Question 1
L2EQ-TB0012-1412
LOS: LOS-8090
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium

Felix Rougerie, CFA, is an analyst investigating an industry with only two players of any significance: Cellar Inc. and Rutton Corporation. Rougerie collects the following revenue and income figures measured in millions of dollars:

Cellar Inc.	2015	2014	2013
Revenue	690	540	450
Operating income	34.5	21.6	13.5

Rougerie prepares a report on Cellar Inc. in which he states that there appears to be no evidence of economies of scale for Cellar Inc. Rougerie's analysis is *most likely:*

- Correct.
- Incorrect since sales are increasing.
- Incorrect since operating margins are expanding.

Rationale

This Answer is Correct

The operating margins for Cellar Inc. are (13.5 / 450) = 3%, (21.6 / 540) = 4%, and (34.5 / 690) = 5% for 2013, 2014, and 2015, respectively. The presence of expanding operating margins suggests that the company is benefitting from economies of scale.

Question 2
L2R33TB-AC015-1512
LOS: LOS-8130
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
Wildcat Enterprises has had its selling expenses decrease from 23.6 percent of sales in 2013 to 22.8 percent in 2014. Which of Porter's five forces *most likely* influenced this change?

- (●) Intensity of rivalry.
- ( ) Threat of substitute products.
- ( ) Bargaining power of suppliers.

Rationale
✔ **Intensity of rivalry.**
One reason for selling expenses to decrease as a percentage of sales would be that competitors have toned down their rivalry, which would then allow Wildcat Enterprises to spend less money on advertising and promotions.

Rationale
✘ **Threat of substitute products.**
One reason for selling expenses to decrease as a percentage of sales would be that competitors have toned down their rivalry, which would then allow Wildcat Enterprises to spend less money on advertising and promotions.

Rationale
✘ **Bargaining power of suppliers.**
One reason for selling expenses to decrease as a percentage of sales would be that competitors have toned down their rivalry, which would then allow Wildcat Enterprises to spend less money on advertising and promotions.

Question 3
L2R33TB-AC012-1512
LOS: LOS-8090
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
Sparky Industries posted sales growth of 15 percent last year. Gross and operating profits increased by 16 percent each and the gross and operating margins both increased. The *most likely* explanation for these results is that Sparky Industries:

- (●) enjoys economies of scale.
- ( ) is in a perfectly competitive market.
- ( ) has more pricing power than its competitors.

Rationale
✔ **enjoys economies of scale.**
Gross profit and operating profit both increased faster than sales, indicating that Sparky Industries may be generating efficiencies from greater scale. This is resulting in rising gross and operating margins.

Rationale
✘ **is in a perfectly competitive market.**
Gross profit and operating profit both increased faster than sales, indicating that Sparky Industries may be generating efficiencies from greater scale. This is resulting in rising gross and operating margins.

Rationale
✘ **has more pricing power than its competitors.**
Gross profit and operating profit both increased faster than sales, indicating that Sparky Industries may be generating efficiencies from greater scale. This is resulting in rising gross and operating margins.

Question 4
L2R33TB-AC014-1512
LOS: LOS-8120
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
Return on invested capital *most likely* measures:

- return earned on capital invested by shareholders.
- the return, in terms of earnings, on the fixed assets used to run the business.
- profitability earned on the capital invested by the company's shareholders and debtholders.

Rationale
return earned on capital invested by shareholders.
Return on invested capital (ROIC) measures the profitability of the capital provided by shareholders and lenders.

Rationale
the return, in terms of earnings, on the fixed assets used to run the business.
Return on invested capital (ROIC) measures the profitability of the capital provided by shareholders and lenders.

Rationale
profitability earned on the capital invested by the company's shareholders and debtholders.
Return on invested capital (ROIC) measures the profitability of the capital provided by shareholders and lenders.

Question 5
L2EQ-TBX104-1502
LOS: LOS-8150
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: easy
A company with elastic demand for its product that raises prices in line with inflation in its cost structure is most likely to exhibit:

	Gross Margin	Gross Profit
A.	Stable	Lower
B.	Stable	Stable
C.	Higher	Higher

- (●) Row A
- ( ) Row B
- ( ) Row C

Rationale

This Answer is Correct

Raising prices in line with cost input inflation will keep gross margins stable since every unit sold will be higher in price. However, since the good has elastic demand, the rise in price will lead to a larger fall in quantity demanded, which will result in lower absolute revenues and gross profits.

Question 6
L2EQ-TB0014-1412
LOS: LOS-8110
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
An analyst is modeling the financial statements of a company that has recently made annual sales of $3 billion with a gross profit margin of 65%. Sales are expected to grow by 10% next year and gross margins are not expected to change. The company is improving its inventory management systems to lower its days of inventory on hand from 30 days to 20 days for the coming period. The estimated inventory projected for next year's balance sheet will be closest to:

- $53 million.
- $63 million.
- $73 million.

Rationale

This Answer is Correct

Sales are projected to be 1.1 $3,000 million = £3,300 million. With a constant gross margin of 65%, this implies COGS will be 0.35 $3,300 million = $1,155 million. If the Days of Inventory on Hand ratio is projected to be 20, then 365 / inventory turnover = 20, which implies that inventory turnover will be 365 / 20 = 18.25. Inventory turnover is defined as COGS/inventory, hence 18.25 = $1,155 / inventory, which implies inventory = $1,155 million/18.25 = $63 million.

Question 7
L2R33TB-AC017-1512
LOS: LOS-8160
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
If technological change leads to lower manufacturing costs, then *most likely*:

- (●) more of the product will be produced at the same price.
- ( ) new customers will be enticed to try the product.
- ( ) fixed costs will fall relative to variable costs.

Rationale
✓ **more of the product will be produced at the same price.**
Lower manufacturing costs will generally lead to greater production at the same price. Because a reduction in costs affects the supply curve, it is unclear if sales prices would fall to attract new customers. In addition, the relationship between fixed and variable costs is unknown.

Rationale
✗ **new customers will be enticed to try the product.**
Lower manufacturing costs will generally lead to greater production at the same price. Because a reduction in costs affects the supply curve, it is unclear if sales prices would fall to attract new customers. In addition, the relationship between fixed and variable costs is unknown.

Rationale
✗ **fixed costs will fall relative to variable costs.**
Lower manufacturing costs will generally lead to greater production at the same price. Because a reduction in costs affects the supply curve, it is unclear if sales prices would fall to attract new customers. In addition, the relationship between fixed and variable costs is unknown.

Question 8
L2EQ-PQ3206-1410
LOS: LOS-8150
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium

Consider the following statements:

Statement 1: All other things remaining the same, the fewer the number of firms in the industry, the greater the likelihood of sellers being able to pass on rising input costs to customers.

