Question 33 - Quantitative Methods

CFA

In machine learning, when an ML model treats true parameters as if they were noise, the model may be:

A. overfitted.

B. underfitted.

C. mining the data for relationships.

You got this WRONG.

B. is CORRECT.

When a model has been underfitted, the ML model treats true parameters as if they are noise and is not able to recognize relationships within the training data. In such cases, the model may be too simplistic. Underfitted models will typically fail to fully discover patterns that underlie the data.

Question 34 - Financial Statement Analysis

Kelly Williams is a financial analyst at Stonebridge Capital. She is building a financial statement model for AZ Manufacturing to project its financial performance for the next year. In the most recent year of 2023, AZ reported the following results (in millions of $).

	2023
Revenue	100.0
COGS	(40.0)
SG&A, excluding depreciation	(30.0)
Depreciation Expense	(10.0)
Pretax Income	20.0
Tax Expense	(6.0)
Net Income	14.0
Year-end Net Working Capital Investment	20.0

Kelly projects that AZ will grow its revenue by 20% in 2024. She projects the same percentages of revenue in 2024 for each expense item, compared to the percentages of revenue realized in 2023. Kelly also projects that net working capital investment on the balance sheet at the end of 2024 will be the same percentage of sales in 2024 as it was in 2023.

What is the projected cash flow from operations in 2024 based on Kelly's forecasts?

A. $4.8 million

B. $24.8 million

C. $28.8 million

You got this WRONG.

B. is CORRECT.

The projected cash flow from operations in 2024 (in millions of $) is calculated in the table below. To calculate CFO, start with projected net income (14% of the projected 2024 revenue of $120 million). Add back depreciation expense (10% of revenue). Subtract the change in net working capital ($4 million).

$16.8 million + $12.0 million – $4.0 million = $24.8 million

$4.8 million incorrectly calculates cash flow from operations by subtracting the full amount of the net working capital investment and not the change.

$28.8 million incorrectly calculates cash flow from operations by adding the full amount of the net working capital investment.

	2023	2024	% of Sales
Revenue	100.0	120.0	100%
COGS	(40.0)	(48.0)	40%
SG&A, excluding depreciation	(30.0)	(36.0)	30%
Depreciation Expense	(10.0)	(12.0)	10%
Pretax Income	20.0	24.0	20%
Tax Expense	(6.0)	(7.2)	6%
Net Income	14.0	16.8	14%
Net Working Capital Investment	20.0	24.0	20%
Net Income		16.8	
(+) Depreciation Expense		12.0	
(-) Change in Net Working Capital		(4.0)	
Cash Flow from Operations		**24.8**	

Question 35 - Financial Statement Analysis

CFA

Consider the following two statements:

Statement 1: The higher the leverage ratios with Total Debt in the numerator, the stronger the company's solvency.

Statement 2: Leverage ratios focus on the balance sheet while coverage ratios focus on the income statement and cash flow statement.

Which statement(s) is/are *correct*?

A. Statement 1 only.

B. Statement 2 only.

C. Neither Statement 1 nor Statement 2 are correct.

You got this WRONG.

B. is CORRECT.

With leverage ratios using total debt as the numerator, the higher the ratio, the higher the financial risk and thus the weaker the solvency.

Leverage ratios focus on the balance sheet and measure the extent to which a company uses liabilities rather than equity to finance its assets. Coverage ratios focus on the income statement and cash flows and measure the ability of a company to cover its debt-related payments.

Question 36 - Corporate Issuers

Alpha Corporation is a software-as-a-service firm based in the country of Legoland. Corporations in Legoland are subject to a corporate income tax rate of 30%. In the most recent year, Alpha generated pre-tax income of $120 million. Each year, Alpha pays dividends to its common shareholders, all of whom live in Legoland, based on a dividend payout ratio of 40%. All individuals in Legoland are subject to a 20% tax rate on common dividends.

Which of the following is *closest* to the total tax rate as a percentage of Auchan's pre-tax income Alpha Corporation?

A. 35.6%

B. 44.0%

C. 50.0%

You got this WRONG.

A. is CORRECT.

Investors in the common stock of corporations in the country of Legoland are subject to double taxation. Tax is paid at the corporate level on pretax income and then at the individual level when profits are distributed in the form of common dividends.

