

She makes the following claims, assuming the omitted variables are correlated with the included variables:

Claim 1: The parameter estimates of equation (1) are unbiased.

Claim 2: The parameter estimates of equation (1) are inconsistent.

Question #45 of 88

Question ID: 1541879

Of the slopes for the two independent variables, R_M and VMG, determine which are statistically significant at the 0.05 level?

A) Both slopes are statistically significant.

B) Only the slope for R_M is statistically significant. 

C) Only the slope for VMG is statistically significant.

Explanation

The p-value is the probability that the null hypothesis, H_0 : slope = zero, is true. The decision rule is to reject the null hypothesis if the p-value is less than the significance level (i.e., there is only a very small chance that the null hypothesis is correct). The p-value for the R_M slope is less than the significance level, and the p-value for the VMG slope is greater than the significance level. Therefore, the R_M slope is statistically significant (reject the null hypothesis that the R_M slope equals zero) and the VMG slope is not statistically significant (cannot reject the null hypothesis that the VMG slope equals zero). (Module 1.1, LOS 1.b)

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Question ID: 1541880

Sawyer decides to test regression equation (1) for the existence of conditional heteroskedasticity. Sawyer is likely to conclude that her regression does not exhibit conditional heteroskedasticity if the R^2 from equation (2) is:

A) close to 0. 

B) close to 1.

C) close to 0.80.


Explanation

Conditional heteroskedasticity refers to regression errors whose variance is not constant. If there is conditional heteroskedasticity, the variance changes as function of the independent variables. The squared residual (i.e., residual is the estimated error) is used to proxy the error variance. A low R^2 in equation (2) indicates that the slopes in equation (2) are very close to zero, indicating that the error variance is unaffected by the independent variables. For instance, if all the slopes in equation (2) equal zero, then the error variance equals the intercept (a_0 , which is constant over time). (Module 1.3, LOS 1.h)

Question #47 of 88

Question ID: 1541881

Regarding Lockhart's recommendation, the *most likely* form of model misspecification to which he refers is:

- A) stationarity model misspecification.
- B) time-series model misspecification.
- C) functional form model misspecification. 


Explanation

According to the recommendation, the data should not be pooled across all 36 months. The sample clearly is split into two parts: pre-Reg FD and post-Reg FD. Sawyer should run separate regressions for each subperiod, or should employ dummy variables to control for the structural shift related to the passage of Reg FD. In either case, by pooling across the two very different sample periods, Sawyer's regression is an example of a misspecified functional form. (Module 1.3, LOS 1.g)

Question #48 of 88

Question ID: 1541882

Regarding Claim 1 and Claim 2 made by Sawyer about the effects of omitted variables, which claims are correct?

- A) Claim 1 only.
- B) Claim 2 only. 

C) Both Claim 1 and Claim 2.

Explanation

Sawyer is incorrect with respect to Claim 1 and is correct with respect to Claim 2. If the omitted variables are correlated with the included variables, then the omitted variable regression parameter estimates [i.e., from equation (1)] will be biased and inconsistent. Desirable properties, on the other hand, are unbiasedness and consistency. An estimator is unbiased if the expected value of the estimate equals the true population value. An estimator is consistent if the estimate approaches the true population value as the sample size increases. The existence of omitted variables (that are correlated with the included variables) destroys both of these desirable properties. (Module 1.3, LOS 1.g)

Overview for Questions #49-52 of 88

Question ID: 1754494

TOPIC: FINANCIAL STATEMENT ANALYSIS

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Gary Smith, CFA, has been hired to analyze a specialty tool and machinery manufacturer, Whitmore Corporation (WMC). WMC is a leading producer of specialty machinery in the United States. At the end of 2014, WMC purchased York Tool Company (YTC), an Australian firm in a similar line of business. YTC has partially integrated its marketing functions within WMC but still maintains control of its operations and secures its own financing. Following is a summary of the income statement and balance sheet for YTC (in millions of Australian dollars – AUD) for the past three years as well as exchange rate data over the same period.