Statement 2: If demand is relatively price inelastic, revenues will increase if prices are raised.

Which of the following is *most likely*?

- (●) Both statements are correct.
- ( ) Both statements are incorrect.
- ( ) Only one statement is correct.

Rationale

This Answer is Correct

Generally speaking, if an industry is dominated by a few large firms (as opposed to a large number of small firms), sellers will be in a better position to raise prices to compensate for rising costs.

If demand is relatively price elastic, revenues will increase (decrease) if prices are reduced (raised).

If demand is relatively price inelastic, revenues will increase (decrease) if prices are raised (reduced).

Question 9
L2R33TB-AC018-1512
LOS: LOS-8170
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
A mutual fund has an annual portfolio turnover rate of 55 percent. This implies that the *most likely* time horizon for portfolio holdings is:

- very long term.
- less than two years.
- indeterminate because it depends on the economic cycle.

Rationale
very long term.
A portfolio turnover of 55 percent means that more than half of the holdings in a portfolio are sold every year. Therefore, the time horizon is less than two years.

Rationale
less than two years.
A portfolio turnover of 55 percent means that more than half of the holdings in a portfolio are sold every year. Therefore, the time horizon is less than two years.

Rationale
indeterminate because it depends on the economic cycle.
A portfolio turnover of 55 percent means that more than half of the holdings in a portfolio are sold every year. Therefore, the time horizon is less than two years.

Question 10
L2R33TB-AC019-1512
LOS: LOS-8180
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
Which of the following is *most likely* to cause a change in a company's long- term growth rate?

- ○ Interest rates increase.
- ○ Management announces a continuation of its long-term capital spending program.
- ◉ The company introduces a revolutionary new product that will change the competitive landscape.

Rationale

✗ **Interest rates increase.**

Assuming the product is revolutionary and will change the competitive landscape in favor of the company, it is likely that the product will change the company's long-term growth rate. The effect of interest rates is complicated and depends on the company's business, its capital structure, and the economy as a whole. A capital spending program would continue the growth rate, but not change it.

Rationale

✗ **Management announces a continuation of its long-term capital spending program.**

Assuming the product is revolutionary and will change the competitive landscape in favor of the company, it is likely that the product will change the company's long-term growth rate. The effect of interest rates is complicated and depends on the company's business, its capital structure, and the economy as a whole. A capital spending program would continue the growth rate, but not change it.

Rationale

✓ **The company introduces a revolutionary new product that will change the competitive landscape.**

Assuming the product is revolutionary and will change the competitive landscape in favor of the company, it is likely that the product will change the company's long-term growth rate. The effect of interest rates is complicated and depends on the company's business, its capital structure, and the economy as a whole. A capital spending program would continue the growth rate, but not change it.

Question 11
L2R33TB-AC008-1512
LOS: LOS-8100
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium

An analyst is examining a company that operates in two countries—A and B. For the year just ended, 2014, the company's effective and cash tax rates are 25 percent and 20 percent, respectively. Further, the company's statutory tax rate in country A is 30 percent and it is 40 percent in country B.

In order to encourage investment spending, Country B has just announced that it will allow any company that buys equipment in 2015 to deduct one-half of the cost as bonus depreciation on its 2015 tax return. The analyst, based on discussions with the company's management, has estimated that total cash taxes paid by the company in 2015 will decline to 15 percent due to this incentive. The analyst notes that the company uses straight-line depreciation for its financial reporting.

Assuming no other changes, the effective tax rate the analyst should use when forecasting 2015 tax expense will be *closest* to:

- 18.8 percent.
- 20.0 percent.
- 25.0 percent.

Rationale
18.8 percent.
The bonus depreciation represents a temporary difference and it will have no impact on the company's effective tax rate. The fact that the cash tax rate declines in 2015 will benefit cash flows, but does not benefit the income statement directly in terms of changing the effective tax rate. Thus, the best estimate of the 2015 effective tax rate is the 25 percent effective tax rate for 2014.

Rationale
20.0 percent.
The bonus depreciation represents a temporary difference and it will have no impact on the company's effective tax rate. The fact that the cash tax rate declines in 2015 will benefit cash flows, but does not benefit the income statement directly in terms of changing the effective tax rate. Thus, the best estimate of the 2015 effective tax rate is the 25 percent effective tax rate for 2014.

Rationale

25.0 percent.

The bonus depreciation represents a temporary difference and it will have no impact on the company's effective tax rate. The fact that the cash tax rate declines in 2015 will benefit cash flows, but does not benefit the income statement directly in terms of changing the effective tax rate. Thus, the best estimate of the 2015 effective tax rate is the 25 percent effective tax rate for 2014.

Question 12
L2R33TB-ITEMSET-AC020-1512
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: N/A

Use the following information to answer the next 2 questions:

An analyst is projecting the revenues for a company that owns 203 supermarkets (grocery stores) in a country. In the past, the company's same-store sales have grown 3.5 percent. The analyst believes this growth will slow and decides to project same-store sales growth of 2.3 percent. The analyst notes that the most recent year's (2014) total revenues were €120.8 million for the 203 existing stores. Further, the company expects to open 10 new stores in 2015 and the analyst has projected total sales of €3.3 million for these new stores.

Using the information above, answer the following two questions:

i.
The approach and method that the analyst is using is *best* described as being a:

- time series, which is a top-down approach.
- capacity-based measure, which is a bottom-up approach.
- growth relative to GDP growth, which is a top-down approach.

Rationale
This Answer is Correct
He is using the capacity of the existing stores to grow their sales over the prior year and adding in the additional capacity from adding 10 new stores.Thus, the analyst is using a capacity-based measure, which is a bottom-up approach.

Rationale
This Answer is Correct
He is using the capacity of the existing stores to grow their sales over the prior year and adding in the additional capacity from adding 10 new stores.Thus, the analyst is using a capacity-based measure, which is a bottom-up approach.

Rationale
This Answer is Incorrect
He is using the capacity of the existing stores to grow their sales over the prior year and adding in the additional capacity from adding 10 new stores.Thus, the analyst is using a capacity-based measure, which is a bottom-up approach.

ii.

The analyst's forecasted 2015 revenues for the retailer will be *closest to*:

- ○ €123.6 million.
- ◉ €126.9 million.
- ○ €133.2 million.

