

2020 CFA Program: Level III Errata

13 October 2021

If you find something in the curriculum that you think is in error, please submit full details via the form at <http://cfa.is/Errata>.

- The eBook for the 2020 curriculum is formatted for continuous flow, so the text will fit all screen sizes. Therefore, eBook page numbering—which is linked to section heads—does not match page numbering in the print curriculum.
- Corrections below are in bold, and new corrections will be shown in red; page numbers shown are for the print volumes.
- The short scale method of numeration is used in the CFA Program curriculum. A billion is 10^9 and a trillion is 10^{12} . This is in contrast to the long scale method where a billion is 1 million squared and a trillion is 1 million cubed. The short scale method of numeration is the prevalent method internationally and in the finance industry.

Volume 1

Reading 2

- In Practice Problem 32 (page 182), the second sentence should read, “Local is currently **not** listed on a stock exchange and...”

Reading 3

- In question 2 (page 195 of print), the last paragraph should be replaced with the following text: “C is incorrect. The research team develops their recommendations for management of all BankGlobal’s client accounts. These clients pay BankGlobal for its research. If other investors would like to access BankGlobal research, they can do so by becoming clients of the bank. The Guidance to Standard II(A) Material Nonpublic Information states: “information is material if it would significantly alter the total mix of information currently available about a security.” To be considered material there would need to be a clear indication that the general investing public relies on the information of BankGlobal. There is no indication in the material that BankGlobal recommendations are distributed to, or highly valued by, the general investing public.”
- In the solution to Practice Problem 20 (page 245), the last two sentences should read, “By converting to PlusAccount status, Brown will incur an annual fee of \$5,750 and save approximately **\$6,370** in annual brokerage commissions. The potential savings of approximately **\$620** provides a reasonable basis for recommending PlusAccount status.”

Reading 6

- In Section 3.11, in the quote after the fourth paragraph (page 336 of print), the first paragraph of the second sentence should read, “Verification assesses whether...(2) the firm’s **policies** and procedures are designed...”
- In the third paragraph of section 4 (page 361 of print), the fourth sentence should refer to II.3 and II.4.

Volume 2

Reading 7

- In Example 3 (page 40 of print), the second-to-last sentence of the solution should read, “The portfolio will result in at least 2,067,451 euros with ~~35~~ percent probability (**i.e., 100% – 65% = 35%**) rather than 2,100,000 euros with 80 percent probability.”

Reading 8

- In Exhibit 6 (page 89 of print), the ranges should be updated to read as follows:

	Bias Type: Cognitive	Bias Type: Emotional
High Wealth Level/Low SLR	Modest Asset Allocation Change Suggestion: +/- 0 to 5% Max Per Asset Class	Stronger Asset Allocation Change Suggestion: +/- 0 to 10% Max Per Asset Class
Low Wealth Level/High SLR	Close to the Rational Asset Allocation Suggestion: +/- 0 to 2% Max Per Asset Class	Modest Asset Allocation Change Suggestion: +/- 0 to 5% Max Per Asset Class

In the second paragraph below Exhibit 6, fourth sentence should read as: “If an adjustment is needed a **+/- 2** percent maximum asset class adjustment is suggested.”

Reading 10

- In Section 3.4.1, Initial Recovery paragraph (page 191 of print), insert the word **negative** before “output gap”.
- In Exhibit 6 (page 203 of print), the text for Early expansion/Bond Yields and the Yield Curve should read, “Yields rising. Possibly stable at longest maturities. **Curve is flattening.**”
- In the Summary, fourth bullet from the end (page 213 of print), the first sentence should read, “Two countries will share a default-free yield curve if (and only if) there is perfect capital mobility and the exchange rate is **credibly** fixed *forever*.”

Reading 11

- In Section 3.3, under “Economic Risks/Ability to Pay” (page 229 of print), the paragraph that begins “The analyst should, of course, examine the health...”, the fourth sentence should read, “A persistent ratio above **40%** is likely a cause for concern.”
- Under Equation 1 (page 232 of print), the definition for *D/P* should read, “*D/P* is the **expected** dividend yield”
- In Example 8 (page 253 of print), first sentence should read, “After many years of running moderately high current account deficits (2%–4% of GDP) but doing little infrastructure investment, Atlandia plans to increase the yearly government deficit by 3% of GDP and maintain that level of deficit for **10** years, devoting the increase to infrastructure spending.”

Volume 3

Reading 12

- In the text at the beginning of Section 7 (page 43 of print), the following sentences should be removed: “The first dimension is covered in Section 5.1. The second dimension is the subject of Section 5.2.” The sentences should be replaced with: “Each of these are covered in the sections that follow.”
- The last sentence of the first paragraph of 7.2 (page 44 of print) “(Risk budgeting...” should be removed.
- In the fourth paragraph of 7.2, the phrase “discussed in Section 4.1” should be removed.

