## Updates and Errata: ACTEX Study Manual for SOA Exam FM, Fall 2018 Edition as of June 30, 2020

Please note the following errors in the Fall 2018 Edition of the manual. In each item, the change is shown in red.

### Page M2-52, Example (2.115).

The answer (on the last line) should be: 1,242,860.96

# Page M2-93, solution to Problem 15.

The second paragraph should begin:

Since Susan gets the next *m* payments ...

### Page M2-104, solution to Problem 12.

The *Note* on the 8<sup>th</sup> line from the bottom of the page should read as follows:

(Note: Calculator must be in **BGN** mode.)

### Page MT1-4, Problem 3.

The formula after the large paragraph should be:

$$FV = 8 \cdot s_{\overline{10}|i}^{5.25\%\,(4)} = 8 \cdot \frac{(1+i)^{10} - 1.0525^{10}}{i - 0.0525} \cdot \frac{i}{i^{(4)}}$$

### Page MT1-6, solution to Problem 8.

The one-sentence paragraph just below the middle of the page should begin:

"The last payment will be 564.89 plus ..."

## Page M5-30, solution to Problem 5.

The 2<sup>nd</sup> line of the formulas in the middle of the solution requires an additional "0":

 $1,050 - 100x = 90/0.08852 = 1,016.72 \rightarrow x = 0.333$ 

### Page M9-52, solution to Problem 5.

The first sentence of the  $3^{rd}$  paragraph of this solution should begin: "The bank pays the swap rate (the fixed rate of 5.1618%) and receives the variable rate (4%), so..."

## Page PE5-14, solution to Problem 19.

The first line of equations should be:

$$(1+i)^5 = 213.70 / 159.69 = 1.3382 \rightarrow i = 1.3382^{1/5} - 1 = 0.0600$$

### Page PE5-20, solution to Problem 29.

Replace the equation on the  $6^{th}$  line with the following:

" $F \cdot (r-i) \cdot v^{n-t+1} = 10,000 \cdot (0.03 - 0.04) \cdot 1.04^{-(30-9+1)} = -42.20$ 

(The negative value indicates that 42.20 of <u>discount</u> is being amortized.)"

## Page PE6-9, Problem 35.

The first sentence should read:

A 4-year interest rate swap has a notional principal amount of 100,000.

## Page PE6-11, solution to Problem 5.

The end of the last sentence should read as follows: "which must equal Ben's NPV of -26,243.83:"

## Page PE6-17, solution to Problem 18.

The equation near the middle of the page that gives the value of *n* should be:

 $n = \ln 1.904046 / \ln 1.004074 = 158.3880$ (The change is that the minus sign should be deleted.)

## Page PE7-18, solution to Problem 18.

The last two sentences of the second paragraph should be: "Set PMT = -2,251.90. CPT N = 262.41."

### Page PE6-23, solution to Problem 33.

The equation in the last paragraph requires an additional "0":

 $6,000 \cdot 1.003333^{10} = 6,203.03$ 

## Page PE8-18, solution to Problem 17.

The correct answer choice is **D**, not **B**.

### Page PE9-7, Problem 25.

The number in the next-to-last line should be 1,275 (not 1,175).

### Page PE9-14, solution to Problem 11.

The second equation should be:

 $X = 960 \cdot \boldsymbol{a}_{\overline{168}|i} = 960 \cdot \frac{1 - 1.00526169^{-168}}{0.00526169} = 106,897.76$ 

### Page PE9-24, solution to Problem 29.

The first equation on the last line should be:

 $v^2 = 0.90525$