Rationale

This Answer is Incorrect

The calculation is as follows:

$$\begin{aligned}\text{Forecast revenues-existing stores} &= \text{€123.6 million } [\text{€120.8 million} \times (1 + 0.023)] \\ \text{Forecasted revenues-new stores} &= \underline{\text{3.3 million}} \\ \text{Total forecasted revenues} &= \text{€126.9 million}\end{aligned}$$

Rationale

This Answer is Incorrect

The calculation is as follows:

$$\begin{aligned}\text{Forecast revenues-existing stores} &= \text{€123.6 million } [\text{€120.8 million} \times (1 + 0.023)] \\ \text{Forecasted revenues-new stores} &= \underline{\text{3.3 million}} \\ \text{Total forecasted revenues} &= \text{€126.9 million}\end{aligned}$$

Rationale

This Answer is Incorrect

The calculation is as follows:

$$\begin{aligned}\text{Forecast revenues-existing stores} &= \text{€123.6 million } [\text{€120.8 million} \times (1 + 0.023)] \\ \text{Forecasted revenues-new stores} &= \underline{\text{3.3 million}} \\ \text{Total forecasted revenues} &= \text{€126.9 million}\end{aligned}$$

Question 13
L2R33TB-AC010-1512
LOS: LOS-8120
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
An analyst is looking at forecasts for a manufacturing company. Almost all of the company's assets are working capital and property, plant, and equipment (PP&E). The technology used in the industry is changing rapidly, and the analyst believes that the company's capital expenditures will be much greater than its depreciation over the next five years and that net PP&E will rise 10–15 percent per year. Meanwhile, the analyst is forecasting that earnings and working capital will grow at a steady 5 percent rate over the same five years. Based on the analyst's assumptions and forecasts, the company's return on investment capital (ROIC) over the five-year period will *most likely*:

- increase.
- decrease.
- remain the same.

Rationale
increase.
The growth in earnings and working capital are stable, but the increase in capital spending needed to meet the technological change will require a faster growing capital base. Thus, the ROIC will most likely decrease during the period because the operating assets in the denominator of the ROIC calculation are expected to increase at a faster rate than the net operating profit less adjusted taxes in the numerator.

Rationale
decrease.
The growth in earnings and working capital are stable, but the increase in capital spending needed to meet the technological change will require a faster growing capital base. Thus, the ROIC will most likely decrease during the period because the operating assets in the denominator of the ROIC calculation are expected to increase at a faster rate than the net operating profit less adjusted taxes in the numerator.

Rationale
remain the same.
The growth in earnings and working capital are stable, but the increase in capital spending needed to meet the technological change will require a faster growing capital base. Thus, the ROIC will most likely decrease during the period because the operating assets in the denominator of the ROIC calculation are expected to increase at a faster rate than the net operating profit less adjusted taxes in the numerator.

Question 14
L2EQ-PQ3203-1410
LOS: LOS-8110
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
The management of ABC Company must maintain a 30% debt-to-capital ratio. The company is currently highly profitable, but earnings are expected to decline by 1.5% each year for the next 6 years due to rising competition. If all earnings are to be retained for the next 6 years and the target debt-capital ratio will be maintained, which of the following is *most likely* over the period?

- (●) Total debt will increase.
- ( ) Total debt will decrease.
- ( ) Total debt will remain the same.

Rationale

This Answer is Correct

Since the company is profitable and expects to retain all its earnings, equity and hence total capital will increase over the 6-year period. In line with the constant debt-capital ratio, debt levels will rise.

Question 15
L2EQ-TBX105-1502
LOS: LOS-8160
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: easy
An analyst is attempting to model the impact of technological developments on the sound engineering software market. The introduction of cheap applications for powerful tablet and mobile devices has led to a cannibalization of traditional software used to record music. The current number of software purchases is 100,000 units per year. The analyst estimates that 50,000 applications will be downloaded with a cannibalization factor of 25%. If the average selling price of traditional music software is £450, the revenue lost due to technological developments is closest to:

- (●) £5.63 million.
- ( ) £11.25 million.
- ( ) £22.50 million.

Rationale

This Answer is Correct

Number of software units cannibalized by application downloads = 50,000 × 0.25 = 12,500 units.

Lost revenue will therefore be 12,500 × £450 = £5.625 million.

Question 16

L2EQ-PQ3205-1410

LOS: LOS-8120

Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments

Difficulty: medium

Which of the following measures is *most likely* appropriate for comparisons across countries?

- ROE
- ROIC
- ROCE

Rationale

This Answer is Correct

Since it is a pretax measure, ROCE is useful in performing comparisons across countries with different tax structures.

Question 17
L2R33TB-ITEMSET-AC025-1512
LOS: LOS-8150
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: N/A

Use the following information to answer the next 3 questions:

An analyst has gathered the following information for a company:

	2013
Revenue ($ millions)	25,742
Cost of sales ($ millions)	18,019
Gross profit ($ millions)	7,723
Gross profit margin	30.0%
Selling, general and administrative ($ millions)	2,421
Operating income ($ millions)	5,302
Operating margin	20.6%

The analyst is projecting an overall inflation rate of 7.0 percent for the markets in which the company operates. The analyst assumes the company will raise its prices by 7.0 percent to match inflation, but have no unit volume growth. Due to long-term supply contracts, the analyst assumes the company will only experiences a 2.0 percent rise in its cost of sales in 2014, but that the SG&A costs will increase at the inflation rate.

Using the information above, answer the following three questions:

i.
Based on the assumptions made above, the analyst's projected 2014 operating margin will be *closest to*:

- (●) 23.9 percent.
- ( ) 24.3 percent.
- ( ) 33.3 percent.

Rationale

This Answer is Correct

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	7.0%	27,544
Cost of sales ($ millions)	18,019	2.0%	18,379
Gross profit ($ millions)	7,723		9,165
Gross profit margin	30.0%		33.3%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		6,575

	2013	Inflation Rate	2014 Projected
Operating margin	20.6%		23.9%

Rationale

This Answer is Correct

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	7.0%	27,544
Cost of sales ($ millions)	18,019	2.0%	18,379
Gross profit ($ millions)	7,723		9,165
Gross profit margin	30.0%		33.3%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		6,575
Operating margin	20.6%		23.9%

Rationale

This Answer is Correct

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	7.0%	27,544
Cost of sales ($ millions)	18,019	2.0%	18,379
Gross profit ($ millions)	7,723		9,165
Gross profit margin	30.0%		33.3%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		6,575
Operating margin	20.6%		23.9%

ii.

If the analyst changes his assumptions and assumes that all income statement line items are equally affected by the 7.0 percent inflation, then the analyst's projected 2014 operating margin will be *closest to*:

- (•) 20.6 percent.
- ( ) 22.0 percent.
- ( ) 32.1 percent.

Rationale

This Answer is Incorrect

If the revenue and each cost item rise at 7.0 percent, the company's gross and operating margins will remain at 30.0 percent and 20.6 percent, respectively.

Rationale

This Answer is Incorrect

If the revenue and each cost item rise at 7.0 percent, the company's gross and operating margins will remain at 30.0 percent and 20.6 percent, respectively.

