

# 2025 CFA Program Level I Candidate Notice

**30 SEPTEMBER 2025** 

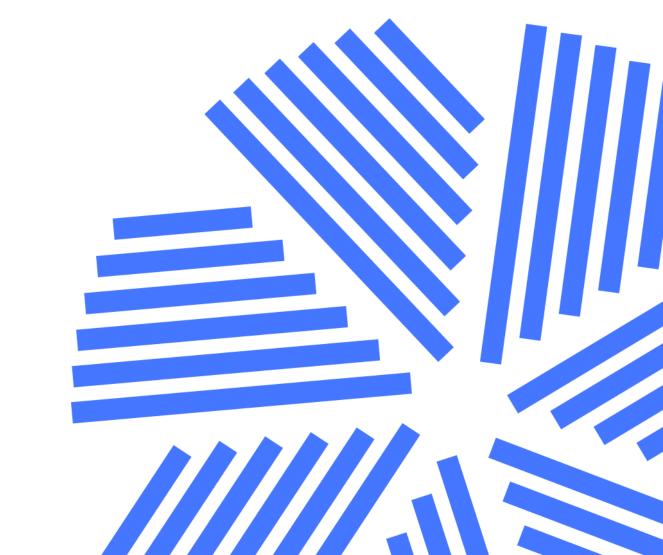


This document outlines the errors submitted to CFA Institute that have been corrected.

Due to the nature of our publishing process, we may not be able to correct errors submitted after 1 September 2024 in time for the publication of the following year's print materials. We do make it known in this notice when changes have been published in the curriculum and when they are still pending corrections. We release a new notice every two weeks.

We recommend checking either the LES or this document regularly for the most current information. Depending on when you purchase the print materials, they may or may not have the errors corrected.

# Quantitative Methods



#### Rates and Returns

| Revised<br>Date    | Location                          | Page(s) | Replace  | With   |
|--------------------|-----------------------------------|---------|--|--|
| 26 August 2024     | Third<br>Paragraph                | 9       | For example, an analyst may need to compute a one-year holding period return from three annual returns. In that case, the one-year holding period return is computed by compounding the three annual returns | For example, an analyst may need to compute a <b>three-year</b> holding period return from three annual returns. In that case, the <b>three-year</b> holding period return is computed by compounding the three annual returns |
| 1 November<br>2024 | First sentence<br>after Exhibit 2 | 10      | Beginning with an initial investment of EUR1.0000, we will have a balance of EUR0.8573 at the end of the three-year period as shown in the fourth column of Exhibit 2.                                       | Beginning with an initial investment of EUR1.0000, we will have a balance of <b>EUR0.8574</b> at the end of the three-year period as shown in the fourth column of Exhibit 2.  |
| 18 August 2025     | Solution to Example 2             | 11      | C is correct. Applying Equation 2, the holding period return is -10.1 percent, calculated as follows:  | C is correct. Applying Equation 1, the holding period return is -10.1 percent, calculated as follows:  |
| 20 August 2025     | Exhibit 3<br>Title & Table        | 11      | Exhibit 3: Mutual Fund Performance, 20X8–20X0 20X0   | Exhibit 3: Mutual Fund Performance, 20X8–20Y0 20 <b>Y</b> 0  |
| 18 August 2025     | Solution to Example 4             | 12      | A is correct. Applying Equation 4, the fund's geometric mean return over the three-year period is 0.52 percent, calculated as follows:   | A is correct. Applying Equation 3, the fund's geometric mean return over the three-year period is 0.52 percent, calculated as follows:   |

#### Rates and Returns

| Revised<br>Date   | Location                               | Page(s) | Replace  | With   |
|-------------------|--|---------|--|--|
| 14 August<br>2025 | Paragraph and equation below example 6 | 16      | Because they use the same data but involve different progressions in their respective calculations, the arithmetic, geometric, and harmonic means are mathematically related to one another. We will not go into the proof of this relationship, but the basic result follows:  Arithmetic mean × Harmonic mean = (Geometric mean)2. | Because they use the same data but involve different progressions in their respective calculations, the arithmetic, geometric, and harmonic means are mathematically related to one another. We will not go into the proof of this relationship, but the basic result follows:  Arithmetic mean × Harmonic mean = (Geometric mean)2. |
| 26 August<br>2024 | Example 8,<br>Solution 4               | 23      | Replace the sum in the second calculation: 1.1471  | 1.147 <b>6</b>   |
| 26 August<br>2024 | In-text<br>Equation<br>callouts        | 29      | Equation numbering in-text   | Starting on page 29, in-text equation callouts mismatched. Starting on page 29, the equation is labeled as equation "7" but the text below it refers to it as "Equation 8." Throughout the rest of the LM, in-text callouts should be one less than the current number   |

#### Rates and Returns

| Revised<br>Date                              | Location                                | Page(s) | Replace   | With  |
|--|---|---------|---|---|
| 26 August<br>2024                            | First paragraph                         | 33      | The first paragraph under Gross and Net Return should read:   | A gross return is the return on assets managed less any trading expenses and commissions. Gross return is intended to reflect the investment skill of the manager. Expenses including management fees, custody fees, and taxes are not included in the gross return because they may be different for different investors. For example, most asset managers provide lower management fee rates to larger accounts. Excluding these expenses in gross returns provides a basis for evaluation and comparison of investment management skill. |
| 26 August<br>2024                            | Equation 14                             | 34      | $(1 + real\ return) = \frac{(1 + real\ risk-free\ rate)(1 + risk\ premium)}{1 + inflation\ premium}.$                                   | (1 + real return) = (1 + real risk-free rate)(1+ risk premium)  |
| 22<br>September<br>2025                      | First sentence<br>under Real<br>Returns | 34      | Previously this learning module approximated the relationship between the nominal rate and the real rate by the following relationship: | Previously the learning model approximated defined the relationship between the nominal rate and the real rate by the following relationship equation:  |
| 26 August<br>2025<br>© 2023 CFA Institute. A | Paragraph<br>under<br>Equation 15       | 36      | For example, for a EUR10 million equity portfolio that generates an 8 percent total investment return,                                  | For example, for a <b>leveraged</b> EUR10 million equity portfolio that generates an 8 percent total investment return,   |

| Revised<br>Date   | Location                 | Page(s) | Replace  | With  |
|-------------------|--------------------------|---------|--|---|
| 26 August<br>2024 | Example 2,<br>Solution 1 | 51      | PV = EUR100 = $ \frac{2}{1.20} + \frac{2}{1.02^{2}} + \frac{2}{1.02^{3}} + \frac{2}{1.02^{4}} + \frac{2}{1.02^{5}} + \frac{2}{1.02^{6}} + \frac{2}{1.02^{7}} $ | PV = EUR100 = $ \frac{2}{1.20} + \frac{2}{1.02^{2}} + \frac{2}{1.02^{3}} + \frac{2}{1.02^{4}} + \frac{2}{1.02^{5}} + \frac{2}{1.02^{6}} + \frac{102}{1.02^{7}} $  |
| 26 August<br>2024 | Example 2,<br>Question 2 | 51      | Question 2 should begin:  The solution to Question 2 should read:  | Next, let's assume that, exactly <b>two years</b> later, a sharp rise  3.2876 percent In this case, we must solve for r using Equation 6, with PV equal to 93.09, as follows:  PV = 93.091 = 2/(1+r) + 2/(1+r) <sup>2</sup> + 2/(1+r) <sup>3</sup> + 2/(1+r) <sup>4</sup> + 2/(1+r) <sup>5</sup> + 102/(1+r) <sup>6</sup> .  Here we may use the Microsoft Excel or Google Sheets RATE function (RATE (6,2,93.091,100,0,0.1)) to solve for r of 3.2876 percent. Investors in fixed coupon bonds face a capital loss when investors expect a higher YTM. |

| Revised<br>Date    | Location                 | Page(s) | Replace  | With  |
|--------------------|--------------------------|---------|--|---|
| 1 November<br>2024 | Example 3,<br>Question 3 | 52      | Recalculate the discount bond price for the final principal payment in 20 years from Example 1 using a 6.70 percent semiannual discount rate.  | Recalculate the discount bond price for the single principal payment in 20 years from Example 1, where YTM = 6.70, and discounting is done semiannually.  |
| 1 November<br>2024 | Example 3,<br>Solution 3 | 52      | INR26.77  Note that the PV calculation using the same annual discount rate for 40 semiannual periods will differ slightly using Equation 5, as follows: $PV = \text{INR27.66} = (PMT_{40} + FV_{40})/(1+r/2)^{40}, \\ PV(PMT_{40}) = \text{INR0.90} = 3.35 / (1.0335)^{40}, \\ PV(FV_{40}) = \text{INR26.77} = 100 / (1.0335)^{40}.$ Compounding on a semiannual basis for 40 periods, $PV(FV_{40}) \text{ of } 26.77 \text{ is less than the original PV of } 27.33 \text{ using } 20 \text{ annual periods from Example 1 (since } 1/(1+r)^t > 1/(1+r/2)^{2t} \text{ when } r \ge 0).$ | Using Equation 5: $PV = INR27.66 = (PMT_{40} + FV_{40})/(1+r/2)^{40}$ , $PV(PMT_{40}) = INR0.90 = 3.35 / (1.0335)^{40}$ , $PV(FV_{40}) = INR26.77 = 100 / (1.0335)^{40}$ .  Discounting on a semiannual basis for 40 periods, $PV(FV_{40})$ of 26.77 is less than the original PV of 27.33 using 20 annual periods from Example 1 (since $1/(1+r)^t > 1/(1+r/2)^{2t}$ when $r \ge 0$ ). |
| 31 January<br>2024 | Exhibit 6                | 58      | Within the exhibit, the bar representing the fifth year is incorrectly labeled. The exponent 4 should be 3, so replace this expression on top of the bar: $D(1+g_s)^4(1+g_l)^2$  | $D(1+g_s)^3(1+g_l)^2$   |

| Revised<br>Date      | Location                 | Page(s) | Replace  | With  |
|----------------------|--------------------------|---------|--|---|
| 26 September<br>2025 | Equation 15              | 58      | $PV_{t} = \sum_{i=1}^{n} \frac{D_{t}(1+g_{s})^{i}}{(1+r)^{i}} + \sum_{j=n+1}^{\infty} \frac{D_{t+n}(1+g_{l})^{j}}{(1+r)^{j}}.$                   | $PV_{t} = \sum_{i=1}^{n} \frac{D_{t} (1+g_{s})^{i}}{(1+r)^{i}} + \sum_{j=n+1}^{\infty} \frac{D_{t+n} (1+g_{l})^{j-n}}{(1+r)^{j}}.$          |
| 31 January<br>2024   | Example 7,<br>Solution 2 |         | We may solve for D4 as GBP1.894 (=1.787 $\times$ 1.02 = D3(1 + gl)) and the second expression to be GBP9.22 as follows:                          | We may solve for D4 as <b>GBP1.823</b> (=1.787 $\times$ 1.02 = D3(1 + gl)) and the second expression to be GBP9.22 as follows:              |
|                      |                          |         | GBP9.22 = $\frac{1.894/(0.15 - 0.02)}{(1.15)^3}$ .   | GBP9.22 = $\frac{1.823}{(0.15 - 0.02)}$ $(1.15)^{3}$  |
| 24 September<br>2025 | Example 7,<br>Solution 2 | 59      | Step 2 As shown in Equation 17, the second expression simplifies as follows: $\frac{E(S_4)}{(1+r)^3}, \text{ with } E(S_4) = \frac{D_4}{r-g_I}.$ | Step 2 As shown in Equation 17, the second expression simplifies as follows: $\frac{E(S_4)}{(1+r)^3}$ ; with $E(S_4) = \frac{D_5}{r-g_I}$ . |

| Revised<br>Date      | Location                  | Page(s) | Replace   | With   |
|----------------------|---------------------------|---------|---|--|
| 22 September<br>2025 | Exhibit 10                | 72      | Strategy 1.)  GBP100  GBP100  GBP100.5  GBP100.1+ $F_{1,1}$ GBP100.5  GBP100.1+ $F_{1,1}$ GBP100.1+ $F_{1,1}$ GBP100.1+ $F_{1,1}$ GBP100.1+ $F_{1,1}$ GBP100.1+ $F_{1,1}$ GBP100.1+ $F_{1,1}$         | Strategy 1.)  GBP100  2-year rate  GBP107.12  GBP100(1+ $r_2$ ) <sup>2</sup> Strategy 2.)  I-year rate  GBP102.5  GBP100(1+ $r_1$ )  GBP102.5(1+ $r_1$ )   |
| 26 August<br>2024    | Example 14,<br>Solution 1 | 76      | Foreign Strategy: Convert GBP1,000 at 1.2602 to receive USD1,260.20, which invested at the one-year US-dollar risk-free rate of 2.667 percent returns USD1,294.27 (=1,260.20 e(0.02667)) in one year. | Foreign Strategy: Convert GBP1,000 at 1.2602 to receive USD1,260.20, which invested at the one-year US-dollar risk-free rate of 2.667 percent returns <b>USD1,294.26</b> (=1,260.20 e(0.02667)) in one year. |
| 26 August<br>2024    | Solution 5                | 85      | 2.29 percent = $(92.25/89)^{(1/3)} - 1$ .   | 2.29  percent = (95.25/89)(1/3) - 1.   |

#### Statistical Measures of Asset Returns

| Revised<br>Date      | Location  | Page(s) | Replace  | With   |
|----------------------|---|---------|--|--|
| 31 January<br>2024   | Paragraph<br>following<br>Exhibit 2             | 91      | The modal interval always has the highest bar in the histogram; in this case, the modal interval is 0.0 to 0.9 percent, and this interval has 493 observations out of a total of 1,258 observations. | The modal interval always has the highest bar in the histogram; in this case, the modal interval is 0.0 to <b>1.0</b> percent, and this interval has <b>555</b> observations out of a total of 1,258 observations. |
| 24 September<br>2025 | Exhibit 5: Box<br>and Whisker<br>Plot           | 95      | Highest Value  ← Upper Boundary for Q <sub>3</sub> ← Median ← Arithmetic Average ← Lowest Boundary for Q <sub>2</sub> ← Lowest Value   | <ul> <li>← Highest Value</li> <li>← Upper Boundary for Q<sub>3</sub></li> <li>← Median</li> <li>← Arithmetic Average</li> <li>← Lowest Value</li> </ul>  |
| 26 August<br>2024    | Question Set,<br>Question 2                     | 109     | 2. The fund with the mean absolute deviation (MAD) is Fund:  | 2. The fund with the <b>highest</b> mean absolute deviation (MAD) is Fund:   |
| 26 August<br>2024    | Interpreting Skewness and Kurtosis – Question 2 | 115     | 2. Does the distribution displays kurtosis? Explain.   | 2. Does the distribution <b>display</b> kurtosis? Explain.   |

