Question #1 of 10

Question ID: 1552183

A portfolio manager recommends the following trades for the bond portfolio of a large endowment fund.

- Sell 2-year Treasury bonds
- Buy 7-year Treasury bonds
- Sell 20-year Treasury bonds

If the combined trades are money duration neutral, the manager is *most likely* anticipating:

A) a decrease in the curvature of the yield curve. ✓

B) a parallel upward shift in the yield curve. ✗

C) an increase in the curvature of the yield curve. ✗

Explanation

The manager is recommending a butterfly portfolio that is short in the wings (by selling 2-year and 20-year Treasury bonds) and long in the body (by buying 7-year bonds).

This butterfly structure will profit from a decrease in curvature of the yield curve. The short position in 2-year and 20-year bonds will benefit if the decrease in curvature results from short and long rates rising. Alternatively, the long position will benefit if the decrease in curvature results from intermediate rates falling.

Because the butterfly portfolio is money duration neutral, its value should be unchanged for a small parallel shift in the yield curve.

(Module 11.2, LOS 11.c)

Question #2 of 10

Question ID: 1552220

A bond portfolio has a 30-year key rate price value of a basis point (PVBP) of $0.024 per $1 of par value. Key rate PVBPs are scaled such that:

> sum of the key rate PVBPs effective duration × portfolio value per $1 of par value × 0.01

If the portfolio has a par amount of $80 million, and the 30-year rate falls by 25 basis points, the change in the portfolio's value due to the shift in the 30-year rate is *closest* to:

A) $48,000.

B) $4,800.

C) $480,000.

Explanation

change in portfolio value = −key rate PVBP Portfolio par amount × (curve shift in bps / 100)

= −0.024 × $80 million × (−25 / 100) = +$480,000

Note: In the CFA Institute reading, key rate PVBPs express the change in the value of the portfolio (per $1 of par amount) for a 100 basis point change in the key rate.

(Module 11.3, LOS 11.e)

Question #3 of 10

Question ID: 1587656

Chris Lipczynski owns a large portfolio that is predominantly invested in domestic equities. He now desires to diversify the portfolio to reduce overall portfolio risk and to generate cash flows that maintain purchasing power over the next 20 years. Lipczynski's current portfolio has a correlation of −0.20 with a domestic fixed-coupon bond portfolio and a correlation of −0.05 with a domestic inflation-linked bond portfolio. The correlation between a domestic fixed-coupon bond portfolio and a domestic inflation-linked bond portfolio is 0.70. Which of the following asset allocations is *most likely* to satisfy Lipczynski's stated desires for his portfolio?

A) 80% domestic equities; 20% fixed-coupon bonds.

B) 50% domestic equities; 50% fixed-coupon bonds.

C) 50% domestic equities; 30% fixed-coupon bonds; 20% inflation-linked bonds.

Explanation

While diversifying into fixed-coupon bonds would offer significant risk-reduction benefits, it would not address Lipczynski's desire to maintain the purchasing power of cash flows over time.

By diversifying into both fixed-coupon bonds and inflation-linked bonds, Lipczynski achieves risk reduction (correlation coefficient between the asset-class pairs are all less than 1), as well as some inflation proofing for the cash flows.

(Module 9.1, LOS 9.a)

Question #4 of 10

Question ID: 1552071

An institutional investor expects high volatility and the potential for very large parallel yield curve shifts. In such an economic environment, what asset portfolio characteristic is most important for immunizing multiple liabilities?

A) High modified duration.

B) High basis point value (BPV).

C) High convexity.

Explanation

For immunizing multiple liabilities, the asset portfolio's BVP should closely match liabilities, and its convexity should slightly exceed the liabilities' convexity. However, in an environment of high volatility and expectations of large parallel yield curve shifts, the most important asset characteristic is high convexity. High convexity, even if the asset portfolio BVP is not a good match, will increase asset returns relative to the change in liability values.

(Module 10.1, LOS 10.c)

Question #5 of 10

Question ID: 1552202

A portfolio manager wishes to lower the duration of a bond portfolio to express his yield curve expectations. The manager is *most likely* to:

A) sell put options on bonds and sell call options on bonds.

