




Question #1 of 12

Question ID: 1587679

Jeff Timura is currently the lead portfolio manager for an international fixed-income portfolio. Timura has an upcoming meeting on December 20 with his largest client, Tucker Powell, to discuss the firm's outlook for the upcoming year. At the meeting, Timura tells Powell that he expects the yield curve to continue to remain unchanged for the next 16 months. Assuming the forecast is correct, which of the following statements is *most likely* correct?

- A) Because Timura is expecting a stable yield curve, yield income is a good estimate of the bond portfolio's expected return for next year.** 
- B)** The current yield (yield income) of an international global portfolio is an incomplete measure of the portfolio's expected return. 
- C)** The best estimate of the bond's return is the portfolio's yield income plus its rolldown return minus its expected credit losses. 

Explanation

Yield income (current yield) is an incomplete measure of a bond portfolio's expected return.

Decomposing expected fixed-income returns allows an investor to differentiate among several important return components. At the most general level, expected returns (denoted as $E(R)$ as follows) can be decomposed (approximately) in the following manner:

$$\begin{aligned}
 E(R) &\approx \text{yield income} \\
 &+ \text{rolldown return} \\
 &+ E(\text{change in price based on investor's} \\
 &\quad \text{views of yields and yield spreads}) \\
 &- E(\text{credit losses}) \\
 &+ E(\text{currency gains or losses})
 \end{aligned}$$

(Module 9.2, LOS 9.d)

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Question ID: 1587658

An investment analyst states that the following conditions are required when implementing a duration-matching approach to a fixed-income mandate:

- Condition 1: The duration of the portfolio of bond assets and the duration of the liabilities must be the same.
- Condition 2: The present value of the portfolio of bond assets must exceed the present value of the liabilities at current interest rates.

Is the analyst correct with respect to the conditions for duration matching?

A) No. Only Condition 1 is correct.



B) Yes.



C) No. Only Condition 2 is correct.



Explanation

Duration matching also requires the present value of the bond asset portfolio and the present value of the liabilities to be the same at current interest rates.

Condition 2 is required specifically for contingent immunization only.

(Module 9.1, LOS 9.a)

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Question ID: 1552026

Selected data relating to a fixed-income portfolio are shown in the following table:

Amount of portfolio's equity	£50 million
Amount of borrowed funds	£100 million
Return on invested assets	4.8%
Rate paid on borrowed funds	2.2%

The levered portfolio return is *closest* to:

A) 6.1%.



B) 10.0%.



C) 5.7%.



Explanation




$$\begin{aligned}\text{Levered portfolio return} &= r_I + [(V_B/V_E) \times (r_I - r_B)] = 4.8\% + [(100/50) \times (4.8\% - 2.2\%)] \\ &= 10.0\%\end{aligned}$$

(Module 9.3, LOS 9.e)

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Question ID: 1552028

Which of the following statements relating to the use of futures contracts in leveraging fixed-income portfolios is *most* accurate?

- Statement 1: Bond futures contracts enable investors to obtain exposure to a large amount of bonds without having to purchase the underlying bonds.
- Statement 2: The leverage obtained by using a futures contract is calculated as the ratio of the margin amount to the notional value of the futures contract.
- A) Only Statement 2 is accurate. 
- B) Only Statement 1 is accurate.** 
- C) Neither Statement 1 nor Statement 2 is accurate. 

Explanation

Futures leverage is calculated as the ratio of the futures exposures (in excess of the margin amount) to the margin amount.

(Module 9.3, LOS 9.e)

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Question ID: 1587663

The bond type that protects against inflation for both the coupon payments and the principal received at maturity is:

- A) **inflation linked.** 
- B) floating coupon. 
- C) fixed coupon. 

Explanation

Inflation-linked bonds (see the following chart):




	Coupon	Par
Fixed-coupon bonds	Not protected	Not protected
Inflation-linked bonds	Protected	Protected
Floating-coupon bonds	Protected	Not protected

(Module 9.1, LOS 9.a)

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Question ID: 1587687

Which of the following statements is *most correct* relative to the way that a repurchase (repo) agreement is used to create portfolio leverage?

- A) These agreements require very specific securities to be used as collateral. 
- B) Repos are a long-term funding solution for short sellers. 
- C) Repos require collateral whose value is higher than the amount being borrowed. 

Explanation

The statement about long-term funding solutions is *not correct* because repo agreements are extremely short term in nature. They often involve overnight lending. The statement about the use of very specific securities is *not correct* because collateral for a repo agreement is general in nature. The statement about collateral is *correct* because repos offer some measure of security for the lenders because collateral posted must be greater in value than the amount borrowed. In this way, a riskier transaction could hold rates static relative to a less risky loan but require a larger amount of collateral to be posted.

(Module 9.3, LOS 9.e)

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Question ID: 1587689

Tara Harris is the lead portfolio manager for the Quantas bond fund and needs to raise \$8,000,000 to meet expected withdrawals this quarter. Quantas bond fund's investors primarily consist of medical professionals that are taxed at the top tax bracket in the U.S. Harris is considering selling two bonds this quarter to meet the expected redemptions.