#### **Portfolio Mathematics**

| Revised<br>Date     | Location                 | Page(s) | Replace  | With   |
|---------------------|--------------------------|---------|--|--|
| 2 September<br>2025 | Equation 2               | 155     | $\sigma^{2}(R_{p}) = E\{[R_{p}E(R_{p})]^{2}\}.$  | $\sigma^2(R_p) = E[(R_p E(R_p))^2].$   |
| 2 September<br>2025 | Equation 5               | 156     | $\sigma^{2}(R_{p}) = E[(R_{p} - ER_{p})^{2}]$ $= E\{[w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3} - E(w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3})]^{2}\}$ $= E\{[w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3} - w_{1}ER_{1} - w_{2}ER_{2} - w_{3}ER_{3}]^{2}\}.$ | $\sigma^{2} = E[(R_{p} - E(R_{p}))^{2}]$ $= E[(w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3} - E(w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3}))^{2}]$ $= E[(w_{1}R_{1} + w_{2}R_{2} + w_{3}R_{3} - w_{1}ER_{1} - w_{2}ER_{2} - w_{3}ER_{3})^{2}]$ |
| 22 August<br>2025   | Equation under Exhibit 3 | 157     | $\sigma^{2}(R_{p}) = w_{1}^{2}\sigma^{2}(R_{1}) + w_{2}^{2}\sigma^{2}(R_{2}) + w_{2}^{3}\sigma^{2}(R_{3}) + 2w_{1}w_{2}\operatorname{Cov}(R_{1}, R_{2})$   | $\sigma^{2}(R_{p}) = w_{1}^{2}\sigma^{2}(R_{1}) + w_{2}^{2}\sigma^{2}(R_{2}) + w_{3}^{2}\sigma^{2}(R_{3}) + 2w_{1}w_{2}\operatorname{Cov}(R_{1}, R_{2})$   |

#### **Probability Trees and Conditional Expectations**

| Revised Date  | Location                 | Page(s) | Replace   | With  |
|---------------|--------------------------|---------|---|---|
| 11 April 2025 | Question Set<br>Solution | 139     | Using the data for Scenario 1 and Scenario 2, calculate the following:  A. Compute the expected recovery, given the first scenario.  B. Compute the expected recovery.  C. Compute the expected recovery.  D. Graph the information in a probability tree diagram.  E. Compute the probability of each of the four possible recovery amounts: USD0.90, USD0.80, USD0.50, and USD0.40.  Solution:  A. Outcomes associated with Scenario 1: With a 0.45 probability of a USD0.90 recovery per USD1 principal value, given Scenario 1, and with the probability of Scenario 1 equal to 0.75, the probability of recovering USD0.90 is 0.45 (0.75) = 0.3375. By a similar calculation, the probability of recovering USD0.80 is 0.55(0.75) = 0.4125.  Outcomes associated with Scenario 2: With a 0.85 probability of a USD0.50 recovery per USD1 principal value, given Scenario 2, and with the probability of Scenario 2 equal to 0.25, the probability of recovering USD0.50 is 0.85(0.25) = 0.2125. By a similar calculation, the probability of recovering USD0.40 is 0.15(0.25) = 0.0375.  B. E(recovery   Scenario 1) = 0.45(USD0.90) + 0.55(USD0.80) = USD0.845  C. E(recovery   Scenario 2) = 0.85(USD0.50) + 0.15(USD0.40) = USD0.485  D. E(recovery) = 0.75(USD0.845) + 0.25(USD0.485) = USD0.755  Recovery = \$0.80 Prob = 0.3375  Recovery = \$0.80 Prob = 0.4125  Recovery = \$0.80 Prob = 0.2125  Recovery = \$0.40 Prob = 0.0375 | Using the data for Scenario 1 and Scenario 2, calculate the following:  A. Compute the expected recovery, given the first scenario.  B. Compute the expected recovery, given the second scenario.  C. Compute the expected recovery.  D. Graph the information in a probability tree diagram.  E. Compute the probability of each of the four possible recovery amounts: USD0.90, USD0.80, USD0.50, and USD0.40.  Solution:  A. E(recovery   Scenario 1) = 0.45(USD0.90) + 0.55(USD0.80) = USD0.845  B. E(recovery   Scenario 2) = 0.85(USD0.50) + 0.15(USD0.40) = USD0.485  C. E(recovery) = 0.75(USD0.845) + 0.25(USD0.485) = USD0.755  Scenario 1, Probability = 0.75  Scenario 2, Prob = 0.3375  E. Outcomes associated with Scenario 1: With a 0.45 probability of a USD0.90 recovery per USD1 principal value, given Scenario 1, and with the probability of Scenario 1 equal to 0.75, the probability of recovering USD0.90 is 0.45 (0.75) = 0.3375. By a similar calculation, the probability of recovering USD0.50 recovery per USD1 principal value, given Scenario 2, and with the probability of Scenario 2 equal to 0.25, the probability of recovering USD0.50 is 0.85(0.25) = 0.2125. By a similar calculation, the probability of Scenario 2 equal to 0.25, the probability of recovering USD0.50 is 0.85(0.25) = 0.2125. By a similar calculation, the probability of recovering USD0.40 is 0.15(0.25) = 0.0375. |

#### **Probability Trees and Conditional Expectations**

| Revised<br>Date      | Location               | Page(s) | Replace   | With   |
|----------------------|------------------------|---------|---|--|
| 22 September<br>2025 | Equation 8             | 145     | This is the total probability rule in action. Now you can answer your question by applying Bayes' formula, Equation 8:  P(EPS" " exceeded" " consensus \ DriveMed" " expands) | This is the total probability rule in action. Now you can answer your question by applying Bayes' formula, Equation 8:  P(EPS exceeded consensus   DriveMed expands) |
| 30 September<br>2025 | Example 4 – Question 1 | 146     | What is your estimate of the probability     P(EPS exceeded consensus   DriveMed     expands)   | What is your estimate of the probability <i>P(EPS met consensus   DriveMed expands)</i>  |

#### **Portfolio Mathematics**

| Revised<br>Date    | Location   | Page(s) | Replace  | With  |
|--------------------|--|---------|--|---|
| 31 January<br>2024 | Equation 2   | 153     | $\sigma^2(\mathbf{R_p}) = E\{[\mathbf{R_p}E(\mathbf{R_p})]^2\}.$   | $\sigma^{2}(R_{p}) = E\{[R_{p} - E(R_{p})]^{2}\}.$  |
| 31 January<br>2024 | Equation 4   | 154     | $\operatorname{Cov}(R_i, R_j) = \sum_{n=1}^{n} (R_{i,t}, R_i) (R_{j,t} - ER_j) / (n-1).$   | $Cov(R_i, R_j) = \sum_{n=1}^{n} (R_{i,t} - \overline{R}_i)(R_{j,t} - E\overline{R}_j) / (n-1).$   |
| 31 January<br>2024 | Calculation<br>under Equation<br>5   | 156     | $= w_1^2 \sigma^2(R_1) + w_1 w_2 \operatorname{Cov}(R_1, R_2) + w_1 w_3 \operatorname{Cov}(R_1, R_3) + w_1 w_2 \operatorname{Cov}(R_1, R_2) + w_2^2 \sigma^2(R_2) + w_2 w_3 \operatorname{Cov}(R_2, R_3) + w_1 w_3 \operatorname{Cov}(R_1, R_3) + w_2 w_3 \operatorname{Cov}(R_2, R_3) + w_2^3 \sigma^2(R_3).$ | $= w_1^2 \sigma^2(R_1) + w_1 w_2 \text{Cov}(R_1, R_2) + w_1 w_3 \text{Cov}(R_1, R_3) + w_1 w_2 \text{Cov}(R_1, R_2) + w_2^2 \sigma^2(R_2) + w_2 w_3 \text{Cov}(R_2, R_3) + w_1 w_3 \text{Cov}(R_1, R_3) + w_2 w_3 \text{Cov}(R_2, R_3) + w_2^3 \sigma^2(R_3)$ |
| 18 August<br>2025  | Last sentence<br>in paragraph<br>starting with<br>"For example,<br>given<br>independence," | 165     | The following condition holds for independent random variables and, therefore, also holds for uncorrelated random variables.   | The following condition holds for independent random variables and, therefore, also holds for uncorrelated random variables, since for two variables E(XY) = E(X)E(Y) + Cov(X,Y), and when the variables are uncorrelated, Cov(X,Y) = 0.                      |

#### **Estimation and Inference**

| Revised<br>Date      | Location                  | Page(s) | Replace   | With   |
|----------------------|---------------------------|---------|---|--|
| 22 September<br>2025 | Solution to<br>Question 1 | 212     | Option 2: Apply the bootstrap method to construct the sampling distribution of the sample median, and then compute the standard error using Equation 7. | Option 2: Apply the bootstrap method to construct the sampling distribution of the sample median, and then compute the standard error using <b>Equation 4.</b> |

### **Hypothesis Testing**

| Revised<br>Date      | Location                       | Page(s) | Replace   | With   |
|----------------------|--------------------------------|---------|---|--|
| 18 September<br>2025 | Learning<br>Module<br>Overview | 218     | To determine whether the difference between two population means from normally distributed populations with unknown but equal variances, the appropriate test is a t-test based on pooling the observations of the two samples to estimate the common but unknown variance. This test is based on an assumption of independent samples. | To determine whether the difference between two population means from normally distributed populations with unknown but equal variances <b>is significant</b> , the appropriate test is a t-test based on pooling the observations of the two samples to estimate the common but unknown variance. This test is based on an assumption of independent samples. |

## **Hypothesis Testing**

| Revised<br>Date                              | Location                    | Page(s) | Replace  | With  |
|--|-----------------------------|---------|--|---|
| 26 August 2024                               | Exhibit 6                   | 226     | Replace the text in "Step 4: State the decision rule.": We reject the null hypothesis if the calculated χ2 statistic is less than 13.09051.  | We reject the null hypothesis if the calculated χ2 statistic is <b>greater than</b> 13.09051.   |
|  |                             |         | Replace the text in "Step 6: Make a decision.": Fail to reject the null hypothesis because the calculated $\chi$ 2 statistic is greater than the critical value. There is insufficient evidence to indicate that the variance is less than 16% (or, equivalently, that the standard deviation is less than 4%).  | "Reject the null hypothesis because the calculated $\chi$ 2 statistic is greater than the critical value. There is sufficient evidence to indicate that the variance is less than 16% (or, equivalently, that the standard deviation is less than 4%)."   |
| 26 August 2024                               | Question Set,<br>Solution 4 | 234     | Because 5.06 is not less than 3.325, we do not reject the null hypothesis; the calculated test statistic falls to the right of the critical value, where the critical value separates the left-side rejection region from the region where we fail to reject.  | Because 5.06 is greater than 3.325, we reject the null hypothesis; the calculated test statistic falls to the right of the critical value, where the critical value separates the left-side region from the region where we reject the null.  |
| 26 August 2026 © 2023 CFA Institute. All Rig | Solutions,<br>Solution 10   | 243     | B is correct. The level of significance is used to establish the rejection points of the hypothesis test. A is correct because the significance level is not used to calculate the test statistic; rather, it is used to determine the critical value. C is incorrect because the significance level specifies the probability of making a Type I error. | B is correct. The level of significance is used to establish the rejection points of the hypothesis test. A is <b>incorrect</b> because the significance level is not used to calculate the test statistic; rather, it is used to determine the critical value. C is incorrect because the significance level specifies the probability of making a Type I error. |

#### Parametric and Non-Parametric Tests of Independence

| Revised<br>Date   | Location                    | Page(s)   | Replace   | With  |
|-------------------|-----------------------------|-----------|---|---|
| 26 August<br>2024 | Question Set,<br>Solution 2 | 255       | $r_s = 1 - \frac{6(144.5)}{9(80)} = -0.20416$   | $r_s = 1 - \frac{6(144.5)}{9(80)} = -0.20417$   |
| 26 August<br>2024 | Question Set,<br>Solution 3 | 255       | $t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \text{ is } t = \frac{-0.2416\sqrt{7}}{\sqrt{1-0.041681}} = \frac{-0.540156}{0.978937} = -0.55177.$   | $t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$ is $t = \frac{-0.20417\sqrt{7}}{\sqrt{1-0.041681}} = \frac{-0.540183}{0.978937} = -0.55181.$   |
| 26 August<br>2024 | Exhibit 9, Step<br>4        | 260 & 261 | We reject the null hypothesis if the calculated ÷2 statistic is greater than 9.4877.  Reject the null hypothesis because the calculated ÷2 test statistic is greater than 9.487729. | We reject the null hypothesis if the calculated <b>x2</b> statistic is greater than 9.4877.  Reject the null hypothesis because the calculated <b>x2</b> test statistic is greater than 9.487729. |

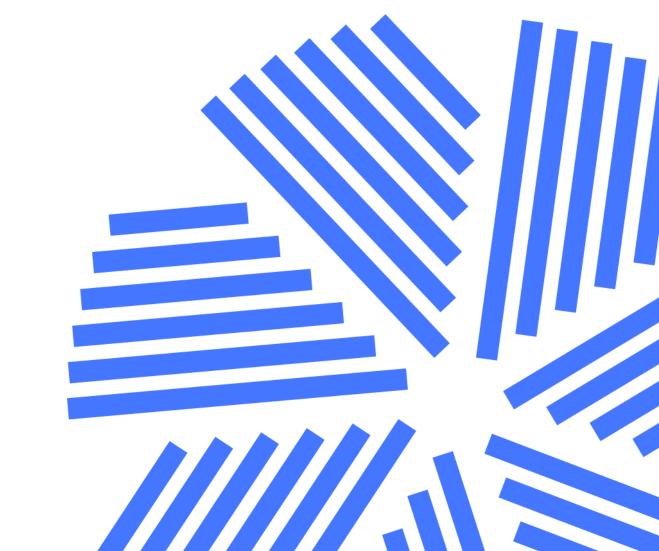
#### Simple Linear Regression

| Revised<br>Date    | Location              | Page(s) | Replace  | With   |
|--------------------|-----------------------|---------|--|--|
| 1 November<br>2024 | Exhibt 22,<br>Step 5  | 289     | = 4.00131  | = 4.00163  |
| 26 August<br>2024  | Equation 20           | 290     | $t_{intercept} = \frac{\hat{b}_0 - B_0}{s \hat{b}_0} = \frac{\hat{b}_0 - B_0}{\sqrt{\frac{1}{n} + \frac{X^2}{\sum_{i=1}^n (X_i - \overline{X})^2}}}$ | $t_{intercept} = \frac{\hat{b}_0 - B_0}{s \hat{b}_0} = \frac{\hat{b}_0 - B_0}{\sqrt{\frac{1}{n} + \frac{X^2}{\sum_{i=1}^n (X_i - \overline{X})^2}}}$ |
| 26 August<br>2024  | Exhibit 24,<br>Step 5 | 290     | $t_{intercept} = \frac{4.875 - 3.0}{\sqrt{\frac{1}{6} + \frac{6.1^2}{122.64}}} = \frac{1.875}{0.68562} = 2.73475$                                    | $t_{intercept} = \frac{4.875 - 3.0}{3.4596 \times \sqrt{\frac{1}{6} + \frac{6.1^2}{122.64}}} = \frac{1.875}{3.4596 \times 0.68562} = 0.7905.$        |
| 26 August<br>2024  | Exhibit 24,<br>Step 6 | 290     | Reject the null hypothesis. There is sufficient evidence to indicate that the intercept is greater than 3%.  | <b>Do not</b> reject the null hypothesis. There is <b>not</b> sufficient evidence to indicate that the intercept is greater than 3%.                 |