Alpha Corporation generated $120 million in profit, which is subject to a 30% tax rate. Thus, Alpha pays $36 million in tax at the corporate level. Alpha then distributes 40% of its after-tax profits to its investors based on a 40% dividend payout ratio. Alpha generated $84 million in after-tax profits and distributed $33.60 million in common dividends. Common dividends are subject to a 20% tax at the individual level. Thus, individual investors in Alpha's common stock pay $6.72 million in tax on these dividends.

In total, investors in Alpha's common stock paid a tax of $36 million at the corporate level and $6.72 million at the individual level for a total tax payment of $42.72 million. The total tax rate is calculated by dividing the total tax of $42.72 million over the pretax income of $120 million.

Corporate income tax rate	30%
Common dividend tax rate	20%
Dividend payout ratio	40%
Pretax income	120.00
Tax expense	36.00
Net income	84.00
Common dividend	33.60
Tax on dividend	6.72
Total taxes paid	42.72
Total tax rate	**35.6%**

Option B assumes a 100% dividend payout ratio when calculating the tax on dividends.

Option C sums the 30% corporate income tax rate and the 20% individual tax rate on dividends.

Question 37 - Quantitative Methods

CFA

A portfolio had the following returns over the past 5 years:

Year	Return
1	6.7%
2	4.9%
3	-2.3%
4	3.5%
5	1.2%

Based on the information above, the sample standard deviation is *closest* to:

A. 0.122%

B. 3.120%

C. 3.489%

You got this WRONG.

C. is CORRECT.

$$S = \sqrt{\frac{\sum_{i=1}^{n}(X_i - \bar{X})^2}{n-1}}$$

Year	Return	Squared Deviation	
1	6.7%	0.00152	
2	4.9%	0.000441	
3	-2.3%	0.002601	
4	3.5%	0.000049	
5	1.2%	0.000256	
Average	2.8%	0.004868	**Sum**

$S = (0.004868/4)^{0.5}$

$S = 0.03488$

Question 38 - Quantitative Methods

The slope coefficient in this model provides the absolute change in the dependent variable for a relative change in the independent variable.

A. Log-lin model

B. Lin-log model

C. Log-log model

You got this WRONG.

B. is CORRECT.

The lin-log model is $Y_i = b_0 + b_1(\ln X_i)$. The slope coefficient in this regression model provides the absolute change in the dependent variable (since Y is not in log form) for a relative change in the independent variable (since X is in log form).

Question 39 - Economics

Over the course of the most recent quarter, the Canadian dollar (CAD) has depreciated 9% against the United States dollar (USD). How much has the USD appreciated against the CAD?

A. More than 9%

B. Less than 9%

C. Equal to 9%

You got this WRONG.

A. is CORRECT.

A. is CORRECT.

To observe the amount by which one currency has appreciated or depreciated we must calculate the movement using rates where that currency is the base, as we need to calculate how much of the quoted currency we can buy with one unit of the base.

For illustrative purposes, suppose the rate moved from 100 USD/CAD to only 91 USD/CAD. Unrealistic, but easy numbers to work with. It is clear to see that CAD has depreciated by 9% (buying only 91 USD instead of 100 USD).

To calculate the appreciation in the USD we must take the inverse of these rates so that USD is the base. We would get originally 0.01 CAD/USD moving to 0.010989 CAD/USD. The appreciation is therefore 0.010989 – 0.01/0.01 = 0.0989 or 9.89%.

A quicker way to to do this given the **9%** deprecation in the CAD, is to calculate the resulting USD appreciation as (1/(1 – **0.09**)) – 1 = 9.89%.

Question 40 - Economics

Which of the following is a reasonable argument to support the use of a fiscal deficit as a tool to stimulate an expansion?

- A. If unemployment is high, then the crowding out effect is of less concern.
- B. Additional taxes to offset the deficit at future points could be distortionary.
- C. Fiscal policy is set by the government and may be manipulated solely for political gain.

You got this WRONG.

A. is CORRECT.

One worry is that government borrowing could crowd out private investment, but this is less likely if unemployment is high. Unemployment may, in fact, be reduced as a result of the government's actions.

Option B is incorrect. This is an argument against using a fiscal deficit as a tool to stimulate economic expansion.

