

TOPIC: FINANCIAL STATEMENT ANALYSIS

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Ali Saminder, CFA, has recently been hired by JJK Holdings, Inc. (JJK), a U.S.-based financial services holding company. JJK has global operations in commercial and investment banking alongside a significant wealth management division, JJK BMD. Saminder is currently on a six-month rotation working in the risk management division of JJK. She is seeking to become familiar with JJK's approach to risk management and the maintenance of an adequate capital base.

Saminder has reviewed an internal document outlining JJK's approach to meeting regulatory requirements and has made a note of two fundamental rules that she believes are used to help analyze capital adequacy.

- Rule 1: When assessing the tier 1 capital ratio, assets should be weighted according to their risk, with riskier assets assigned a lower value than risk-free assets such as cash.
- Rule 2: Off-balance-sheet assets should be excluded from the asset base of the bank when assessing capital adequacy.

The document provided to Saminder outlines JJK's approach to calculating regulatory capital. Extracts from the document are shown in Exhibit 1.

Exhibit 1: Internal Memo—Regulatory Capital Calculation (extracts)

- Tier 1 capital is defined in accordance with global regulatory standards and is appropriately adjusted for intangible and deferred tax assets resulting from losses carried forward.
- Other tier 1 capital consists of irredeemable non-cumulative preferred stock with a fixed dividend of 4.3%.
- Consistent with local regulatory standards, Tier 2 capital is comprised of \$18,047m of subordinated debt maturing in five years, and a convertible bond issue convertible only at maturity at the end of 20X9 (convertible into common stock).
- JJK Holding has a target tier 1 ratio of 15% and total capital ratio of 20%.
- 20X8 year-end figures are forecast as follows:

	20X8 (\$m)
Regulatory capital	
Common equity tier 1 capital	87,390
Additional tier 1 capital	16,401
Tier 2 capital	25,447
Total assets	510,948
Risk-weighted assets	601,312

Saminder notes that the convertible bond is due for conversion in 20X9. She intends to recalculate the 20X8 tier 1 ratio as if the bonds had been converted already.

Saminder has also reviewed an internal memo outlining some key trends over the last three years that were labeled 'Possible concerns?' by a previous employee. However, it was not clear from the document which trends if any were actual cause for concern. The trends included in the documents are shown in **Exhibit 2: Internal Memo—Three-Year Trends**.


Exhibit 2: Internal Memo—Three-Year Trends

	20X5	20X6	20X7
	\$m	\$m	\$m
Assets under management ¹	139,398	118,957	108,086
Net outflows ²	100,483	112,482	196,429
High quality liquid assets	111,432	127,352	198,393
Available stable funding	376,092	376,653	388,624
Required stable funding	327,043	301,275	303,182

¹ Represents client assets managed by JJK BMD Trusts

² 30-day liquidity needs in a stress scenario

Which of Saminder's fundamental rules is *most likely* to be accurate?

- A) Only rule 1 is accurate.
- B) Only rule 2 is accurate.
- C) **Neither rule is accurate.** 

Explanation

Rule 1 is incorrect because riskier assets are assigned a higher weighting. Risk-free assets such as cash are typically assigned a weighting of zero, because their risk-free nature means that they do not need to be supported by capital. Riskier assets require more capital funding, hence the higher weighting and risk adjusted value.


Rule 2 is also incorrect because off-balance sheet assets also require capital funding and hence should be included using the same risk weighting approach.

(Module 11.1, LOS 11.b)

Question #2 of 88

Question ID: 1560270

Using the forecasted data and explicit targets given in **Exhibit 1: Internal Memo—Regulatory Capital Calculation (extracts)**, Saminder is *most likely* to conclude that JJK Holdings would:

- A) **meet its targeted tier 1 ratio and total capital ratio.** 
- B) meet its targeted tier 1 ratio but not its targeted total capital ratio.
- C) fail to meet either target.

Explanation

Risk-weighted assets	601,312
Common equity tier 1 capital	87,390
Additional tier 1 capital	<u>16,401</u>
Tier 1 capital	103,791
Tier 2 capital	<u>25,447</u>
Total regulatory capital	129,238

$$\text{Tier 1 ratio} = \frac{103,791}{601,312} = 17.3\%$$


$$\text{Total capital ratio} = \frac{129,238}{601,312} = 21.5\%$$

(Module 11.5, LOS 11.d)

Question #3 of 88

Question ID: 1560271

How are tier 1 capital and total capital *most likely* to change when Saminder makes her stated adjustment for the convertible bonds?