Reading 13

- In Example 2, the last paragraph (page 75 of print), the first sentence should read, “Placing about 85% of assets in Portfolio 4 and 15% in the risk-free asset achieves an efficient portfolio with expected return of 6.4 with a volatility of $0.853(11.65) = 9.94\%$.”
- In the paragraph below Exhibit 7 (page 77 of print), the first sentence should read: “Looking past the constrained allocations to human capital and UK residential real estate, the remaining allocations associated with Beel’s liquid financial assets do not include UK equities **or** UK fixed income.”
- In the paragraph below Exhibit 21 (page 99 of print), the last sentence should read: “For example, in Panel A (risk factors), the **combined** market, size, and valuation exposures mirror the pattern (allocations) in Panel B (asset classes) **of combined** large value and small value exposures.”
- In the paragraph under Exhibit 30 (page 109 of print), the third sentence should read as follows: “Bonds are **positively** correlated with changes in the present value of the frozen liability cash flows (because the liabilities indicate negative cash flows).”
- In Exhibit 36 (page 124 of print), the line for 95% in the last segment should have column E (not F) boxed.
- In the numbered list after Example 11 (page 125 of print), the last sentence should read: “Discounting their current expenses with the same assumption over the 25 years starting in Year 6 with a 6.1% rate points to an initially required capital of **US\$6,275,000**, representing **25.1%** of the Smiths’ wealth.”
- In Exhibit 37 (page 126 of print), for the last two rows of the table, column F should have **6,275** (for “In currency”) and **25.1%** (for “As a % of total”).
- In the solution to Practice Problem 18 (page 161 of print), under Supporting Calculations, there are two places where “PV” should be changed to “FV”:

“N = 5, **FV** = -5,000,000, I/Y = 4.4%; CPT PV = \$4,031,508 (or \$4.03 million)” and

“N = 25, **FV** = -10,000,000, I/Y = 7.5%, CPT PV = \$1,639,791 (or \$1.64 million)”

Reading 14

- In Table 1 (page 176 of print), the Upper Boundary after 15 years should read, “**1,304,376**”

- In the paragraph before Exhibit 2 (page 178 of print), the third sentence should read as follows: “If the plan sponsor were to **maintain the 70/30 asset mix, but** shift to longer-duration bonds ...”

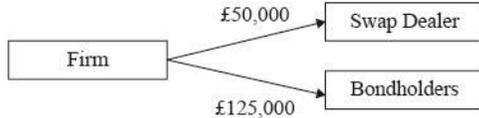
Reading 15

- In the paragraph before Exhibit 8 (page 237 of print), the last sentence of the paragraph that begins on 236 should read as: “Gamma is greatest for **a near-the-money** option and become progressively ...”
- In section 3.4 Writing Puts, in footnote 13 (page 245 of print), the first two sentences should read as: “This strategy is also called a fiduciary put. **Note that for a European option the amount deposited would equal the present value of the exercise price.**”
- In the Solution to 1 in Example 5 (p. 251 of print), there is a correction in the following sentence: “This would cost her $\text{€}0.0134/\text{US}\$1 \times \text{US}\$1,237,624 = \text{€}16,584$ or **US\$19,901 (= €16,584 × US\$1.20/€1)** upfront.”
- In Section 4.2 Straddle (page 260 of print), the first sentence of the second paragraph should read as: “A straddle is an example of a directional play on the underlying volatility, expressing the view that volatility will either increase, **for a long straddle**, or decrease, **for a short straddle**, from its current level.”
- In Section 5 Implied Volatility and Volatility Skew (page 267 of print), the first sentence should read as: “An important factor in the current price of an option is the outlook for the future volatility of the underlying asset’s **returns**, the implied volatility.” The last sentence should read as: “Implied volatilities incorporate investors’ expectations about the future course of financial asset **returns** and the level of market uncertainty associated with them.”
- In Section 5, page 268, the first sentence of the second paragraph on that page should read as: “Implied volatility is often compared with realized volatility...and measures the range of past **returns** for the underlying asset.” The first sentence of the following paragraph should read as “Obviously, we cannot use the previous formula for realized volatility....the expected volatility of future **returns** of the underlying asset.”
- In Section 5, the paragraph after Exhibit 30 (print page 270), the third sentence should read: “**Using OTM options**, a combination of long (short) calls...”
- In Section 7.1, last paragraph (page 276 of print), sixth sentence, “\$32,500” should be “\$32.250”
- In Section 7.3, under “Solution” (page 279 of print), in the second paragraph, the second-to-last sentence should read, “To reach the new breakeven points (170 ± 21.09), she now needs the stock to move by more than 10% from the current level of 169 **(specifically, upwards by 13.1% or downwards by 11.9%).**”
- In the Summary (print page 288), in the twenty-second bullet point, the second sentence should read as: “A long (short)...but greater (lesser) **return** movements are expected in the future.” The twenty-third bullet point should read as: “Implied volatility is the expected volatility an underlying asset’s **returns** and is...”