Rationale

This Answer is Incorrect

If the revenue and each cost item rise at 7.0 percent, the company's gross and operating margins will remain at 30.0 percent and 20.6 percent, respectively.

iii.

If the analyst changes his assumptions and assumes that all costs will rise by the 7.0 percent inflation, but that the company cannot pass along any of the price increases, then the analyst's projected 2014 operating margin will be *closest to*:

- 25.1 percent.
- 18.5 percent.
- 15.0 percent.

Rationale

This Answer is Incorrect

The 2013 income statement is reproduced below, with two new columns (inflation rate and 2014 projection) added:

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	0.0%	25,742
Cost of sales ($ millions)	18,019	7.0%	19,280
Gross profit ($ millions)	7,723		6,462
Gross profit margin	30.0%		25.1%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		3,872
Operating margin	20.6%		15.0%

Rationale

This Answer is Incorrect

The 2013 income statement is reproduced below, with two new columns (inflation rate and 2014 projection) added:

	2013	Inflation Rate	2014 Projected

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	0.0%	25,742
Cost of sales ($ millions)	18,019	7.0%	19,280
Gross profit ($ millions)	7,723		6,462
Gross profit margin	30.0%		25.1%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		3,872
Operating margin	20.6%		15.0%

Rationale

This Answer is Incorrect

The 2013 income statement is reproduced below, with two new columns (inflation rate and 2014 projection) added:

	2013	Inflation Rate	2014 Projected
Revenue ($ millions)	25,742	0.0%	25,742
Cost of sales ($ millions)	18,019	7.0%	19,280
Gross profit ($ millions)	7,723		6,462
Gross profit margin	30.0%		25.1%
Selling, general and administrative ($ millions)	2,421	7.0%	22,590
Operating income ($ millions)	5,302		3,872
Operating margin	20.6%		15.0%

Question 18
L2R33TB-ITEMSET-AC023-1512
LOS: LOS-8100
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: N/A

Use the following information to answer the next 2 questions:

An analyst is forecasting the net interest expense for a company and has gathered the following information from the financial statements and related notes:

(£ millions)	2013	2012	Average
Loans	965	947	956
Non-current portion of long-term debt	2,333	2,087	2,210
Current portion of long-term debt and other short-term borrowings	241	217	229
Gross debt	3,539	3,251	3,395
Less: cash and cash equivalents	763	605	684
Net debt	2,776	2,646	2,711
Interest income	2.7	2.1	
Interest expense	263.1	232.5	
Net interest expense	260.4	230.0	

The analyst believes that interest rates will be rising in 2014, with these higher rates increasing both interest income and interest expense. In addition, the analyst projects that the 2014 year-end gross debt for the company will be £3,900 million and the company's year-end 2014 cash and cash equivalents will reach £825 million.

Using the information above, answer the following two questions:

i.
The interest rate paid on the average gross debt and the interest rate received on the average cash position in 2013 are *closest to*:

- (●) 7.75 percent and 0.39 percent, respectively.
- ( ) 7.43 percent and 0.35 percent, respectively.
- ( ) 7.30 percent and 0.35 percent, respectively.

Rationale

This Answer is Correct

Since the averages are for the year 2013, the interest income and interest expense for 2013 are used to calculate the interest rate paid and the interest rate received. The calculations are as follows:

$$\begin{aligned}\text{Interest rate paid} &= \frac{\text{2013 Interest expense}}{\text{Average debt}} \\ &= \frac{263.1}{(3{,}5393{,}251)/2} = 7.75\% \\ \text{Interest rate received} &= \frac{\text{2013 Interest expense}}{\text{Average cash and cash equivalents}} \\ &= \frac{2.7}{(763605)/2} = 0.39\%\end{aligned}$$

Rationale

This Answer is Correct

Since the averages are for the year 2013, the interest income and interest expense for 2013 are used to calculate the interest rate paid and the interest rate received. The calculations are as follows:

$$\begin{aligned}\text{Interest rate paid} &= \frac{\text{2013 Interest expense}}{\text{Average debt}} \\ &= \frac{263.1}{(3{,}5393{,}251)/2} = 7.75\% \\ \text{Interest rate received} &= \frac{\text{2013 Interest expense}}{\text{Average cash and cash equivalents}} \\ &= \frac{2.7}{(763605)/2} = 0.39\%\end{aligned}$$

Rationale

This Answer is Incorrect

Since the averages are for the year 2013, the interest income and interest expense for 2013 are used to calculate the interest rate paid and the interest rate received. The calculations are as follows:

$$\begin{aligned}\text{Interest rate paid} &= \frac{\text{2013 Interest expense}}{\text{Average debt}} \\ &= \frac{263.1}{(3{,}5393{,}251)/2} = 7.75\% \\ \text{Interest rate received} &= \frac{\text{2013 Interest expense}}{\text{Average cash and cash equivalents}} \\ &= \frac{2.7}{(763605)/2} = 0.39\%\end{aligned}$$

ii.

If the analyst estimates that the interest rate paid on average gross debt in 2014 will be 8.2 percent and that the interest rate received on average cash and cash equivalents in 2014 will be 0.50 percent, then the analyst's forecast of net interest expense for the 2014 will be *closest to*:

- £316 million.
- £305 million.

£301 million.

Rationale

This Answer is Incorrect

The estimated rates and the average balances for 2014 (which have to be calculated using the 2013 year-end balances and the projected 2014 year-end balances) are used in the calculation of the net interest expense:

$$\begin{aligned}\text{Net interest expense} &= \text{Interest expense-Interest income} \\ &= 0.082 \times \frac{3{,}9003{,}539}{2} - 0.005 \times \frac{825763}{2} = \text{£}301 \text{ million}\end{aligned}$$

Rationale

This Answer is Incorrect

The estimated rates and the average balances for 2014 (which have to be calculated using the 2013 year-end balances and the projected 2014 year-end balances) are used in the calculation of the net interest expense:

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Rationale

This Answer is Incorrect

The estimated rates and the average balances for 2014 (which have to be calculated using the 2013 year-end balances and the projected 2014 year-end balances) are used in the calculation of the net interest expense:

$$\begin{aligned}\text{Net interest expense} &= \text{Interest expense-Interest income} \\ &= 0.082 \times \frac{3{,}9003{,}539}{2} - 0.005 \times \frac{825763}{2} = \text{£}301 \text{ million}\end{aligned}$$

Question 19
L2R33TB-AC009-1512
LOS: LOS-8110
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
A manufacturing company has a 60 percent debt-to-capital ratio, and management expects to maintain that ratio in the future. The company is projecting 6.0 percent earnings growth each year for the next five years and it does not pay dividends or repurchase shares. Over the upcoming five-year period the company's total debt will *most likely*:

- (●) increase.
- ( ) decrease.
- ( ) remain the same.