- A) Common equity tier 1 capital and total capital will both remain unchanged.
- B) Tier 1 capital will increase and tier 2 capital will decrease.** 
- C) Other tier 1 capital will decrease and total capital will remain unchanged.

Explanation

Per **Exhibit 1: Internal Memo—Regulatory Capital Calculation (extracts)**, convertible bonds are currently part of tier 2 capital. On conversion they would become common stock and part of common tier 1 capital, hence tier 2 capital would decrease and common tier 1 capital would increase.

(Module 11.5, LOS 11.d)

Question #4 of 88

Question ID: 1626128

Using the data in **Exhibit 2: Internal Memo—Three-Year Trends**, which of the following statements is *most* accurate?

A) **The number of days JJK can withstand a stress-level-volume of cash outflows decreased by three days from 20X5 to 20X7.**



B) The liquidity coverage ratio decreased in each of the two years.

C) The trend in net stable funding ratio indicates an increase from 20X5 to 20X7 in highly liquid funding available, compared to the level of funding required.

Explanation

	20X5	20X6	20X7
High quality liquid assets	111,432	127,352	198,393
Net outflows	100,483	112,482	196,429
Liquidity coverage ratio = $\frac{\text{High quality liquid assets}}{\text{Net outflows}}$	111%	113%	101%

The liquidity coverage ratio actually increased from 20X5 to 20X6, hence choice B is incorrect.

The net cash outflows are given for 30 days. An LCR ratio of 100% would mean JJK could withstand 30 days of stress-level outflows. To calculate the number of days JJK can withstand, multiply the LCR by 30.

	20X5	20X6	20X7
	30 × 1.11	30 × 1.13	30 × 1.01
Number of days of stress volume of cash outflows	33.3	34.0	30.3

Hence A is correct; the number of days decreased by 3 days from 33.3 to 30.3

Available net stable funding excludes highly liquid assets, hence C is incorrect.

(Module 11.5, LOS 11.d)

Overview for Questions #5-8 of 88

Question ID: 1630309

TOPIC: FINANCIAL STATEMENT ANALYSIS

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Roleo is a large U.S. multinational with subsidiaries around the world and prepares its financial statements in accordance with the U.S. GAAP. Among these subsidiaries is

Simlair Industries. Alex Dudda, CFA, is one of the equity analysts following Roleo. Roleo has a defined benefit pension plan for its employees.

In preparing his research report, Dudda makes the following observations in the working documents:

Defined Benefit Pension Plans

Dudda noted that the assumed higher expected rate of return on plan assets reduces reported pension expense but does not affect the PBO, and thus increases the plan's funded status.


Employee Share Option Scheme

Roleo also has an employee share option scheme. Just as there is a cost to Roleo for its defined benefit scheme, the cost of Roleo's share option scheme will be charged as an expense to the income statement and hence reduce retained earnings and equity even if there is no cash outlay.

Question #5 of 88

Question ID: 1560264

Assume the country where Simlair is operating has been experiencing 30% annual inflation over the past three years and that Simlair has a net monetary liability position. Which of the following best describes the effect on Roleo's consolidated financial statements?

- A) A gain is recognized in the income statement.** 
- B) A loss is recognized in the income statement.**
- C) A gain is recognized as a direct adjustment to the balance sheet.**

Explanation


The temporal method is required if the foreign subsidiary is operating in a highly inflationary environment, defined as cumulative inflation of more than 100% in a 3-year period. Compounded inflation of 30% annually for three years is approximately 120% ($1.30^3 - 1$). Under the temporal method, remeasurement gains and losses are recognized in the income statement. Holding net monetary liabilities denominated in a currency that is depreciating will result in a gain.

(Module 10.7, LOS 10.g)

Question #6 of 88

Question ID: 1560265

Assume that Simlair is a significantly integrated sales division of Roleo, and that Roleo makes virtually all of the operating, investing, and financing decisions. The foreign currency gains and losses that arise from the consolidation of Simlair should be reported in:

- A) shareholders' equity.
- B) operating cash flow.
- C) **net income.** 

Explanation


Assuming Simlair is an integrated sales division and Roleo makes virtually all of the decisions, the functional currency is likely the presentation currency. Thus, the temporal method is used. Under the temporal method, remeasurement gains and losses are reported in the income statement.

(Module 10.2, LOS 10.d)

Question #7 of 88

Question ID: 1630310

Dudda's statement about defined benefit pension plans is *most likely*:

- A) correct.
- B) **correct about PBO but incorrect about funded status.** 
- C) correct about funded status but incorrect about PBO.

