

Learning Module 2: Fixed Income Cash Flows and Types

Q.57 A debt instrument whose entire face value is paid in one lump sum on the maturity date is *most likely* called:

- A. a bullet bond.
- B. a partially amortized bond.
- C. a fully amortized bond.

The correct answer is **A**.

A bullet bond is a type of debt instrument where the entire face value is paid in one lump sum on the maturity date. This type of bond does not involve any periodic principal payments. Instead, the entire principal amount is repaid at once when the bond matures.

This structure allows the issuer to delay the repayment of principal until the end of the bond's term, which can be beneficial for companies with irregular cash flows or those seeking to manage their short-term liquidity needs.

B is incorrect. A fully amortized means that principal and interest payments are made gradually over the term of the debt contract. The borrower makes payments according to the loan's amortization schedule.

C is incorrect. A partially amortized bond is a hybrid bond that has features of both bullet bonds and fully amortized bonds. Although the borrower pays off a portion of the debt with regular monthly payments, they also make a “balloon payment”—a large lump sum—on the loan maturity date. In other words, only a portion of the full loan value is amortized, with a significant lump-sum payment due at the end of the loan's term.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors

Q.58 An investor is holding an inverse floating rate note. If interest rates increase, the periodic coupons paid to the investor will *most likely*:

- A. increase.
- B. decrease.
- C. remain unchanged.

The correct answer is **B**.

An inverse floating rate note, also known as an inverse floater, is a type of bond or other type of debt instrument that has a coupon rate which moves inversely with market interest rates. In other words, when market interest rates increase, the coupon rate of an inverse floater decreases, and vice versa.

This inverse relationship is a defining characteristic of these types of notes and is what differentiates them from regular floating rate notes, which have coupon rates that move in the same direction as market interest rates.

A is incorrect. This would be true for a regular floating rate note, not an inverse floating rate note. In the case of an inverse floater, the coupon rate decreases when interest rates increase. Therefore, the investor would receive lower periodic coupons, not higher ones.

C is incorrect. The coupon rate of an inverse floating rate note is variable, not fixed. It changes in response to changes in market interest rates, moving in the opposite direction. Therefore, if interest rates increase, the coupon rate of an inverse floater will decrease, not remain the same, leading to lower periodic coupons for the investor.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.59 Payment-in-kind coupon bonds, that allow the issuer to pay interests in the form of additional bonds rather than cash, are *most likely* favorable for:

- A. the issuer.
- B. the investor.
- C. both the issuer and the investor.

The correct answer is **A**.

Payment-in-kind (PIK) coupon bonds, which allow the issuer to pay interest in the form of additional bonds rather than cash, are most favorable for the issuer. This is because PIK bonds provide the issuer with greater financial flexibility. They reduce the issuer's immediate cash outflow obligations, which can be particularly beneficial in situations where the issuer may be facing cash flow constraints or when the borrowed funds have not yet been fully utilized or the project financed by the bond issuance has not yet started generating a consistent, sustainable stream of returns.

B is incorrect. While PIK bonds can offer higher potential returns to investors due to the compounding effect of interest payments being made in the form of additional bonds, they also carry higher risks. Specifically, the investor is exposed to the risk that the issuer may not be able to repay the principal or the accumulated interest at maturity, particularly if the issuer is using PIK bonds due to cash flow constraints.

C is incorrect. While PIK bonds can provide benefits to both issuers and investors under certain circumstances, they are not universally favorable for both parties. Whether PIK bonds are favorable for the investor depends on the investor's risk tolerance, income needs, and investment objectives.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.60 A callable bond is a bond that *most likely*:

- A. gives the issuer the right to redeem all or part of the bond before the maturity date.
- B. gives the bondholder the right to exchange the bond for a specific number of common shares.
- C. gives the bondholder the right to sell the bond back to the issuer at a predetermined price before maturity.

The correct answer is **A**.

A callable bond is a type of bond that provides the issuer with the right, but not the obligation, to redeem all or part of the bond before its maturity date. This feature allows the issuer to take advantage of falling interest rates by paying off the existing debt and reissuing new bonds at a lower interest rate.

B is incorrect. A convertible bond gives the bondholder the right, but not the obligation, to convert the bond into a predetermined number of common shares of the issuing company. This feature provides the bondholder with the potential for capital appreciation if the company's stock price increases. However, it does not give the issuer the right to redeem the bond before its maturity date.