Rationale
✔ **increase.**
Total debt will increase because the company's retained earnings will grow, expanding the equity portion of the balance sheet. To keep the debt-to-capital ratio at 60 percent, debt will have to increase as well.

Rationale
✘ **decrease.**
Total debt will increase because the company's retained earnings will grow, expanding the equity portion of the balance sheet. To keep the debt-to-capital ratio at 60 percent, debt will have to increase as well.

Rationale
✘ **remain the same.**
Total debt will increase because the company's retained earnings will grow, expanding the equity portion of the balance sheet. To keep the debt-to-capital ratio at 60 percent, debt will have to increase as well.

Question 20

L2EQ-TBB209-1412

LOS: LOS-8150

Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments

Difficulty: medium

A company that has perfectly inelastic demand and raises prices in line with the percentage inflation in input costs will *most likely* have:

- (●) Stable gross margin.
- ( ) Increasing gross margin.
- ( ) Stable gross profit.

Rationale

This Answer is Correct

If a company increases its revenues by the same percentage as the inflation experienced in input costs and quantity sold does not fall due to the inelasticity of the product, then gross margins will stay constant; however, gross profit will rise in line with inflation since the company's income statement will expand by the inflation rate.

Question 21
L2EQ-PQ3202-1410
LOS: LOS-8100
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium

Consider the following statements:

Statement 1: Analysts should use the statutory tax rate to forecast earnings and the cash tax rate to forecast cash flow.

Statement 2: Differences in effective and statutory tax rates can arise due to permanent or temporary differences in recognition of certain items for financial reporting and tax reporting purposes.

Which of the following is *most likely*?

- Both statements are correct.
- Both statements are incorrect.
- Only one statement is correct.

Rationale

This Answer is Correct

Analysts should use the **effective tax rate** to forecast earnings and the cash tax rate to forecast cash flow.

Differences in effective and statutory tax rates are caused by permanent differences. Temporary differences result in changes in deferred tax assets/liabilities.

Question 22

L200-PQ0022-1412

LOS: LOS-8070

Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue

Difficulty: medium

What type of approach would an active manager be using if he or she looked at balance sheets, equity analysts' recommendations, equity return on capital, and S&P 500 earnings trends on a regular basis to pick stocks?

- ○ Top-down
- ○ Bottom-up
- ◉ Hybrid

Rationale

This Answer is Correct

This manager is using a hybrid approach by examining S&P 500 earnings trends on a regular basis, which is a trait normally associated with top-down managers.

Question 23
L2R33TB-AC011-1512
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium
An analyst is projecting revenues for the retail clothing industry. Employment is up, affecting demand for work clothing, and this season's styles are very different from last season's, creating demand for new items. The analyst *most likely* is using what type of modeling approach?

- ○ Bottom-up.
- ○ Top-down.
- ◉ Hybrid.

Rationale
✗ **Bottom-up.**
This is a hybrid approach because it looks at an overall economic factor, employment, as well as a factor specific to the industry, the styles coming to market in the new season.

Rationale
✗ **Top-down.**
This is a hybrid approach because it looks at an overall economic factor, employment, as well as a factor specific to the industry, the styles coming to market in the new season.

Rationale
✓ **Hybrid.**
This is a hybrid approach because it looks at an overall economic factor, employment, as well as a factor specific to the industry, the styles coming to market in the new season.

Question 24
L2R33TB-ITEMSET-AC004-1512
LOS: LOS-8070
LOS: LOS-8100
LOS: LOS-8090
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium

Use the following information to answer the next 3 questions:

An analyst is forecasting the 2014 financial statements for a company. When he starts working on the income statement forecast, the analyst notes that the company's net sales were $100 million in 2012 and $110 million in 2013. He is assuming overall nominal GDP growth of 3.5 percent for the countries in which the company operates.

The analyst decides to generate three different sets of assumptions (Sets A, B, and C), which are shown below:

Metric	Assumption Set A	Assumption Set B	Assumption Set C
Net Sales	In comparison to 2013, net sales will fall by 500 basis points in 2014 due to cyclical changes in the economy	In 2014, industry sales will grow at the same rate as nominal GDP, but the company will have a decline in market share from 18 percent in 2013 to 15 percent in 2014	2014 net sales will grow 100 basis points slower than the nominal GDP growth rate
Gross Margin	2014 gross margin will fall by 50 basis points due to pricing pressures	2014 gross margin will be the same as the average annual gross margin over the 2010–2013 time period	2014 gross margin will increase by 10 basis points from 2013
Selling, General, & Administrative (SG&A) Expenses	2014 SG&A as a percentage of net sales will be the same as the average for the 2010–2013 time period	2013 SG&A will grow at the rate of inflation	2014 SG&A as a percentage of net sales will be the same as the reported 2013 SG&A as a percentage of net sales
Interest Expense	2014 interest expense will be based on the effective interest rate on debt borrowings multiplied by an expected average debt for 2014	2014 interest expense will be the same as the 2013 interest expense	2014 interest expense will be the same as the average interest expense over the 2010–2013 period
Income Taxes	2014 effective tax rate will equal the blended		2014 effective tax rate will increase by 50

Metric	Assumption Set A	Assumption Set B	Assumption Set C
	statutory rate of 30 percent	2014 effective tax rate will be the same as the 2013 effective tax rate	basis points to reflect tax law changes

i.

Which set of net sales assumptions is *most* characteristic of a hybrid approach?

- Assumption Set A.
- Assumption Set B.
- Assumption Set C.

Rationale

This Answer is Correct

For net sales, this set of assumptions is looking at both top-down factors (GDP) and factors that are more specific to the company (decline in market share).

Rationale

This Answer is Correct

For net sales, this set of assumptions is looking at both top-down factors (GDP) and factors that are more specific to the company (decline in market share).

Rationale

This Answer is Correct

For net sales, this set of assumptions is looking at both top-down factors (GDP) and factors that are more specific to the company (decline in market share).

ii.

Assumption Set A will *most likely* give a 2014 net sales estimate of:

- $104.5 million.
- $108.4 million.
- $113.3 million.

Rationale

This Answer is Incorrect

A 500-basis point decline would mean that 2014 sales will be 95 percent of 2013 sales or $104.5 million ($110 million × 0.95).

Rationale

This Answer is Incorrect

A 500-basis point decline would mean that 2014 sales will be 95 percent of 2013 sales or \$104.5 million (\$110 million × 0.95).

Rationale

This Answer is Incorrect

A 500-basis point decline would mean that 2014 sales will be 95 percent of 2013 sales or \$104.5 million (\$110 million × 0.95).

iii.

Which set of gross margin assumptions is *most likely* indicative that the company is achieving economies of scale?