Explanation

Assuming a higher expected rate of return on plan assets (under U.S. GAAP) reduces reported pension expense but does not affect the PBO nor the fair value of plan assets -- and therefore does not affect the funded status of the plan.

(Module 9.2, LOS 9.d)

Question #8 of 88

Question ID: 1626126

Dudda's comments regarding Roleo's employee share option scheme are *most likely*:

- A) correct.

incorrect because the cost of issuing shares under an employee stock option
B) scheme will be taken directly to equity via OCI and hence not reduce retained earnings.

C) **incorrect as the cost of issuing shares under an employee stock option scheme will not reduce equity.**



Explanation

The expense of the employee stock options is recorded as compensation expense in the income statement and hence will reduce net income and eventually the retained earnings. However, there is an offsetting increase (same amount) in the paid-in capital and hence no overall impact on equity.

(Module 9.1, LOS 9.b)

Overview for Questions #9-12 of 88

Question ID: 1561802

TOPIC: CORPORATE ISSUERS

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Dan Andrews, CFA, is the equity analyst for a large pension fund. One of the fund's holdings is Debian Corporation, based in Country A, an emerging market economy. Debian recently divested a division, and wants to distribute the resulting proceeds to its shareholders. Andrews collects the information on Country A, as shown in Exhibit 1.

Exhibit 1: Select Information on Country A

Country A is a rapidly growing emerging market economy. Its 20-year benchmark currency-denominated sovereign debt currently offers an attractive 8% yield. Current tax rates are investor friendly and are 12% for both dividends and capital gains, while the corporate tax rate is 30%. The standard deviation of equity returns is 19%; for bond returns, it is 12%.

Andrews discusses Debian's current dividend policy with Sarah Givens, a senior economist with the fund. Givens makes the following statements:

Statement 1: Shareholders can plan their financial budget assuming a specific dividend income. Higher dividends makes them less reliant on uncertain income from their other investments, a

preference they exhibit while choosing which investments to continue to hold.


Statement 2: Shareholders are acutely aware of their tax situations, and always want to maximize their after-tax cash flows, if given a choice.

The 20-year benchmark sovereign bond yield is currently 6%. Andrews plans on using the international capital asset pricing model (ICAPM) to estimate Debian's cost of capital. Givens states that the ICAPM prices two risk factors: (1) a benchmark market index factor, and (2) a foreign currency-denominated, *wealth-weighted* market index.

Question #9 of 88

Question ID: 1561803

Regarding Debian's plan to distribute the cash flow from the divested business, which of the following is the *most likely* course of action for the company?

- A) Increase regular dividends.
- B) Pay a special dividend instead of an increase in regular dividends.** 
- C) Pay dividends instead of a stock repurchase to preserve flexibility.

Explanation

Investors prefer stability in regular dividends (maintaining or slowly increasing them as profitability improves). Regular dividends are rarely cut. The most appropriate approach to distribute one-time excess cash is to use either special dividends or stock buybacks. Stock buybacks are preferred if managers want to preserve flexibility because they are not sticky; there is no expectation of continuing a buyback program.

(Module 15.1, LOS 15.a)

Question #10 of 88

Question ID: 1561804

Regarding statements made by Givens, which of the following is *most accurate*?

- A)** Statement 1 is consistent with the bird-in-hand theory, while Statement 2 is consistent with the dividend irrelevance theory.
- B)** Statement 1 is consistent with the dividend irrelevance theory, while Statement 2 is consistent with tax minimization theory.

- C) Statement 1 is consistent with dividend preference theory, while Statement 2 is consistent with tax aversion theory.**



Explanation

Statement 1 is consistent with the dividend preference theory (also called the bird-in-hand theory), while Statement 2 is consistent with tax aversion theory.

(Module 15.1, LOS 15.b)

Question #11 of 88

Question ID: 1561805

What is the estimate of CRP to use in estimating Debian's required return on equity?

A) 2.00%.

B) 3.17%.

C) 0.38%.

Explanation

$CRP = \text{sovereign yield spread} \times (\sigma_{\text{equity}} / \sigma_{\text{bond}}) = (8\% - 6\%) / (19\% / 12\%) = 3.17\%$.

(Module 17.2, LOS 17.e)

Question #12 of 88

Question ID: 1561806

Givens's statement about the ICAPM is:

A) correct.

B) incorrect about the second factor because it is based on an equally weighted market index.

C) incorrect about the first factor because it is based on a global market index.

Explanation

The ICAPM is a two-factor model, based on (1) a global and not benchmark market index factor, and (2) a foreign currency-denominated, *wealth-weighted* market index.