C is incorrect. A puttable bond gives the bondholder the right, but not the obligation, to sell the bond back to the issuer at a predetermined price before its maturity date. This feature provides the bondholder with protection against rising interest rates. However, it does not give the issuer the right to redeem the bond before its maturity date.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.62 A convertible bond is *most likely* favorable for:

- A. the investor only.
- B. the issuer only.
- C. both the issuer and the investor.

The correct answer is **C**.

A convertible bond is a type of financial instrument that combines the features of bonds and stocks. It is a bond that gives the holder the right to convert it into a predetermined number of shares of the issuing company at any time during its life. This unique feature makes convertible bonds attractive to both investors and issuers.

A is incorrect. It suggests that convertible bonds are favorable only to the investor. While it is true that convertible bonds offer investors the potential for capital appreciation if the issuer's stock price increases, they also provide the safety of a fixed income investment. This dual benefit, however, does not mean that convertible bonds are only beneficial to investors.

B is incorrect. It implies that convertible bonds are beneficial only to the issuer. While issuers do benefit from lower borrowing costs and the potential to convert debt into equity, investors also gain from the potential for capital appreciation and the safety of a fixed income investment.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.66 Which of these statements *most likely* describes a Euro Bond?

- A. A bond issued in Euros in U.S. territory.
- B. A bond issued in the currency of the country or market in which it is issued.
- C. A bond issued in a currency other than the currency of the country or market in which it is issued.

The correct answer is **C**.

A Euro Bond is defined as a bond issued in a currency other than the currency of the country or market in which it is issued. This characteristic allows issuers to take advantage of favorable interest rates in foreign markets and provides investors with the opportunity to diversify their portfolios with foreign investments without the need to directly engage in foreign exchange transactions.

A is incorrect. While it is possible for a Euro Bond to be denominated in Euros and issued in the U.S., the defining characteristic of a Euro Bond is not the currency in which it is denominated (Euros in this case), but rather the fact that it is issued in a currency other than that of the country or market in which it is issued.

B is incorrect. A bond issued in the currency of the country or market in which it is issued is typically referred to as a domestic bond, not a Euro Bond. A Euro Bond, by definition, is issued in a currency other than that of the country or market in which it is issued.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.830 In which of the following situations would the issuance of a deferred coupon bond be *most appropriate*?

- A. When financing a new project.
- B. When there's a predicted increase in market interest rates.
- C. When there's a predicted decrease in market interest rates.

The correct answer is **A**.

A deferred coupon bond is a type of fixed-rate coupon bond which does not make coupon payments for a predetermined period, usually several years after issue, but then pays the full amount of interest accrued at maturity. Interest payments may also be staggered but only after the deferred period has ended. This financial instrument is particularly advantageous for entities that anticipate a delay in generating revenue from their investments or projects.

By deferring the interest payments, the issuer can better manage cash flow, allocating resources to essential project development activities without the pressure of meeting periodic interest obligations. This financial strategy is especially beneficial for projects with long gestation periods, where returns are expected to materialize only after substantial development work.

B is incorrect. This option incorrectly suggests that the issuance of a deferred coupon bond is most appropriate when there's a predicted increase in market interest rates. While it's true that locking in current interest rates before an anticipated increase can be beneficial, the primary advantage of deferred coupon bonds lies in their ability to alleviate immediate financial pressure on issuers by postponing interest payments. The decision to issue such bonds is more closely related to the issuer's cash flow needs and project financing requirements rather than speculative interest rate movements.

C is incorrect. The suggestion that a deferred coupon bond is most suitable when there's a predicted decrease in market interest rates does not align with the bond's fundamental purpose. Deferred coupon bonds are designed to provide financial flexibility to issuers by delaying interest payments, not to capitalize on interest rate forecasts. While interest rate expectations might influence the overall financing strategy, the decision to issue a deferred coupon bond primarily hinges on the issuer's need to manage cash flow effectively during the early stages of a project, rather than on speculative market conditions.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.833 Which of the following is *most likely* impacted by inflation in the case of capital-indexed bonds?

- A. The principal.
- B. The interest.
- C. Both the principal and the interest.

The correct answer is **C**.

A capital-indexed bond is a bond whose base payment rises and falls with the Consumer Price Index (CPI).

Although the coupon rate for interest remains fixed, the inflation-adjusted principal value is used to compute the interest payable. In the end, therefore, both the principal payment and interest increase.