- Assumption Set A.
- Assumption Set B.
- Assumption Set C. (selected)

Rationale

This Answer is Incorrect

Assumption Set C calls for both an increase in revenue and an increase in gross margin. For the gross margin to increase, the cost of sales must be rising less than net sales are rising, and this is possibly an indication that the company is experiencing economies of scale.

Rationale

This Answer is Incorrect

Assumption Set C calls for both an increase in revenue and an increase in gross margin. For the gross margin to increase, the cost of sales must be rising less than net sales are rising, and this is possibly an indication that the company is experiencing economies of scale.

Rationale

This Answer is Incorrect

Assumption Set C calls for both an increase in revenue and an increase in gross margin. For the gross margin to increase, the cost of sales must be rising less than net sales are rising, and this is possibly an indication that the company is experiencing economies of scale.

Question 25
L2R33TB-AC013-1512
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium
Which of the following is the *most* acceptable way to model working capital accounts?

- (●) As a percentage of sales.
- ( ) Grown at a rate equal to expected GDP growth.
- ( ) Multiplying past net working capital by estimated future interest rates.

Rationale

✔ **As a percentage of sales.**
Working capital accounts tend to vary with sales. Inventory and accounts receivable in particular are driven by changes in sales. Working capital can be modeled with a top-down approach, but at the level of the industry rather than the economy as a whole. Interest rates would not give a good estimate.

Rationale

✘ **Grown at a rate equal to expected GDP growth.**
Working capital accounts tend to vary with sales. Inventory and accounts receivable in particular are driven by changes in sales. Working capital can be modeled with a top-down approach, but at the level of the industry rather than the economy as a whole. Interest rates would not give a good estimate.

Rationale

✘ **Multiplying past net working capital by estimated future interest rates.**
Working capital accounts tend to vary with sales. Inventory and accounts receivable in particular are driven by changes in sales. Working capital can be modeled with a top-down approach, but at the level of the industry rather than the economy as a whole. Interest rates would not give a good estimate.

Question 26
L2R33TB-ITEMSET-AC022-1512
LOS: LOS-8090
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium

Use the following information to answer the next 2 questions:

An analyst is comparing two supermarket (grocery) companies and has gathered the following information:

	2013	2012	2011
Company A			
Revenue ($ millions)	2,344	2,287	2,199
Cost of sales ($ millions)	1,899	1,846	1,770 Selling, general and
administrative ($ millions)	235	221	211
Operating income ($ millions)	210	220	218
Average store size (square feet)	53,000	52,475	52,114
	2013	**2012**	**2011**
Company B			
Revenue ($ millions)	1,085	1,002	974
Cost of sales ($ millions)	922	857	838
Selling, general and			
administrative ($ millions)	98	92	91
Operating income ($ millions)	65	53	45
Average store size (square feet)	28,500	28,425	28,401

Using the information above, answer the following two questions:

i.
Based on the 2013 gross profit margins, the analyst will *most likely* conclude that economies of scale in the supermarket industry do:

- not exist because Company A's gross profit margin declined in 2013, while Company B's gross profit margin rose in 2013.
- exist because Company A's gross profit margin of 9.0 percent is considerably higher than Company B's gross profit margin is 6.0 percent.
- exist because Company A's gross profit margin of 19.0 percent is considerably higher than Company B's gross profit margin is 15.0 percent.

Rationale
This Answer is Correct

The gross profit margin for each company is calculated as follows:

$$\begin{aligned}\text{Gross profit margin} &= \frac{\text{Revenue-Cost of sales}}{\text{Revenue}} \\ \text{Company A} &= \frac{2{,}344-1{,}899}{2{,}344} = 19.0\% \\ \text{Company B} &= \frac{1{,}085922}{1{,}085} = 15.0\%\end{aligned}$$

Company A, which is much larger in terms of revenues, has a gross profit margin that is 27 percent (19.0/15.0 – 1) higher than Company B. Based only on the 2013 gross profit margin, there does appear to be economies of scale.

Rationale

This Answer is Correct

The gross profit margin for each company is calculated as follows:

$$\begin{aligned}\text{Gross profit margin} &= \frac{\text{Revenue-Cost of sales}}{\text{Revenue}} \\ \text{Company A} &= \frac{2{,}344-1{,}899}{2{,}344} = 19.0\% \\ \text{Company B} &= \frac{1{,}085922}{1{,}085} = 15.0\%\end{aligned}$$

Company A, which is much larger in terms of revenues, has a gross profit margin that is 27 percent (19.0/15.0 – 1) higher than Company B. Based only on the 2013 gross profit margin, there does appear to be economies of scale.

Rationale

This Answer is Incorrect

The gross profit margin for each company is calculated as follows:

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Company A, which is much larger in terms of revenues, has a gross profit margin that is 27 percent (19.0/15.0 – 1) higher than Company B. Based only on the 2013 gross profit margin, there does appear to be economies of scale.

ii.

Based on the 2013 reported results for the two companies, would the analyst *most likely* conclude that there are economies of scale realized in selling, general, and administrative () expenses?

- (●) No.
- ( ) Yes.
- ( ) Cannot be determined due to insufficient information.

Rationale

This Answer is Incorrect

The best approach to determining if there are economies of scale realized in SG&A expenses is to calculate the SG&A to revenues percentage.

The calculations are as follows:

$$\text{Company A} = \frac{\text{SG\&A}}{\text{Revenue}} = \frac{235}{2{,}344} = 10.0\%$$
$$\text{Company B} = \frac{\text{SG\&A}}{\text{Revenue}} = \frac{98}{1{,}085} = 9.0\%$$

Despite being much larger, Company A spends more on SG&A as a percentage of revenues than does Company B. If economies of scale were being realized, Company A's percentage would be lower, not higher, than Company B's percentage.

Rationale

This Answer is Incorrect

The best approach to determining if there are economies of scale realized in SG&A expenses is to calculate the SG&A to revenues percentage.

The calculations are as follows:

$$\text{Company A} = \frac{\text{SG\&A}}{\text{Revenue}} = \frac{235}{2{,}344} = 10.0\%$$
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Rationale

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The calculations are as follows:

$$\text{Company A} = \frac{\text{SG\&A}}{\text{Revenue}} = \frac{235}{2{,}344} = 10.0\%$$

$$\text{Company B} = \frac{\text{SG\&A}}{\text{Revenue}} = \frac{98}{1{,}085} = 9.0\%$$

Despite being much larger, Company A spends more on SG&A as a percentage of revenues than does Company B. If economies of scale were being realized, Company A's percentage would be lower, not higher, than Company B's percentage.

