catalog printer.

- Sales of $5.0 million.
- Variable Costs at 40% of sales.
- Fixed Costs of $1.0 million.
- Debt interest payments on $1.5 million issued with an annual 7.0% coupon (current yield is 8.0%).
- Tax Rate of 0.0%.

Opstalan's degree of total leverage (DTL) is *closest* to:

A) 2.58.

B) 1.59.

C) 1.41.

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Question ID: 414843

Jayco, Inc. has a division that makes red ink for the accounting industry. The unit has fixed costs of $10,000 per month, and is expected to sell 40,000 bottles of ink per month. If the variable cost per bottle is $2.00 what price must the division charge in order to breakeven?

A) $2.50.

B) $2.75.

C) $2.25.

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Question ID: 550542

Which of the following factors is *least likely* to affect business risk?

A) Operating leverage.

B) Demand variability.

C) Interest rate variability.

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Question ID: 414839

Financial leverage magnifies:

A) operating income variability.

B) taxes.

C) earnings per share variability.

Question #37 of 39

Question ID: 434339

Which of the following sources of financing is *least likely* to increase a firm's financial risk?

A) Operating leases.

B) Fixed-rate debt.

C) Common equity.

Question #38 of 39

Question ID: 414832

A firm expects to produce 200,000 units of flour that can be sold for $3.00 per bag. The variable costs per unit are $2.00, the fixed costs are $75,000, and interest expense is $25,000. The degree of operating leverage (DOL) and the degree of total leverage (DTL) is *closest* to:

	DOL	DTL
A)	1.6	1.3
B)	1.6	2.0
C)	1.3	1.3

Question #39 of 39

Question ID: 414844

Annah Korotkin is the sole proprietor of CoverMeUp, a business that designs and sews outdoor clothing for dogs. Each year, she rents a booth at the regional Pet Expo and sells only blankets. Korotkin views the Expo as primarily a marketing tool and is happy to breakeven (that is, cover her booth rental). For the last 3 years, she has sold exactly enough blankets to cover the $750 booth rental fee. This year, she decided to make all blankets for the Expo out of high-tech waterproof/breathable material that is more expensive to produce, but that she believes she can sell for a higher profit margin. Information on the two types of blankets is as follows:

Per Unit	*Last Year's (Basic) Blanket*	*This Year's (New) Blanket*
Sales Price	$25	$40
Variable Cost	$20	$33

Assuming that Korotkin remains most interested in covering the booth cost (which has increased to $840), how many more or fewer blankets (new style) does she need to sell to cover the booth cost? To cover this year's booth costs, Korotkin needs to sell:

A) 42 fewer blankets than last year.

B) 30 fewer blankets than last year.

C) 42 more blankets than last year.