Example:

Suppose ABC Bonds are issued at a face value of \$1000, with a coupon rate of 10% and a maturity of 1 year. Assume that the payment of interest will happen on maturity together with the principal amount. Further, assume the annual rate of inflation is 3%.

At the end of the year, the inflation-adjusted principal shall be $\$1,030 = 1,000 * 1.03$

The interest payable shall be $\$103 = 1,030 * 0.1$

The total payment shall be $\$1,133 = \$1,030 + \$103$

CFA Level I, Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS b: describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.834 A balloon payment is *least likely* common in which of the following categories of fixed-income securities?

- A. Bullet bonds.
- B. Fully amortizing bonds.
- C. Partially amortizing bonds.

The correct answer is **B**.

Fully amortizing bonds are structured in such a way that the borrower repays the principal and interest through regular payments over the life of the bond, leading to a complete payoff of the bond at maturity without the need for a balloon payment. A balloon payment refers to a large, lump-sum payment due at the end of a loan's term, which is not characteristic of fully amortizing bonds. In these bonds, the payment schedule is designed to ensure that each payment gradually reduces the principal amount while also covering the interest, eventually leading to the full repayment of the bond by the end of its term.

A is incorrect. Bullet bonds are characterized by the principal amount being paid in a single lump sum at the bond's maturity date rather than being amortized over the life of the bond. This structure is fundamentally different from that of fully amortizing bonds, where the principal is gradually paid down through regular payments. Bullet bonds do not involve periodic principal payments, and thus, the entire principal amount is due at the end of the bond's term.

C is incorrect. Partially amortizing bonds incorporate elements of both bullet bonds and fully amortizing bonds. They require the borrower to make regular payments that cover a portion of the principal and interest over the bond's term, but these payments do not fully amortize the bond's principal amount. Instead, a balloon payment is required at maturity to cover the remaining principal amount. This structure means that partially amortizing bonds, unlike fully amortizing bonds, do involve a balloon payment, making them more similar to bullet bonds in this respect.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.835 Anne had purchased bonds that were backed up by a sinking fund arrangement. The serial number of her bonds was selected by a lottery for repayment. In which of the following cases would Anne *most likely* suffer a loss?

- A. A reduction in market interest rate.
- B. An increase in market interest rate.
- C. There is no difference in market interest rates.

The correct answer is **A**.

When Anne's bonds, backed by a sinking fund arrangement, are selected for repayment due to a reduction in market interest rates, she is likely to suffer a loss. This scenario unfolds because the proceeds from the bond repayment would be reinvested in a market environment where interest rates are lower, leading to a diminished return on the reinvested funds. Sinking funds are mechanisms used by issuers to set aside money over time to ensure the principal on a debt is repaid at maturity. The purpose is to provide security to the bondholders and reduce the risk of default.

B is incorrect. In reality, if market interest rates were to rise, the early repayment of Anne's bonds could potentially benefit her, as she would be able to reinvest the proceeds at a higher interest rate, potentially earning a higher return than what was previously available. Thus, an increase in market interest rates would likely mitigate, rather than exacerbate, the reinvestment risk associated with the sinking fund provision.

C is incorrect. Suggesting that there is no difference in market interest rates would not result in a loss for Anne is misleading. The premise of the question implies a change in market conditions that would impact Anne's investment. Therefore, stating that there is no difference in market interest rates does not directly address the scenario where Anne would experience a loss, which is accurately described by a reduction in market interest rates leading to lower reinvestment returns.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.836 Under which of the categories would you *most likely* classify a bond that pays interest in additional bonds rather than cash during the initial period?

- A. Equity-linked bonds.
- B. Credit-linked coupon bonds.
- C. Payment-in-kind coupon bonds.

The correct answer is **C**.

Payment-in-kind (PIK) coupon bonds are a unique financial instrument that allows the issuer to pay interest with additional bonds rather than cash during the initial period. This mechanism is particularly beneficial for companies that wish to preserve cash or may not have sufficient cash flow to meet interest obligations. By issuing additional bonds as interest payments, the issuer can defer cash outlays to a later date, which might be advantageous during periods of tight cash flow or when the issuer expects better financial performance in the future.

A is incorrect. Equity-linked bonds are debt instruments where the return is tied to the performance of a specific equity (such as a stock or a basket of stocks). The interest or principal repayment might be linked to the performance of the equity, making the returns on these bonds variable and dependent on the equity market. This does not include bonds that pay interest in the form of additional bonds, as the defining characteristic of equity-linked bonds is their direct linkage to equity performance, not the method of interest payment.