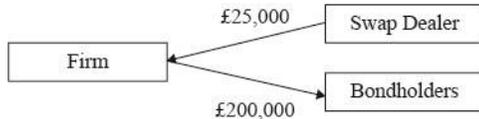
Reading 16

- In Section 2.1, Example 1 (print pages 299 and 300), the arrows in the diagram from Firm to Swap Dealer should be reversed.

Correct first diagram in Example 1 (page 299):



Correct second diagram in Example 1 (page 300):



- In Example 5, in the Solution to 1 (page 307 of print), the first formula should read as $BPV_P = MDUR_P \times 0.01\% \times MV_P$
- In Example 5 (page 307 of print), the second-to-last sentence in the first paragraph should read, “The cheapest-to-deliver bond is the DBR 0.25% 02/15/27 that has a **price of 98.14, modified duration of 8.623, and** a conversion factor of 0.619489.” In the Solution to 1, the first sentence should read, “The basis point value of the portfolio (BPV_P), stated in terms of the change in value for a 1 bp (0.01%) change in yield, is calculated using Equation 5, **as follows:**”. In the Solution to 2, the first sentence should read, “The basis point value of the CTD bond underlying the futures contract (BPV_{CTD}) is calculated using Equation 7, **as follows:**”. In the Solution to 3, the first sentence should read, “Using Equation 8 **and** the Solutions to 1 and 2, **we have:**”
- In Example 7, under “Flows at Maturity” (page 311 of print), before the equation should be “(**USD** $\times 1/S_0$)”
- In the paragraph after Example 7, mid-way through the paragraph (page 311 of print) the following sentence should read: “During such a period...(2) use a cross-currency swap to lend **an** equivalent amount...”
- In the paragraph before Exhibit 2 (page 320 of print), the last sentence should read as: “Exhibit 2...at three different **fixed** points in time **for all expires**;...”
- In Exhibit 2 (page 320 of print), the reading for Day 60 of July should be **18.50**.
- In 4.1 (p. 326 of print), in Scenario A, €21.620 should be **€21.560**. In Scenario B, –€6,380 should be **–€6,440** and €6,380 should be **€6,440**.
- UPDATED: In the text referring to Exhibit 9, some colors are mentioned but the exhibit is monochrome. The last sentence in the paragraph that begins “To derive probabilities...” (p. 333 of print) should read as follows: “As shown in Exhibit 9, where the **yellow** dots represent forecasts of the federal funds rate by each FOMC member, implied market expectations (**dotted** line) can diverge significantly from the Fed’s forward guidance (**solid** line, the median of the **yellow** dots).”
- In Equation 17 (page 334 of print), “hike” should be “change”
- In practice problem 3 (print page 338), the second sentence should read: “He **sells** the relevant interest rate...”

- In Solutions, for practice problem 3 (print page 340), the second sentence should read: “The CIO **sells** the relevant interest rate future contracts at 98.05. After six months...”

Reading 17

- In Section 2.1 (page 347 of print), the second-to-last sentence of the section should read, “Hence, paying the offer involves paying more **USD**.”
- In Section 6.3.6 (pages 392-393 of print), the discussion on digital options is referring specifically to American-style digital options.

Volume 4

Reading 18

- In the solution to end of reading question 10, the second sentence should say Exhibit 1.

Reading 19

- After Exhibit 16 (at the bottom of print page 83) the sentence should read “The payoffs for the purchased 3.50% receiver swaption are shown as the **thin** line in Exhibit 16.”
- In Example 7, Solution to 2 (page 85 of print) should read “The plan manager’s likely view is that the 30-year swap rate will be less than 3.80%. Then the **gains** on the **receive-fixed interest rate swap exceed** those **on the swaption collar (i.e., not profitable until the swap rate falls below 3.60%) and on the purchased receiver swaption (i.e., not profitable until the swap rate falls sufficiently below 3.60% to recover the premium paid) as illustrated in Exhibit 16. Note that if the 30-year swap rate exceeds 3.80%, then the receive-fixed interest rate swap will begin losing immediately. Losses on the swaption collar will not begin until the rate rises above 4.25%, while losses on the purchased receiver swaption (at any swap rate above 3.60%) are limited to the premium paid.** Notice that this rate view is also consistent with the concern about lower corporate bond yields and the relatively high hedging ratio.”
- In the numbered list before Example 9 (page 94 of print), list item 3 should read as follows: “The time period is then multiplied by the vertex’s proportionate share of the index. (The first cash flow at 6 months is equal to 1; the second cash flow at 12 months is equal to 2; the third cash flow at 18 months is equal to 3, etc.) Because each cash flow represents an effective zero-coupon payment in the corresponding period, the time period reflects the duration of the cash flow. For example, if the third vertex represents 3% of all cash flows, the third period’s contribution to duration might be 1.5 years x 3.0%, or 0.045.”