Option C is incorrect. This is an argument against using a fiscal deficit as a tool to stimulate economic expansion.

Question 41 - Corporate Issuers

Delta is a multinational semiconductor manufacturer with operations throughout the world. Its chips are considered the most sophisticated on the market using cutting-edge technology. Institutional investors own over 50% of the shares outstanding. The board established a compensation plan for Delta's senior management team in which the large majority of overall manager compensation is comprised of stock options.

Which of the following characteristics or policies of Delta is likely to *reduce* agency costs?

- A. The multinational nature of the company
- B. Senior management's stock option focused compensation plan
- C. The high level of institutional investor ownership of Delta's shares

You got this WRONG.

C. is CORRECT.

Agency costs are the costs that arise from conflicts of interest between Delta's principals (shareholders) and agents (directors and managers).

Directors and managers have more information about a company's performance, risks, and investment opportunities than outsiders such as shareholders and lenders. While all companies have some degree of asymmetric information, it is more pronounced for companies competing in many markets and geographies, those that sell complex products, and companies with lower levels of institutional ownership and free float.

Institutional investors own over 50% of Delta's shares, **which likely reduces information asymmetry** as institutional investors are generally more sophisticated than retail investors and will likely demand more information about the company from management.

While management compensation seeks to motivate managers to maximize shareholder value, manager and shareholder interests may diverge. Compensation dominated by stock grants and options can motivate excessive management risk-taking, as option holders participate only in upside share price moves. Similarly, little or no use of stock grants and options in compensation plans can lead to unduly risk-averse corporate decision-making and the inability to attract talent. This misalignment may be at odds with the company's value creation objective or shar
desire for higher-risk, higher-reward endeavors.

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Question 42 - Corporate Issuers

Many countries aligned with the Paris accord recommendation to ban sales of internal combustion engines (ICE) in passenger autos by 2035. GM and Ford have announced billions of dollars of investment in EV (electric vehicle) capacity to meet this deadline. This is *least likely* a:

A. going concern project.

B. new products and services project.

C. regulatory, safety, and environmental projects.

You got this WRONG.

A. is CORRECT.

Going concern projects maintain the existing size of the business. These investments are adding capacity and introducing new products and services. The investments are also being made now to meet the new environmental regulations that will be in place in many countries by 2035.

Question 43 - Financial Statement Analysis

Solfan Industries pays for key person life insurance for its chief executive, financial, and operating officers (CEO, CFO, and COO, respectively). The premia for these life insurance policies are not deductible for income tax purposes, but, should one of the covered individuals pass away, the proceeds from the policy would not be taxable. Solfan deducts the premia on its income statement (as part of SG&A). This difference in treatment will *most likely* create:

A. a deferred tax asset.

B. a deferred tax liability.

C. neither a deferred tax asset or a deferred tax liability.

You got this WRONG.

C. is CORRECT.

Deferred tax assets are created by *temporary* differences between financial accounting and tax accounting that results in higher taxes today and (likely) lower taxes in the future. Deferred tax liabilities are created by *temporary* differences between financial accounting and tax accounting that results in lower taxes today and (likely) higher taxes in the future.

Permanent differences between financial accounting and tax accounting, such as insurance premia that are deductible for financial purposes but not for tax purposes, do not create deferred tax assets nor deferred tax liabilities.

Question 44 - Economics

Which of the following limitations of the concentration ratio is addressed by the Herfindahl-Hirschman Index?

A. Failure to consider barriers to entry.

B. Failure to measure elasticity of demand.

C. Failure to reflect the effect of mergers in the industry.

You got this WRONG.

C. is CORRECT.

The concentration ratio "tends to be unaffected by mergers" whereas the Herfindahl-Hirschman Index reflects the effect of mergers in the industry.

Question 45 - Corporate Issuers CFA

A company has a target debt/equity ratio of 0.55. Currently, the company is financed with 5% preferred stock, but this will be bought out before the end of the current financial period and be converted into common stock. This is not expected to change the required return on common stock. The company estimates that providers of debt would require a return of 6% on any new debt raised. Preferred stock carries a required return of 8% and the required return of the common stockholders is 12%. The company's effective tax rate is 40% and the company's marginal tax rate is 25%. The company's WACC is *closest* to:

A. 7.70%

B. 9.00%

C. 9.30%

You got this WRONG.