B is incorrect. Credit-linked coupon bonds are another specialized type of bond where the coupon rate is linked to the credit performance of the issuer. If the credit rating of the issuer improves, the coupon payments might decrease, reflecting the lower risk associated with the bond. Conversely, if the issuer's credit rating deteriorates, the coupon payments might increase to compensate investors for the higher risk.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2491 What is the *most likely* similar to a sinking fund provision when issuing bonds?

- A. term bonds.
- B. serial bonds.
- C. medium term notes.

The correct answer is **B**.

A sinking fund provision is a mechanism used by bond issuers to systematically retire a portion of their debt before maturity, thereby reducing credit risk and ensuring a smoother repayment process. Serial bonds, which are structured so that different portions of the bond issue mature at different times, closely resemble the sinking fund provision in their approach to debt repayment. By having staggered maturity dates, serial bonds ensure that the issuer does not face a large lump-sum repayment at a single point in time, similar to how a sinking fund provision spreads out the repayment burden over several periods.

A is incorrect. Term bonds, also known as bullet bonds, do not closely resemble a sinking fund provision. Term bonds have a single maturity date when the entire principal amount is due to be repaid. This contrasts with the sinking fund provision's approach of gradually reducing debt liability over time. The basic structure of term bonds—repaying the principal in a lump sum at maturity—differs significantly from the periodic repayment strategy inherent in sinking fund provisions and serial bonds.

C is incorrect. Medium-term notes (MTNs) are debt instruments that typically have maturities ranging from one to 10 years and offer flexibility in terms of how they are structured and sold. However, like term bonds, MTNs usually do not incorporate a mechanism for periodic repayment of the principal before the final maturity date. Instead, the principal is often repaid in a lump sum at maturity.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2528 A bond with a fixed coupon rate is called all of the following, *except*:

- A. plain vanilla bond.
- B. conventional bond.
- C. pure discount bond.

The correct answer is **C**.

A bond with a fixed coupon rate is commonly referred to as a plain vanilla bond or a conventional bond because it represents the most basic type of bond in the market. These bonds pay a fixed interest rate (coupon) to bondholders, typically semi-annually or annually, until maturity, at which point the principal amount (face value) is repaid. The predictability of cash flows from the fixed coupon payments and the return of principal at maturity are key characteristics that define plain vanilla and conventional bonds.

A is incorrect. A plain vanilla bond is indeed a bond with a fixed coupon rate. This term is used to describe the simplest form of a bond without any special features. The "vanilla" descriptor implies that the bond is straightforward, offering regular, fixed interest payments and the return of principal at maturity. These characteristics align with the definition of a bond with a fixed coupon rate, making option A an accurate description, not an exception.

B is incorrect. A conventional bond is another term for a bond with a fixed coupon rate. It signifies a traditional bond structure where the issuer makes periodic interest payments to bondholders based on a fixed rate of interest applied to the principal (or face value) of the bond. At maturity, the issuer repays the principal amount to the bondholders.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2532 An investor engaged in tax evasion would *most likely* prefer:

- A. bearer bonds.
- B. registered bonds.
- C. U.S Treasury Bonds

The correct answer is **A**.

A bearer bond is an unregistered debt security issued by corporations or governments, which makes it significantly attractive for individuals aiming to evade taxes. Unlike registered bonds, bearer bonds do not have the owner's name or details recorded by the issuing entity. The ownership of a bearer bond is determined solely by possession. This anonymity provides a convenient loophole for tax evasion, as it complicates the process for tax authorities to track the ownership and tax obligations associated with these bonds.

B is incorrect. Registered bonds are directly opposite to bearer bonds in terms of transparency and traceability. When a bond is registered, the issuer maintains a record of the owner's name and contact information, along with any transactions related to the bond. This level of documentation ensures that interest payments are made directly to the registered owner, and any transfer of ownership is properly recorded.

C is incorrect. U.S. Treasury Bonds are a specific type of registered bond issued by the U.S. government. Like other registered bonds, the ownership of U.S. Treasury Bonds is recorded, and interest payments are made directly to the bondholder. This registration process ensures a high level of transparency and accountability, making these bonds an unsuitable choice for tax evasion. The clear record-keeping and reporting requirements associated with U.S. Treasury Bonds allow tax authorities to efficiently monitor and tax the interest income earned by bondholders.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2533 Which of the following statements is/are *most likely* correct? Statement I. Special Purpose Entities (SPEs) cannot issue bonds at a lower interest rate than bonds issued by the originating corporation. Statement II. Bonds issued by Special Purpose Entities (SPEs) are called securitized bonds.

