

# 2022 CFA Program: Level III Errata

21 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 2022 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 3

- In Exhibit 6 (page 140 of print), under Bond Yields and the Yield Curve for Early expansion should read, “Yields rising. Possibly stable at longest maturities. **Curve is flattening.**”

### Reading 6

- In Example 2, the last paragraph (page 301 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  $0.853(11.65) = 9.94\%$ .”

### Reading 7

- In the box immediately after Example 3, in the table (page 407 of print), the Upper Boundary after 15 years should read, “**1,304,376**”

## Volume 2

### Reading 8

- In the last paragraph of Section 11.1 (page 57 of print), the sixth sentence should read, “Parker’s MNZA shares may be called away at 170, limiting her profit to the option premium of **\$32,250** plus the \$5,000 from selling her MNZA shares at a profit of \$1 (=  $\$170 - \$169$ ) as shown in Exhibit 34.”

### Reading 11

- At the very end of Section 5 (page 257 of print), there should be an additional bullet: “As a funding cost arbitrage transaction, the TRS can allow investors to gain particular access to subsets of the fixed-income markets, such as bank loans or high-yield instruments for which cash markets are relatively illiquid or the cost and administrative complexity of maintaining a portfolio of these instruments is prohibitive for the investor.”

## Volume 3

### Reading 13

- In Example 1 (page 12 of print), under Portfolio B the equation should read (brackets are adjusted),  
$$-2.390\% = 0.5894 \times \{-1.994 \times 0.005\} + [0.5 \times 5 \times (0.0052)] + 0.4106 \times \{-9.023 \times 0.005\} + [0.5 \times 90.8 \times (0.0052)]$$
- In the paragraph after Example 1 (page 12 of print), the third sentence should read, “Although the bullet and barbell have the same duration, the barbell’s higher convexity (40.229 versus 26.5 for the bullet) results in a larger gain as yields-to-maturity **fall** and a smaller loss when yields-to-maturity **rise**.”
- In Exhibit 8 (page 16 of print), the arrows in the first row should only point LEFT. The label on arrows in the first row should read “Post initial margin at t = 0.”
- In Exhibit 9 (page 17 of print), the box on the right should read, “Fixed Rate **Receiver** / Floating-Rate **Payer** / Long Duration Position.”
- In Example 3, after the first two sentences, the following sentence should be inserted, “The swap has a modified duration of 8.318.”
- In the fourth paragraph of Section 3.2.2 (page 24 of print), the third sentence should read, “Portfolio duration is approximately zero, or  $[1.994 \times 163.8 / (163.8 - 36.2)] + [9.023 \times -36.2 / (163.8 - 36.2)]$ , and portfolio convexity equals  $-19.34$ , or  $[5.0 \times 163.8 / (163.8 - 36.2)] + [90.8 \times -36.2 / (163.8 - 36.2)]$ .”
- In Example 7 (page 24 of print), the last sentence of the second paragraph should read, “We can therefore solve for the modified duration of the 2-year zero as 1.96 (= 2/1.02) and the 10-year zero as 9.62 (= 10/1.04), so net portfolio duration equals zero, or  $[124.6 / (124.6 - 25.41) \times 1.96] + [-25.4 / (124.6 - 25.41) \times 9.62]$ .”
- In the second paragraph after Exhibit 16 (page 26 of print), the last sentence should read, “We may use this portfolio BPV to estimate the approximate portfolio gain if the 2-year yield-to-maturity falls by 25 bps more than the 10-year yield-to-maturity **rises**, which is equal to \$249,225 (= 25 bps × \$9,969).”
- In the third-to-last paragraph in 3.2.2, under Roll-down Return, the second and third sentences should read, “However, under negative yields-to-maturity, amortization of the bond’s premium will typically result in a **negative** roll-down **loss**. In our example, the investor is short the original 2-year zero and therefore realizes a **positive** roll-down **gain** on the short position.” The equations at the end of the paragraph should read:  
“Short” 2-year:  $-\text{€}83.24 \text{ MM} \times \{[1 / (1 + -0.65\%)^{1.5}] - [1 / (1 + -0.65\%)^2]\}$   
“Long” 10-year:  $\text{€}17.05 \text{ MM} \times \{[1 / (1 + 0.04\%)^{9.5}] - [1 / (1 + 0.04\%)^{10}]\}$
- In the second-to-last paragraph in 3.2.2, under  $\Delta$  Price Due to Benchmark Yield Changes, the equations at the end of the paragraph should read:  
“Short” 2-year:  $-\text{€}83.24 \text{ MM} \times \{[1 / (1 + -0.63\%)^{1.5}] - [1 / (1 + -0.65\%)^{1.5}]\}$   
“Long” 10-year:  $\text{€}17.05 \text{ MM} \times \{[1 / (1 - 0.20\%)^{9.5}] - [1 / (1 + 0.04\%)^{9.5}]\}$
- In the third paragraph after Exhibit 19 (page 29 of print), the second sentence should read, “A duration-based estimate multiplying each position BPV by the respective yield change gives us an approximation of **\$9,088,175**, or  $(+25 \text{ bps} \times \$21,934) + -(50 \text{ bps} \times -\$121,170) + (+25 \text{ bps} \times \$99,253)$ .”
- In the paragraph after Equation 9, the first sentence should read, “In Equations 8 and 9,  $PV_-$  and  $PV_+$  are the portfolio **values changes** from a decrease and increase in yield-to-