### Simple Linear Regression

| Revised<br>Date         | Location   | Page(s) | Replace  | Replace  |                                |                    | With       |   |   |  |   |                                  |                  |         |
|-------------------------|--|---------|--|--|--------------------------------|--------------------|------------|---|---|--|---|----------------------------------|------------------|---------|
| 26 August<br>2024       | Test of Hypotheses: Level of Significance and p-Values, Second Sentence, Third Paragraph | 293     | 0.016, whi   | The p-value corresponding to this test statistic is 0.016, which means there is just a 0.16 percent chance of rejecting the null hypotheses when it is true.   |                                |                    |            | The p-value which mean true, there statistic as extreme.                            | ns <b>that,</b><br>is a 1.6   | assuming<br>% chance   | g the nu  | III hypot<br>erving a            | hesis is<br>test |         |
| 23<br>September<br>2025 | Information<br>paragraph for<br>Questions 35-<br>38                                      | 323     | companies, is sample of 35 functional for $\ln(\text{NPM}_i) = 0$ . The results of | Espey Jones is examining the relation between the net profit margin (NPM) of companies, in percent, and their fixed asset turnover (FATO). He collected a sample of 35 companies for the most recent fiscal year and fit several different functional forms, settling on the following model: $\ln(\text{NPM}_i) = b_0 + b_1 \text{FATO}_i.$ The results of this estimation are provided in Exhibit 1. |                                |                    |            | companies,<br>sample of 3<br>functional I<br>In(NPM <sub>f</sub> ) =<br>The results | in percent, are 4 companies forms, settling $b_0 \approx b_1$ FATO of this estima | the relation bet<br>d their fixed ass<br>or the most rece<br>on the followin<br>/-<br>tion are provide<br>ressing NPM on | set turnover (i<br>ent fiscal year<br>g model:<br>d in Exhibit 1. | ATO). He coll<br>and fit several | ected a          |         |
|                         |  |         | Exhibit 1: Re  | sults of Regr  | essing NPM on Sum of           | FATO<br>Mean       |            |   | Source  | df   | Sum of<br>Squares   | Mean<br>Square                   | F                | p-Value |
|                         |  |         | Source   | df   | Squares                        | Square             | F          | p-Value   | Regression  | i  | 102.9152  | 102.9152                         | 1,486,7079       | 0.0000  |
|                         |  |         | Regression<br>Residual<br>Total  | 1<br>32<br>33  | 102.9152<br>2.2152<br>105.1303 | 102.9152<br>0.0692 | 1,486.7079 | 0.0000  | Residual<br>Total   | 32<br>33   | 2.2151<br>105.1303  | 0.0692                           |                  |         |
|                         |  |         |  |  |                                | 0.0692             |            |   | Iotal   | 33   | 105.1303  |                                  |                  |         |

## **Economics**



## **Monetary Policy**

| Revised<br>Date    | Location              | Page(s)   | Replace   | With   |
|--------------------|-----------------------|-----------|---|--|
| 31 January<br>2024 | Practice<br>Problem 7 | 137 - 138 | Answer options:     accurately determine the neutral rate of interest.     A. regulate the willingness of financial institutions to lend.     B. control amounts that economic agents deposit into banks. | <ul> <li>A. accurately determine the neutral rate of interest.</li> <li>B. regulate the willingness of financial institutions to lend.</li> <li>C. control amounts that economic agents deposit into banks.</li> </ul> |

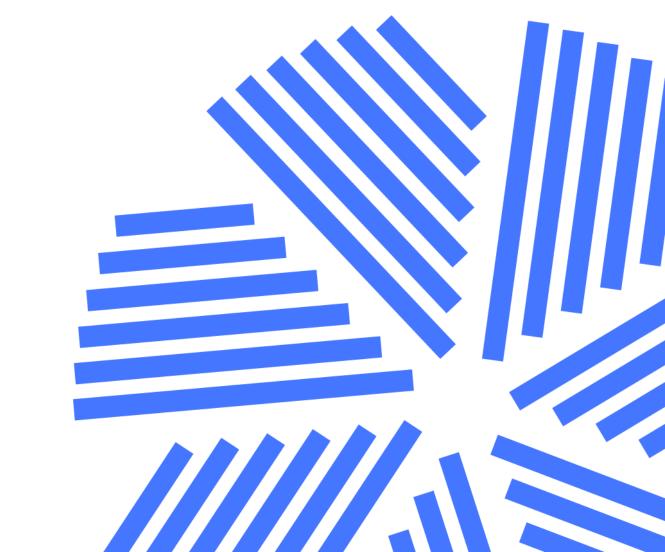
#### Introduction to Geopolitics

| Revised<br>Date | Location   | Page(s) | Replace   | With   |
|-----------------|------------|---------|---|--|
| 30 May 2024     | Exhibit 14 | 183     | Pipeline Disruption Takes Several Quarters to Fix, Impacting the Energy Sector of Impacting Countries Low Velocity/Short-Term Impacts  Exhibit 14: Risk Velocity  | Pipeline Disruption Takes Several Quarters to Fix, Impacting the Energy Sector of Impacted Countries Low Velocity/Long-Term Impacts  Exhibit 14: Risk Velocity   |
|                 |            |         | High Velocity Short-Term Impacts  An Unexpected Protest Event May Increase Investor Concern right Away,and Then Resolve  Takes Several Quarters to Fix, Impacting the Energy Sector of Impacting Countries  Low Velocity Short-Term Impacts  Patter Migration Unfolds Over Years Impacting Countries' Political Processes and Economic Growth | High Velocity Short-Term Impacts  An Unexpected Protest Event May Increase Investor Concern right Away,and Then Resolve  Energy Sector of Impacted Countries  Low Velocity Long-Term Impacts  Patter Migration Unfolds Over Years Impacting Countries' Political Processes and Economic Growth |

#### **Exchange Rate Calculations**

| Revised<br>Date | Location                            | Page(s) | Replace                              | With                                      |
|-----------------|-------------------------------------|---------|--------------------------------------|---|
| 4 June 2025     | Practice<br>Problems,<br>Solution 6 | 268     | $Ff/d/ Sf/d = (1+rf\tau / 1+rd\tau)$ | $F_{f/d}/S_{f/d} = (1+r_f\tau/1+r_d\tau)$ |

## Corporate Issuers



### Working Capital and Liquidity

| Revised<br>Date | Location                    | Page(s) | Replace  | With   |
|-----------------|-----------------------------|---------|--|--|
| 4 March<br>2024 | Question Set,<br>Solution 3 | 109     | B is correct. The issuer that uses the vendor financing by delaying payments is increasing its days payable outstanding and thus lengthening its cash conversion cycle. The issuer is reducing its need for liquidity by taking advantage of the vendor financing at the cost of the forgone discount. | A is correct. The issuer that uses the vendor financing by delaying payments is increasing its days payable outstanding and thus <b>shortening</b> its cash conversion cycle. The issuer is reducing its need for liquidity by taking advantage of the vendor financing at the cost of the forgone discount. |

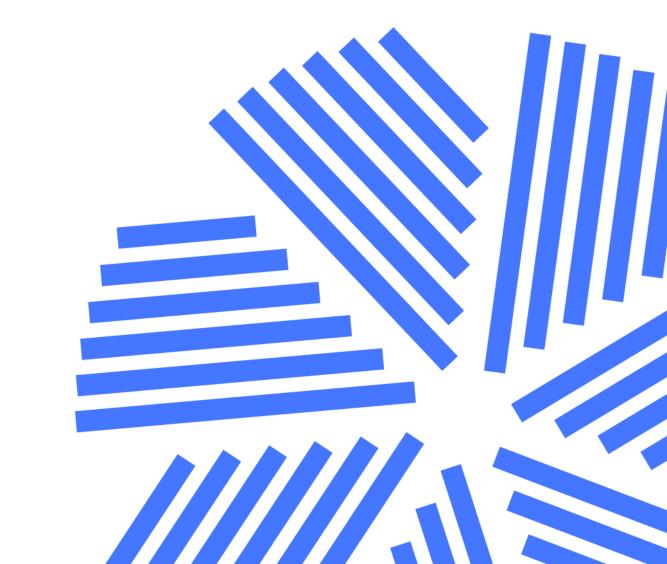
## **Capital Structure**

| Revised<br>Date        | Location   | Page(s) | Replace   | With   |
|------------------------|--|---------|---|--|
| 4<br>November<br>2024  | Question Set,<br>Solution 3                                      | 181     | A is correct.   | C is correct.  |
| 25<br>November<br>2024 | Firm Value<br>with Taxes<br>(MM<br>Proposition II<br>with Taxes) | 197     | Firm Value with Taxes (MM Proposition II with Taxes)  | Firm Value with Taxes (MM Proposition I with Taxes)  |
| 4 March<br>2024        | Paragraph<br>following<br>Exhibit 7                              | 204     | However, as debt increases, the possible financial distress costs rise substantially and equal the tax benefit of debt at D*. Beyond this point, greater leverage reduces firm value, the present value of financial distress costs outweigh the tax benefit. | However, as debt increases, the present value of expected financial distress costs begins to rise and offset the tax benefit of debt, with the optimal amount of debt D* at the point at which the marginal benefit of the tax shield equals the marginal cost of expected financial distress. Beyond this point, greater leverage reduces firm value, as the increased present value of expected financial distress costs outweighs the marginal tax benefit. |

#### **Business Models**

| Revised<br>Date | Location    | Page(s) | Replace  | With   |
|-----------------|-------------|---------|--|--|
| 4 April 2025    | Paragraph 1 | 234     | Network effects capitalize on both economics of scale and scope. | Network effects capitalize on both <b>economies of scale and economies of scope.</b> |

# Financial Statement Analysis



#### **Analyzing Income Statements**

| Revised<br>Date | Location                   | Page(s) | Replace  | With  |
|-----------------|----------------------------|---------|--|---|
| 30 May 2024     | Example 10, first sentence | 71      | 1. Assume the same facts as Example 7 except that on 1 December 2018, a previously declared 2-for-1 stock split took effect. | 1. Assume the same facts as <b>Example 9</b> except that on 1 December 2018, a previously declared 2-for-1 stock split took effect. |

## Analyzing Statements of Cash Flows I

| Location  | Page(s)  | Replace  |  |   |  | Wi   | th   |  |  |   |
|---|--|--|--|---|--|--|--|--|--|---|
| Exhibit 4,<br>table headers                                     | 128  | Income Statement for year ended 31 December 20X1  Statement of Cash Flows for year ended 31  December 20X1           |  |   | Stat   | ement of   | Cash Flows f   |  |  |   |
| Exhibit 5,<br>table, last<br>statement of<br>cash flows<br>item | 128  | Cash flows from operating activities increases by USD100   |  |   |  |  | om operating   | activitie  | es increases by  |   |
| Exhibit 8,<br>Mountain<br>Company                               | 130  | Exhibit 8: N   | lountain Company Fir   | nancial Staten  | nent Statement of Cash   |  | Exhibit 8:   | Mountain Company Fir   | nancial Staten   | Statement of Cash   |
| Financial<br>Statement  |  | Date  1 October  30 September  | Cash (asset) increases<br>by USD300<br>Deferred revenue<br>(liability) increases by<br>USD300<br>Cash (asset) increases<br>by USD700<br>Deferred revenue   | N/A  Revenue increases by USD1,000  | Cash flows from operating activities increases by USD300  Cash flows from operating activities increases by USD700   |  | Date 1 October 30 November   | Balance Sheet  Cash (asset) increases by USD300 Deferred revenue (liability) increases by USD300  Cash (asset) increases by USD700 Deferred revenue  | N/A  Revenue increases by USDL000  | Cash flows from operating activities increases by USD300  Cash flows from operating activities increases by USD700  |
|   | Exhibit 4, table headers  Exhibit 5, table, last statement of cash flows item  Exhibit 8, Mountain Company Financial | Exhibit 4, table headers  Exhibit 5, table, last statement of cash flows item  Exhibit 8, Mountain Company Financial | Exhibit 4, table headers  Exhibit 5, table, last statement of cash flows item  Exhibit 8, Mountain Company Financial Statement  Statement 128  Cash flows frus USD100  Exhibit 8, Mountain Company Financial Statement | Exhibit 4, table headers  Statement of Cash Flows December 20X1  Exhibit 5, table, last statement of cash flows item  Exhibit 8, Mountain Company Financial Statement  Statement of Cash flows item  Exhibit 8, Mountain Company Financial Statement  Odo Balance Sheet  Cash (asset) increases by USD300 Deferred revenue (liability) increases by USD300 30 September Cash (asset) increases by USD300 30 September Cash (asset) increases by USD300 September Cash (asset) increases by USD300 | Exhibit 4, table headers  Statement of Cash Flows for year ender 20X1  Exhibit 5, table, last statement of Cash flows from operating activ USD100  Exhibit 8, Mountain Company Financial Statement Of Cash flows item  Exhibit 8, Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement Operating activ USD100  Exhibit 8: Mountain Company Financial Statement 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Exhibit 4, table headers  Statement of Cash Flows for year ended 31 December 20 Statement of Cash Flows for year ended 31 December 20 X1  Exhibit 5, table, last statement of cash flows from operating activities increases by USD100  Exhibit 8, Mountain Company Financial Statement  Company Financial Statement  Date Relance Sheet Increases Statement Statement Statement Statement Statement Flows Flows Flows Flows Flows Flows Flows Flows Statement Statement Statement Statement Statement Statement Statement Flows Flo | Exhibit 4, table headers  Statement of Cash Flows for year ended 31 December 20X1  December 20X1  Exhibit 5, table, last statement of Cash flows from operating activities increases by USD100  Exhibit 8, Mountain Company Financial Statement  Company Financial Statement  Statement of Cash flows increases by USD200  Deferred revenue (Isbitus) Cash (Isb | Exhibit 4, table headers  Statement of Cash Flows for year ended 31 December 20X1  Statement of Cash Flows for year ended 31 December 20X1  Exhibit 5, table, last statement of cash flows item  Exhibit 8, Mountain Company Financial Statement  Company Financial Statement  Statement of Cash flows from operating activities increases by USD150  Exhibit 8: Mountain Company Financial Statement  Date Balance Sheet Income Statement Flows  Date Gash flows from operating activities increases by USD300  Deferred revenue Statement Flows  Date Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Cash flows from operating activities increases by USD300  Deferred revenue Cash flows from operating activities increases by USD300  Deferred revenue Cash 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## **Analyzing Statements of Cash Flows II**

| Revised<br>Date | Location                        | Page(s)   | Replace  | With  |
|-----------------|---------------------------------|-----------|--|---|
| 8 March<br>2024 | Paragraph<br>under Exhibit<br>5 | 162 - 163 | The common-size statement in Exhibit 5 has been developed based on Acme's cash flow statement using the indirect method for operating cash flows and using net revenue (cash received from customers) for the company in 2018 of USD23,598 from Exhibit 3. | The common-size statement in Exhibit 5 has been developed based on Acme's cash flow statement using the indirect method for operating cash flows and using net revenue (cash received from customers) for the company in 2018 of <b>USD23,543</b> from Exhibit 3. |