C. is CORRECT.

The correct calculation is shown below. Note that the cost of debt is taken after taxes but the cost of equity is not. Option A is incorrect as the wrong weights of debt and equity have been used (see note below). Option B is incorrect as the effective tax rate rather than the marginal tax rate is used.

	Amount	Cost	Weighted Average
Debt = 0.55/1.55	35.5%	4.5%	1.6%
Equity = 1.0/1.55	64.5%	12.0%	7.7%
		Total	9.3%

Note that the weights of debt and equity are not 55% debt and 45% equity. The amounts given show the ratio of debt to equity and must be adjusted to find debt as a percentage of total capital as shown in the calculation. As the preferred stock will be bought out and converted to common stock, it is not appropriate to include a weighting for this in the future. Note that the weights given are target weights, which should always be used if available.

Question 46 - Corporate Issuers

Which of the following reasons is *most likely* to explain why a firm's financing mix may contain less leverage than the optimal level suggested by the static trade-off theory of capital structure?

A. Weak stock market performance temporarily decreases the price of company stock.

B. The firm was unable to identify the exact debt/equity ratio that the static trade-off theory would suggest.

C. A company may increase the deal size of a bond offering above the original intended size due to strong investor demand.

You got this WRONG.

B. is CORRECT.

The optimal capital structure is difficult to identify, due to the difficulty in measuring the exact costs involved. For example, the costs of financial distress. As a result, at any point in time the firm may contain less (or more) leverage. Increasing the size of a bond offering would lead to more leverage, as would a weak stock price.

Question 47 - Financial Statement Analysis

Outer Limits Sporting Goods' (OLSG's) 2018 balance sheet is:

Outer Limits Sporting Goods Balance Sheet, 31 December 2018 (thousands)			
Assets		**Liabilities**	
Cash	USD 270,000	Accounts Payable	USD 7,600,000
Short-Term Investments	380,000	Accrued Expenses	6,400,000
Accounts Receivable	1,300,000	Taxes Payable	1,065,000
Inventory	28,100,000	Bonds Payable	6,100,000
Prepaid Expenses	850,000	Mortgage Payable	2,900,000
Long-Term Investments	620,000	Total Liabilities	USD 24,065,000
Land	220,000		
PP&E, Gross	8,850,000	**Equity**	
Less: Accumulated Depreciation	−1,550,000	Common Stock	USD
PP&E, Net	7,300,000	Retained Earnings	11,675,000
Intangibles	350,000	Total Equity	USD 15,325,000
Total Assets	USD 39,390,000	Total Liabilities + Equity	USD

02:04:40

In OLSG's industry, the average current ratio is 1.65, the average quick ratio is 0.57 and the average financial leverage ratio is 1.73, all using similar accounting methods to OLSG's. Compared to the industry average, OLSG *most likely*:

In OLSG's industry, the average current ratio is 1.65, the average quick ratio is 0.57 and the average financial leverage ratio is 1.73, all using similar accounting methods to OLSG's. Compared to the industry average, OLSG *most likely*:

A. has a less risky capital structure.

B. has less inventory compared to its current liabilities.

C. faces a greater liquidity problem if sales decline markedly.

You got this WRONG.

C. is CORRECT.

OLSG's current ratio is:

$$\begin{aligned}\text{Current ratio} &= \frac{\text{Current assets}}{\text{Current liabilities}} \\ &= \frac{\text{Cash} + \text{S/T investments} + \text{A/R} + \text{Inventory}}{\text{A/P} + \text{Accrued expenses} + \text{Taxes payable}} \\ &= \frac{\text{USD } 270,000 + \text{USD } 380,000 + \text{USD } 1,300,000 + \text{USD } 28,100,0}{\text{USD } 7,600,000 + \text{USD } 6,400,000 + \text{USD } 1,065,000} \\ &= 1.99\end{aligned}$$

