

2017年12月CFA一级百题预测

- 1. ETHICS
- 2. QUANTITATIVE
- 3. ECONOMICS
- 4. FINANCIAL STATEMENT ANALYSIS
- 5. CORPORATE FINANCE
- 6. EQUITY
- 7. FIXED INCOME
- 8. DERIVATIVES
- 9. ALTERNATIVE INVESTMENTS
- 10. PORTFOLIO

对于 2017 年 12 月考试,从全局来看,考试的难度在提高;从科目来说,对于占比较高的几门科目需要引起重视,如:财务报表分析、职业伦理和数量分析;从题目的难易程度来说,百题中所标示的基础题目必须掌握。相比较于 2016 年考纲,改动较大的科目是职业伦理、经济学和企业理财,分别增加了一个全新的章节,基本都是定性的内容,百题中这部分的题目是来自原版书及 Mock 中的精选,复习时要花点时间重点掌握。为了全面应对考试,我们全面推出了的各种学习平台,如金程网校、手机 APP、金程 CFA 微信平台答疑等活动,请各位充分利用。如有学术问题,请登录至金程网校提问。祝大家好运!

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7. Fixed Income

7.1. Basic Features of A Fixed-Income Security

7.1.1. 重要知识点

7.1.1.1. 描述 basic features of a fixed-income security

- > Issuer
 - Supranational organizations
 - Sovereign (national) governments
 - Non-sovereign (local) governments
 - Quasi-government entities
 - Companies (i.e., corporate issuers)
- ➤ **Maturity:** the date when the issuer is obligated to redeem the bond by paying the outstanding principal amount.
- **Tenor:** the time remaining until the bond's maturity date.
- > Term to maturity
 - Money market securities: fixed-income securities with maturities at issuance (original maturity) of one year or less.
 - Capital market securities: fixed-income securities with original maturities that are longer than one year.
 - Perpetual bonds: the consols issued by the sovereign government in the United Kingdom, which have no stated maturity date.
- Par value
- Coupon rate and frequency
- Currency
 - **Dual-currency bond:** make coupon payments in one currency and pay the par value at maturity in another currency.
 - Currency option bond: a combination of a single-currency bond plus a foreign currency option.

7.1.2. 基础题

- **Q-1.** A sovereign bond which has a maturity of 15 years can be described as a:
- A. perpetual bond.
- B. pure discount bond.
- C. capital market security.

Solution: C.

A capital market security has an original maturity longer than one year. A is incorrect because a

perpetual bond does not have a stated maturity date. Thus, the sovereign bond, which has a maturity of 15 years, cannot be a perpetual bond. B is incorrect because a pure discount bond is a bond issued at a discount to par value and redeemed at par. Some sovereign bonds (e.g., Treasury bills) are pure discount bonds, but others are not.

7.2. Sectors of the Bond Market

7.2.1. 重要知识点

7.2.1.1. Sectors of the bond market

- > The places where fixed-income securities are issued and traded
 - National bond market
 - ◆ **Domestic bond:** Bonds issued by entities that are incorporated in that country.
 - Foreign bond: Bonds sold in a country and denominated in that country's currency by an entity from another country (foreign country) are referred to as foreign bonds.
 - **■** Eurobond market
 - ◆ **Eurobond:** Type of bond issued internationally, outside the jurisdiction of the country in whose currency the bond is denominated. Bonds issued and traded on the Eurobond market.
 - **Global bonds:** issued simultaneously in the Eurobond market and in at least one domestic bond market.

7.2.2. 基础题

- **Q-2.** A South African company issues bonds denominated in dollars that are sold to investors in the U.S. These bonds can be best described as:
- A. Eurobonds.
- B. Global bonds.
- C. Foreign bonds.

Solution: C.

Bonds sold in a country and denominated in that country's currency by an entity from another country are referred as foreign bonds.

A is incorrect because Eurobonds are bonds issued outside the jurisdiction of any single country.

B is incorrect because global bonds are bonds issued in the Eurobond market and at least one domestic country simultaneously.

Q-3. Which of the following is an example of a domestic bond?

- A. A bond is issued by LG Group from South Korea, denominated in British pounds, and sold in the United Kingdom
- B. A bond is issued by the U.K. Debt Management Office, denominated in British pounds, and sold in the United Kingdom
- C. A bond is issued by Wal-Mart from the United States, denominated in U.S. dollars, and sold in various countries in North America, Europe, the Middle East, and Asia Pacific

Solution: B.