Reading 20

- The glossary terms for Macaulay duration and modified duration (page 136 of print) should be updated to the following. **Macaulay duration: Is analogous to the bond’s effective maturity, incorporating all the bond’s projected cash flows – both principal and interest. It is a weighted average of time to receive the bond’s promised payments. Modified duration: Is the Macauley duration for a bond divided by one plus the yield to maturity of the bond. It provides an estimate of the**

percent price change in a bond for a given 1% change in the bond's yield to maturity.

- In the paragraph below Exhibit 28 (page 166 of print), the second sentence should read “The index has significant exposure to **20-year** bonds that had been issued some time ago...”
- In Example 5, the calculation for CM yield change (page 185 of print) should equal **-1.07%**.
- In the Solution to 3 in Example 5 (page 187 of print), the following numbers should be corrected: In the table “United States: Potential Change in Return from Pairwise Trades,” -0.58% should be **-0.57%** and 0.58% should be **0.57%**. In “United States: Change in Return/Change in Duration from Pairwise Trades,” -0.4037% should be **-0.4006** and 0.4037 should be **0.4006**.
- In the Example 6 solution (page 201 of print), the first bullet should read: “\$100 million 30-year bonds...”
- In the paragraph after Exhibit 71 (page 205 of print), the last sentence should read, “The strong rolldown contribution is driven by the stronger price appreciation (under the stable yield curve assumption) of the 10-year zeros in the barbell portfolio (**1.84%**) relative to the price appreciation of the 5-year zeros in the bullet portfolio (**1.6%**) as the bonds ride the curve over the one-year horizon to a shorter maturity and a lower yield.”
- Just before Exhibit 74 (page 207 of print), the text should read as follows: “Every trade has some exposure to idiosyncratic movements at particular points or within particular segments of the curve. But for trades or portfolios spanning reasonably broad segments of the curve, most of the yield curve risk can be adequately captured by a small set of standard scenarios. Exhibit 74 shows yield curve movements labeled “shift” (non-parallel level change), “twist” (slope change), and “butterfly” (curvature change), which respectively account for (roughly) 82%, 12%, and 4% of weekly changes in US Treasury yields.³⁷ Together, they account for 98% of the weekly changes in these yields. Each of the curves reflects a “positive” one standard deviation move of that type. A “negative” one standard deviation move is just the mirror image.³⁸ The positive (negative) “shift” factor is a non-parallel increase (decrease) in all yields. A positive (negative) “twist” is a flattening (steepening) of the curve, while in a positive (negative) “butterfly,” the two ends of the curve move downward (upward) and the middle of the curve moves upward (downward). These three empirically derived movements correspond well with the more stylized movements emphasized in the earlier discussion of trading strategies.³⁹”
- **[Update:]** In Example 8 (pages 209 to 211 of print), questions 2, 3, and 4 and their solutions should be deleted. The solution to 1 should be modified as follows: “Although the portfolios all have the same effective duration, the impact of the shift factor is largest (in absolute value) for the Bullet and smallest for the Barbell. This result reflects the fact that actual shifts in the curve are not parallel. The larger rate increase at the intermediate maturities disproportionately impacts the Bullet portfolio. The flattening twist favors the Barbell as short rates rise and long rates decline—the gains at the long end more than offset losses on the short end. The butterfly also favors the Barbell, which is unaffected by the rise in rates at the intermediate maturities but profits from the decline in rates at the long and short ends of the curve.”
- **[Update:]** In the information for questions 23-32 (page 223-225 of print), the paragraph before Exhibit 2, Exhibit 2, the paragraph before Exhibit 3, and Exhibit 3 should all be

deleted. Questions 29-32 (page 226 of print) and their solutions (page 237-239 of print) should be deleted as well. Question numbers and solution numbers need to be updated accordingly, as it relates to removal of the previous questions and solutions.