Its quick ratio is:

$$\begin{aligned}\text{Quick ratio} &= \frac{\text{Quick assets}}{\text{Current liabilities}} \\ &= \frac{\text{Cash} + \text{S/T investments} + \text{A/R}}{\text{A/P} + \text{Accrued expenses} + \text{Taxes payable}} \\ &= \frac{\text{USD } 270,000 + \text{USD } 380,000 + \text{USD } 1,300,000}{\text{USD } 7,600,000 + \text{USD } 6,400,000 + \text{USD } 1,065,000} \\ &= 0.13\end{aligned}$$

Its financial leverage ratio is:

$$\begin{aligned}\text{Financial leverage ratio} &= \frac{\text{Total assets}}{\text{Total equity}} \\ &= \frac{\text{USD } 39,390,000}{\text{USD } 15,325,000} \\ &= 2.57\end{aligned}$$

Because its financial leverage ratio is higher than the industry average, OLSG appears to have a riskier capital structure than the industry average.

Because the difference between its current ratio and its quick ratio (2.05 – 0.13 = 1.92) is higher than the industry average (1.65 – 0.57 = 1.08), OLSG appears to have more inventory compared to its current liabilities than the industry average.

Because a sharp decline in sales will make it difficult to liquidate its inventory, OLSG would be left trying to pay its current liabilities with only its quick assets: cash, short-term investments, and accounts receivable. Its quick ratio is lower than the industry average (0.13 < 0.57), so it would likely have a greater liquidity problem than the industry average.

Question 48 - Corporate Issuers

Alan Rogers heads the Global Equities department at Bluegrass Asset Management. He recently met with the Bluegrass portfolio management team to discuss trends in the development of equity markets around the world. During the discussion, Alan made the following comments to his team.

Comment 1: The growing number of private capital sources available has allowed some companies to avoid the additional cost and regulatory burden associated with a public listing.

Comment 2: There has been a decline in the number of listed companies in developed and emerging markets in recent years.

Comment 3: An increase in the number of mergers and acquisitions in developed markets has reduced the number of independent listed companies.

Which of Alan's comments regarding global equity market trends is *least* accurate?

A. Comment 1

B. Comment 2

C. Comment 3

You got this WRONG.

B. is CORRECT.

While there has been a decline in the number of listed companies in developed markets, **the number of listed companies traded on the domestic exchanges of emerging economi increased**.

While there has been a decline in the number of listed companies in developed markets, **the number of listed companies traded on the domestic exchanges of emerging economies has increased**.

The declining number of listed public companies in developed markets is a result of several factors. One cause is a higher number of mergers and acquisitions, which reduces the number of independent listed companies. Another is the growing number of private capital sources available, such as venture capital and private equity, allowing companies to access needed capital while avoiding the additional cost, regulatory burden, public scrutiny, and compliance costs associated with a public listing. Another factor is that many private companies simply choose to remain private because it preserves control by incumbent owners and management.

Question 49 - Economics

France and Germany have eliminated tariffs and quotas on trade between them but have imposed a common external trade policy with the rest of the world. France and Germany are *most likely* a part of a(n):

A. FTA.

B. customs union.

C. economic union.

You got this WRONG.

B. is CORRECT.

France and Germany are part of a customs union as they maintain a common external trade policy while eliminating barriers to trade between them. A free trade agreement (FTA) typically does not involve a common external trade policy. An economic union typically entails additional levels of integration.

Question 50 - Quantitative Methods

The real risk-free rate of return in an economy is 2.75%. The consensus expected inflation premium is 3.45%. The nominal interest rate is 10.5%. If the risk premium incorporates default risk, liquidity risk, and maturity risk, then based on the nominal interest rate, the implied risk premium is *closest* to:

A. 4.30%

B. 7.05%

C. 7.75%

You got this WRONG.

A. is CORRECT.

$$\text{Nominal interest rate} = \text{Real risk-free rate} + \text{Expected inflation premium} + \text{Defaul}$$
$$10.5\% = 2.75\% + 3.45\% + \text{Implied risk premium}$$
$$\text{Implied risk premium} = 4.30\%$$

Question 51 - Financial Statement Analysis

Bassett Hydraulics (BH) prepares its financial statements according to US GAAP. BH has had inventory levels that have increased every year for this last 10 years, except in 2018, in which the number of units in its ending inventory fell to 25% of the number in 2017; BH replaced those units in early 2019. In its financial statements, BH has these disclosures concerning inventory:

- The inventory costing method used is periodic LIFO
- The value of the inventory on 12/31/18 was USD 215,107,665
- The value of the LIFO reserve on 12/31/18 was USD 35,229,021
- No inventory was carried at fair value less costs to sell in 2018
- 2018 COGS was USD 832,904,117
- No inventory was written down in 2018
- No inventory was pledged as collateral for any liabilities in 2018

BH's inventory disclosures are *most likely*:

A. adequate.

B. inadequate because they do not mention LIFO liquidation.

C. inadequate because they do not mention reversal of prior years' inventory write-downs.

You got this WRONG.