### Analysis of Inventories

| Revised<br>Date | Location               | Page(s) | Replace  | With  |
|-----------------|------------------------|---------|--|---|
| 8 March<br>2024 | Practice<br>Problem 34 | 203     | B is correct.  ——————————————————————————————————— | C is correct.  In a period of rising inventory costs, inventory valued using FIFO would have relatively higher values compared to inventory valued using LIFO. Thus, any mark downs of inventory values to NRV would have the least impact on inventories valued using the LIFO method as they are already conservatively valued. |

#### Analysis of Long-Term Assets

| Revised<br>Date         | Location                              | Page(s) | Replace  |  | With  |                                  |
|-------------------------|---------------------------------------|---------|--|--|---|----------------------------------|
| 18<br>September<br>2025 | Information<br>for Questions<br>14-19 | 238     | A financial analyst at BETTO S.A. is analyzing the result of the sale of a vehicle for 85,000 Argentine pesos (ARP) on 31 December 2021. The analyst compiles the following information about the vehicle:  Acquisition cost of the vehicle ARP100,000 Acquisition date 1 January 2019 Estimated residual value at acquisition date ARP10,000 Expected useful life 9 years Depreciation method Straight-line |  | A financial analyst at BETTO S.A. is a of the sale of a vehicle for 85,000 Arg (ARS) on 31 December 2021. The argument following information about the vehicle Acquisition cost of the vehicle Acquisition date 2019  Estimated residual value at acquisition date Expected useful life Depreciation method | entine pesos nalyst compiles the |
| 18<br>September<br>2025 | Question 14                           | 238     | The result of the sale of the vehicle is <i>most likely:</i> A. a loss of ARP 15,000 B. a gain of ARP 15,000 C. a gain of ARP 18,333   |  | The result of the sale of the vehicle is most A. a loss of ARS 15,000 B. a gain of ARS 15,000 C. a gain of ARS 18,333   | st likely:                       |

### Analysis of Income Tax

| Revised<br>Date   | Location  | Page(s) | Replace  | With  |
|-------------------|---|---------|--|---|
| 26 August<br>2024 | First<br>paragraph<br>under<br>Realizability<br>of Deferred<br>Tax Assets | 288     | Assume Pinto Construction (a hypothetical company) depreciates equipment on a straight-line basis of 10 percent per year. The tax authorities allow depreciation of 15 percent per year. At the end of the fiscal year, the carrying amount of the equipment for accounting purposes would be greater than the tax base of the equipment thus resulting in a temporary difference. | Pinto Construction receives advance payments from customers that are immediately taxable but these payments are not recognized as accounting income until Pinto Construction fulfills its obligations in later reporting periods. |

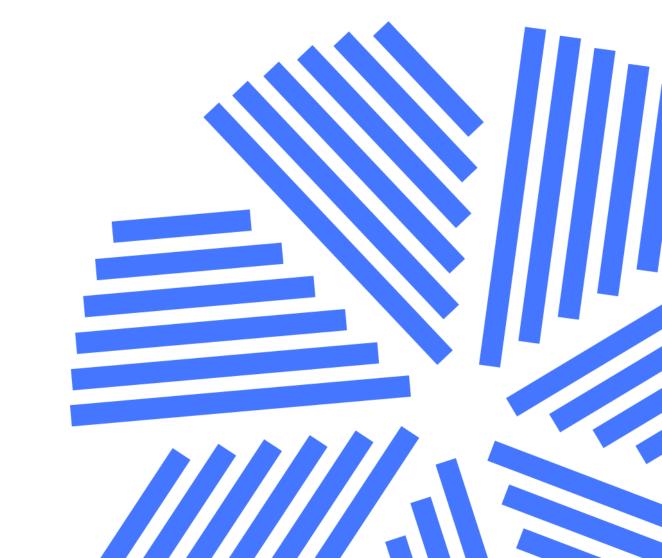
# Financial Analysis Techniques

| Revised Date            | Location                                 | Page(s) | Replace  | With   |
|-------------------------|--|---------|--|--|
| 12<br>September<br>2024 | Example 14,<br>Solution last<br>sentence | 432     | Choices B and C are incorrect because DOH and receivables turnover are misinterpreted. | Choices A and C are incorrect because DOH and receivables turnover are misinterpreted. |

# Introduction to Financial Statement Modeling

| Revised<br>Date         | Location                 | Page(s) | Replace   | With  |
|-------------------------|--------------------------|---------|---|---|
| 12<br>September<br>2024 | Example 8,<br>Solution 3 | 489     | The highest gross profit is projected by Analyst D. | The highest gross profit is projected by <b>Analyst C</b> . |

# **Equity Investments**



# Company Analysis: Past and Present

| Revised<br>Date         | Location   | Page(s) | Replace  | With  |
|-------------------------|------------|---------|--|---|
| 17<br>September<br>2025 | Question 3 | 240     | Iliso's degree of financial leverage in 2X19 is closest to: A. 0.77. B. 1.13. C. 1.84. | Iliso's degree of financial leverage in 2X19 is closest to: A. 0.77.  B. 1.15. C. 1.84. |

# **Industry and Competitive Analysis**

| Revised<br>Date         | Location                                   | Page(s) | Replace  | With   |
|-------------------------|--|---------|--|--|
| 29<br>September<br>2025 | First<br>sentence in<br>third<br>paragraph | 276     | Clearly, the analysis and the answers to these questions are company and industry specific (CFA Institute has published a helpful industry-by-industry reference titled Sector Analysis: A Framework for Investors with examples). | Clearly, the analysis and the answers to these questions are company and industry specific (CFA Institute has published a helpful industry-by-industry reference titled Sector Analysis: A Framework for Investors with examples). |

# **Equity Valuation: Concepts and Basic Tools**

| Revised<br>Date         | Location                | Page(s) | Replace  | With   |
|-------------------------|-------------------------|---------|--|--|
| 26<br>September<br>2025 | Question 3-<br>Solution | 349     | $V_0 = \left[\frac{\cancel{¥79.5}}{1.01525} + \frac{\cancel{¥79.5}}{1.01525^2} + \frac{\cancel{¥106}}{1.01525^3} + \frac{\cancel{¥106}}{1.01525^4} + \frac{\cancel{¥132.5}}{1.01525^5} + \frac{\cancel{¥132.5}}{1.01525^6} + \frac{\cancel{¥10,598}}{1.01525^6}\right] \approx \cancel{¥10,279}$ | $V_0 = \left[ \frac{379.5}{1.01525^{0.8}} + \frac{379.5}{1.01525^{0.8}} + \frac{3106}{1.01525^{2.8}} + \frac{3106}{1.01525^{2.8}} + \frac{3132.5}{1.01525^{3.8}} + \frac{3132.5}{1.01525^{4.8}} + \frac{3132.5}{1.0152$ |

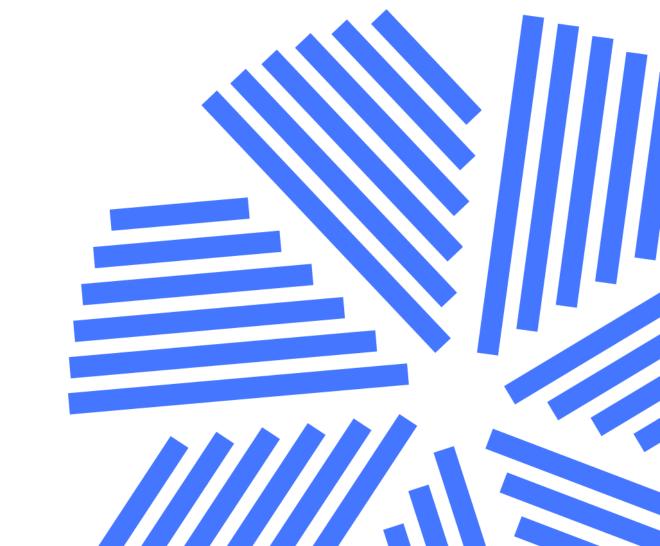
# Company Analysis: Past and Present

| Revised<br>Date | Location                 | Page(s) | Replace   | With  |
|-----------------|--------------------------|---------|---|---|
| 4 June 2024     | Example 3,<br>Solution 4 | 460     | C is correct. Last 12 months' sales: \$7,688 Last 12 months' operating profit: $$1,244$ Low end of guidance Next 12 months' sales: $156.360 \times $62.50 = $9,773$ Next 12 months' operating profit: $$9,773 - (156.360 \times 17.34) - 1,565 = 5,496$ Degree of operating leverage: $(5,496/1,244 - 1)/(9,773/7,688 - 1) = 1.95$ High end of guidance Next 12 months' sales: $167.197 \times $62.50 = $10,450$ Next 12 months' operating profit: $$10,450 - (167.197 \times 17.34) - 1,565 = 5,986$ Degree of operating leverage: $(5,986/1,244 - 1)/(10,450/7,688 - 1) = 1.85$ | C is correct. Last 12 months' sales: \$7,688 Last 12 months' operating profit: $$3,594$ Low end of guidance Next 12 months' sales: $156.360 \times $62.50 = $9,773$ Next 12 months' operating profit: $$9,773 - (156.360 \times 17.34) - 1,565 = 5,496$ Degree of operating leverage: $(5,496/3,594 - 1)/(9,773/7,688 - 1) = 1.95$ High end of guidance Next 12 months' sales: $167.197 \times $62.50 = $10,450$ Next 12 months' operating profit: $$10,450 - (167.197 \times 17.34) - 1,565 = 5,986$ Degree of operating leverage: $(5,986/3,594 - 1)/(10,450/7,688 - 1) = 1.85$ |

# Company Analysis: Past and Present

| Revised<br>Date    | Location                              | Page(s)   | Replace  | With  |
|--------------------|---------------------------------------|-----------|--|---|
| 31 January<br>2024 | Practice<br>Problem, first<br>passage | 474       | On average, NewShips' commission, which it receives as a broker from the customer, was 6% of the freight rate. | On average, NewShips' commission, which it receives as a broker from the customer, was <b>5%</b> of the freight rate. |
| 31 January<br>2024 | Practice<br>Problem                   | 475 - 476 | Question should be disregarded as there is not sufficient answer.  | nt information about Net Profit to provide a complete   |

# Fixed Income



# Fixed-Income Issuance and Trading

| Revised<br>Date         | Location                  | Page(s) | Replace                 | With              |
|-------------------------|---------------------------|---------|-------------------------|-------------------|
| 18<br>September<br>2025 | Solution to<br>Question 1 | 76      | A. III<br>B. I<br>C. II | A. III B. II C. I |

# Yield and Yield Spread Measures for Fixed-Rate Bonds

| Revised<br>Date        | Location   | Page(s) | Replace   | With   |
|------------------------|--|---------|---|--|
| 29 August<br>2024      | Learning<br>Module Self-<br>Assessment –<br>Question 3 | 157     | The G-spread for Bond B is (0.01271-0.011) = 173bps.  | The G-spread for Bond B is (0.01213-0.011) = 11.3bps.  |
| 4<br>September<br>2025 | Question Set,<br>Solution 4,<br>Equation               | 171     | $\frac{101.5 + 2}{(1+r)^2}$   | $\frac{101.25 + 2}{(1+r)^2}$   |
| 26 August<br>2024      | Question Set,<br>Solution 4,<br>Answer                 | 171     | $r = 0.0762 \times 2 = 0.1512$ .<br>The yield-to-first call for the bond is 15.12%.   | $r = 0.0762 \times 2 = $ <b>0.1525</b> . The yield-to-first call for the bond is <b>15.25</b> %.   |
| 1 November<br>2024     | Example 9  | 177     | $100.45 = \frac{0.375}{(1+r)^1} + \frac{0.375}{(1+r)^2} + \frac{0.375}{(1+r)^3} + \frac{100.375}{(1+r)^4}.$ $r = 0.0018662 \times 2 = 0.00373.$ | 100.75 = $\frac{0.375}{(1+r)^1} + \frac{0.375}{(1+r)^2} + \frac{0.375}{(1+r)^3} + \frac{100.375}{(1+r)^4}$ .<br>$r = 0.0018662 \times 2 = 0.00373$ . |
| 26 August 2024         | Example 9,<br>Solution 1                               | 177     | R = $0.0018662 \times 2 = 0.00373$ .<br>0.01271 - 0.00373 = 89  bps.  | R = $0.002618 \times 2 = 0.005235$ .<br>Therefore, the G-spread is $0.01271 - 0.005235 = 75$ bps.  |