- In the Information for questions 23-32 (page 224 of print), the second paragraph after Exhibit 1 (which begins, “Based on these views,” the third sentence should be deleted (“Each such trade will involve extending duration (e.g., lend long/borrow short) in no more than one market.”)
- In the solution to practice problem 20 (page 234 of print), the formula should read as follows: “Predicted change = Portfolio par amount × partial PVBP × (–curve shift in bps)/100”
- In the solution to practice problem 19 (page 233 of print), the sentence beginning “Money duration is equal” should contain the corrected calculation of “\$17 million × 19.69 = **\$334.73 million.**” The following calculations should be as follows:

1-year bond: **\$334.73 million/0.99** = \$338.11 million or \$338 million

5-year bond: **\$334.73 million/4.74** = \$70.62 million or \$71 million

10-year bond: **\$334.73 million/8.82** = \$37.95 million or \$38 million

- In the solution to practice problem 27 (page 235 of print), the first sentence of the second paragraph should read as follows: “Because yields are projected to remain unchanged in the US, UK, Euro, and Greek markets, the 5-year **Greek** bonds will still be priced at par in six months **and the US, UK, and Euro bonds will realize a negligible price appreciation** when they have 4.5 years to maturity.”

Reading 21

- In the solution to 1 in Example 2 (page 253 of print), the second calculation should have **66.7%** instead of 55.7%: $(66.7\% \times 7.00) + (33.3\% \times 9.88) = 7.96$.
- In Example 2 (page 253 of print), the maturity date of the Citigroup bond should be **16 March 2024**, instead of 16 June 2024.
- In section 4.1.4 (page 265 of print), the first bullet point, last sentence should read: “As another example, callable debt often has a larger **z-spread** than otherwise comparable non-callable debt.”
- The second paragraph after Exhibit 9 (page 271 of print) should be rewritten as follows: “In summary, using arithmetic weighting to assess a portfolio’s average credit quality is likely to overestimate its credit quality and underestimate its credit risk when the bonds in the portfolio span a broad range of the credit spectrum. To illustrate this point, consider a portfolio consisting of only Baa2/BBB bonds. It has a Moody’s rating factor of 360. Compare this to a portfolio consisting equally of Baa1/BBB+ and Baa3/BBB bonds. Using the arithmetic rating approach, this portfolio would also have a Moody’s rating factor of 360. Using the non-arithmetic weighting approach, however, results in a Moody’s rating factor of $435 = (50\% \times 260) + (50\% \times 610)$. While both portfolios have

the same credit risk under the arithmetic approach, the non-arithmetic approach highlights the greater credit risk of the second portfolio.”

- In the first paragraph of section 5.2 (page 284 of print), the second-to-last sentence should be “The standard deviations of these monthly returns from the mean of the preceding 25-year period were 3.7, 3.0, 2.0, and 3.2, respectively.”
- In Section 7.3 (page 292 of print), the last sentence in the first paragraph of 2. *Exposure to Default Correlations* should read: “As correlations increase, the value of **equity** tranches usually increases relative to the value of senior and **mezzanine** tranches.”
- In the information for practice problems 10–15 (page 299 of print), Comment 1 should say “Callable debt has a smaller **z-spread** than comparable non-callable debt.”
- In the information for Questions 10-15, after “Easton:” (page 300 of print) should read, “If the correlation of the expected defaults on the CDO collateral of the senior and subordinated tranches is positive, the relative value of the **equity** tranche compared with the senior and **mezzanine** tranches will increase.”
- In the solution to Question 15 (page 302 of print), the last sentence should read, “As correlations increase, the values of the **equity** tranches usually increase relative to the values of the senior and **mezzanine** tranches.”

Reading 22

- In the key for Exhibit 3 (page 309 of print), there is a typo. The corrected key should read “ $0.3 < \text{Correlation} < 0.7$ ” (not 0.07).
- The first sentence in the answer to Practice Problem 2 (page 333 of print) should read, “C is correct because the fund focuses on new **companies** that are generally classified as small firms...”

Reading 24

- In Exhibit 6 (p. 404 of print), Value vs. Growth Equities, the solid line relates to Russell 1000 Growth index, while the dotted line relates to Russell 1000 Value index.
- In Exhibit 17 (page 412 of print), the x axis should show major years 1985 through 2015, not 2005
- In Section 3.5.1, fourth paragraph (page 422 of print), the third-to-last sentence should read, “After the third trade was entered on 21 July 2015, however, there was a structural break, in that CP’s decline further intensified while CNR stayed relatively flat; therefore, the spread continued to **narrow**.”
- In Example 8 (page 427), the top paragraph of the page contains two boxes with a little “x” in them. **Instead of the first one, line 3, there should be the word "and" in the sentence. The second box with the little x, line 4, should not be there at all.**

Reading 25

- In Section 3.1.4, before first set of bullets (page 479 of print), The sentence “If a portfolio has an Active Share of 0.5, we can conclude that 50% of the allocation positions of this portfolio are identical to that of the benchmark and 50% are not.” should be replaced with “**Active share is a measure of the differentiation of the holdings of a portfolio from the holdings of a chosen benchmark portfolio. It measures the proportion of a portfolio’s holdings that is different from the benchmark for that portfolio. The**

active share is 0 for a portfolio that matches the benchmark and 100% for a portfolio that shares no investments with those of the benchmark. The percentage of portfolio assets deployed in the same way as the benchmark is equal to 100% minus the portfolio's active share. For example, an active share of 80% implies that 20% of the portfolio capital was invested in a similar way as the index."

