LO.a: Evaluate a company's past financial performance and explain how a company's strategy is reflected in past financial performance.

1. Projections of future financial performance based on past results would be *least* reliable when a company:
   A. is large and operating in a mature industry.
   B. has just entered the industry.
   C. is operating in a stable industry.

2. An analyst uses the average net profit margin over the past three years of a heavy equipment manufacturing firm to forecast the next year's net profit margin. In his forecast, he is concerned about the following three items:
   - The company suffered losses from discontinued operations in two of the past three years.
   - The most recent year's tax rate was only one half the prior two years' rate as a result of a fiscal stimulus.
   - The company experienced gains on the sale of investments in each of the past three years.

   Which of the following statements about the preparation of the forecast is *most* accurate? The analyst would:
   A. use the most recent tax rate because that is the best predictor of future tax rates.
   B. exclude the gains on the sale from investments because the company is a manufacturing firm.
   C. include the discontinued operations because they appear to be an on-going feature for this company.

3. The premium pricing of differentiated products such as the iPhone is *more* directly reflected in which of the following measures?
   A. Gross profit margin.
   B. Operating profit margin.
   C. Net income.

4. Sarah Meles, an analyst, is forecasting gross profit of the three following companies. She uses the five-year average gross margins and forecasts sales using an internal model:

Company	**Information**
Accura Inc.	an innovator in electronic devices and enjoys healthy margins because of its technological edge. New technologies typically replace old ones every two years in this industry.
Basic Co.	produces and sells consumer goods which remain relatively constant throughout the period, and the demand and cost structures for its products have not experienced any significant changes
Couture LLC	recently restructured its product offerings focusing on high margin products only.

   The gross profit forecast is *most* reliable for:
   A. Accura Inc.

B. Basic Co.
C. Couture LLC.

LO.b: Forecast a company's future net income and cash flow.

5. Company XYZ wants to decrease its average receivable collection from the current 29 days to the industry average of 20 days by next year. Current year's credit sales are $600 million and analysts expects an increase of $100 million by next year. The required change in the company's average accounts receivable balance from current year to next year in order to achieve the target of decrease in collection period is *closest* to:
   A. $ 9,262,883.
   B. $ 8,325,164.
   C. $ 10,547,456.

6. Which of the following can be used as an off-balance sheet financing technique?
   A. Operating leases.
   B. Capital leases.
   C. Weighted average inventory.

7. As analyst gathers following information and projections:

($ '000)	**2011 Dec 31**	**2012 Dec 31**
Sales	1,500	1,650
Variable operating costs (% of sales)	33%	30%
Fixed operating costs	500	500
Tax rate	30%	30%
Dividends paid	50	55
Interest bearing debt at 5%	500	500

The forecasted net income (in '000s) for 2012 is *closest* to:
   A. $386.
   B. $441.
   C. $459.

8. Selected information about ABC Company is as follows:

	December 31, 2012	2013 Projection
Sales	4,000,000	4,500,000
Variable operating costs (% of sales)	30%	35%
Fixed operating costs	2,000,000	2,000,000
Tax rate	30%	30%
Dividends paid	100,000	110,000
Interest bearing debt at 6%	800,000	800,000

The forecasted net income for 2013 is *closest* to:
   A. 723,900.

B. 613,900.
C. 503,900.

9. The following information is available for a company that prepares its statements in accordance with US GAAP.

	2015 (forecast)	2014 (actual)	2013 (actual)
Sales $ millions	2,670	2,455	2,075
Sales as % of sales		100%	100%
Cost of goods sold		40%	40%
Operating expenses		37%	37%
Interest expense		4.07%	4.8%
Restructuring expense		0%	7.5%
Pre-tax margin		18.93%	10.7%
Taxes (30%)		5.68%	3.21%
Net income		13.26%	7.49%

Assuming no change in the capital structure for the company, the projected net income (in $ millions) for 2015 is *closest* to:
A. $289.87.
B. $347.07.
C. $359.87.

LO.c: Describe the role of financial statement analysis in assessing the credit quality of a potential debt investment.

10. Which of the following statements is *least likely* to be correct?
A. Analysts consider revenue sustainability when making a credit assessment.
B. Analysts consider liquidity when making a credit assessment.
C. Analysts consider financial risk but not business risk when making a credit assessment.

11. An analyst assessing the credit worthiness of a company is *most likely* to use which of the following measures?
A. Net income.
B. Operating cash flow.
C. Measures related to the operational efficiency a company's operations.

12. A company's ability to service its debt is *best* measured by:
A. Retained cash flow.
B. Profit margin.
C. Return on equity.

13. A company's access to capital markets and sensitivity to adverse events is *best* represented by which of the following quantitative factors?
A. Margin stability.