The following are selected data for the two bonds:

	Telecomm Bond	Bank Bond
Current market value	\$8,000,000	\$8,000,000
Capital gain/loss	\$200,000	-\$400,000
Coupon rate	3.50%	4.00%
Maturity	12 years	12 years
Investment committee analysis	Undervalued	Overvalued
Top U.S. income tax rate	39%	
Capital gains tax rate	15%	

Based on the information just listed, the optimal tax loss harvesting strategy is:

- A) sell \$8,000,000 of the bank bond.** 
- B) sell \$8,000,000 of the telecomm bond.** 
- C) sell \$6,000,000 of the telecomm bond and \$2,000,000 of the bank bond.** 

Explanation



The optimal strategy is to sell \$8,000,000 of the bank bond and realize a \$400,000 loss for tax considerations. The loss can be used to offset current or future capital gains for tax purposes.

(Module 9.3, LOS 9.f)

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Question ID: 1587660

In the context of total return mandates, which of the following features is *most likely* indicative of pure indexing?

- A) There is very low active risk.** 
- B) There are slight mismatches between portfolio weights and the benchmark.** 

C) Most primary risk factors are closely matched.



Explanation

Most pure bond indexing seeks to *exactly* match *all* of the risk factors of the index (i.e., duration, credit or quality, sectors, and prepayment risks) while still allowing the manager some leeway on the individual bonds selected. Hence, slight mismatches between portfolio weights and the benchmark may occur.

Pure indexing attempts to replicate the performance of a bond index, so it targets *zero* active risk (and zero active return).

(Module 9.1, LOS 9.a)

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



B) 80% domestic equities; 20% 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)




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Amy Leslie currently has 40% of her overall portfolio invested in a diversified fixed-coupon bond portfolio with an average duration of eight years. The remainder of her portfolio is evenly spread across both large- and small-cap stocks that are balanced globally across many sectors and countries, primarily through diversified ETFs. Leslie primarily wants to reduce the overall risk of her portfolio and keep up with inflation until she retires in 16 years.

Leslie is a professional photographer and has a limited understanding of the financial markets. During a recent meeting with her financial advisor, Leslie was informed of some changes that she should consider making to her portfolio. Her advisor identified that the correlation coefficient of Leslie's current bond portfolio with her equity holdings is $-.05$. Also, the correlation coefficient between her equity holdings and an ETF consisting of inflation-linked bonds is $.23$. Finally, the approximate correlation coefficient between Leslie's current fixed-income portfolio and the proposed inflation-linked ETF is relatively high at $.55$.

Her advisor recommends that Leslie should diversify her current fixed-coupon bond holdings by adding inflation-linked bonds to her portfolio.

The following action Leslie would take, considering her primary goal is to reduce her portfolio risk and to keep up with inflation until she retires, is *most likely*:

- A) rebalance 25% of her fixed-income holdings into inflation-linked bonds. 
- B) ignore the recommendation because her portfolio is already properly diversified. 
- C) reduce her current bond holdings by 25% and purchase small-cap emerging market stocks with the proceeds. 

Explanation

Rebalancing 25% of her fixed-income holdings into inflation-linked bonds to an already diversified portfolio of bonds and stocks generally results in superior risk-adjusted real portfolio returns. Leslie can also lower the overall risk of her portfolio by adding inflation-linked bonds to her portfolio. The correlation between nominal fixed-coupon bonds and inflation-linked bonds is $.55$, which is less than 1.0 . Adding the inflation-linked bonds helps to meet Leslie's requirement to keep up with inflation.

Increasing the percentage of the portfolio in emerging markets stocks will not reduce the overall portfolio risk as Leslie has requested.

Based on Leslie's primary goal, she should follow her advisor's advice and add inflation-linked bonds to her portfolio.

(Module 9.1, LOS 9.a)

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Question ID: 1551984

A U.S. investor who wishes to construct a dedicated portfolio of domestic bonds over a long-term horizon is *most likely* to use a combination of:

A) fixed-coupon Treasury securities and TIPS.



B) floating-coupon Treasury securities and callable corporate bonds.



C) mortgage-backed securities (MBSs) and TIPS.

**Explanation**

A dedicated portfolio is constructed of bonds whose cash flows match the timing and magnitude of future liabilities.

The issuer prepayment option in callable bonds and MBSs makes these securities less suited for inclusion in a dedicated portfolio.

(Module 9.1, LOS 9.a)

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Question ID: 1587681

A bond investor purchases a 5-year bond paying a 6% annual coupon rate on a semiannual basis with a current bond price of \$950. Over the next year, the rolldown return from rolling down the yield curve to the expected yield curve is computed as 1.9%. In addition, the expected change in price for the year based on the investor's yield view is 0.8%. Which of the following amounts is *closest* to the total expected return from this yield curve strategy (ignore any reinvestment interest)?

A) 8.7%.



B) 9.0%.



C) 9.9%.

**Explanation**

Expected return can be computed as yield income + rolldown return + E (change in price based on yield view).

Yield income = annual coupon payment / current bond price = $(30 + 30) / 950 = 6.32\%$.

Total expected return = $6.32\% + 1.9\% + 0.8\% = 9.02\%$.

Note that yield income is not simply the 6% annual coupon rate. It is also not the same as the yield to maturity of 7.2% ($N = 10$, $PV = -950$, $pmt = 30$, $FV = 1,000$; solve for $I/Y = 3.6\%$ semiannual or 7.2% annual).

(Module 9.2, LOS 9.d)