Question 27
L2EQ-TB0011-1412
LOS: LOS-8080
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium

Felix Rougerie, CFA, is an analyst investigating an industry with only two players of any significance: Cellar Inc. and Rutton Corporation. Rougerie collects the following revenue figures measured in millions of dollars:

	2015	2014	2013
Cellar Inc.	690	540	450
Rutton Corp.	89	50	40

Rougerie estimates that the industry will grow by 20% next year and due to the release of a new product, Rutton Corp. will see market share expand to 20%. The projected revenue for Cellar Inc. next year is closest to:

- $187 million.
- $748 million.
- $935 million.

Rationale

This Answer is Correct

Revenues for the industry next year are projected to be (690 + 89) 1.2 = 935. If Rutton Corp. takes a 20% share then Cellar Inc. will have an 80% share, that is, revenues of 0.8 935 = $748 million.

Question 28
L2EQ-TB0013-1412
LOS: LOS-8100
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
Which of the following types of costs is *least likely* to be accurately modeled as a percentage of sales?

- COGS.
- Selling and distribution expenses.
- General and administrative expenses.

Rationale

This Answer is Correct
Both COGS and selling and distribution costs are *most likely* to be best modeled through a percentage of sales since they are both directly linked to the level of sales of the company. General and administrative costs are less variable as they tend to be associated with fixed overheads.

Question 29
L2EQ-PQ3201-1410
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium
Jacob Lasek is conducting research on Pfizer, a large global pharmaceutical company. He expects global nominal GDP to grow at 4.5% over the long run based on a 2% real growth rate and a 2.5% inflation rate. Lasek believes that global sales of Alzheimer's drugs will grow at a 100bp faster rate than nominal GDP over the long run and believes that sales of Pfizer's Alzheimer's drugs will decline from their current levels to the projected growth rate of the Alzheimer's drugs market over the next 5 years. Which of the following approaches to modeling Pfizer's revenues is Lasek *most likely* using?

- ○ Top-down approach
- ○ Bottom-up approach
- ◉ Hybrid approach

Rationale

This Answer is Correct

Lasek's long-term projections are based on growth relative to nominal GDP (a top-down approach). However, he applies the estimated growth rate to one particular segment (Alzheimer's drugs) suggesting a hybrid approach.

Question 30
L200-PQ0023-1412
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium
Susan is an equity analyst using the growth relative to GDP growth approach to consider how Cable Tele's earnings growth rate will compare with growth in GDP the next year. She believes nominal GDP growth will be 5% next year, inflation will be 2%, and Cable Tele's earnings are expected to grow 10% faster than GDP. What should Cable Tele's earnings growth rate be?

- 3.3%
- 5.5%
- 7.7%

Rationale

This Answer is Correct
In the growth relative to GDP growth approach, the analyst considers how a company's growth rate will compare with growth in nominal, not real, GDP.

Question 31

L2EQ-TBB208-1412

LOS: LOS-8130

Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments

Difficulty: medium

A company that produces products with high switching costs is likely to have positive pricing power through which of Michael Porter's five forces?

- Threat of substitutes and threat of new entrants.
- Threat of substitutes and buyer power.
- Threat of new entrants and buyer power.

Rationale

This Answer is Correct

High switching costs will make it more difficult for buyers of the company's products to switch to substitute products and will reduce their bargaining power. This will increase the pricing power of the company.

Question 32
L2R34TB-AC010-1512
LOS: LOS-8090
Lesson Reference: Lesson 2: Financial Modeling: Income Statement Modeling and Balance Sheet Modeling
Difficulty: medium
Penguin Partners' current dividend is $0.80 per share. The dividend is expected to grow by 6% per year. The required rate of return is 10%. Using the Gordon growth model, the value of Penguin Partners' stock is *closest* to:

- ○ $8.00
- ○ $20.00
- ◉ $21.20

Rationale
✗ **$8.00**

If the dividend is growing by 6%, then next year's dividend will be $0.80 × 1.06 = $0.848. Using the Gordon growth model:

$$V_0 = \frac{D_1}{r - g} = \frac{0.848}{0.10 - 0.06} = \$21.20$$

Choice A does not take into account growth; it is the value of a perpetuity; $0.80/0.10 = $8.00. Choice B does not grow the dividend; it uses *D*0 in the calculation not *D*1.

Rationale
✗ **$20.00**

If the dividend is growing by 6%, then next year's dividend will be $0.80 × 1.06 = $0.848. Using the Gordon growth model:

$$V_0 = \frac{D_1}{r - g} = \frac{0.848}{0.10 - 0.06} = \$21.20$$

Choice A does not take into account growth; it is the value of a perpetuity; $0.80/0.10 = $8.00. Choice B does not grow the dividend; it uses *D*0 in the calculation not *D*1.

Rationale
✓ **$21.20**

If the dividend is growing by 6%, then next year's dividend will be $0.80 × 1.06 = $0.848. Using the Gordon growth model:

$$\mathrm{V}_0 = \frac{\mathrm{D}_1}{\mathrm{r} - g} = \frac{0.848}{0.10 - 0.06} = \$21.20$$

Choice A does not take into account growth; it is the value of a perpetuity; $0.80/0.10 = $8.00. Choice B does not grow the dividend; it uses *D*0 in the calculation not *D*1.

Question 33
L2EQ-TB0010-1412
LOS: LOS-8070
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium

An analyst is considering three different assumptions to model the net sales of a company:

> Method 1: Net sales will grow at 1.5 times the nominal growth rate in GDP.
> Method 2: Industry sales will grow at the same rate as GDP, however, the company will grow in market share by 5 percentage points.
> Method 3: Net sales will grow at 0.5 percent plus 1.1 the previous year's growth rate.

Which of the methods is *most likely* to be a bottom-up method?

- ○ Method 1.
- ○ Method 2.
- ◉ Method 3.

Rationale

This Answer is Correct

A bottom-up approach starts at the company level and uses projection methods such as time series, as is the case in method 3. Methods 1 and 2 both start from an overall economy level, which suggests they are top-down methods.

Question 34
L2EQ-PQ3207-1410
LOS: LOS-8160
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium

Consider the following information:

Pre-Cannibalization Projections: 2014 Expected	
Global tablet shipments	150,000
% of which is consumer	80%
% of which is non-consumer	20%
Global PC shipments	340,000
% of which is consumer	45%
% of which is non-consumer	55%

Assuming a cannibalization factor of 40% for consumers and 10% for non-consumers, the estimated post-cannibalization global PC shipments for 2014 would *most likely* be:

- 51,000
- 114,750
- 289,000

Rationale

This Answer is Correct

The number of PCs that will be cannibalized by tablets is calculated as the product of (1) expected global tablet shipments, (2) the percentage representation of each category, and (3) the cannibalization factor for each category.