B. Scale and diversification.
C. Tolerance for leverage.

14. An analyst calculates the following ratios for two companies:

	Alpha Inc.	Beta Inc.
EBITDA/Average assets	8.1%	11.8%
Debt/EBITDA	2.7%	2.1%
Retained cash flow to debt	5.4%	12.3%
Free cash flow to net debt	-3.0%	6.8%

Which company will most likely be assigned a higher credit rating?
A. Alpha Inc.
B. Beta Inc.
C. Can't say as data is insufficient.

LO.d: Describe the use of financial statement analysis in screening for potential equity investments.

15. If an analyst wants to keep risk low while screening for potential equity investments based on return on equity, which criteria is he *most likely* to use?
A. Low leverage ratio.
B. High leverage ratio.
C. Negative net income.

16. If there is a mismatch between what investors would have known at the time of the investment decision and the information used now in back-testing, this can result in:
A. back-testing bias.
B. data snooping bias.
C. look-ahead bias.

17. Lily Cho, equity manager, uses a stock screener and selects the following metrics: a global equity index, P/E ratio lower than the median P/E ratio, and a price-book value ratio lower than the median price-book value ratio. The stocks so selected would be *most appropriate* for portfolios of:
A. growth investors.
B. market-oriented investors.
C. value investors.

18. Sally Wong, equity manager, uses a stock screener and selects the following metrics: earnings growth greater than the median earnings growth percentage and a ROE value higher than the median ROE value. The stocks so selected would be *most* appropriate for portfolios of:
A. growth investors.
B. market-oriented investors.
C. value investors.

19. An equity manager conducted a stock screen on 2,000 U.S. stocks that comprise her investment universe. The results of the screen are presented in the table below:

Criterion	**% of Stocks Meeting Criterion**
Price per share/Sales per share < 1.5	28.0
Total asset/Equity = 2.0	58.5
Dividends > 0	62.0
Consensus forecast EPS > 0	52.3

If all the criteria were completely independent of each other, the number of stocks meeting all four criteria would be *closest* to:
   A. 106.
   B. 338.
   C. 444.

20. Which of the following reasons for the increase in a company's ROE is *least likely* to be sustainable assuming that it operates in a highly fragmented and competitive industry? The company:
   A. decided to make greater use of long-term borrowing capacity.
   B. implemented a new IT system allowing it to reduce working capital levels as a percentage of assets.
   C. increased the prices of its product significantly.

LO.e: Explain appropriate analyst adjustments to a company's financial statements to facilitate comparison with another company.

21. While comparing financial statements of two companies, financial statements should be:
   A. compared without making any changes.
   B. adjusted after performing horizontal and vertical ratio analysis.
   C. adjusted for the differences in accounting standards.

22. Company A classifies some financial assets as "available for sale". Company B reports similar financial assets as "held for trading". What adjustment should be made to Company A's statements before comparing with the financial statements of Company B?
   A. Realized gains and losses will be recognized in equity.
   B. Unrealized gains and losses will be added to net income.
   C. Unrealized gains and losses will be recognized in equity.

23. Consider two companies reporting under U.S. GAAP. One uses LIFO and the other uses FIFO. To make them comparable, what adjustment must be made to the financial statements the LIFO company?
   A. Subtract LIFO reserve from the reported inventory value.
   B. Add LIFO reserve to the reported inventory value.
   C. No adjustment is necessary.

24. An analyst is evaluating the balance sheet of Company X that uses the LIFO accounting method for inventory. Company X prepares its financial statements under U.S. GAAP. The analyst collects the following data:

	31 Dec 08	**31 Dec 09**
Inventory reported on balance sheet	$ 800,000	$ 900,000
LIFO reserve	$ 80,000	$ 90,000
Average tax rate	25%	25%

After adjusting the amount of inventory to convert into FIFO, inventory at 31 December 2009 would be *closest* to:
A. $ 900,000.
B. $ 910,000.
C. $ 990,000.

25. Peter Lynch gathered the following data of a company ($ millions):

	31 Dec 08S	31 Dec 09
Gross investment in fixed assets	$ 3.6	$ 3.6
Accumulated depreciation	$ 1.6	$ 2.0

What would be the number of years of useful life which have passed (average age) and average life of assets at installation (depreciable life) of the company's fixed assets at the end of 2009?

	Average Age	**Depreciable Life**
A	5 years	9 years
B	9 years	5 years
C	4 years	9 years

26. What would an analyst *most likely* do to compute tangible book value?
A. Add excess of purchase price to net income.
B. Add goodwill in net asset.
C. Subtract goodwill from stockholder's equity.

27. If an operating lease is capitalized, what is the *most likely* impact on the interest coverage ratio in the early years of the lease? Assuming the ratio is based on interest expense and not the actual interest paid, the ratio will:
A. increase.
B. decrease.
C. stay the same.