- A. Both statements are correct.
- B. Both statements are incorrect.
- C. Only one statement is correct.

The correct answer is C.

Special Purpose Entities (SPEs) have the capability to issue bonds at a lower interest rate than those issued by the originating corporation. This is primarily due to the fact that bonds issued by SPEs are often seen as carrying less risk.

The structure of an SPE is designed to be bankruptcy remote, meaning it is legally and operationally separate from the originating corporation. This separation reduces the risk to bondholders in the event of the originating corporation's bankruptcy, as the assets and liabilities of the SPE are isolated from those of the parent company.

Statement I is incorrect. It suggests that SPEs cannot issue bonds at a lower interest rate than the originating corporation, which contradicts the operational and legal structure of SPEs designed to minimize risk and potentially lower borrowing costs. The bankruptcy-remote nature of SPEs, along with the specific asset or project backing, often results in a risk profile that is distinct and potentially more favorable than that of the originating corporation, thereby allowing for the issuance of bonds at lower interest rates.

Statement II is correct. Bonds issued by SPEs are indeed referred to as securitized bonds. These financial instruments are secured by an underlying pool of assets, which can include loans, accounts receivables, or other financial assets. The cash flows from these assets are used to pay interest and principal on the bonds. Securitization allows for the transformation of illiquid assets into securities that can be sold to investors, providing liquidity and funding to the originating corporation or entity.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2535 An investor buys a pure discount bond, holds it to maturity, and receives its par value. For tax purposes, the increase in the bond's value is *most likely* to be treated as:

- A. capital gain.
- B. interest income.
- C. tax-exempt income.

The correct answer is **B**.

The increase in the value of a pure discount bond, as it approaches its par value at maturity, is most likely to be treated as interest income for tax purposes. This treatment is consistent across many jurisdictions, where the gain realized by the bondholder is considered a form of interest rather than a capital gain. This is because the bond was purchased at a discount, and the increase in value represents the time value of money rather than a capital appreciation in the traditional sense. Therefore, this increase is taxed as interest income, which is typically subject to ordinary income tax rates rather than the potentially lower capital gains rates.

A is incorrect. Suggesting that the increase in the bond's value is treated as a capital gain misunderstands the nature of the income derived from pure discount bonds. Capital gains tax typically applies to profits from the sale of assets or investments where there is an increase in the capital value of the investment. This characteristic makes the income from such bonds more akin to interest income.

C is incorrect. While certain types of bonds, such as some municipal bonds, may offer tax-exempt interest income, the general treatment for pure discount bonds, like zero-coupon bonds, is as taxable interest income. Tax-exempt income typically refers to specific categories of income that are exempt from taxation due to policy reasons, which does not generally apply to the interest income recognized from holding pure discount bonds to maturity.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2537 Buyers of bonds with call provisions *most likely* face:

- A. credit risk.
- B. liquidity risk.
- C. reinvestment risk.

The correct answer is **C**.

Buyers of bonds with call provisions are most likely to face reinvestment risk. This is because call provisions allow the issuer to redeem the bond before its maturity date, typically when interest rates have fallen. This means that investors may have to reinvest the principal at a lower interest rate than the original bond, potentially leading to lower income. Reinvestment risk is particularly significant in a declining interest rate environment, where bonds are more likely to be called. The issuer will opt to refinance the debt at a lower cost, forcing investors to find alternative investments that may offer lower yields.

A is incorrect. Credit risk refers to the risk that the bond issuer will default on its obligations, either by failing to pay the interest or by not returning the principal at maturity. While credit risk is a concern for all bond investors, it is not directly related to the call provision of a bond. The call provision primarily introduces reinvestment risk rather than affecting the issuer's creditworthiness.

B is incorrect. Liquidity risk pertains to the risk that an investor will not be able to sell the bond quickly at a fair market price. While liquidity risk can affect bond investors, it is not the primary risk associated with call provisions. Call provisions specifically introduce reinvestment risk by potentially forcing investors to reinvest proceeds at lower interest rates.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2540 Bonds that convert from debt to common equity automatically if a specific event occurs are *most likely* called:

- A. Convertible bonds.
- B. bonds with warrants.
- C. contingent convertible bonds.