A domestic bond is issued by a local issuer, denominated in local currency, and sold in the domestic market. Gilts are British pound—denominated bonds issued by the U.K. Debt Management Office in the United Kingdom. Thus, they are U.K. domestic bonds. A is incorrect because a bond issued by LG Group from South Korea, denominated in British pounds, and sold in the United Kingdom, is an example of a foreign bond (bulldog bond). C is incorrect because a bond issued by Wal-Mart from the United States, denominated in U.S. dollars, and sold in various countries in North America, Europe, the Middle East, and Asia Pacific is *most likely* an example of a global bond, particularly if it is also sold in the Eurobond market.

7.3. Issuer's Legal Information

7.3.1. 重要知识点

7.3.1.1. Issuing entities:

- Sovereign bonds: are backed by the "full faith and credit" of the national government.
- Corporate bonds: the issuer is usually the corporate legal entity.
- Securitized bonds: is legally independent and is considered bankruptcy remote from the seller of the loans which is called <u>special purpose entities (SPEs)</u> in U.S, and <u>special purpose vehicles (SPVs)</u> in Europe.
 - SPV is <u>bankruptcy remote</u> because the assets can provide cash flows to support the payment of the bond even if the company defaults.
 - The transfer of assets by the sponsor is considered a legal sale; once the assets have been securitized, the sponsor no longer has ownership rights.
 - Any party making claims following the bankruptcy of the sponsor would be unable to recover the assets or their proceeds.

7.3.1.2. Sources of repayment:

Types of bond Source of repayment	
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Supranational organizations	Repayment of previous loansPaid-in capital from its members
Sovereign bonds	Tax revenuesPrint money
Non-sovereign debt	 General taxing authority of issuer Cash flows of the financed project (revenues) Special taxes or fees
Corporate bonds	■ Cash flows from operations
Securitizations	Cash flows generated by one or more underlying financial assets.

7.3.2. 基础题

Q-4. Agency bonds are issued by:

- A. local governments.
- B. national governments.
- C. quasi-government entities.

Solution: C.

C is correct. Agency bonds are issued by quasi-government entities. These entities are agencies and organizations usually established by national governments to perform various functions for them. A and B are incorrect because local and national governments issue non-sovereign and sovereign bonds, respectively.

- **Q-5.** The type of bond issued by a multilateral agency such as the International Monetary Fund (IMF) is best described as a:
- A. sovereign bond.
- B. supranational bond.
- C. quasi-government bond.

Solution: B.

B is correct. The IMF is a multilateral agency that issues supranational bonds. A and C are incorrect because sovereign bonds and quasi-government bonds are issued by national governments and by entities that perform various functions for national governments, respectively.

7.4. Collateral and Credit Enhancements

7.4.1. 重要知识点

7.4.1.1. Collateral

- Asset or collateral backing: a way to reduce credit risk.
 - Unsecured bonds: have no collateral; bondholders have only a general claim on the issuer's assets and cash flows.
 - Secured bonds: Are backed by assets or financial guarantees pledged to ensure debt repayment in the case of default.
 - Unsecured bonds are paid after secured bonds in the event of default.
 - In many jurisdictions, debentures are unsecured bonds, with no collateral backing assigned to the bondholders.

Types of collateral backing:

Types of bond	Collateral backing
Collateral trust bonds	Financial assets
Equipment trust certificates	Specific types of equipment or physical assets (e.g. railroad cards, oil drilling)
Mortgage-backed securities (MBS)	Mortgage loans
Covered bond	A segregated pool of assets called a "covered pool"

7.4.1.2. Credit enhancement: a variety of provisions used to reduce the credit risk of a bond issue.

> Internal credit enhancement:

- Overcollateralization: the process of posting more collateral than is needed to obtain or secure financing.
- **Excess spread:** the yield on the <u>financial assets</u> supporting the debt <u>is greater</u> than the yield promised on the bonds issued.
- Divide a bond into tranches with different seniority of claims: any losses of assets supporting a securitized bond are firs absorbed by the bonds with the lowest seniority, then the bonds with the next-lowest priority of claims——waterfall structure.

> External credit enhancement:

- **Surety bond:** issued <u>by insurance companies</u> and is a promise to make up any shortfall in the cash available to service the debt.
- Bank guarantee: similar to surety bond, the major difference is that it issued by a bank.

■ Letter of credit: a promise to lend money to the issuing entity if it does not have enough cash to make the promised payments on the covered debt.