# Yield and Yield Spread Measures for Floating-Rate Instruments

| Revised<br>Date    | Location                       | Page(s) | Replace   | With   |
|--------------------|--------------------------------|---------|---|--|
| 30 October<br>2024 | Second<br>equation from<br>top | 191     | $PV = \frac{\frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.040}{2}\right)^{1}} + \frac{\frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.040}{2}\right)^{2}} + \frac{\frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.040}{2}\right)^{3}} + \frac{\frac{(0.0125 + 0.0050) \times 100}{2} + \frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.040}{2}\right)^{4}}$ | $PV = \frac{\frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.0040}{2}\right)^{1}} + \frac{\frac{(0.0125 + 0.0050) \times 100}{2}}{\left(1 + \frac{0.0125 + 0.0040}{2}\right)^{2}} + \frac{\frac{(0.0125 + 0.0040)}{2}}{\left(1 + \frac{0.0125 + 0.0040}{2}\right)^{3}} + \frac{\frac{(0.0125 + 0.0040)}{2}}{\left(1 + \frac{0.0125 + 0.0040}{2}\right)^{4}}$ |
| 26 August<br>2025  | Example 2                      | 196     | Suppose that after 45 days, the CD investor sells the CD to a dealer. At that time, the quoted add-on rate for a 45-day CD is 0.06%. The sale price for the CD can be calculated using Equation 4 for FV = $20,004,918$ , Days = $45, Year = 365, and AOR = 0.0012$ . The sale price is EUR20,002,958.  PV = $20,004,918/(1 + 45/365 \times 0.0006)$ .  | Suppose that after 45 days, the CD investor sells the CD to a dealer. At that time, the quoted add-on rate for a 45-day CD is <b>0.12</b> %. The sale price for the CD can be calculated using Equation 4 for $FV = 20,005,918$ , Days = 45, Year = 365, and AOR = 0.0012. The sale price is EUR20,002,958. PV = 20, 005, 918 /(1 + 45/365 × 0.0012) . PV = 20, 002, 958.      |

# Yield-Based Bond Duration Measures and Properties

| Revised Date      | Location  | Page(s)   | Replace  | With  |
|-------------------|-----------|-----------|--|---|
| 26 August<br>2024 | Example 3 | 197 - 198 | The price of the commercial paper is 98.560 per 100 of face value, calculated using Equation 2 and entering $FV$ = 100, Days = 90, Year = 360, and $DR$ = 0.0012. $PV = FV \times (1 - \frac{\text{Days}}{\text{Year}} \times DR).$ $PV = 100 \times (1 - \frac{90}{360} \times 0.0012).$ $PV = 99.970.$ Next, use Equation 5 to solve for $AOR$ for a 365-day year, where Year = 365, Days = 90, $FV$ = 100, and $PV$ = 99.970. $AOR = \frac{\text{Year}}{\text{Days}} \times \frac{FV - PV}{PV}.$ $AOR = \frac{365}{90} \times \frac{100 - 99.970}{99.970}.$ $AOR = 0.00122.$ The 90-day commercial paper discount rate of 0.120% converts to an add-on rate for a 365-day year of 0.122%. | The price of the commercial paper is <b>99.975</b> per 100 of face value, calculated using Equation 2 and entering FV = 100, Days = 90, Year = 360, and DR = <b>0.0010</b> . $PV = FV \times (1 - \frac{Days}{Year} \times DR).$ $PV = 100 \times (1 - \frac{90}{360} \times \textbf{0.0010})$ $PV = 99.975$ Next, use Equation 5 to solve for AOR for a 365-day year, where Year = 365, Days = 90, FV = 100, and PV = <b>99.975</b> . $AOR = \frac{Year}{Days} \times \frac{FV - PV}{PV}.$ $AOR = \frac{365}{90} \times \frac{100 - 99.975}{99.975}.$ $AOR = 0.00122.$ The 90-day commercial paper discount rate of <b>0.10%</b> converts to an add-on rate for a 365-day year of <b>0.1014%</b> . |

# Yield and Yield Spread Measures for Floating-Rate Instruments

| Revised<br>Date         | Location                                   | Page(s)   | Replace   | With  |
|-------------------------|--|-----------|---|---|
| 1 November<br>2024      | Question Set,<br>Question 6                | 201       | 6. A portfolio manager has asked you to evaluate the following Thai baht–denominated money market instruments with equivalent credit risk.  | 6. A portfolio manager has asked you to evaluate the following Thai baht–denominated <b>180 days</b> money market instruments with equivalent credit risk.  |
| 19<br>September<br>2024 | Practice<br>Problems,<br>Solution 1        | 205       | The estimated discount margin is 195 bps. $ \frac{(MRR + QM) \times FV}{m} = \frac{(-0.0055 + 0.016) \times 100}{4} = 0.275. $ $ \dots DM = 0.4525. DM = 0.502144 $ The estimated discount margin is 50.2 bps.  | The estimated discount margin is 195 bps. $ \frac{(MRR + QM) \times FV}{m} = \frac{(-0.055 + 0.016) \times 100}{4} = 0.2625. $ $ DM = 0.4525. DM = 0.4525. $ The estimated discount margin is 45.25 bps.  |
| 26 August<br>2024       | Practice Problems, Question and Solution 5 | 204 - 206 | Replace the answer C: 0.28%.  Replace the solution: C is correct. The bond equivalent yield is closest to 0.28%. The present value of the banker's certificate of deposit is calculated as follows:  The bond equivalent yield (AOR using a 365-day year) is calculated to be approximately 0.28%: $AOR = \frac{Y_{ear}}{Dayx} \times \frac{FV - PV}{PV}.$ $AOR = \frac{365}{90} \times \frac{100 - 99.8625}{99.8625},$ | With: 0.56%.  With: C is correct. The bond equivalent yield is closest to 0.56%.  The present value of the banker's certificate of deposit is calculated as follows:  The bond equivalent yield (AOR using a 365-day year) is calculated to be approximately 0.56%: $AOR = \frac{Year}{Days} \times \frac{FV - PV}{PV}.$ $AOR = \frac{365}{90} \times \frac{100 - 99.8625}{99.8625}.$ |

#### The Term Structure of Interest Rates: Spot, Par, and Forward- Curves

| Revised<br>Date         | Location  | Page(s) | Replace   | With  |
|-------------------------|---|---------|---|---|
| 25<br>September<br>2024 | Learning<br>Module Self-<br>Assessment,<br>Solution 3 | 209     | IFR2,1 = 3.01%.   | <i>IFR</i> 2,1 = <b>2.50%.</b>  |
| 26 August<br>2024       | Example 1,<br>Solution 2                              | 218     | PV = 100.01   | PV = 99.99  |
| 26 August<br>2024       | Example 2,<br>Solution 1                              | 218     | $100 = \frac{PMT}{(1 + z_{+})^{1}} + \frac{PMT}{(1 + z_{2})^{2}} + \frac{(1 + z_{N})^{N}}{(1 + z_{N})^{N}}$ $100 = \frac{PMT}{PMT} + \frac{PMT}{PMT} + \frac{PMT + 100}{PMT + 100}$ $(1 + 0.003117)^{1} (1 + 0.568)^{2} + (1 + 0.7977)^{3}$ We can factor out $PMT$ and then solve for it: $100 = PMT \times (\frac{1}{1 + \frac{1}{100}} + \frac{1}{1 + \frac{1}{100}} + \frac{1}{1 + \frac{1}{100}}) + \frac{1}{100} + \frac$ | $100 = \frac{PMT}{(1+z_1)^1} + \frac{PMT}{(1+z_2)^2} + \cdots + \frac{PMT+100}{(1+z_N)^N}$ $100 = \frac{PMT}{(1+0.003117)^1} + \frac{PMT}{(1+0.00568)^2} + \frac{PMT+100}{(1+0.007977)^3}$ We can factor out $PMT$ and then solve for it: $100 = PMT \times (\frac{1}{(1+0.003117)^1} + \frac{1}{(1+0.00568)^2} + \frac{1}{(1+0.007977)^3}$ $+ \frac{100}{(1+0.003117)^1} + \frac{1}{(1+0.00568)^2} + \frac{1}{(1+0.007977)^3}$ $PMT = 0.7952.$ |

### The Term Structure of Interest Rates: Spot, Par, and Forward- Curves

| Revised<br>Date   | Location  | Page(s) | Replace  | With   |
|-------------------|---|---------|--|--|
| 26 August<br>2024 | Example 3,<br>Solution 1                                  | 220     | Therefore, $A = 1$ , $B = 3$ , $ZA$ is the two-year spot rate, and $ZB$ is the three-year spot rate: | Therefore, $A = 2$ , $B = 3$ , $ZA$ is the two-year spot rate, and $ZB$ is the three-year spot rate: |
| 26 August<br>2024 | Example 3,<br>Solution 1,<br>Second from<br>last equation | 220     | $(1 + 0.00568)^2 \times (1 + IFR2, 1)^1 = (1 + 0.007977)^3$  | (1+0.0188) x (1+0.0277)=(1+Z2) <sup>2</sup>  |

#### Interest Rate Risk and Return

| Revised Date      | Location                            | Page(s) | Replace   | With  |
|-------------------|-------------------------------------|---------|---|---|
| 26 August<br>2024 | Equation 3                          | 254     | $MacDur = \left\{ \frac{1+r}{r} - \frac{1+r+[N\times(c-r)]}{c\times[(1+r)^N-1+r]} \right\} - \frac{t}{T}$ | $MacDur = \left\{ \frac{1+r}{r} - \frac{1+r+[N\times(c-r)]}{c\times[(1+r)^N-1]+r} \right\} - \frac{t}{T}$ |
| 26 August<br>2024 | Practice<br>Problems,<br>Solution 2 | 260     | A is correct. The future value of reinvested coupon interest is $= FV(0.054,6,6.4,0,0) = 46.245.$         | A is correct. The future value of reinvested coupon interest is $= FV(0.074, 6, 6.4, 0, 0) = 46.245.$     |

# Yield-Based Bond Duration Measures and Properties

| Revised<br>Date         | Location  | Page(s) | Replace   | With  |
|-------------------------|---|---------|---|---|
| 26 August<br>2024       | Learning<br>Module Self-<br>Assessment,<br>Solution 3 | 265     | C is correct. The money duration is 380: $MoneyDur = 308$ . $\Delta PVFull \approx -308 \times 0.005$ .                 | C is correct. The money duration is 380: $MoneyDur = 380$ . $\Delta PVFull \approx -380 \times 0.005$ .           |
| 26 August<br>2024       | Example 1   | 269     | Row in first table:  Maturity  15 Oct. 2035  Row in third table:  Settlement date  15 Oct. 2025  Maturity  15 Oct. 2035 | Maturity 15 Oct. 2030  Settlement date 11 Dec. 2025 Maturity 15 Oct. 2030   |
| 24<br>September<br>2024 | Equation 7  | 278     | %∆PVFull≈ - MoneyDur × ∆Yield   | ΔPVFull≈-MoneyDur × ΔYield  |
| 26 August<br>2024       | Lesson's first paragraph                              | 284     | $MacDur = \left\{ \frac{1+r}{r} - \frac{1+r+[N\times(c-r)]}{c\times[(1+r)^N-1+r]} \right\} - \frac{t}{T}$               | $MacDur = \left\{ \frac{1+r}{r} - \frac{1+r+[N \times (c-r)]}{c \times [(1+r)^N - 1] + r} \right\} - \frac{t}{T}$ |

# Yield-Based Bond Duration Measures and Properties

| Revised<br>Date   | Location  | Page(s) | Replace  | With  |
|-------------------|---|---------|--|---|
| 26 August<br>2024 | Question Set,<br>Solution 1, last<br>cell "Second<br>Bond" column | 287     | 4% coupon, paid semiannually, and five years to maturity, priced to yield 4% | 4% coupon, paid semiannually, and five years to maturity, priced to yield <b>8%</b> |

# Yield-Based Bond Convexity and Portfolio Properties

| Revised Date            | Location           | Page(s)   | Replace  | With  |
|-------------------------|--------------------|-----------|--|---|
| 24<br>September<br>2024 | Knowledge<br>Check | 305 - 306 | 1. Calculate the full price of the bond per 100 of par value.  Solution:  Because Excel's PRICE function does not work for negative yields, the equation for $PV$ of a zero-coupon bond must be used. There are five annual periods, settlement is 30 days into the 365-day year, and because $1 + r = 1 + (-0.0072) = 0.9928$ , the full price of the bond is $103.6175$ per $100$ of par value: $PV_0 = \begin{bmatrix} 100 \\ (0.9923)^3 \end{bmatrix} \times (0.9928)^{\frac{30}{363}}$ $PV_0 = 103.6175$ 2. Calculate $ApproxModDur$ and $ApproxCon$ using a 1 bp increase and decrease in the yield-to-maturity.  Solution: $PV_{+} = 103.5662, \text{ and } PV_{-} = 103.6689:$ $PV_{-} = \begin{bmatrix} 100 \\ (0.9929)^5 \end{bmatrix} \times (0.9929)^{\frac{30}{365}}$ $PV_{-} = 103.5662$ $PV_{-} = \begin{bmatrix} \frac{100}{(0.9927)^5} \end{bmatrix} \times (0.9927)^{\frac{30}{365}}$ $PV_{-} = 103.6689.$ The approximate modified duration is $4.9535$ : $ApproxModDur = \frac{103.6689 - 103.5662}{2 \times (0.0001)^2 \times 103.6175} = 4.9535.$ The approximate convexity is $29.918$ : $ApproxCon = \frac{103.6689 + 103.5662 - (2 \times 103.6175)}{(0.0001)^2 \times 103.6175} = 29.918.$ | 1. Calculate the full price of the bond per 100 of par value.  Solution:  Because Excel's PRICE function does not work for negative yields, the equation for $PV$ of a zero-coupon bond must be used. There are five annual periods, settlement is 30 days into the 365-day year, and because $1 + r = 1 + (-0.0072) = 0.9928$ , the full price of the bond is $103.6175$ per $100$ of par value: $PV_0 = \left[\frac{100}{(0.9928)^3}\right] \times (0.9928)^{\frac{30}{365}}$ $PV_0 = 103.617526.$ 2. Calculate $ApproxModDur$ and $ApproxCon$ using a 1 bp increase and decrease in the yield-to-maturity.  Solution: $PV_+ = \left[\frac{100}{(0.9929)^5}\right] \times (0.9929)^{\frac{30}{365}}$ $PV = \left[\frac{100}{(0.9927)^5}\right] \times (0.9927)^{\frac{30}{365}}$ $PV = \left[\frac{100}{(0.9927)^5}\right] \times (0.9927)^{\frac{30}{365}}$ $PV = 103.668868$ The approximate modified duration is $4.9535$ : $ApproxModDur = \frac{103.668868}{2 \times (0.0001) \times 103.617526} = 4.9535.$ The approximate convexity is $29.918$ : $ApproxCon = \frac{103.668868 + 103.566215 - (2 \times 103.617526)}{(0.0001)^2 \times 103.617526} = 29.918.$ |