- Under Exhibit 6 (print page 479), the second sentence of the last paragraph of the page should read: "Although portfolios that have higher active risk tend to have higher Active Share **(and vice versa)**, this is not always the case."
- In Section 5.1 (page 502 of print), the second bullet in the second list should read as indicated: "The portfolio must have a weighted average capitalization **of no** less than 75% of that of the index."
- In Example 7 (page 514 of print), "Size coefficient" row of the table, the "First Five Years" column should be **0.30**, and the "Last Five Years" column should be **-0.10**.
- In footnote 40 (page 514 of print), the first parenthetical should read, "(less than \$1 million per **month**)" and the second should read, "(more than \$20 million per **month**)"
- In Section 8.5 (page 527 of print), the second bullet in the costs column should say: "Shorting may amplify the active risk **(but please note that it does not have to do so)**"
- In the information for questions 9-15, the last paragraph (page 536 of print) should read as follows: "Chen and Garcia then turn their attention to portfolio management approaches. **Chen prefers an approach that emphasizes security-specific factors, engages in factor timing, and typically leads to portfolios that are generally more concentrated than those built using a systematic approach.**"
- Practice problem 12 (page 537 of print) should read as indicated: "**Based on Exhibit 1, the contribution of Asset 2 to Manager C's portfolio variance is closest to**"
- Updated: The solution to practice problem 15 (page 541 of print) should read as follows: "**C is correct. Chen prefers an approach that emphasizes security-specific factors, engages in factor timing, and typically leads to portfolios that are generally more concentrated than those built using a systematic approach. These characteristics reflect a discretionary bottom-up portfolio management approach.**"

Volume 5

Reading 26

- In Section 5.2, the first paragraph (page 33-34 of print) should read, "Convertible bonds are hybrid securities that can be viewed as a combination of straight debt plus a long equity call option with an exercise price equal to the strike price times the conversion ratio. The conversion ratio is the number of shares for which the bond can be exchanged. The bond's conversion value is the current stock price times the conversion ratio. The conversion price is the current convertible bond price divided by the conversion ratio. If the current conversion value is significantly below the convertible bond price (or equivalently, the current share price is significantly below the conversion price), the call is out- of- the- money and the convertible bond will behave more like a straight bond. Conversely, if the conversion value is significantly above the convertible bond price (or equivalently, the current share price is significantly above the conversion

price), the call is in- the- money and the convertible bond will behave more like the underlying equity.”

- In Section 5.2.2, the third and fourth sentences should be replaced with, “For convertible bonds with low conversion prices relative to the current stock price (i.e., the long call is I-T-M), the delta will be close to 1. For convertibles with high conversion prices relative to the current stock price (i.e., the long call is O-T-M), the delta will be closer to 0.”
- Exhibits 20, 21, and 22 (pages 73-75 of print) have a mislabeled y-axis. The label “Allocation (%)” should be deleted in each exhibit.
- In Practice Problem 4 (page 82 of print), the first paragraph should read, “Gunnar Patel is an event-driven hedge fund manager for Senson Fund, which focuses on merger arbitrage strategies. Patel has been monitoring the potential acquisition of Meura Inc. by Sellshom, Inc. Sellshom has offered to buy Meura in a stock-for-stock deal. Sellshom was trading at \$60 per share just prior to the announcement of the acquisition, and Meura was trading at \$18 per share.”

Reading 27

- In Exhibit 1 of Section 2 (p. 90 of print), “Risk Enhancing” at the bottom right of the exhibit should be “**Return Enhancing**”
- In Example 3, Solution to 2 (page 102 of print), the first bullet should read, “Supporting argument: With **an equity beta** of around **0.4** (see Exhibit 2)...”
- In Section 7.1 (page 128 of print) under 7.1.2 Skewness and Fat Tails, the second paragraph contains a sentence with an error. It should read: “Excess kurtosis (i.e., a kurtosis parameter exceeding **3**)...”
- Updated: In Example 8 (page 151 of print), in the Solution to 1, final sentence should be, “The NAV at year-end **2022** is therefore **(€30 million × 1.12) × (1 – 0.20) × 1.12 = €30,105,600.**”
- In Example 9 (page 155 of print), in the Solution to 1, the third bullet under “Sources of immediate liquidity” should read: “**\$75.0** million in total (less than the \$78 million liability)”