The correct answer is **C**.

Contingent convertible bonds, commonly known as CoCos, are a financial instrument that automatically converts from debt to equity under certain predefined conditions. These conditions are typically related to the financial health of the issuing entity, such as a bank. For instance, if a bank's core Tier 1 capital ratio falls below a certain threshold, CoCos will convert into equity. The conversion helps in stabilizing the bank's financial status without the need for external intervention or bailout, making CoCos a critical tool for risk management within the banking sector.

A is incorrect. Convertible bonds are a type of bond that gives the bondholder the right, but not the obligation, to convert their bonds into a predetermined number of shares of the issuing company's stock at certain times during the bond's life, usually at the discretion of the bondholder. Unlike contingent convertible bonds, the conversion of traditional convertible bonds is not triggered by the issuer's financial metrics reaching predefined thresholds.

B is incorrect. Bonds with warrants are another form of hybrid securities, but they differ significantly from contingent convertible bonds. A warrant is essentially a long-term option that gives the holder the right to buy the company's stock at a predetermined price before the warrant expires. When bonds are issued with warrants, the investor receives a bond (debt instrument) and a warrant (equity option) separately. The bond and the warrant can be detached and sold independently.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2541 A bond with a \$1,000 par value has a conversion price of \$40, and the market price of the common share is \$50. The conversion ratio is *closest to*:

- A. 20 shares per bond.
- B. 25 shares per bond.
- C. 100 shares per bond.

The correct answer is **B**.

The conversion ratio of a bond is a critical metric that determines how many shares of the company's stock a bondholder can receive upon converting their bond into equity. The conversion ratio is calculated by dividing the par value of the bond by the conversion price. In this case, the par value of the bond is \$1,000, and the conversion price is \$40. Therefore, the conversion ratio can be calculated as follows:

$$\begin{aligned}\text{Conversion ratio} &= \frac{\text{Par value of the bond}}{\text{Conversion price}} \\ \text{Conversion ratio} &= \frac{1,000}{40} = 25 \text{ shares per bond}\end{aligned}$$

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2542 A feature of a payment-in-kind bond is *most likely* that:

- A. regular coupon payments do not begin until a period of time after issuance.
- B. it allows the issuer to make the coupon payments by increasing the principal amount of the outstanding bonds, essentially paying bond interest with more bonds.
- C. it carries a provision stating that the coupon rate will go up by a certain amount if the credit rating of the issuer falls and go down if the credit rating of the issuer improves.

The correct answer is **B**.

A payment-in-kind (PIK) bond is a financial instrument that provides issuers with the flexibility to pay interest not in cash, but by issuing additional bonds to the bondholder. This feature is particularly useful for companies that wish to conserve cash or when they are in a tight cash flow situation.

By opting to increase the principal amount of the outstanding bonds instead of paying cash, issuers can defer cash outflows and potentially use their available resources for other critical operations or investments. The interest that is "paid" through the issuance of additional bonds is added to the principal amount, and the bondholder will receive this increased amount at maturity or when the bond is redeemed.

A is incorrect. This option describes deferred coupon bonds, not payment-in-kind bonds. Deferred coupon bonds are characterized by a delay in the commencement of regular coupon payments. Typically, these bonds do not pay interest for an initial period after issuance but compensate for this by paying higher interest rates later on or at maturity.

C is incorrect. In a credit-linked bond, the coupon rate increases if the issuer's credit rating deteriorates, reflecting the higher risk to the bondholder, and decreases if the issuer's credit rating improves, reflecting the lower risk. This mechanism is designed to compensate investors for changes in credit risk over the life of the bond.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2543 Is the following statement correct? "Convertible bonds can be issued with higher yields compared to otherwise identical straight bonds."

- A. Yes.
- B. No, because convertible bonds have the same yields as straight bonds.
- C. No, because convertible bonds have lower yields compared to straight bonds.

The correct answer is **C**.

Convertible bonds typically have lower yields compared to otherwise identical straight bonds. This is primarily due to the additional value that the conversion feature provides to the bondholders. The conversion option allows bondholders to convert their bonds into a predetermined number of shares of the issuing company's stock, usually at a set price. As a result, investors are willing to accept lower yields on convertible bonds in exchange for the potential upside in the issuer's equity.