Income Statement (AUD millions)	2014	2015	2016
Revenues	765	820	870
COGS	484	520	580
SG&A	171	183	200
Depreciation expense	50	50	50
Interest expense	18	17	16
Income before tax	42	50	24

Taxes	21	25	12
Net income	21	25	12

Balance Sheet (AUD millions)

	2014	2015	2016		2014	2015	2016
Cash	22	25	20	Current liabilities	616	593	584
Accounts receivable	400	422	460	Long-term debt	180	170	160
Inventories	20	25	30				
Prepaid expenses	8	20	25	Common stock	50	50	50
Net fixed assets	500	450	400	Retained earnings	104	129	141
Total assets	950	942	935	Total liabilities & equity	950	942	935


Exchange rates (AUD / USD) 2014 2015 2016

Average exchange rate	1.40	1.30	1.45
Year-end exchange rate	1.20	1.40	1.50
Historical exchange rate	1.20	1.20	1.20

Question #49 of 88

Question ID: 1754495

Calculate the percent change in YTC net income shown on the WMC financial statements from 2015 to 2016.

- A) -52.0%
- B) -55.2%
- C) -56.9% 

Explanation

Because YTC operates independently and makes its own financing decisions, the local currency (AUD) should be the functional currency. When the local currency is the functional currency, the subsidiary's financial statements are consolidated with the parent's financial statements using the current rate method. Under the current rate method, all of the income statement items are translated using the average rate for the year. To calculate the percent change in net income, we must translate these items for 2016 and 2015 and then calculate the rate of change.

$$2015 \text{ translated net income} = 25 / 1.30 = 19.23$$

$$2016 \text{ translated net income} = 12 / 1.45 = 8.28$$


$$\text{growth in net income} = (8.28 / 19.23) - 1 = -56.94\%$$

(Module 9.4, LOS 9.d)

Question #50 of 88

Question ID: 1754496

If WMC uses the temporal method, YTC's net monetary liabilities leave WMC exposed to loss in the event of:


- A) currency (AUD) depreciation.
- B) currency (AUD) appreciation. **
- C) either currency depreciation or currency appreciation.

Explanation

Under the temporal method, the nonmonetary assets and liabilities are remeasured at historical rates. Thus, only the monetary assets and liabilities are exposed to changing exchange rates. Therefore, under the temporal method, exposure is defined as the subsidiary's net monetary asset or net monetary liability position. A firm has net monetary assets if its monetary assets exceed its monetary liabilities. If the monetary liabilities exceed the monetary assets, the firm has a net monetary liability exposure.

Since very few assets are considered to be monetary (mainly cash and receivables), most firms have net monetary liability exposures. If the parent has a net monetary liability exposure when the foreign currency (AUD) is appreciating, the result is a loss. Conversely, a net monetary liability exposure coupled with a depreciating currency will result in a gain. (Module 9.3, LOS 9.d)

Determine whether the translated total asset turnover for YTC for 2016 would be higher under the current rate method or under the temporal method.

- A) Temporal method.
- B) Current rate method. 
- C) No difference between temporal and current rate methods.

Explanation

Note that no calculations are necessary to answer this question. Revenues are translated using the same average exchange rate in the temporal and current rate methods. The only difference in the total asset turnover ratio must therefore be in the denominator (i.e., total assets). Under the current rate method, assets are translated using the current rate. Under the temporal method, monetary assets are translated using the current rate, and nonmonetary assets are translated using the historical rate. Because the historical rate is lower than the current rate, the nonmonetary assets (and therefore total assets) will have a higher value under the temporal method. A higher asset value means a lower total asset turnover ratio under the temporal method. The calculation of the total asset turnover ratio using both methods is provided for reference below:

$$\text{total asset turnover} = \text{revenue} / \text{total assets}$$

	Temporal		Current Rate	
Cash	$20 / 1.50 =$	13.33	$20 / 1.50 =$	13.33
Accounts receivable	$460 / 1.50 =$	306.67	$460 / 1.50 =$	306.67
Inventories	$30 / 1.20 =$	25.00	$30 / 1.50 =$	20.00
Prepaid expenses	$25 / 1.20 =$	20.83	$25 / 1.50 =$	16.67
Fixed assets	$400 / 1.20 =$	333.33	$400 / 1.50 =$	266.67
Total assets		699.16		623.34
Revenues	$870 / 1.45 =$	600.00	$870 / 1.45 =$	600.00
Total asset turnover	$600.00 / 699.16 =$	0.86	$600.00 / 623.34 =$	0.96