# Yield-Based Bond Convexity and Portfolio Properties

| Revised<br>Date         | Location                            | Page(s) | Replace  | With  |
|-------------------------|-------------------------------------|---------|--|---|
| 26 August<br>2024       | Question Set,<br>Intro Text         | 307     | An investor purchases a €10 million semi-annual 3.75% coupon bond with a yield-to-maturity of 2.95%, settling 30 June 2025 and maturing 30 June 2032.  | An investor purchases a €10 million semi-annual <b>2.95%</b> coupon bond with a yield-to-maturity of 2.95%, settling 30 June 2025 and maturing 30 June 2032.  |
| 26 August<br>2024       | Question Set,<br>Solution 4         | 307     | $PV^{\text{Full}}=$ PRICE(DATE(2025,6,30),DATE(2032,6,30),0.0295,0.03 45,100,2,0) = 103.198. The actual increase in the bond price is 3.1984%: $\Delta PV^{\text{Full}}=3.1984\% \times \$10,000,000=\text{EUR}319,840$ . The difference between the actual and the estimated price change is EUR73 (= 319,840 – 319,767). | $PV^{\text{Full}}=$ PRICE(DATE(2025,6,30),DATE(2032,6,30), <b>0.0246</b> ,0.034 5,100,2,0) = <b>103.1333</b> . The actual increase in the bond price is <b>3.1333%</b> : $\Delta PV^{\text{Full}}=$ <b>3.1333%</b> × \$10,000,000 = <b>EUR313,330</b> . The difference between the actual and the estimated price change is <b>EUR6,437</b> (= <b>313,330</b> – 319,767). |
| 24<br>September<br>2024 | Practice<br>Problems,<br>Question 1 | 312     | For a 5bps increase and decrease in yield-to-maturity, $PV_{+}$ and $PV_{-}$ are 98.245077 and 101.792534, respectively.   | For a <b>50bps</b> increase and decrease in yield-to-maturity, $PV_{\scriptscriptstyle\perp}$ and $PV_{\scriptscriptstyle\perp}$ are <b>99.82283</b> and <b>100.177546</b> , respectively.  |
| 26 August<br>2024       | Practice<br>Problems,<br>Question 2 | 312     | A bond pays a semiannual fixed coupon of 4.75%.  | A bond pays a semiannual fixed coupon of <b>4.70%</b> .   |

# Yield-Based Bond Convexity and Portfolio Properties

| Revised<br>Date         | Location                            | Page(s) | Replace  | With  |
|-------------------------|-------------------------------------|---------|--|---|
| 24<br>September<br>2024 | Practice<br>Problems,<br>Solution 1 | 314     | ApproxCon = $\frac{101.792534 + 98.245077 - (2 \times 100)}{(0.0005) 2 \times 100}$ $= 15.044498$  | ApproxCon = $\frac{100.177546 + 98.82283 - (2 \times 100)}{(0.005) 2 \times 100}$ $= 15.04$   |
| 26 August<br>2024       | Practice<br>Problems,<br>Solution 8 | 315     | All else equal, the portfolio should outperform the lower-<br>duration benchmark portfolio in both rising and falling<br>interest rate environments. | All else equal, the portfolio should outperform the <b>lower-convexity</b> benchmark portfolio in both rising and falling interest rate environments. |

# Curve-Based and Empirical Fixed-Income Risk Measures

| Revised Date                             | Location                    | Page(s) | Replace   | With  |
|--|-----------------------------|---------|---|---|
| 26 August<br>2024                        | Example 1                   | 324     | $EffDur = \frac{(PV_{-}) - (PV_{+})}{2 \times (ACurve) \times (PV_{0})}.$ $EffDur = \frac{(102.891) - (99.050)}{2 \times (0.00025) \times (101.060)}.$ $EffDur = 7.601.$ $EffCon = \frac{[(PV_{-}) + (PV_{+}) - 2 \times (PV_{0})]}{(ACurve)^{2} \times (PV_{0})}.$ $EffCon = \frac{[(102.891) + (99.050)] - [2 \times (101.060)]}{(0.00025)^{2} \times (101.060)}.$ $EffCon = -283.$ | $EffDur = \frac{(PV_{-}) - (PV_{+})}{2 \times (ACurve) \times (PV_{0})}.$ $EffDur = \frac{(102.891) - (99.050)}{2 \times (0.0025) \times (101.060)}.$ $EffDur = 7.601.$ $EffCon = \frac{[(PV_{-}) + (PV_{+}) - 2 \times (PV_{0})]}{(ACurve)^{2} \times (PV_{0})}.$ $EffCon = \frac{[(102.891) + (99.050)] - [2 \times (101.060)]}{(0.0025)^{2} \times (101.060)}.$ $EffCon = -283.$ |
| 26 August<br>2024<br>© 2023 CFA Institut | Question Set,<br>Solution 2 | 325     | EffDur = $\frac{(PV_{-}) - (PV_{+})}{2 \times (4Curve) \times (PV_{0})}.$ EffDur = $\frac{(103.891) - (100.004)}{2 \times (0.00025) \times (102.208)}.$ EffDur = $76.061.$  | $EffDur = \frac{(PV_{-}) - (PV_{+})}{2 \times (ACurve) \times (PV_{0})}.$ $EffDur = \frac{(103.891) - (100.004)}{2 \times (0.0025) \times (102.208)}.$ $EffDur = 7.6061.$   |

# Curve-Based and Empirical Fixed-Income Risk Measures

| Revised<br>Date   | Location                       | Page(s) | Replace   | With   |
|-------------------|--------------------------------|---------|---|--|
| 26 August<br>2024 | Question<br>Set, Solution<br>4 | 326     | Solution:<br>$EffCon = \frac{[(PV) + (PV_{+})] - [2 \times (PV_{0})]}{(ACurve)^{2} \times (PV_{0})}.$ $EffCon = \frac{[(103.891) + (98.504)] - [2 \times (102.208)]}{(0.00025)^{2} \times (102.208)}.$ $EffCon = -3,164.$   | Solution:<br>$EffCon = \frac{[(PV_{-}) + (PV_{+})] - [2 \times (PV_{0})]}{(ACurve)^{2} \times (PV_{0})}.$ $EffCon = \frac{[(103.891) + (98.504)] - [2 \times (102.208)]}{(0.0025)^{2} \times (102.208)}.$ $EffCon = -3,164.$   |
| 26 August<br>2024 | Exhibit 5                      | 331     | Assume the portfolio is weighted by the prices of the respective 2-, 5-, and 10-year bonds for a total portfolio value of \$293 million, or \$1 million $\times$ (99.50 + 98.31 + 95.43). The portfolio's modified duration is calculated as $5.345 = [1.991 \times (99.5/293.2)] + [4.869 \times (98.3/293.2)] + [9.333 \times (95.4/293.2)]$ . Alternatively, we could calculate each key rate duration by maturity. For example, the two-year key rate duration (KeyRateDur2) is $0.676 = 1.991 \times (99.5/293.2)$ . Note that the three key rate duration values sum to the portfolio duration value of $5.345$ . | Assume the portfolio is weighted by the prices of the respective 2-, 5-, and 10-year bonds for a total portfolio value of \$277 million, or \$1 million × (99.006 + 93.96 + 81.01). The portfolio's modified duration is calculated as 5.368 = [1.990 x (99.006/277)] + [4.938 x 93.96/277)] + [9.828 x (84.01/277)]  Alternatively, we could calculate each key rate duration by maturity. For example, the two-year key rate duration (KeyRateDur2) is 0.711 = 1.990 x (99.006/277).  Note that the three key rate duration values sum to the portfolio duration value of 5.368. |

# Curve-Based and Empirical Fixed-Income Risk Measures

| Revised<br>Date    | Location                            | Page(s) | Replace   | With  |
|--------------------|-------------------------------------|---------|---|---|
| 15 October<br>2024 | Practice<br>Problems,<br>Solution 3 | 339     | $%\Delta PVFull$ Bond A ≈ (-7.48621 × 0.0100) + [½ × 29.35972 × (-0.0100)2] = -7.33941%.<br>% $\Delta PVFull$ Bond B ≈ (-7.23853 × 0.0100) + [½ × - 321.75618 × (0.0100)2] = -8.84730%. | $%\Delta PVFull$ Bond A ≈ (-7.48621 × <b>0.0200</b> ) + [½ × 29.35972 × (- <b>0.0200</b> )2] = -7.33941%.<br>% $\Delta PVFull$ Bond B ≈ (-7.23853 × <b>0.0200</b> ) + [½ × - 321.75618 × ( <b>0.0200</b> )2] = -8.84730%. |

#### **Credit Risk**

| Revised Date      | Location  | Page(s)   | Replace   | With  |
|-------------------|---|-----------|---|---|
| 26 August<br>2024 | Learning Module Self- Assessment, Question and Solution 2 | 342 - 343 | A EUR500,000 loan has the following characteristics:    Probability of default 5%   Collateral EUR100,000   Recovery rate 90%   Expected exposure EUR400,000  The expected loss for this loan in event of default is:  A. EUR1,500 B. EUR2,000  Replace solution:  The correct answer is A. We solve for expected loss (EL) as follows: EL = POD × (EE – Collateral) × (1 – RR). Since probability of default (POD) is 5%, expected exposure (EE) is EUR400,000, collateral is EUR100,000, and the recovery rate (RR) is 90%: EL = EUR1,500 = 0.05 × (400,000 – 100,000) × (1 – 0.9).  B is incorrect as it fails to reduce the expected exposure by the collateral, while C is incorrect as it simply multiplies EE and POD. | A EUR500,000 loan has the following characteristics:  Probability of default 5%  Collateral EUR100,000  Recovery rate 90%  Expected exposure EUR400,000  The expected loss for this loan in event of default is:  A. EUR1,500  B. EUR2,000  With:  The correct answer is B. We solve for expected loss (EL) as follows: EL=POD × LGD = POD × EE × (1 – RR).  Since probability of default (POD) is 5%, expected exposure (EE) is EUR400,000, collateral is  EUR100,000, and the recovery rate (RR) is 90%: EL = EUR2,000 = 0.05 × (400,000-100,000) × (1 – 0.9) |

#### **Credit Risk**

| Revised<br>Date   | Location                                       | Page(s)   | Replace   | With  |
|-------------------|--|-----------|---|---|
| 26 August<br>2024 | Question<br>Set,<br>Question and<br>Solution 2 | 373 - 374 | C. 54 bps.  Bid yield: $93.75 = 100 / (1 + r) 5$ $r_{\text{bid}} = 1.2937\%$ Offer yield: $93.75 = 100 / (1 + r) 5$ $r_{\text{offer}} = 1.2991\%$ The liquidity spread of 54 bps $(0.0054\%)$ is equal to the difference in the bid yield and the offer yield $(= 1.2991\%)$ – $1.2937\%$ .   | C. <b>0.54 bps</b> Bid yield: $93.75 = 100 / (1 + r) 5$ $r_{\text{bid}} = 1.2991\%$ Offer yield: $93.7755 = 100 / (1 + r) 5$ $r_{\text{offer}} = 1.2937\%$ The liquidity spread of <b>0.54 bps</b> (0.0054%) is equal to the difference in the bid yield and the offer yield (= 1.2991% - 1.2937%). |
| 26 August<br>2024 | Practice<br>Problems,<br>Solution 6            | 377 - 378 | ΔSpread =-0.015 = -1.5%.  Lower spreads make the first expression in the equation positive, along with the equation's second convexity-based term. The answer must therefore involve a decline in spreads as in answers A and B. However, B is incorrect since it fails to rescale convexity. | ΔSpread = -0.0135 = -1.35%  Lower spreads make the first expression in the equation positive, along with the equation's second convexity-based term. The answer must therefore involve a decline in spreads as in answers A. and B. However, B is incorrect since it fails to rescale convexity.    |

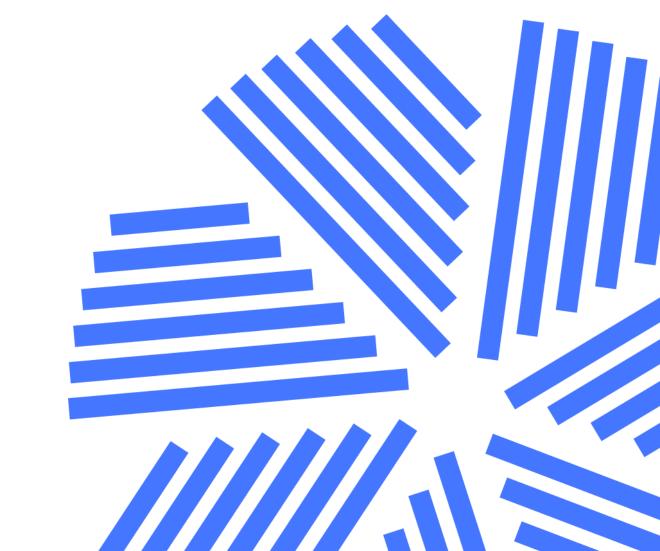
# **Credit Analysis for Corporate Issuers**

| Revised<br>Date         | Location                        | Page(s) | Replace  |                          |                               |                               |                         |                       |                       | With   |   |   |                              |   |                                |                        |
|-------------------------|---------------------------------|---------|--|--------------------------|-------------------------------|-------------------------------|-------------------------|-----------------------|-----------------------|--|---|---|------------------------------|---|--------------------------------|------------------------|
| 19<br>September<br>2025 | Example 4                       | 420     | EBIT<br>EBITDA   | Year 0<br>1,330<br>1,730 | Year 1 1,122 1,589            | <b>Year 2</b><br>890<br>1,407 | <b>Year 3</b> 632 1,180 | <b>Year 4</b> 346 906 | <b>Year 5</b> 364 916 | EBIT EBITDA  | <b>Year 0</b> 930 1,330                 | <b>Year 1</b> 655 1,122                       | <b>Year 2</b> 373 890        | <b>Year 3</b> 86 633                        | <b>Year 4</b> -212 347         | Year 5<br>-189<br>-363 |
| 19<br>September<br>2025 | Example 4                       | 421     | Debt to EBITDA   | <b>Year 0</b> 0.36       | <b>Year 1</b> 0.43            | <b>Year 2</b> 0.54            | <b>Year 3</b> 0.71      | <b>Year 4</b> 1.06    | Year 5                | Debt to EBITDA   | <b>Year 0</b> 0.47                      | <b>Year 1</b> 0.61                            | <b>Year 2</b> 0.85           | <b>Year 3</b> 1.32                          | <b>Year 4</b> 2.77             | <b>Year 5</b> 3.04     |
| 5 August<br>2025        | Paragraph<br>above<br>Example 6 | 429     | An issuer rating undebt and address creditworthiness. issue rating refers issuer and takes s | es an ob<br>On the o     | oligor's<br>other haific fina | overal<br>and, a<br>ancial    | II<br>n indiv<br>obliga | /idual<br>tions c     | of an                 | An issuer rating a creditworthiness. senior-unsecured issuers. On the oth to specific financial factors as seniority | Rating a debt level ner hand obligation | agencie<br>vel for o<br>l, an ind<br>ons of a | es typi<br>consis<br>ividual | <b>cally n</b><br><b>tency</b> a<br>issue r | nap it t<br>across<br>ating re | efers                  |