A is incorrect. This optionality provides potential for additional gains through conversion into equity, which is not available in straight bonds. Straight bonds, lacking this conversion feature, compensate investors with higher yields for their lack of participation in the issuer's equity appreciation. The presence of the conversion option in convertible bonds typically leads to lower yields compared to straight bonds, as investors are compensated for the additional value and potential upside of the conversion feature.

B is incorrect. The yields on convertible bonds are generally lower than those on otherwise identical straight bonds due to the added value of the conversion feature. The conversion option embedded in convertible bonds offers potential equity participation, which is valued by investors. As a result, investors are willing to accept lower yields on convertible bonds in exchange for the conversion feature, which provides potential for additional gains if the issuer's stock performs well.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2544 An issuer will *least likely* exercise a call option on a bond when:

- A. default risk is decreasing.
- B. the market yield on the bond is increasing.
- C. interest rates in the market are decreasing.

The correct answer is **B**.

An issuer is least likely to exercise a call option on a bond when the market yield on the bond is increasing. A call option on a bond provides the issuer with the right, but not the obligation, to repurchase the bond before its maturity at a predetermined price. This option is valuable to the issuer primarily in scenarios where refinancing the debt would be cheaper due to lower interest rates in the market or improved creditworthiness of the issuer, which reduces the default risk and, consequently, the required yield by investors.

A is incorrect. If the default risk is decreasing, it implies an improvement in the issuer's creditworthiness. This improvement can lead to a decrease in the required yield by investors for holding the issuer's bonds, making it an opportune time for the issuer to exercise the call option. By calling the existing bonds, the issuer can refinance its debt at a lower interest rate, reducing its cost of borrowing. This scenario aligns with the conditions under which an issuer would likely exercise a call option.

C is incorrect. When interest rates in the market are decreasing, it becomes cheaper for the issuer to borrow money. In such a scenario, the issuer can benefit from exercising the call option on existing bonds with higher interest rates and reissuing new bonds at the current lower rates. This strategy allows the issuer to reduce its interest expenses by taking advantage of the favorable interest rate environment. Therefore, decreasing interest rates in the market create a conducive situation for the issuer to exercise the call option on a bond.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (b): Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.

Q.2545 A call option *most likely* has value to the issuer because it gives the issuer the right to redeem the bond and issue a new bond (borrow) if :

- A. the market yield on the bond declines.
- B. the market yield on the bond increases.
- C. the market yield on the bond remains unchanged.

The correct answer is **A**.

A call option embedded in a bond provides significant value to the issuer primarily because it offers the flexibility to refinance the debt at more favorable terms under certain market conditions. This allows the issuer to reduce the cost of borrowing, as they can replace the higher-interest debt with cheaper debt, reflecting the current lower market yields.

This is beneficial in a declining interest rate environment, where the cost of borrowing can be significantly reduced, leading to potential savings on interest payments and an overall reduction in the financial burden on the issuer.

B is incorrect. Suggesting that a call option has value to the issuer if the market yield on the bond remains unchanged does not capture the primary benefit of the call option. The main advantage of a call option is the issuer's ability to refinance at lower interest rates when market yields decline. If the market yields remain unchanged, there is no financial incentive for the issuer to exercise the call option, as the cost of borrowing would not improve.

C is incorrect. This option does not apply to the question as it was not one of the original choices provided. The focus should be on understanding the conditions under which a call option provides value to the issuer, which is primarily when the market yield on the bond declines, allowing for refinancing at lower rates.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.

Q.2546 A bond with a \$1,000 par value has a conversion price of \$40 and the market price of the common share is \$50. The conversion value is *closest to*:

- A. \$750
- B. \$1,250.
- C. \$1,500.

The correct answer is **B**.

The conversion value of a bond is determined by the current market price of the shares into which the bond can be converted. The formula to calculate the conversion value is:

$$\text{Conversion ratio} = \frac{\text{Par value of the bond}}{\text{Conversion price}} = \frac{1,000}{40} = 25$$

Conversion value is the market value of the shares that would be received upon conversion. A bond with a conversion ratio of 25 shares, when the current market price of a common share is \$50, would have a conversion value of \$1,250.

CFA Level I, Topic 7 - Fixed Income, Learning Module 2: Fixed Income Cash Flows and Types. LOS (a): Describe common cash flow structures of fixed-income instruments and contrast cash flow contingency provisions that benefit issuers and investors.