(Module 9.5, LOS 9.d)

For the period 2014–2016, WMC's annual USD revenue growth rate attributable to its Australian subsidiary is *most likely*:

A) 1.85% lower than the local currency revenue growth rate. 

B) 3.62% higher than the local currency revenue growth rate.

C) 3.45% lower than the local currency revenue growth rate.

Explanation

$$\text{AUD revenue growth rate} = (870 / 765)^{1/2} - 1 = 6.64\%$$

Revenues are translated at average rate:

$$\text{2014 USD revenues} = 765 / 1.40 = 546.43; \text{2016 USD revenues} = 870 / 1.45 = 600$$

$$\text{USD revenue growth rate} = (600 / 546.43)^{1/2} - 1 = 4.79\%$$

The USD revenue growth rate is 1.85% lower than the local currency (AUD) revenue growth rate. (Module 9.8, LOS 9.i)

Overview for Questions #53-56 of 88

Question ID: 1754514

TOPIC: CORPORATE ISSUERS

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Michael Bennet is evaluating the recent announcements made by Voyaager and Gaarding, two of the stocks held in his portfolio. Voyager, Inc., a primarily internet-based media company, is buying The Daily, a media company with exposure to newspapers, television, and the internet.

Company Descriptions

Voyager, Inc., is organized into two segments: internet and newspaper publishing. The internet segment operates websites that offer news, entertainment, and advertising content in text and video format. The internet segment represents 75% of the company's total revenues. The newspaper publishing segment publishes 10 daily newspapers. The newspaper publishing segment represents 25% of the company's total revenues.

The Daily is organized into three segments: newspaper publishing (60% of revenues), broadcasting (37% of revenues), and internet (3% of revenues). The newspaper publishing segment publishes 101 daily newspapers. The broadcasting segment owns and operates 25 television stations. The internet segment consists of an internet advertising service. The Daily's newspaper publishing and broadcasting segments cover the 20 largest markets in the United States.

(in millions)	Voyager, Inc. (before merger)	The Daily (before merger)
Revenues	\$1,800	\$600
EBITDA	\$300	\$62
Debt	\$200	\$50
Number of shares	11	2
Stock price per share	\$68	\$35

The acquisition terms call for an exchange of all outstanding shares of Daily for 1 million newly issued shares of Voyager. Michael Renner, the CFO of Voyager, defended the acquisition by stating that The Daily has accumulated a large amount of tax losses and that the combined company can benefit by immediately increasing net income after the merger. In addition, Renner states that the new Voyager will eliminate the inefficiencies of its internet operations and thereby boost future earnings.

Bennet is curious about the recent spate of acquisitions in the industry.

Gaarding operates in the industrial fittings business and has made an agreement with a private equity company to sell its factory. Under the terms of the agreement, the factory will be leased back for a period of 15 years. The proceeds from the sale will be used to retire the firm's secured debentures.

Question #53 of 88

Question ID: 1754515

Based on Renner's comments defending Voyager's acquisition of The Daily, indicate whether his comments about net income and elimination of inefficiencies are *most likely* correct.

A) **Only Renner's comment that unused tax losses will immediately translate into higher net income is correct.**



B) Only Renner's comment that the elimination of inefficiencies within the internet operations will create additional value is correct.

C) Both comments are correct.