# Mortgage-Backed Security (MBS) Instrument and Market Features

| Revised<br>Date   | Location                      | Page(s) | Replace | With  |
|-------------------|-------------------------------|---------|---------|---|
| 26 August<br>2024 | Practice<br>Problems 7<br>– 8 | 524     | · ·     | question. Dution to 7, and the subsequent solutions are all off one Practice Problem 9, solution to 9 is actually the solution to |

# Derivatives



#### Derivative Instrument and Derivative Market Features

| Revised<br>Date | Location                  | Page(s) | Replace                      | With                        |
|-----------------|---------------------------|---------|------------------------------|-----------------------------|
| 4 June 2025     | Paragraph under Exhibit 4 | 14      | London Metals Exchange (LME) | London Metal Exchange (LME) |

# Forward Commitment and Contingent Claim Features and Instruments

| Revised<br>Date | Location   | Page(s)    | Replace                      | With                        |
|-----------------|--|------------|------------------------------|-----------------------------|
| 4 June 2025     | Example 2 image, paragraph under Ex. 2 image, Paragraph under Ex. 2, Example 3 image | 30, 31, 32 | London Metals Exchange (LME) | London Metal Exchange (LME) |

# Derivative Benefits, Risks, and Issuer and Investor Uses

| Revised<br>Date   | Location                    | Page(s) | Replace  | With   |
|-------------------|-----------------------------|---------|--|--|
| 26 August<br>2024 | Question Set,<br>Solution 2 | 66      | The seller of a call option receives an upfront premium in exchange for the right to purchase the underlying at the exercise price at maturity. Once the seller of a call option receives the premium from the option buyer, it has no further counterparty credit risk to the option buyer. | The seller of a call option receives an upfront premium in exchange for the <b>obligation to sell the underlying asset at the exercise price if the option is exercised</b> . Once the seller of a call option receives the premium from the option buyer, it has no further counterparty credit risk to the option buyer. |

# Arbitrage, Replication, and the Cost of Carry in Pricing Derivatives

| Revised<br>Date    | Location                    | Page(s) | Replace  | With   |
|--------------------|-----------------------------|---------|--|--|
| 31 January<br>2024 | Example 6                   | 90      | $F_{0,(f/d)}(T) = 1.3325 = \frac{AUD1,333.80}{AUD1,001}$   | $F_{0,(f/d)}(T) = 1.3325 = \frac{\text{AUD1}, 333.83}{\text{USD1}, 001}$   |
| 22 August<br>2024  | Question Set,<br>Question 2 | 93      | B. A foreign currency forward where the domestic risk-free rate is greater than the foreign risk-free rate | B. A foreign currency forward where the <b>foreign</b> risk-free rate is greater than the <b>domestic</b> risk-free rate |

# **Pricing and Valuation of Forward Contracts**

| Revised<br>Date | Location   | Page(s) | Replace  | With  |
|-----------------|------------|---------|--|---|
| 8 March<br>2024 | Solution 5 | 110-111 | Replace all references to "gain" in the answer with "loss" | An immediate appreciation in the ZAR/EUR spot price after contract inception will result in an MTM <b>loss</b> from Rook Point's perspective as the forward seller of ZAR/EUR.  The FX forward MTM from Rook Point's perspective equals the present value of the forward price discounted at the interest rate differential between the foreign currency and the domestic currency minus the spot price:  V0(T) = F0,f/d (T) e-(r f -r d )T - S0,f/d  Note that ZAR is the price, or foreign, currency and EUR is the base, or domestic, currency, so we can rewrite the equation as:  V0(T) = F0,ZAR/EUR (T) e-(r ZAR-r EUR)T - S0,ZAR/EUR  If the ZAR price (S0,ZAR/EUR) appreciates from 16.909 to 16.5, we can show that Rook Point would have a 0.4090 loss, as follows:  Vt (T) = 17.2506e-(0.0350.005)x(0.5) - 16.5 = 16.909 - 16.5 = 0.4090 |

# **Pricing and Valuation of Forward Contracts**

| Revised<br>Date    | Location                 | Page(s) | Replace   | With   |
|--------------------|--------------------------|---------|---|--|
| 15 October<br>2024 | Exhibit 9                | 118     | Mentions of the word "player"                     | The word "payer"   |
| 31 January<br>2024 | Example 2,<br>Solution 1 | 131     | $f_0(T) = (\$1,770.00 + \$1.99)(1.02)^{-0.24982}$ | $f_0(T) = (\$1,770.00 + \$1.99)(1.02)^{0.24982}$<br>= \\$1,780.78 per ounce. |

#### Pricing and Valuation of Options

| Revised<br>Date         | Location   | Page(s) | Replace  | With  |
|-------------------------|------------|---------|--|---|
| 29<br>September<br>2025 | Equation 3 | 178     | $\mathrm{Max}\Big(0,\; S_t - X(1+r)^{-(T-t)}\Big)$ | $\mathbf{c_t} \ - \ \mathrm{Max}\Big(0, \ S_t - X(1+r)^{-(T-t)}\Big)$ |

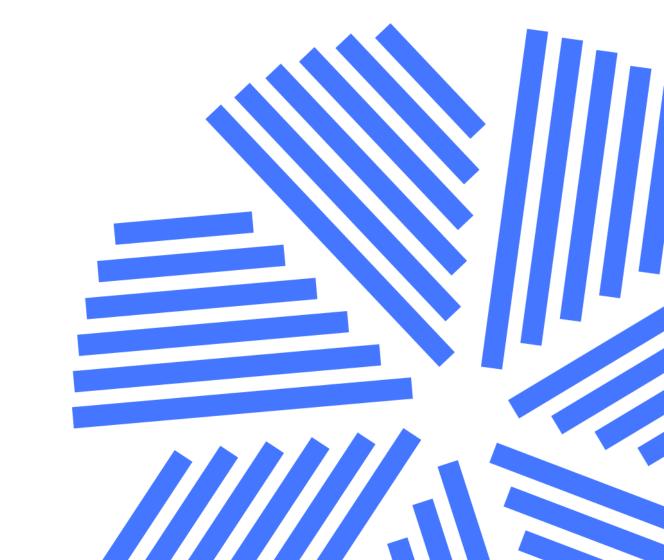
#### Option Replication Using Put-Call Parity

| Revised<br>Date         | Location   | Page(s) | Replace  | With   |
|-------------------------|------------|---------|--|--|
| 26<br>September<br>2025 | Question 3 | 199     | Which of the following statements correctly describes a synthetic protective put position according to put–call forward parity?  A.A long forward contract on the underlying, a long put option on the underlying, and short a risk-free bond  B.A short forward contract on the underlying, a long put option on the underlying, and short a risk-free bond  C.A short forward contract on the underlying, a short put option on the underlying, and short a risk-free bond  Solution:  A is correct. The formula for put–call forward parity is as follows: $FO(T)(1+r)-T+p0=c0+X(1+r)-T$ .  Rearranging the terms as follows shows the synthetic protective put position on the left-hand side of the equation: $FO(T)(1+r)-T+p0-X(1+r)-T=c0$ . | Which of the following statements correctly describes a synthetic protective put position according to put—call forward parity?  A.A long forward contract on the underlying, a long put option on the underlying, and <b>long</b> a risk-free bond B.A short forward contract on the underlying, a long put option on the underlying, and short a risk-free bond C.A short forward contract on the underlying, a short put option on the underlying, and short a risk-free bond Solution:  A is correct. The formula for put—call forward parity is as follows: $FO(T)(1 + r) - T + p0 = c0 + X(1 + r) - T.$ Rearranging the terms as follows shows the synthetic protective put position on the left-hand side of the equation: $FO(T)(1 + r) - T + p0 - X(1 + r) - T = c0.$ |

#### Valuing a Derivative Using a One-Period Binomial Model

| Revised<br>Date         | Location                                     | Page(s) | Replace   | With   |  |
|-------------------------|--|---------|---|--|--|
| 23<br>September<br>2024 | Second<br>sentence                           | 223     | Equation 4 gives us the hedge ratio of the option, or<br>the proportion of the underlying that will offset the risk<br>associated with an option. | <b>Equation 6</b> gives us the hedge ratio of the option, or the proportion of the underlying that will offset the risk associated with an option. |  |
| 30<br>September<br>2026 | Solution to<br>Question 5 in<br>Question Set | 229     | $\frac{\pounds 3}{\pounds 4} = -0.75$   | $-\frac{\pounds 3}{\pounds 4} = -0.75$   |  |

# Alternative Investments



#### Alternative Investment Features, Methods, Structures

| Revised<br>Date    | Location   | Page(s) | Replace   | With  |
|--------------------|------------|---------|---|---|
| 31 January<br>2024 | Solution 6 | 32      | <ul> <li>A. 2 is correct. In alternative fund investing, the fund manager pays the net return (gross return less management fees) to investors.</li> <li>B. 3 is correct. The returns generated by fund investments are gross returns. From these, management deducts its fees, paying the remainder (net fees) to fund investors.</li> <li>C. 1 is correct. Management fees and performance fees are how alternative fund managers are compensated for managing the fund and its investments.</li> </ul> | <ul> <li>A. 3 is correct. The returns generated by fund investments are gross returns. From these, management deducts its fees, paying the remainder (net fees) to fund investors.</li> <li>B. 2 is correct. In alternative fund investing, the fund manager pays the net return (gross return less management fees) to investors.</li> <li>C. 1 is correct. Management fees and performance fees are how alternative fund managers are compensated for managing the fund and its investments.</li> </ul> |

#### **Alternative Investment Performance and Returns**

| Revised<br>Date    | Location                                | Page(s) | Replace  | With   |
|--------------------|---|---------|--|--|
| 28 July 2025       | Knowledge<br>Check: MOIC<br>Calculation | 39      | IRR 20%  | IRR <b>6.82</b> %  |
| 31 January<br>2024 | Example 4,<br>Question 2                | 47      | In the second year, Kettleside fund value declines to \$110 million. The fee structure is as specified in Question 1 but also includes the use of a high-water mark (PHWM) computed net of fees. | In the second year, Kettleside fund value declines to \$110 million. The fee structure is as specified in Question 1 <b>of Example 3</b> but also includes the use of a high-water mark (PHWM) computed net of fees. |

#### Alternative Investment Performance and Returns

| Revised<br>Date | Location              | Page(s) | Replace   | With  |
|-----------------|-----------------------|---------|---|---|
| 8 March<br>2024 | Example 4, Solution 2 | 48      | We must again alter Equation 4 to include the highwater mark ( $P_{HVMM}$ ) provision, as follows: $R_{GP(Net with High-Water Mark)} = (P_2 \times r_m) + \max[0, (P_2 - P_{HVMM}] \times p)$ where $P_{HVMM}$ is defined as the maximum fund value at the end of any previous period net of fees. We may solve for investor return ri in Period 2 as follows: $r_i = (P_2 - P_1 - R_{GP})/P_1$ , $R_{GP(Net with High-Water Mark)}$ = \$110 million × 1% + max[0, (\$110 million – \$122.7 million) × 20%] = \$1.1 million. $r_i = (\$110 \text{ million} - \$122.7 \text{ million} - \$1.247\%$ . The beginning capital position in the second year for the investors is \$130 million – \$7.3 million = \$122.7 million. The ending capital position at the end of the second year is \$110 million – \$1.1 million = \$108.9 million. | We must again alter Equation 4 to include the high-water mark $(P_{HVM})$ provision, as follows: $R_{GP(Net with High-Water Mark)} = (P_2 \times r_m) + \max\{0, P_2(1-r_m) - P_{HVM}] \times p]$ where $P_{HVM}$ is defined as the maximum fund value at the end of any previous period net of fees. We may solve for investor return $r_i$ in Period 2 as follows: $r_i = (P_2 - P_1 - R_{GP})/P_1$ , $R_{GP(Net with High-Water Mark)}$ = \$110 million $\times$ 1% + max[0,[\$110 $\times$ 0.99 - \$124.16] $\times$ 20%]  = \$1.1 million. $r_i = (\$110 \text{ million} - \$124.16 \text{ million} - \$1.1 \text{ million})/\$124.16 \text{ million}$ = $-12.291\%$ The beginning capital position in the second year for the investors is \$130 million - \$5.84 million = \$124.16 million. The ending capital position at the end of the second year is \$110 million - \$1.1 million = \$108.9 million. |