B) sell put options on bonds and buy call options on bonds.

C) buy put options on bonds and sell call options on bonds.

Explanation

Buying put options on bonds will lower portfolio duration; selling call options on bonds will also lower portfolio duration.

(Module 11.3, LOS 11.d)

Question #6 of 10

Question ID: 1552050

Defined benefit pension plan obligations are *most likely* to be classified as:

A) Type IV liabilities. ✓

B) Type II liabilities. ✗

C) Type III liabilities. ✗

Explanation

Type IV liabilities will require uncertain amounts of cash outlay, with uncertain timing of cash outlays. Both the future amounts and payout dates of defined benefit pension plan obligations are uncertain.

(Module 10.1, LOS 10.a)

Question #7 of 10

Question ID: 1552182

Consider three portfolios with the same duration of 6 constructed from three government bonds with durations of 2, 6, and 10.

- An equal weighted ladder of 2, 6, and 10 duration bonds.
- A bullet with only the 6 duration bond.
- An equal weighted barbell of the 3 and 11 duration bond.

Which portfolio will perform the *best* in the case of a decrease in bond curvature with intermediate bond rates decreasing relative to the shorter and longer bond rates?

A) Ladder. ✗

B) Barbell. ✗

C) Bullet. ✓

Explanation

The bullet is the best of the three with 100% exposure to the relative decrease in intermediate rates.

The barbell is the worst with no exposure to the relative decrease in intermediate rates.

(Module 11.2, LOS 11.c)

Question #8 of 10

Question ID: 1552185

An investor wishes to construct a portfolio to express his interest rate expectations. The portfolio will use Treasury securities with 2-year, 5-year, 10-year, and 30-year maturities. The 2-year Treasury security has an effective duration of 1.93, while the 30-year Treasury security has an effective duration of 21.27. All the bond positions have the same money duration in absolute terms. If the investor takes a $5 million position in the 30-year security, the position in the 2-year security should be *closest* to:

A) $53.2 million.

B) $0.5 million.

C) $55.1 million.

Explanation

The portfolio could be:

- long 2s/short 5s/short 10s/long 30s, to profit from increasing curvature of the yield curve; or
- short 2s/long 5s/long 10s/short 30s, to profit from decreasing curvature of the yield curve.

money duration of the 30-year bond = $5 million × 21.27 = $106,350,000

2-year bond position required = $106,350,000 / 1.93 = $55,103,627

(Module 11.2, LOS 11.c)

Question #9 of 10

Question ID: 1552042

When managing a fixed-income portfolio for a taxable investor, which of the following statements is *most accurate*?

Statement 1:	Taxable investors should realize capital losses early and defer the realization of capital gains.
Statement 2:	Taxable investors should evaluate the differences in the taxation of interest income and capital gains when selecting portfolio assets.

A) Only Statement 1 is accurate.

B) Both Statement 1 and Statement 2 are accurate.

C) Only Statement 2 is accurate. ✗

Explanation

Statement 1 refers to tax-loss harvesting.

Statement 2 is an important consideration for a taxable investor (e.g., when there is a differential between the tax rate of interest income and the tax rate of capital gains).

(Module 9.3, LOS 9.f)

Question #10 of 10

Question ID: 1587685

The following is selected data on the Omega fixed-income mutual fund:

Current average bond price	$105.00
Average modified duration	8.50
Average annual coupon	$1.50
PV of assets (millions)	$120.00
Value of portfolio's equity (millions)	$62.25
Value of borrowed funds (millions)	$30.26
Borrowing rate	1.75%
Return on invested funds	4.25%

The leveraged portfolio return for the Omega fixed-income mutual fund is *closest* to:

A) 5.75%. ✗

B) 9.43%. ✗

C) 5.47%. ✓

Explanation

Return on the leveraged portfolio =

> Return on invested funds + (value of borrowed funds / value of portfolio's equity) × (return on invested funds – borrowing rate)
>
> = 4.25% + ($30.26 million / $62.25 million) × (4.25% – 1.75%) = 5.47%.

(Module 9.3, LOS 9.e)