Level I CFA® Exam Questions

Question Examples

Question 1: If the market yield does not change, the price of a Treasury bill:

A. Will increase as the bill approaches maturity.

B. Will decrease as the bill approaches maturity.

C. Stay the same as the bill approaches maturity.

Question 2: Which of the following is closest to the percentage price change of a bond for a 20 basis point increase in the yield if the bond's duration is 8.54 and the convexity is 58.66?

A. –1.696%.

B. –1.708%.

C. –1.720%.

Question 3: The following details are gathered from Treasury securities:

Years to maturity	Spot rate
1.0	5.0%
2.0	4.5%
3.0	4.1%
4.0	3.8%

Which of the following is the best estimate of the one-year implied forward rate three years from now?

A. 2.91%

B. 3.12%

C. 3.20%

Question 4: Evaluate the following statements.

Statement 1: "A putable bond exhibits negative convexity at low yields and positive convexity at high yields."

Statement 2: "Effective duration measures the sensitivity of a bond's price to changes in its yield to maturity."

A. Both statements are correct.

B. Exactly one statement is correct.

C. None of the statements are correct.

Question 1

Treasury bills are discount instruments. As the bond approaches maturity, the price would increase.

For all bonds, the present value of the redemption value will begin to dominate price as the bond gets closer to maturity. For bonds issued at a discount, this means their price will increase to par over their life. For bonds issued at a premium, the price will decline to par value. This is known as the bond's price on a constant yield trajectory. In FRA the impact on a bond's price due to the passage of time, keeping yield constant, is known as amortized cost.

Question 2

Percentage price change in the bond price:

= (- Duration x change in yield) + (½ x Convexity x change in yield2)
= – 8.54 x 0.002 + ½ x 58.66 x 0.0022 = –0.01696 x 100 = –1.696%

Question 3

The one year rate three years from now

= [(1 + spot 4)4/(1 + spot 3)3] – 1 = [1.0384/1.0413] – 1 = 0.0291 or 2.91%

Question 4

Statement 1 is incorrect. The statement is describing a callable bond not a putable bond. Statement 2 is incorrect. Effective duration measures the sensitivity of a bond's price to changes in the benchmark yield curve, not its yield to maturity.