#### Alternative Investment Performance and Returns

| Revised<br>Date         | Location                 | Page(s) | Replace  | With  |
|-------------------------|--------------------------|---------|--|---|
| 18<br>September<br>2025 | Example 4,<br>Solution 3 | 48 - 49 | We amend Equations 8 and 9 to reflect returns for the third period and calculate as follows: $R_{\text{GP}(\text{High-Water Mark})} = (P_3 \times r_m) + \max[0, (P_3 - P_{\text{HWM}}) \times p].$ $ri = (P3 - P2 - RGP)/P2.$ Note that the high-water mark, PHWM, is the highest value of the fund after fees in all previous years. In Kettleside's case, it was \$122.7 million, the ending value in the first year, P1. $\frac{\text{Year}  \text{Fund Value (Sm), after Fees}}{0  \text{100.00}}$ $\frac{1}{1}  \frac{122.70}{2}  \text{108.90}$ $\text{RGP(High-Water Mark)}$ $= \$128 \text{ million} \times 1\% + \max[0, (\$128 \text{ million} - \$122.7 \text{ million}) \times 20\%]$ $= \$2.34 \text{ million}.$ $r_i = (\$128 \text{ million} - \$108.9 \text{ million} - \$2.34 \text{ million}/\$108.9 \text{ million}$ $= 15.39\%.$ The beginning capital position in the third year for the investors is \$110 \text{ million} - \\$1.1 \text{ million} = \\$108.9 \text{ million}. The ending capital position for the third year is \$128 million - \$2.34 million = \$125.66 million, which represents a new high-water mark to be applied the following year for this investor. | We amend Equations 8 and 9 to reflect returns for the third period and calculate as follows: $R_{GP(Net\ with\ High-Water\ Mark)} = (P_3\ x\ r_m) + \max [0,P_3(1-r_m)-P_{HWM})\ x\ p]$ ri = (P3 - P2 - RGP)/P2.  Note that the high-water mark, PHWM, is the highest value of the fund after fees in all previous years. In Kettleside's case, it was \$124.16 million, the ending value in the first year, P1.  Kettleside Timberland LP Performance Fee Modifications    Vear   Fund Value (\$m), after Fees   124.16   124.16     2   108.90   108.90     RGP(High-Water Mark)   = \$128 million \times 1% + \max[0, (\$128 \times 0.99 - \$124.16) \times 20%]   = \$1.792 million.  r_i = (\$128 million - \$108.9 million - \$1.792 million)/\$108.9 million   = 15.89%.  The beginning capital position in the third year for the investors is \$110 million - \$1.1 million = \$108.9 million. The ending capital position for the third year is \$128 million - \$1.792 million = \$126.208 million, which represents a new high-water mark to be applied the following year for this investor. |
|                         |                          |         |  |   |

#### Investments in Private Capital: Equity and Debt

| Revised<br>Date                        | Location                                       | Page(s) | Replace  | With   |
|--|--|---------|--|--|
| 4 November<br>2024                     | Self-<br>Assessment,<br>Question 4             | 67      | As the loan amortizes, its outstanding principal declines, increasing LTV.   | As the loan amortizes, its outstanding principal declines, decreasing LTV.   |
| 18 September<br>2025                   | First sentence<br>in Public Listing<br>section | 75      | Public listing on an exchange can take place either as an initial public offering (IPO), a direct listing, or a special acquisition company (SPAC).  | Public listing on an exchange can take place either as an initial public offering (IPO), a direct listing, or a special purpose acquisition company (SPAC).  |
| 29 August<br>2024                      | Example 4                                      | 81      | As Peterburgh amortizes the loan, the outstanding principal of the mortgages decline, which increases the LTV value.   | As Peterburgh amortizes the loan, the outstanding principal of the mortgages decline, which decreases the LTV value.   |
| 8 March 2024 2023 CFA Institute. All R | Solution 7                                     | 90      | A is correct. While private capital can have overall positive contributions to diversification, direct lending can involve a large capital commitment to a single borrower, with increased concentration risk and reduced diversification. Investors attempt to protect against the risk of direct lending by having the debt itself classified as senior and secured with protective covenants in place to benefit from the associated higher interest rates while reducing non-diversifiable specific risk associated with a single borrower | C is correct. Private capital can have overall positive contributions to diversification. Note, however, that direct lending can involve a large capital commitment to a single borrower, with increased concentration risk and reduced diversification. |

#### Real Estate and Infrastructure

| Revised<br>Date      | Location  | Page(s) | Replace |   |   | With                   |   |   |
|----------------------|-----------|---------|---------|---|---|------------------------|---|---|
| 19 September<br>2025 | Exhibit 2 | 98      | Private | Debt  Mortgage debt Construction loans Mezzanine debt  MBS/CMBS/CMOs Covered bonds Mortgage REITs Mortgage ETFs | Equity  Direct ownership Sole ownership Joint ventures Limited partnerships Indirect ownership Real estate funds Private REITs  Publicly traded shares Construction Operating Development Public REITs  UCITS/Mutual funds/ETFs | Private<br>-<br>Public | Debt  Mortgage debt Construction loans Mezzanine debt  MBS/CMBS/CMOs Covered bonds Mortgage REITs Mortgage ETFs | Equity  Direct ownership Sole ownership Indirect Ownership Joint ventures Limited partnerships Real estate funds Private REITs  Publicly traded shares Construction Operating Development Public REITs  UCITS/Mutual funds/ETFs |

#### Real Estate and Infrastructure

| Revised<br>Date    | Location   | Page(s) | Replace  | With   |
|--------------------|------------|---------|--|--|
| 31 January<br>2024 | Question 6 | 117     | Akasaka Investment Company established a portfolio of warehouse properties with a total market value of THB3.60 billion. It secured mortgage financing of THB2.61 billion. The terms of the mortgage required Akasaka to maintain a loan-to-value ratio of 0.725.  After 18 months, the portfolio value had dropped to THB2.23 billion and the mortgage liability was THB2.35 billion. | Akasaka Investment Company established a portfolio of warehouse properties with a total market value of THB3.60 billion. It secured mortgage financing of THB2.61 billion. The terms of the mortgage required Akasaka to maintain a loan-to-value ratio of 0.725.  After 18 months, the portfolio value had dropped to THB3.23 billion and the mortgage liability was THB2.35 billion. |

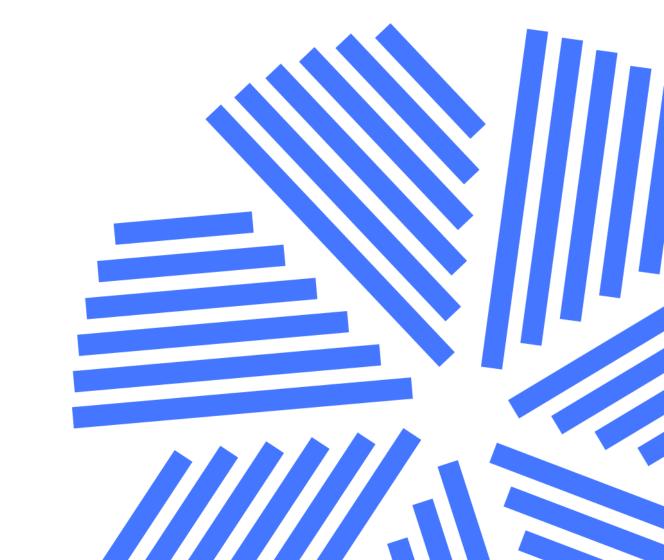
#### **Natural Resources**

| Revised<br>Date      | Location  | Page(s) | Replace  | With  |
|----------------------|---|---------|--|---|
| 13 September<br>2024 | Learning Module<br>Self Assessment,<br>Solution 4 | 123     | A and B are both incorrect because interest and storage reflect costs associated with owning the physical commodity. | A and <b>C</b> are both incorrect because interest and storage reflect costs associated with owning the physical commodity. |

#### Hedge Funds

| Revised<br>Date   | Location   | Page(s)   | Replace  | With   |
|-------------------|--|-----------|--|--|
| 4 June 2025       | Learning Module<br>Self Assessment,<br>Question/Solution 5 | 149 - 150 | <ol> <li>1. 16.38</li> <li>Return to the investors = 20 million – 3.72 million = 16.38 million.</li> <li>Investors' return = 16.38%.</li> </ol>  | <ul> <li>1. 16.28</li> <li>Return to the investors = 20 million - 3.72 million = 16.28 million.</li> <li>Investors' return = 16.28%.</li> </ul>  |
| 25 August<br>2025 | Solutions  | 176       | C is correct. Participating in a potential bankruptcy situation would be characteristic of an event-driven hedge fund manager and not a fundamental long/short manager. B is incorrect because a fundamental long/short manager would invest in securities expected to exhibit high growth and capital appreciation. C is incorrect because a fundamental long/short manager would short securities in sectors that project negative growth. | C is correct. Participating in a potential bankruptcy situation would be characteristic of an event-driven hedge fund manager and not a fundamental long/short manager. A is incorrect because a fundamental long/short manager would invest in securities expected to exhibit high growth and capital appreciation. B is incorrect because a fundamental long/short manager would short securities in sectors that project negative growth. |

## Portfolio Management



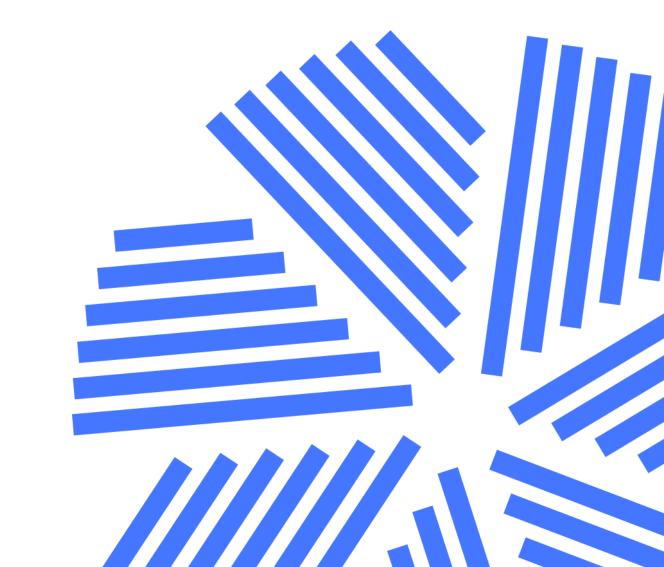
#### Portfolio Risk and Return: Part I

| Revised<br>Date | Location  | Page(s) | Replace   | With  |
|-----------------|-----------|---------|---|---|
| 8 March<br>2024 | Example 5 | 28      | Formula under "The expected return of this portfolio is": $Rp = w1 \times R1 + (1 - w1) \times R2$ $= 0.6 \times 0.055 + 0.4 \times 0.07$ $= 0.0358 \approx 3.6\%.$ | $Rp = w1 \times R1 + (1 - w1) \times R2$ = 0.6 \times 0.055 + 0.4 \times <b>0.007</b> = 0.0358 \times 3.6%. |

#### Portfolio Risk and Return: Part II

| Revised<br>Date    | Location                              | Page(s) | Replace   | With  |
|--------------------|---------------------------------------|---------|---|---|
| 31 January<br>2024 | Example 8,<br>Solution 1              | 91      | Replace the second calculation under Solution:<br>$E(Ri) = Rf + \beta i [E(Rm) - Rf]$ $= 0.04 + 1.30 \times (0.16 - 0.04)$ $= 0.196$ $= 19.6\%$ | $E(\mathbf{R}_{p}) = R_{f} + \mathbf{\beta}_{p}[E(R_{m}) - R_{f}]$ $= 0.04 + 1.30 \times (0.16 - 0.04)$ $= 0.196$ $= 19.6\%$                |
| 1 November<br>2024 | Example 10, paragraph after exhibit 8 | 101     | $M^2$ and $\alpha^1$ are performance measures relative to the market, so they are both equal to zero for the market portfolio.                  | $M^2$ <b>alpha</b> and $\alpha^2$ are performance measures relative to the market, so they are both equal to zero for the market portfolio. |

# Ethical and Professional Standards



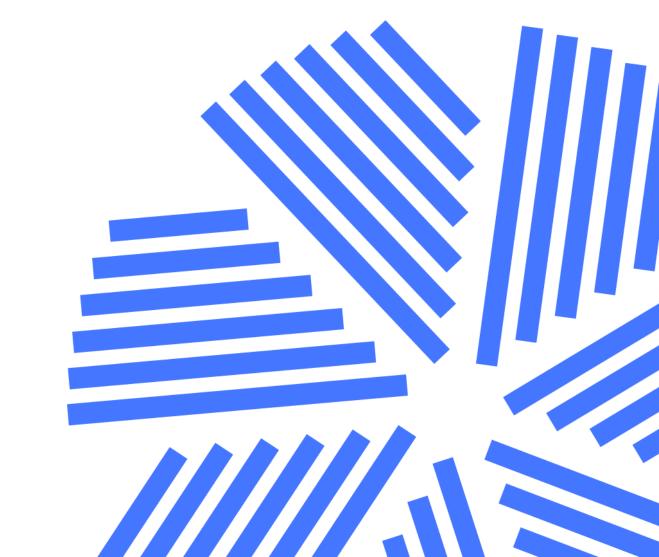
#### Guidance for Standards I - VII

| Revised<br>Date     | Location                         | Page(s) | Replace   | With   |
|---------------------|----------------------------------|---------|---|--|
| 3 September<br>2025 | Exhibit 1,<br>Row 6,<br>Column 1 | 57      | Member resides in LS country, does business in MS country; LS law applies, but it states that law of locality where business is conducted governs | Member resides in LS country, does business in MS country; <b>MS</b> law applies, but it states that law of locality where business is conducted governs |

#### **Ethics Applications**

| Revised<br>Date   | Location                       | Page(s) | Replace                          | With                             |
|-------------------|--------------------------------|---------|----------------------------------|----------------------------------|
| 25 August<br>2025 | Analysis<br>under<br>"Taveras" | 286     | "C is correct"  "B is incorrect" | "B is correct"  "C is incorrect" |

### Glossary



#### **Key Terms**

| Revised<br>Date                                | Location                   | Page(s) | Replace   | With  |
|--|----------------------------|---------|---|---|
| 4 November<br>2024                             | Amortizing debt            | G-1     | A loan or bond with a payment schedule that calls for periodic payments of interest and repayments of principal.                                    | A loan or bond with a payment schedule that calls for the complete repayment of principal over the instrument's time to maturity.                   |
| 19 May, 2025                                   | Hedge ratio                | G-14    | The proportion of an underlying that will offset the risk associated with a derivative position   | The proportion of an underlying <b>investment position</b> that will offset the risk associated with a derivative position                          |
| 5 August 2025                                  | Issue Rating               | G-16    | A rating which seeks to capture the probability of default or expected loss of the issuer's senior unsecured bonds                                  | A rating which seeks to capture the credit risk of a specific financial obligation of an issuer which takes such factors as seniority into account. |
| 5 August 2025                                  | Issuer Rating              | G-16    | A rating which seeks to capture the credit risk of a specific financial obligation of an issuer which takes such factors as seniority into account. | A rating which seeks to capture the probability of default or expected loss of the issuer's overall financial obligations.                          |
| 20 August 2025 © 2023 CFA Institute. All Right | Off-the-run-<br>securities | G-20    | Sovereign debt securities outstanding other than on-the-sun securities. Off-the-run securities are less liquid than on-the-run securities.          | Sovereign debt securities outstanding other than on-the- <b>run</b> securities. Off-the-run securities are less liquid than on-the-run securities.  |