28. A lifestyle retail chain that operates dozens of stores across the country leases most of its space. The following data is available about the company's leases from its Notes and the balance sheet:

Total assets	$5,625 million
Total long-term debt	$2,346 million
Interest rate on debt	11%

Year	**Millions**
2011	250
2012	250
2013	250
2014	250
2015	250
Total	1,250

An analyst examining the company, as of the beginning of 2011, makes some adjustments for off-balance sheet financing to enable comparison. The debt-to-total assets ratio for the company after the adjustment is closest to:

A. 41.7%.
B. 50.69%.
C. 49.9%.

29. An analyst is making adjustments to a company's financial statements that prepares its statements according to US GAAP. The price to tangible book value ratio is *most* appropriate instead of price to book value ratio if the company:

A. invests significantly in new capital assets.
B. grows through acquisitions instead of growing internally.
C. develops its patents and processes internally.

30. The following information is available for two companies from the same industry with similar strategies, about the same age for PP &E assets, and expected useful lives remaining. Company X uses the LIFO method of inventory valuation, while company Y uses the FIFO method.

	Company X	Company Y
Current assets	10,900	12,540
Inventory LIFO reserve	2,500	N/A
Current liabilities	8,100	7,950
Gross PP&E	20,000	25,000
Accumulated depreciation	15,000	12,500
Depreciation expense	1,875	3,125

Which of the following statements is *most* accurate? Relative to Company X, Company Y:

A. has a higher earnings quality.

B. uses aggressive accounting for depreciation of PP&E.
C. is more liquid.

31. A company prepares its financial statements in accordance with US GAAP. The company using the LIFO inventory valuation method reported a LIFO reserve of $120,000 at year-end. This is $25,000 lower than the previous year. If the company had used FIFO for inventory accounting instead of LIFO, the company would have *most likely* reported:
    A. a lower COGS, but a higher inventory balance.
    B. both a higher COGS and a higher inventory balance.
    C. a higher COGS, but a lower inventory balance.

32. To make a company comparable with other companies, an analyst is making adjustments by converting operating leases to capital leases. What will be the *most likely* effect of this adjustment?
    A. No effect on debt-to-equity ratio.
    B. Higher debt-to-equity ratio
    C. Lower debt-to-equity ratio

Solutions

1. B is correct. In the case of start-ups, past performance may be irrelevant to predict future performance. .

2. B is correct. The company is a heavy equipment manufacturer - since gains on investments is not a core part of its business, they should not be viewed as an ongoing source of earnings. Discontinued operations are considered to be nonrecurring items (even though they have occurred in the past three years); they are normally treated as random and unsustainable and should not be included in a short-term forecast; the change in the current tax rate is best viewed as temporary (in the absence) of additional information and should not be the basis of the calculation of the average tax rate.

3. A is correct. The effect of premium pricing through brand recognition, unique styling are more directly reflected in higher gross margin. The operating profit margin is also higher but often advertising and research costs are incurred which makes the effect on gross margin more pronounced than on operating profit margin.

4. B is correct. Basic Co. because it has been offering the same products and its demand and cost structures has been stable too. Therefore, the relationship between sales and gross profit (i.e., gross margin) should be stable and most reliable.

5. A is correct.

   Current accounts receivable turnover (year 1) = $\frac{365}{29}$ = 12.6
   Target accounts receivable turnover for year 2 = $\frac{365}{20}$ = 18.25
   Accounts receivable balance for year 1= $\frac{\text{Sales}}{\text{turnover}} = \frac{600{,}000{,}000}{12.6}$ = 47,619,047.6
   Accounts receivable balance for year 2 = $\frac{\text{Sales}}{\text{turnover}} = \frac{700{,}000{,}000}{18.25}$ = 38,356,164.4
   The difference of $9,262,883.2 is required to meet their target.

6. A is correct. Operating leases can be used as an off-balance sheet financing technique as neither the asset nor liability appears on the balance sheet.

7. B is correct. EBT = Sales – Variable cost – Fixed cost – Interest expense
   EBT = 1650 – (1650*30%) – 500 – (500*5%) = 630
   Net income = EBT – Taxes = 630 – 630*30% = 441

8. B is correct.

Sales	4,500,000	Given
Variable Costs	(1,575,000)	35% of sales
Fixed Costs	(2,000,000)	Given
Interest Expense	(48,000)	0.06×800,000 average debt
Earnings before taxes	877,000	

Taxes	263,100	30% of EBT
Net Income	**613,900**	

9. C is correct. The calculations for projected net income for 2015 is shown below:

   Note: interest expense in percentage terms is declining. So calculate the expense for 2013 and 2014 in dollar terms. It is a fixed expense of $100.