B. is CORRECT.

02:04:40

You got this WRONG.

B. is CORRECT.

The substantial decline in the number of units in ending inventory in 2018, to be replaced in early 2019, constitutes a LIFO liquidation. US GAAP requires that any material income resulting from a LIFO liquidation be disclosed in the financial statements or accompanying footnotes.

Note that US GAAP does not allow reversal of prior years' inventory write-downs, so there is no need for disclosure.

Question 52 - Financial Statement Analysis

On 2 January 2015, PK Automotive purchases machinery valued at EUR 12.5 million. The machinery has a ten-year life with a salvage value of EUR 2.5 million, and PK uses straight-line depreciation for both financial reporting and taxes. On 31 December 2018, the carrying value of the machinery is EUR 8.5 million, but the fair value of the machinery has decreased to EUR 5.8 million. PK has chosen to use the revaluation model on this machinery, and their marginal tax rate is 30%. In addition to recording the revaluation, PK will *most likely* also record a:

- A. deferred tax asset of EUR 810,000.
- B. deferred tax liability of EUR 810,000.
- C. direct-to-equity charge (debit) of EUR 810,000.

You got this WRONG.

A. is CORRECT.

When an asset or liability gives rise to deferred taxes, the treatment of the deferred taxes should match the treatment of the asset or liability itself. Under the revaluation model, decreases in asset values are recognized on the income statement, so the corresponding deferred tax benefit (lower future taxes when the machinery is ultimately sold) should be recognized as a deferred tax asset. The value is the amount of the revaluation change times the marginal tax rate:

(EUR 8,500,000 – EUR 5,800,000) × 30% = EUR 810,000

Question 53 - Financial Statement Analysis

Company ABC will be buying Company XYZ on December 31, 2020. It is currently November 1, 2020. Company ABC would like to record the lowest amount of Goodwill possible. Assessments of fair value are conducted by external consultants using an income model (discounted cash flow). In assessing the fair value of tangible and intangible assets, ABC will *most likely* prefer estimates of useful life and salvage value to be revised:

	Useful Life	Salvage Value
a.	Upwards	Upwards
b.	Upwards	Downwards
c.	Downwards	Downwards

- A. Upwards and Upwards
- B. Upwards and Downwards
- C. Downwards and Downwards

You got this WRONG.

A. is CORRECT.

The longer the useful life, the longer the stream of cash flows associated with the asset, and thus the higher the present value of those cash flows. Further, the higher the salvage value, the higher the present value of that future value. It should be noted that if a market participant model was used (fair market value), then assessments of useful life and salvage value would not affect the outcome.

Question 54 - Quantitative Methods

Which of the following statements regarding covariance is *least* accurate?

- A. If two random variables are unrelated, covariance will be equal to zero.
- B. The covariance of a random variable with itself (own covariance) is equal to one.
- C. Given a negative covariance, when one of the random variables is above its expe the value of the other variable will be below its expected value.

Question 54 - Quantitative Methods

Which of the following statements regarding covariance is *least* accurate?

A. If two random variables are unrelated, covariance will be equal to zero.

B. The covariance of a random variable with itself (own covariance) is equal to one.

C. Given a negative covariance, when one of the random variables is above its expected value, the value of the other variable will be below its expected value.

You got this WRONG.

B. is CORRECT.

The variance of a random variable with itself (i.e. its own covariance) will reflect the variance of that random variable; $Cov(x,x) = E\{[x - E(x)][x - E(x)]\} = E\{[x - E(x)]^2\} = \sigma^2(x)$. Although its variance can be equal to one, this is not exclusively the case, making option B an incorrect statement.

Both options A and C are true statements.