Number of consumer PCs cannibalized by tablets = 150,000 tablets × 80% consumer representation × 40% consumer cannibalization factor = 48,000

Number of non-consumer PCs cannibalized by tablets = 150,000 tablets × 20% non-consumer representation × 10% non-consumer cannibalization factor = 3,000

Total number of PC's that will be cannibalized by tablets = 48,000 + 3,000 = 51,000

Expected post-cannibalization shipments for 2014 = 340,000 – 51,000 = 289,000

Question 35
L2EQ-TBB207-1412
LOS: LOS-8120
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium

An analyst has collected the following historical data return on capital invested (ROIC) data for three companies operating in the same sector:

Company	2011	2012	2013	2014
Lightbridge Inc.	12%	5%	15%	5%
Low Brooms Corp.	2%	3%	4%	5%
Nineoaks Corp.	12%	12%	12%	12%

According to the preceding data, which of the companies is *most likely* to possess a competitive advantage in the industry?

- ○ Lightbridge Inc.
- ○ Low Brooms Corp.
- ◉ Nineoaks Corp.

Rationale

This Answer is Correct

In general, sustainably high ROIC is a sign of competitive advantage. This is consistently displayed by Nineoaks Corp.

Question 36
L2R33TB-ITEMSET-AC001-1512
LOS: LOS-8080
LOS: LOS-8100
Lesson Reference: Lesson 1: Financial Modeling: Approaches to Projecting Revenue
Difficulty: medium

Use the following information to answer the next 3 questions:

An analyst is forecasting the 2014 and 2015 income statements for Pepsico and has gathered the following historical income statement information:

Pepsico ($ in millions)

	2013	2012
Net Revenue		
Frito-Lay North America	14,126	13,574
Quaker Foods North America	2,612	2,636
Latin America foods	8,350	7,780
Total Americas foods	25,088	23,990
Pepsico Americas beverages	21,068	21,408
Europe	13,752	13,441
Asia, Middle East, Africa	6,507	6,653
Total net revenue	66,415	65,492
Operating Profit		
Frito-Lay North America	3,877	3,646
Quaker Foods North America	617	695
Latin America foods	1,242	1,059
Total Americas foods	5,736	5,400
Pepsico Americas beverages	2,955	2,937
Europe	1,293	1,330
Asia, Middle East, Africa	1,174	747
Operating profit from divisions	11,158	10,414
Corporate unallocated income (expenses)		
Commodity mark-to-market	(72)	65
Restructuring and impairment	(11)	(10)
Venezuela currency devaluation	(124)	–
Pension lump sum settlement	–	(195)
Other	(1,246)	(1,162)
Total corporate unallocated	(1,453)	(1,302)
Total operating profit	9,705	9,112
Interest expense	(911)	(899)

Pepsico ($ in millions)		
	2013	2012
Interest income and other	97	91
Income before income taxes	8,891	8,304
Income taxes	2,104	2,090
Net income	6,787	6,214

The analyst examines the notes to the financial statements and observes that the statutory tax rate is 35.0 percent in both 2013 and 2012. Using a firm-approved approach, she estimates that cash taxes paid were $1,552 million and $1,843 million in 2013 and 2012, respectively.

For her forecast, the analyst makes the following assumptions:

- Average nominal GDP growth worldwide is projected to be 4.0 percent.
- In 2014, Pepsico's total revenue is forecast to grow 100 basis points faster than the average nominal GDP growth.
- 2015 total revenue is projected to be a total of 8.0 percent higher than the reported 2013 revenue.
- For 2014 and 2015, total operating expenses as a percentage of revenues are forecast to be equal to reported 2013 total operating expenses as a percentage of the reported 2013 revenues.
- To forecast tax expense for 2014 and 2015, she assumes that the effective tax rate for both 2014 and 2015 will be equal to the average of the effective tax rates for 2012 and 2013 combined.

i.
The analyst will forecast 2014 total revenue that is *closest to*:

- (●) $69.7 billion.
- ( ) $71.7 billion.
- ( ) $75.7 billion.

Rationale

This Answer is Correct

The 2013 revenue was $66,415 million, and the 2014 revenue is forecast to grow 100 basis points faster than the 4.0 percent nominal GDP growth. Therefore, total forecast revenue for 2014 will be $66,415 × [1 + (0.04 + 0.01)] = $69,736 million ≈ $69.7 billion.

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ii.

The analyst will forecast 2015 operating expenses that are *closest to*:

- $59.6 billion.
- $61.3 billion.
- $66.1 billion.

Rationale

This Answer is Incorrect

To find the operating expenses, the 2015 revenue forecast is needed. Revenue in 2015 is assumed to be 8.0 percent higher than it was in 2013; therefore, it is forecast to be $71,728 million ($66,415 million × 1.08). For 2014 and 2015, total operating expenses as a percentage of revenues are forecast to be equal to reported 2013 total operating expenses as a percentage of the reported 2013 revenues. In 2013, operating expenses are not directly provided, but they will be equal to total revenues minus the total operating profit. The difference between these amounts is $56,710 million ($66,415 – $9,705). The $56,710 million is approximately 85.4 percent of revenues. When this percentage is applied to the forecast 2015 revenues of $71,728 million, the resulting total operating expense is approximately $61.3 billion.

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Rationale

This Answer is Incorrect

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iii.

The effective tax rate the analyst will use to forecast 2014 and 2015 tax expenses on the income statements is *closest to*:

- 19.7 percent.
- 24.4 percent.
- 35.0 percent.

Rationale

This Answer is Incorrect

The effective tax rate is the tax expense divided by the pretax income and the analyst plans on using the average for 2012 and 2013 combined to forecast tax expense in 2014 and 2015. The calculation of the average effective tax rates for the two years is as follows:

$$\begin{aligned}\text{Average effective tax rate} &= \frac{\$2{,}104/\$8{,}891+\$2{,}090/\$8{,}304}{2}\\ &= 24.4 \text{ percent}\end{aligned}$$

Rationale

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Question 37
L2R33TB-AC016-1512
LOS: LOS-8140
Lesson Reference: Lesson 3: Competitive Factors, Inflation, and Technological Developments
Difficulty: medium
Which of the following would *most likely* change the bargaining power of suppliers under Porter's five forces?

- The company's largest competitor is being investigated by a government agency for anti-competitive practices.
- Economic reports show increased consumer discretionary income.
- The two largest processors of a key raw material merge.

Rationale
The company's largest competitor is being investigated by a government agency for anti-competitive practices.
The processors of the ingredients are suppliers to the company, either directly or indirectly, and their merger will reduce the competition in that market. They will likely allow suppliers to raise prices as they gain more bargaining power.

Rationale
Economic reports show increased consumer discretionary income.
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The two largest processors of a key raw material merge.
The processors of the ingredients are suppliers to the company, either directly or indirectly, and their merger will reduce the competition in that market. They will likely allow suppliers to raise prices as they gain more bargaining power.