Sales	2,670
Cost of goods sold (40%)	1,068
Operating expenses (37%)	987.9
Interest expense	100
Pretax margin	514.1
Tax (30%)	154.23
Net income	359.87

10. C is correct. Credit analysts consider both financial and business risk while making a rating recommendation.

11. B is correct. Since debt is paid in cash, a company's ability to generate cash is important in assessing its credit worthiness.

12. A is correct. Retained cash flow is a measure of leverage used by Moody's.

13. B is correct.

14. B is correct. Beta Inc. has a higher retained cash flow relative to debt, EBITDA/average assets and higher cash flow to net debt.

15. A is correct. Low leverage implies lower risk.

16. C is correct. If companies have restated their financial statements, then there is a mismatch between what an investor would have known at the time of the investment decision and the information used now in back-testing. This is known as look-ahead bias.

17. C is correct. Metrics such as low P/E and low price-book are aimed at selecting value companies; therefore, the portfolio is most appropriate for value investors.

18. A is correct. Metrics such as earnings growth and momentum are aimed at selecting growth companies; therefore, the portfolio is most appropriate for growth investors.

19. A is correct. If the criteria are independent of one another, the probability that all will occur is the product of the individual probabilities (Multiplication Rule for Independent Events), i.e. 0.28 x 0.585 x 0.62 x 0.523 = 0.053, or 5.3%, which would produce 106 meeting the criteria, i.e., 5.3% x 2,000.

20. C is correct. An increase in price is not sustainable in a fragmented and competitive industry. Fragmented industries tend to be highly price competitive because of the need to increase market share and to undercut prices in an attempt to steal share.

21. C is correct. When comparing ratios of companies using different accounting standards, adjustments may be required. Adjustments made to one financial statement often affect other financial statements as they are linked.

22. B is correct. If the company classifies financial assets as available for sale, unrealized gains and losses are shown as other comprehensive income and bypass the income statement. To make the net income of Company A comparable to the net income of Company B, the unrealized gains on available for sale securities should be added to net income.

23. B is correct. To convert LIFO inventory to FIFO inventory, the LIFO reserves must be added back.

24. C is correct. FIFO Inventory = LIFO Inventory + LIFO reserves
    FIFO Inventory = \$ 900,000 + \$ 90,000= \$ 990,000

25. A is correct. Depreciation expense is equal to the difference in accumulated depreciation at the beginning and at the end of the year i.e. \$0.4. Average age is equal to accumulated depreciation/ depreciation expense, or 2.0/0.4 = 5 years. Average depreciable life is equal to ending gross investment/depreciation expense = 3.6/0.4 = 9 years.

26. C is correct. Tangible book value can be computed by subtracting goodwill from stockholder's equity.

27. B is correct. The interest coverage ratio is EBIT/Interest expense. The EBIT will increase by a small percentage. The interest expense is likely to increase by a larger percentage. Hence the overall impact is that the ratio is likely to decrease.

28. B is correct.
    The adjustment for off-sheet balancing is to add the present value of the operating leases to both debt and assets. The present value of an annuity due of \$250 for 5 years at 11% = \$1025.6. Remember to set the calculator to BGN mode.
    Adjusted debt to total assets = $\frac{2346+1025.6}{5625+1025.6} = \frac{3371.6}{6650.6}$ = 50.69%.

29. B is correct. Assume there are two companies whose economic values are identical. But, one company has grown through acquisitions and the other internally. The company that has grown through acquisition will have more intangibles and goodwill on its balance sheet than the other company. Adjustments must be made to remove the intangibles to make the two companies comparable.

30. B is correct. Calculate the associated measures for current ratio and net PPE to see which statement is accurate.

	Company X	Company Y
Current ratio = CA/CL	1.35	1.577
Adjusted current ratio	1.65	
Net PPE	5,000	12,500
Estimated average remaining useful life	2.66 years	4 years

As we can see from the table above, Company X is more liquid after adjusting for FIFO. The analyst believes that the PP&E of both the companies are of the same age, but the remaining useful life for Company Y is more than that of Company X. This implies that Company Y may be using an aggressive accounting policy such as a longer useful life relative to Company X. So, statement A is incorrect as aggressive accounting policies indicate lower earnings quality.

31. B is correct.
    FIFO COGS = LIFO COGS – change in LIFO reserve.
    Since change in LIFO reserve is negative from the previous year, FIFO COGS will be higher.
    FIFO inventory = LIFO inventory + LIFO reserve.
    FIFO inventory will be higher since LIFO reserve is positive.

32. B is correct. When operating leases are capitalized the liabilities and assets go up by the same amount and there is no change in equity. Hence the debt/equity ratio rises.