Reading 28

- In Section 6.1.3 (page 191 of print), the second sentence in the first paragraph should be replaced with: Suppose a client is approaching retirement and wants to make sure that he does not run out of funds in his lifetime. The wealth manager uses the client’s investment portfolio and assumptions about the client’s expected retirement expenditures to run a Monte Carlo simulation that generates a thousand trials.
- In Section 6.1.3 (page 191 of print), in the second paragraph, after the sentence that ends “in 31% of trials” insert “The successful trials are those in which the client’s portfolio value meets his objective, which is to have sufficient funds for his retirement (i.e., the client does not want to “run out of funds”). ”
- In Exhibit 4 (page 192 of print), the Year 10 Portfolio Value column, the numbers for 75th and 95th percentile should be switched

Reading 29

- In Example 2 (page 248 of print), the last line of Solution to 2 should read, “The proportion of potential investment gains consumed by taxes was $\text{€}89,611/\text{€}386,968 = \mathbf{23.16}$ percent.”

Reading 32

- In Section 3.2 (page 410 of print) under Late Retirement, the second sentence should read: “This uncertainty about longevity for a specific individual is known as longevity risk, which is the risk that **an individual outlives his or her financial resources in retirement.**”
- In Exhibit 9 (page 447 of print), the x-axis label should read, “Probability of Having Enough Money over One’s Lifetime”
- In Section 5.2.2, in the shaded box Life Insurance Needs for Jacques and Marion, the first paragraph after the bullets (page 452 of print), the second to last sentence should read, “The adjusted rate i can be calculated as follows, ~~as long as the discount rate is larger than the growth rate:~~³ $[(1 + \text{Discount rate})/(1 + \text{Growth rate})] - 1$, or $(1.05/1.03) - 1 = 1.94\%$.”

Glossary

- The updated definition of Longevity risk is as follows: “**The risk of outliving one’s financial resources.**”

Volume 6

Reading 33

- In Section 7.2, the second paragraph (page 67 of print), the third sentence, “Bank of London” should be “Bank of **England.**”

Reading 34

- In Section 3.1 (page 123 of print), the two “depository” mentions in the first sentence of the first paragraph under the bullet points should instead read “**depository.**”
- On p. 145, in the in-text question, 2. should say “a large, urgent **sell** of corporate bonds, and” and in the Solution, 2. should say “A large, urgent **sell** of corporate bonds would usually...RFQ process. Because of, the likelihood of finding a matching **buyer** is low.”
- The second sentence under the formula in section 5.1.2 (page 148 of print), should read as: “This expanded IS formulation...delay cost and **trading** cost.”
- In Section 5.1.2, the Solution to the In-Text Question, part H (page 153 of print), the Expanded IS equation also needs the solution in bps:

h. Expanded implementation shortfall can be calculated as follows:

$$\begin{aligned} \text{Expanded IS (\$)} &= \underbrace{\$8,000}_{\text{Delay cost}} + \underbrace{\$17,000}_{\text{Trading cost}} + \underbrace{\$13,000}_{\text{Opportunity cost}} + \underbrace{\$1,600}_{\text{Fees}} = \$39,600 \\ \\ \text{Expanded IS (bps)} &= \underbrace{\frac{\$8,000}{(100,000 \times \$30.00)} 10^4 \text{bps}}_{\text{Delay cost}} + \underbrace{\frac{\$17,000}{(100,000 \times \$30.00)} 10^4 \text{bps}}_{\text{Trading cost}} \\ &+ \underbrace{\frac{\$13,000}{(100,000 \times \$30.00)} 10^4 \text{bps}}_{\text{Opportunity cost}} + \underbrace{\frac{\$1,600}{(100,000 \times \$30.00)} 10^4 \text{bps}}_{\text{Fees}} \\ &= \underbrace{27 \text{bps}}_{\text{Delay cost}} + \underbrace{57 \text{bps}}_{\text{Trading cost}} + \underbrace{43 \text{bps}}_{\text{Opportunity cost}} + \underbrace{5 \text{bps}}_{\text{Fees}} = 132 \text{bps} \end{aligned}$$

- In Section 5.2 (page 154 of print), the equation under “Cost in basis points (bps)” should include a mean symbol above the first P in the numerator:

$$\text{Cost (bps)} = \text{Side} \times \frac{(\bar{P} - P^*)}{P^*} \times 10,000 \text{ bps}$$

- In the solution to practice problem 8 (page 172 of print), the numerator of the fraction should be (**\$41.42** – \$40.50).