> Limitation of external credit enhancement:

- while external credit enhancements increase the credit quality of debt issues and decrease the yields, <u>deterioration of credit quality</u> of the guarantor will also reduce the credit quality of the covered issue.
- Surety bonds, bank guarantees, and letters of credit expose the investor to third-party (or counterparty) risk, the possibility that a guarantor cannot meet its obligations.
- A cash collateral account: the issuer immediately borrows the credit enhancement amount and then invests that amount usually in highly rated short-term commercial paper. A cash collateral account mitigates investors' exposure to the third-party risk, which is the possibility that a guarantor cannot meet its obligation.

7.4.2. 基础题

- **Q-6.** Which of the following is not an example of external credit enhancement?
- A. A Letter of credit
- B. A surety bond
- C. Overcollaterization

Solution: C.

Overcollaterization is a type of internal credit enhancement.

- **Q-7.** Which of the following external credit enhancement has the least amount of third-party risk?
- A. Surety bond
- B. Letter of credit
- C. Cash collateral account

Solution: C.

The third-party (or counterparty) risk for a surety bond and a letter of credit arises from both future promises to pay. In contrast, a cash collateral account allows the issuer to immediately borrow the credit-enhancement amount and then invest it.

7.5. Bond Indenture, Affirmative and Negative Covenants

7.5.1. 重要知识点

7.5.1.1. 描述 functions of a bond indenture

> Describes the form of the bond, the obligations of the issuer, and the rights of the bondholders.

7.5.1.2. 区分 negative covenants 和 affirmative covenants

- Negative covenants: frequently costly and do materially constrain the issuer's potential business decisions.
 - Restrictions on asset disposals.
 - Negative pledges
 - Restrictions on prior claims.
- > Affirmative covenants: are typically administrative in nature.
 - Comply with all laws and regulations;
 - Maintain its current lines of business;
 - Insure and maintain its assets, and pay taxes as they come due.

7.5.2. 基础题

- **Q-8.** Which of the following content is included in negative bond covenants. The issuer is:
- A. required to pay taxes as they come due.
- B. prohibited from investing in risky projects.
- C. required to maintain its current lines of business.

Solution: B.

Prohibiting the issuer from investing in risky projects restricts the issuer's potential business decisions. This restriction is referred to as negative bond covenants.

A and C are incorrect because paying taxes as they come due and maintaining the current lines of business are positive covenants.

- **Q-9.** Which of the following content is in affirmative covenants?
- A. The company can't sell assets that have been pledged as collaterals
- B. To insure and perform periodic maintenance on financed assets
- C. The company can't borrow additional money unless certain financial conditions are met

Solution: B.

Affirmative covenants indicate what the issuer "must do" and are administrative in nature. A covenant requiring the issuer to insure and perform periodic maintenance on financed assets is an example of affirmative covenant. A and C are incorrect because they are negative covenants; they indicate what the issuer cannot do.

7.6. Taxation of Bond Income

7.6.1. 重要知识点

7.6.1.1. Tax consideration

- Interest income: taxed as ordinary income at the same rate as wage and salary income.
 - Interest income from bonds issued by municipal government: tax-exempt.
- **Capital gain:** gain or loss between purchase price and selling price.
 - 税率高低比较:利息税税率高于资本利得税税率。
- Original issue discount (OID) bonds: a portion of the discount from par at issuance is treated as taxable interest income each year.
 - This allows investors to increase their cost basis in the bonds so that at maturity, they face no capital gain or loss.
 - **Pure-discount bonds:** a portion of the discount from par at issuance is treated as taxable interest income.
 - **Premium bonds:** allow investors to deduct a prorated portion of the amount paid in excess of the bond's par value from their taxable income every tax year until maturity.

7.6.2. 基础题

- **Q-10.** An investor in a country with an original issue discount tax provision purchases a 20-year pure discount bond. If the investor plans to hold the bond until maturity. The investor will most likely report:
- A. A capital gain at maturity.
- B. A tax deduction in the year the bond is purchased.
- C. Taxable income from the bond every year until maturity.

Solution: C.

The original issue discount tax provision requires the investor to include a prorated portion of the original issue discount in his taxable income every tax year until maturity. The original issue discount is equal to the difference between the bond's par value and its original issue price.

A is incorrect because the original issue discount tax provision allows the investor to increase his cost basis in the bond so that when the bond matures, he faces no capital gain or loss. B is incorrect because the original issue discount tax provision does not require any tax deduction in the year the bond is purchased or afterwards.