Question 55 - Economics

A trader observes a forward discount for the CAD/USD currency pair. This *most likely* indicates that:

A. the CAD interest rate is higher than the USD rate.

B. the CAD interest rate is lower than the USD rate.

C. the interest rate for the base currency is lower than the interest rate for the price currency.

You got this WRONG.

B. is CORRECT.

A forward discount arises when the forward rate is less than the current spot rate.

Recall the forward rate formula:

$$F_{\frac{P}{B}} = S_{\frac{P}{B}} \times \left(\frac{1 + i_p\left(\frac{\text{Actual}}{360}\right)}{1 + i_b\left(\frac{\text{Actual}}{360}\right)} \right)$$

A forward rate lower than the spot rate is the result of the interest rate of the price currency being less than the interest rate of the base currency. For the CAD/USD pair, the CAD is the price currency, and the USD is the base. Given that there is a forward discount, the CAD interest rate must be lower than that of the USD interest rate.

Question 56 - Financial Statement Analysis

Modena Engineering (ME) has a contract to build a bridge in Verona, Italy. ME anticipates that the project will fall into three of its fiscal years. ME is considering three approaches for recognizing the revenue for this project:

Approach 1: Recognize the full revenue at the inception of the contract.

Approach 2: Recognize the revenue only upon completion of the bridge.

Approach 3: Recognize the revenue in proportion to the costs that it incurs.

Of the three approaches that ME could choose, the *most* conservative is:

A. Approach 1.

B. Approach 2.

C. Approach 3.

You got this WRONG.

B. is CORRECT.

An accounting method or approach is conservative if it results in lower net income in the current period (and, likely, higher income in future periods). Of the three approaches listed, recognizing the revenue only at the completion of the bridge (likely two periods in the future) will result in the lowest net income in the current period and is, therefore, the most conservative.

Question 57 - Corporate Issuers CFA

Which company below has improved its cash conversion cycle the most as a result of better management of pulls on liquidity?

		2020	2019	2018	2017	2016
Company A	Days of Inventory	27	23	22	26	21
	Days of receivables	30	31	28	24	31
	Days payable	30	28	24	18	15
		27	26	26	32	37
Company B	Days of Inventory	36	38	41	44	48
	Days of receivables	40	41	40	50	52
	Days payable	40	48	40	42	48
		36	31	41	52	52
Company C	Days of Inventory	30	31	31	30	30
	Days of receivables	38	39	38	38	39
	Days payable	12	14	11	14	12
		56	56	58	54	57

- A. Company A
- B. Company B
- C. Company C

You got this WRONG.

A. is CORRECT.

To assess management of pulls on liquidity, we refer to Days of Payables, with longer representing less of a pull. Only Company A increased it days of payables from 15 to 30 (Company B decreased by 8 days and Company C shows no change).

Question 58 - Financial Statement Analysis

Two drug companies have the same gross margin. Company A expenses all R&D costs but Company B capitalizes development costs (and expenses research costs). Both companies have the same equity market cap (# shares × share price). Which company trades at a *higher* multiple of EBITDA if they both have the same P/S multiple?

- A. Company A.
- B. Company B.
- C. Both will trade at the same EBITDA multiple.

You got this WRONG.

A. is CORRECT.

If they have equal market caps, equal P/S multiples, and equal gross margins, they will also trade at equal gross profit multiples. Since Company A expenses all development, they will have a lower EBITDA (note: Amortization comes after EBITDA). Logically, given all that is equal, a lower EBITDA must result in a higher EBITDA multiple.

Question 59 - Financial Statement Analysis

Nacho Odriozola is trying to make sense of the way that asset values are determined for balance sheets. He looks at available-for-sale securities, patents, and inventory (which uses a LIFO cost estimation method). He considers three schemes for determining their values under US GAAP:

- **Scheme 1**
  - Available-for-sale securities: amortized cost
  - Patents: historical cost
  - Inventory: lower of cost or market
- **Scheme 2**
  - Available-for-sale securities: fair value
  - Patents: amortized cost
  - Inventory: lower of cost or market
- **Scheme 3**
  - Available-for-sale securities: fair value
  - Patents: historical cost
  - Inventory: historical cost

The approach that Odriozola should use is *most likely*:

02:04:40

- A. Scheme 1.
- B. Scheme 2.