maturity, respectively,  $PV_0$  is the original portfolio value, and  $\Delta\text{Curve}$  is the change in the benchmark yield-to-maturity.”

- In the fourth paragraph of Section 3.3 (page 37 of print), the last sentence should read, “Note that the short 5-year active position has a negative key rate duration of  $-0.857$ , or  $4.902 \times (-46/263)$ .”
- In the third paragraph after Equation 14, the last sentence should read, “This stands in contrast to the relationship between USD/EUR spot and 2-year forward rates at the inception of the trade on 31 March 2019, when implied (annualized) EUR appreciation was **2.87%**,  $= (1.187/1.1218)^{0.5} - 1$ .”
- In Practice Problem 3 (page 51 of print), Option A should read, “2-year receive-fixed Australian dollar (AUD) swap with the *same modified* duration as the bullet portfolio.” Option B should read, “2-year pay-fixed AUD swap with *twice the modified* duration as the 2-year government bond in the barbell portfolio.” Option C should read, “9-year receive-fixed AUD swap with *twice the modified* duration as the 9-year government bond position in the equally weighted portfolio.”
- In Practice Problem 8 (page 52 of print), Option B should read, “sell the bullet portfolio and **buy** the barbell portfolio.”
- The second sentence in Practice Problem 11 (page 53 of print), “If she has a choice between **a callable bond which is unlikely to be called**, **a puttable bond which is likely to be put**, or **an** option-free bond with otherwise comparable characteristics, the most profitable position would be to...”
- In Practice Problem 21 (page 55 of print), Option A is “Bear steepening.”
- The Solution to Practice Problem 3 (page 56 of print), the last sentence should read, “In the case of B, the pay-fixed swap with twice the **modified** duration of the barbell will more than offset the existing long position, resulting in net short 2-year and long 9-year bond positions in the overall portfolio and a gain under bear flattening.”

#### Reading 14

- In Example 17, under Question 1 (page 91 of print), after the 15-year interpolated bond should read, “ $2.125\% = (2.00\% \times 0.5) + (2.25\% \times 0.5)$ ”
- **In Exhibit 3 (page 63), the lines are mislabeled. The line labeled as Investment Grade should be labeled High Yield, and vice versa.**

#### Reading 18

- The Solution to Practice Problem 15 should read, “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 4

#### Reading 19

- The Solution to Practice Problem 4 (page 84 of print) 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 20

- In Example 8 (page 168 of print), the last sentence in the Solution to 1 should read, “The NAV at year-end 2022 is therefore  $(\text{€}30 \text{ million} \times 1.12) \times (1 - 0.20) \times 1.12\% = \text{€}30,105,600.$ ”

### Reading 23

- In Exhibit 9, the x-axis label should be “Probability of Having Enough Money over One’s Lifetime.”
- In Section 11.2.2, in the shaded box Life Insurance Needs for Jacques and Marion, the first paragraph after the bullets (page 422 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:~~<sup>3</sup>  $[(1 + \text{Discount rate}) / (1 + \text{Growth rate})] - 1$ , or  $(1.05/1.03) - 1 = 1.94\%.$ ”

## Volume 5

### Reading 24

- In the second paragraph of 17.1 (page 71 of print), the third sentence should read, “The largest remaining portion of assets consists of currency, deposits with central banks (e.g., **Bank of Japan or Bank of England**), receivables, and bullion.”

### Reading 26

- In Example 8, in the table in the Solution (page 221 of print), the numbers for Year 1 Selection should be as follows: 0.10%, 0.01%, 0.12%. The numbers for Year 2 Selection should be as follows: 0.08%, -0.04%, 0.04%

### Reading 29

- In Exhibit 9 (page 396 of print), the Total Assets should read “2,785,000.”

### Reading 35

- In the third paragraph of Section 5.1 (page 200 of print), the last sentence should read, “If another developer could build an office for an all-in cost of \$2.5 million-including its profit requirement-and sell the property for \$4.25 million, then the developer would be willing to pay as much as **\$1.75 million** for the land. In that case, the value under the existing use falls below the land value (\$1.5 million warehouse value minus **\$1.75 million** for the land based on the highest and best use) and any buildings on the site will likely be demolished so the building that represents the highest and best use of the site can be constructed.”

## Volume 6