## **Topic 61: Multi-Factor Risk Metrics and Hedges**

Question #1 of 11 Question ID: 439524

Which of the following is NOT an accurate statement regarding the key rate shift approach in analyzing nonparallel shifts in the yield curve?

- A) A parallel shift across the yield curve results.
- B) Key rates are mostly affected by the few rates closest to it.
- C) A linear relationship incorporates key changes in rates across key rates.
- D) Key rate effects are smooth.

Question #2 of 11 Question ID: 439528

Which measure of interest rate risk would be most suitable for managing the interest rate risk of a swaps portfolio?

- A) Key rate duration.
- B) Bucket shift technique.
- C) Key rate shift technique.
- D) Effective duration.

Question #3 of 11 Question ID: 439526

An analyst has a list of key rate durations for a portfolio of bonds. If only one interest rate on the yield curve changes, the effect on the value of the bond portfolio will be the change of that rate multiplied by the:

- A) weighted average of the key rate durations.
- B) key rate duration associated with the maturity of the rate that changed.
- C) simple average of the key rate durations.
- D) median of the key rate durations.

Question #4 of 11 Question ID: 439530

Which of the following statements in regard to key rate shifts and bucket shift approaches is FALSE?

- A) Key rate shifts incorporate a relatively small number of key rates in its analysis.
- **B)** Key rate shifts assume changes in rates in and around the chosen key rates.
- **C)** The bucket shift approach assumes non-parallel changes in forward rates in the section of the yield curve under investigation.
- D) The bucket shift approach uses many potential effects within a section of the yield curve.

1 of 3

Test ID: 8451153

Question #5 of 11 Question ID: 439522

Which of the following best describes key rate duration? Key rate duration is determined by:

- A) shifting the whole yield curve linearly.
- B) changing the yield of a specific maturity.
- C) shifting the whole yield curve in a parallel manner.
- D) changing the curvature of the entire yield curve.

Question #6 of 11 Question ID: 439525

You are using key rate shifts to model the term structure of interest rates. For key rates you have chosen the 1-year, 7-year, and 20-year yields. The effect on the 10-year yield of a 10 basis point increase in the 7-year yield is *closest* to a:

- A) 10 basis point increase.
- B) 2.3 basis points increase.
- C) 7.7 basis point increase.
- D) 5 basis points increase.

Question #7 of 11 Question ID: 439532

How are forward-bucket '01s computed?

- A) By shifting the forward rate over each of several defined regions of the term structure.
- B) By fitting the swap par rates to the yield curve.
- C) By summing the changes in the fitted securities.
- $\ensuremath{\mathbf{D}}\xspace)$  By expanding key rates to an infinite number along the curve.

Question #8 of 11 Question ID: 439527

Assume you own a security with a 2 year key rate exposure of \$4.78, and you would like to hedge your position with a security that has a corresponding 2 year key rate exposure of 0.67 per \$100 of face value. What amount of face value would be used to hedge the 2 year exposure?

- A) \$478.
- **B)** \$670.
- **C)** \$713.
- **D)** \$239.

Question #9 of 11 Question ID: 439529

Which of the following statements regarding key rate shifts and bucket shifts is CORRECT?

- I. The key rate shift approach uses many potential effects within a region of the yield curve.
- II. The bucket shift approach assumes parallel changes in the forward rates implicit in the region of the curve being investigated.
- III. The key rate shift approach is more appropriate than the bucket shift approach for managing the interest rate risk of a swaps portfolio.
- A) II only.
- B) I only.
- C) II and III.
- D) III only.

Question #10 of 11 Question ID: 439523

An analyst is using key rate shifts to model the term structure of interest rates. For key rates the analyst has chosen the 1-year, 7-year, and 20-year yields. The rate changes that will have an effect on a 5-year bond are:

- A) 1-year, 7-year, and 20-year.
- **B)** 1-year.
- C) 7-year.
- D) 1-year and 7-year.

**Question #11 of 11** Question ID: 439531

Which of the following differences between key rate and bucket analysis is (are) CORRECT?

- I. Key rate uses more interest rate factors.
- II. The bucket shift approach assumes parallel changes in the implicit forward rates.
- III. Estimating portfolio volatility with both methods is similar except the bucket technique required less inputs and correlations.
- IV. The key rate shift approach assumes changes in rates in and around the chosen key rates.
- A) II and IV.
- B) I and III.
- C) II and III.
- D) IV only.