Explanation

If the target of a merger has unused tax losses accumulated, the merged company can use the tax losses to immediately lower its tax liability, thus increasing its net income (Correct). The internet operation of The Daily is insignificant compared to the overall merger value. Any improvement in the cost structure of the internet operation will not have a significant impact on overall earnings. In addition, the high-growth characteristics of the internet segment would not warrant a cost restructuring of the operations (Incorrect).

(Module 16.1, LOS 16.a)

Question #54 of 88

Question ID: 1754516

For this question only, assume that there is no change in Voyager's stock price and there are no synergies as a result of the acquisition. As compared to its pre-acquisition value, Voyager's post acquisition EV/EBITDA ratio is *most likely* to be:

A) higher.

B) **lower.**

C) remain the same.

Explanation

Voyager's pre-acquisition EV = value of equity + value of debt = $(11 \times 68) + 200 = 948$

Voyager's pre-acquisition EV/EBITDA ratio = $948 / 300 = 3.16$

Voyager's post-acquisition EV = $(12 \times 68) + (200 + 50) = 1,066$


Voyager's post-acquisition EV/EBITDA = $1066 / (300 + 62) = 2.94$

(Module 16.1, LOS 16.a)

Question #55 of 88

Question ID: 1754517

Which of the following reasons is *least likely* to support Bennet's observation about increased acquisition activity in the industry?

- A) High cost of capital. 
- B) Rising CEO confidence.
- C) High security prices.

Explanation


High security prices—and therefore lower cost of capital—along with high CEO confidence are three drivers of higher acquisition activity in an industry.

(Module 16.1, LOS 16.a)

Question #56 of 88

Question ID: 1754518

Gaarding's announcement is *most likely* a:

- A) balance sheet restructuring. 
- B) cost restructuring.
- C) divestment.

Explanation

Gaarding's sale-and-leaseback transaction is an example of a balance sheet restructuring.

(Module 16.1, LOS 16.a)

Overview for Questions #57-60 of 88

Question ID: 1754534

TOPIC: FIXED INCOME

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

MediSoft, Inc., develops and distributes high-tech medical software used in hospitals and clinics across the United States and Canada. The firm's software provides an integrated solution to monitoring, analyzing, and managing output from a variety of diagnostic medical equipment including MRIs, CT scans, and EKG machines. MediSoft has grown rapidly since its inception 10 years ago, averaging 25% growth in sales over the past decade. Twelve months after its IPO, MediSoft made two bond offerings, the first of which was a convertible bond.

At the time of issuance, the convertible bond had a coupon rate of 7.25%, a par value of \$1,000, a conversion price of \$55.56, and 10 years until maturity. Two years after issuance, the bond became callable at 102% of par value. Soon after the issuance of the convertible bond, the company issued another series of bonds, which were putable but contained no conversion or call features. The putable bonds were issued with a coupon of 8.0%, a par value of \$1,000, and 15 years until maturity. The putable bond has a European-style option exercisable 10 years after issuance at par. The bonds were issued three years ago.

MediSoft's convertible bonds are now trading in the market for a price of \$947 with an estimated straight value of \$917. The company's putable bonds are trading at a price of \$1,052. Volatility in the price of MediSoft's common stock has been relatively high over the past few months. Currently, the stock is priced at \$50 on the New York Stock Exchange and is expected to continue its annual dividend in the amount of \$1.80 per share.

High-tech industry analysts for Brown & Associates, a money management firm specializing in fixed-income investments, have been closely following MediSoft ever since it went public three years ago. In general, portfolio managers at Brown & Associates do not participate in initial offerings of debt investments, preferring instead to see how the issue trades before considering taking a position in the issue. Because MediSoft's bonds have had ample time to trade in the marketplace, analysts and portfolio managers have taken an interest in the company's bonds. At a meeting to discuss the merits of MediSoft's bonds, the following comment was made by a portfolio manager at Brown & Associates:

"Choosing to invest in MediSoft's convertible bond would benefit our portfolios in many ways, but the primary benefit is the limited downside risk associated with the bond. Because the straight value will provide a floor for the value of the convertible bond, downside risk is limited to the difference between the market price of the bond and the straight value."