Reading 35

- In Section 3.1 (page 180), the intro paragraph should change the text after the semicolon to instead read: “**The Brinson–Fachler model is more widely used in performance attribution today, but we introduce the Brinson–Hood–Beebower (BHB) model first to lay an important foundation.**” The remaining mentions of the Brinson model or attribution (pages 180-184) should be referred to as “**BHB.**” Lastly, the missing material on the section illustrating Brinson–Fachler will be added back to this section to help resolve questions related to Section 3.3. Please view this PDF for the full corrected text: <https://www.cfainstitute.org/-/media/documents/support/programs/cfa/cfa-liii-brinson-errata.ashx>
- In Section 3.1 in Example 4 (page 188 of print), the last sentence in Solution to 1 should read: “The below-benchmark beta **of RMRF** (-0.05_ combined with a positive return...”
- In Exhibit 5 (page 192 of print), the last three items in the Bond Selection column should be 0.07, not 0.13. The last three items in the Total column should be -0.15, -1.03, and – 0.26. **The fifth bullet should read, “7 bps were added through bond selection.”**
- In Section 3.1 (page 193 of print) below Exhibit 6 following “*Shift:*”, the text “given the increase in yield of +1%” should be removed from this paragraph.
- In Exhibits 12 and 13 (page 200), the far-right column in each should read Selection + **Interaction**
- In Example 7 (page 202), in the first table, the “(Annualized)” in the far-right column heading should be deleted.

- UPDATED: In Section 3.3.2, Example 7, Solution (page 202 of print), the table AAA Asset Management Fixed-Income Fund-of-Funds Attribution Analysis needs to be updated:

	Year 1		Year 2		Year 3	
	Allocation	Selection	Allocation	Selection	Allocation	Selection
Product A	-0.05%	0.10%	-0.02%	0.08%	0.00%	-0.31%
Product B	-0.19%	0.01%	-0.07%	-0.04%	0.00%	0.11%
Total	-0.24%	0.12%	-0.09%	0.04%	0.00%	-0.20%

- In Section 4.5, first set of bullets, the first bullet should read, "Manager return: 24.7%"
- Corrected errata: In Section 4.5, second set of bullets (p. 215 of print):
 - True Active Return = Mgr Return – Normal Portfolio Return = 24.7 – 24.0 = 0.7%
 - Investor (Mismeasured) Active Return = Mgr Return – Investor Benchmark return = (Mgr Return - Normal portfolio Return) + (Normal Portfolio Return - Investor Benchmark return) = True Active Return + Misfit Active Return = 24.7 – 25.0 = 0.7 + (-1.0) = -0.3%
- In Example 11 (page 221 of print), question 5 should be deleted.
- In Section 5.2 (page 225 of print), the formula under 5.2.6.2 Drawdown has a bracket in the wrong place and should be updated as follows: Maximum DD(m,t) = min([missing bracket V(m,t) – V(m,t*)]/V(m,t*), 0)
- In the information for Practice Problems 6-14 (page 239), in Exhibit 1, the far-right column (Proportion of Active Return), each number but the final 100% should have its sign reversed.

Reading 36

- In Section 2.2.2, the second paragraph (page 251 of print), the third sentence should read, "A Type II error would be trimming or not hiring strong performers and hiring managers with weaker track records."
- In Section 4.3 (page 263 of print), the "symmetries" mentions in the Unique and Timely term sections should instead read "asymmetries."

Reading 37

- In the fourth paragraph after Exhibit 4 (print page 299-300), the second sentence should read: "For QU, a 5% spending rate per year combined with long-term expected inflation for colleges and universities of 2-3% per year, translates into a 7-8% nominal return objective per year over the long-term."

Reading 38

- In Exhibit 6 (page 333 of print), Example 1 (page 336), Exhibit 12 (p. 344), and Exhibit 18 (page 353), the column labels should state, "Paul's Life Cover (from Jessica's perspective)" and "Jessica's Life Cover (from Paul's perspective)"
- In Example 1, the last bullet point (page 336 of print), there is a typo. It should read: "Capital available is now only €12,000 and €21,000, represented by the PV of vested retirement savings accounts for Jessica and Paul, respectively."

- In Exhibit 9 (page 340 of print), the figure for Accrued DB government retirement plan (Paul) should be **227,000**
- In Exhibit 9 (page 340 of print), under Assets, the figure for Jessica's human capital should be **2,785,000**
- In Exhibit 13, in the row for Disability insurance (page 349 of print), under Jessica it should read, "Government insurance coverage of **€30,720** per year..." and under Paul it should read, "Government insurance coverage of **€36,870** per year..."
- In Exhibit 20 (page 357 of print), in the table, the third row for PV should be **€451,000**