(Module 17.2, LOS 17.e)

Overview for Questions #13-16 of 88

Question ID: 1560283

TOPIC: EQUITY VALUATION

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 2008. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements.

GDW Statement of Income for Year Ended May 31, 2018

Sales	<u>4,052,173</u>
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	<u>5,223</u>
	<u>3,817,178</u>
Income before income taxes	234,995
Income taxes	<u>70,499</u>
Net income	<u>164,497</u>
Earnings per share	0.72

Partial GDW Balance Sheet on May 31, 2018

Assets

Current assets (excluding cash)	
Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	<u>23,743</u>
Total current assets (excluding cash)	799,260
Property, plant, and equipment	687,890
Other assets	236,417

Liabilities

Current liabilities (excluding notes payable)	
Accounts payable and accrued liabilities	296,564
Other	<u>100,039</u>
Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

Additional Information

Risk-free rate	4.5%
WACC	7.5%
2018 working capital investment	\$7,325
2018 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2018	\$143,579
Market risk premium	5%
Total equity May 31, 2017	\$1,019,869
Principal repayment of long-term debt in 2018	\$33,275
Notes payable issued in 2018	\$5,866
2018 change in liabilities	\$27,409

Tax rate

30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2019. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2018. Fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2019, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

Warner is also interested in valuing Betacorp, another acquisition possibility for Consolidated. Warner notes that Betacorp is a mature, profitable company with generous dividend payments, which has resulted in a volatile capital structure for the company.

Question #13 of 88

Question ID: 1560284

By how much (in dollars) does GDW's FCFF exceed its free cash flow to equity (FCFE) in 2018?

A) \$9,567.

B) \$45,251. 

C) \$52,897.

Explanation

FCFE can be expressed in terms of FCFF as follows:

$$\text{FCFE} = \text{FCFF} - \text{Int}(1 - \text{tax rate}) + \text{net borrowing}$$

Therefore, the amount by which FCFF exceeds FCFE can be written as:

$$\text{FCFF} - \text{FCFE} = \text{Int}(1 - \text{tax rate}) - \text{net borrowing}$$

$$\text{Interest} = \$20,265 + \$5,223 = \$25,488$$

$$\text{Net borrowing} = \$5,866 - \$33,275 = -\$27,409 \text{ (additional information)}$$

$$\text{Therefore: } \text{FCFF} - \text{FCFE} = \$25,488(1 - 0.3) - (-\$27,409) = \$45,251$$

(Module 21.4, LOS 21.d)

Question #14 of 88

Question ID: 1560285

The 2019 estimate of FCFF is *closest* to:

A) \$191,646. 

B) \$210,329.

C) \$215,329.

Explanation

When depreciation is the only noncash charge, FCFF can be estimated from:

$$\text{FCFF} = \text{EBIT}(1 - \text{tax rate}) + \text{Dep} - \text{FCInv} - \text{WCInv}$$

$$\text{EBIT}_{2019} = \$4,052,173 \times 1.06 \times 0.064 = \$274,899$$

$$\text{Therefore: } \text{FCFF}_{2019} = \$274,899(1 - 0.3) + \$60,000 - \$36,470 - \$24,313 = \$191,646$$

(Module 21.4, LOS 21.d)

Question #15 of 88

Question ID: 1560286

Which corporate event that Warner is analyzing is *likely* to have the largest effect on FCFE in 2019?

A) Share repurchase.

B) Share offering.

C) Convertible bond issue. 

Explanation

Dividends, share repurchases, and changes in the number of shares outstanding do not have an effect on either FCFE or FCFF. Therefore, only the new convertible debt offering will have a significant influence on the current level of FCFE because net borrowing changes FCFE.

(Module 21.5, LOS 21.j)

Question #16 of 88

Question ID: 1560287

Which of the following approaches would Warner *most appropriately* use to value Betacorp?

A) FCFF approach. 

B) FCFE approach.

C) Dividend discount approach.

Explanation

We are told that Betacorp is a potential acquisition target for Consolidated, and therefore, valuation based on a controlling interest perspective is appropriate (and a dividend discount model would be inappropriate).

Because Betacorp's capital structure is volatile, a FCFF-based valuation model would be preferred over a FCFE-based model.

(Module 21.1, LOS 21.a)

Overview for Questions #17-20 of 88

Question ID: 1560288

TOPIC: EQUITY VALUATION

THE TOTAL POINT VALUE FOR THIS QUESTION SET IS 12 POINTS

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.