



金程教育

GOLDEN FUTURE

2018 年 06 月 CFA 一级百题预测

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

近年来，CFA 考试的难度在逐步提高。针对 2018 年 6 月的考试，考生对于占比较高的几门科目需要引起充分重视，如：财务报表分析、职业伦理和数量分析，所以百题中所标示的基础题目必须掌握。2018 年相比于 2017 年的考纲基本没有变动，只在数量、衍生、企业理财等科目中，删除了部分章节，并将原有企业理财中，股利的概念部分并入权益，基本都是考察定性的内容。百题中的题目，紧密贴合考纲和真题难度，依据金程多年 CFA 培训经验，由资深研究员与明星师资共同编写。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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1. Ethics

1.1. Ethics and Trust in the Investment Profession(NEW)

1.1.1. 重要知识点

1.1.1.1. Definition:

- **Ethics**
 - The guiding beliefs or ideals characterizing a society or societal group.
- **Ethical conduct**
 - Behavior that follows moral principles and balances self-interest with both the direct and the indirect consequences of the behavior on others.
- **Code of ethics**
 - Specific communities or societal groups in which we live and work sometimes codify their beliefs about obligatory and forbidden conduct in a written set of principles, often called a code of ethics.
 - Serves as a general guide for how community members should act.
- **Standards**
 - Some communities will also expand on their codes of ethics and adopt explicit rules or standards that identify specific behaviors required of community members.
 - Serve as benchmarks for the minimally acceptable behavior of community members and can help clarify the code of ethics.

1.1.1.2. Challenges to ethical conduct

- **Overconfidence** can lead to faulty decision making.
- **Situational influences** have a very powerful and often unrecognized effect on our thinking and behavior.
 - External factors, such as environmental or cultural elements, that shapes our thinking, decision making, and behavior.
 - Factors: Money, Promotions, Prestige, Loyalty to employer and colleagues, a strong compliance culture.

1.1.1.3. Trust

- **Trust** is the very foundation of the financial markets.
- Reasons:
 - The nature of the client relationship
 - Differences in knowledge and access to information
 - The nature of investment products and services

1.1.1.4. Effects of ethical & unethical behavior

- **Effects of ethical behavior:**

- Lead to broader participation in the markets
- Protection of clients' interests
- More opportunities for investment professionals and their firms
- Lead to higher levels of success and profitability
- Enjoy lower relative costs

➤ **Effects of unethical behavior:**

- Erodes and can even destroy trust
 - ◆ Diminished trust in financial markets can reduce growth in the investment industry and tarnish the reputation of firms and individuals in the industry, even if they did not participate in the unethical behavior.

1.1.1.5. legal and ethical conduct are not always the same.

- Many types of conduct are both legal and ethical, but some conduct may be one and not the other.
- The law is **not always the best mechanism** to reduce unethical behavior.
 - Laws typically follow market practices.
 - Regulators' responses typically take significant time, during which the problematic practice may continue or even grow.
 - A new law may be vague, conflicting, and/or too narrow in scope.
 - Laws vary across countries or jurisdictions, allowing questionable practices to move to places that lack laws relevant to the questionable practice.
 - Laws are also subject to interpretation and compliance by market participants, who may choose to interpret the law in the most advantageous way possible or delay compliance until a later date.
- Ethical conduct goes beyond what is legally required and encompasses what different societal groups or communities, including professional associations, consider to be ethically correct behavior.

1.1.1.6. Framework for ethical decision making

- Steps are as follows:
 - **Identify:** Relevant facts, stakeholders and duties owed, ethical principles, conflicts of interest;
 - **Consider:** Situational influences, additional guidance, alternative actions;
 - **Decide and act;**
 - **Reflect:** Was the outcome as anticipated? Why or why not?

1.1.2. 基础题

Q-1. Which of the following is NOT the accurate about Standards of conduct?

- A. The role of Standards of conduct serves as benchmark for the minimally acceptable behavior required of members of a group
- B. Standards of conduct are general guide regarding proper conduct by members of group
- C. Standards of conduct expand on their code of ethics

Solution: B.

The role of Standards of conduct serves as benchmark for the minimally acceptable behavior required of members of a group. Standards of conduct expand on their code of ethics.

Q-2. Which of the following is NOT a profession based on?

- A. Specialized knowledge and skills
- B. Earn a living
- C. Service to others

Solution: B.

A profession is the ultimate evolution of an occupation, resulting from the efforts of members practicing the occupation at a high level and creating a set of ethics and standards of conduct for the entire group. Based on specialized knowledge and skills; Based on service to others; Practiced by members who share and agree to adhere to a common code of ethics.

Q-3. Which of the following is NOT a factor of situational influences?

- A. Prestige
- B. Loyalty to employer
- C. Internal factors

Solution: C.

The factors of situational influences include Money; Promotions; Prestige; Loyalty to employer and colleagues; A strong compliance culture.

Q-4. Which is the first step of decision-making framework?

- A. Consider
- B. Identify
- C. Reflect

Solution: B.

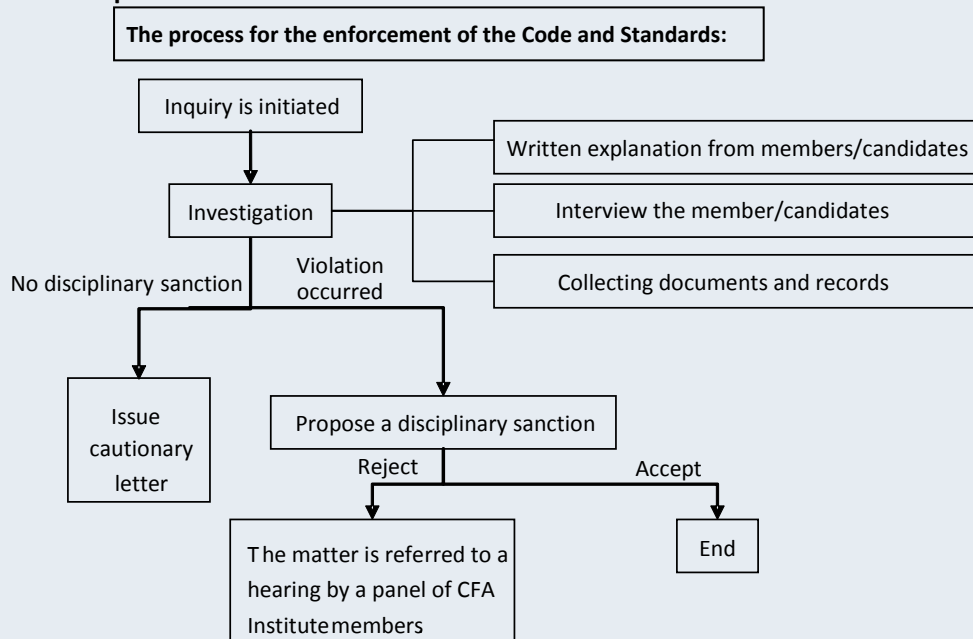
Ethical Decision-Making Framework: 1) Identify: Relevant facts, stakeholders and duties owed,

ethical principles, conflicts of interest; 2) Consider: Situational influences, additional guidance, alternative actions; 3) Decide and act; 4) Reflect: Was the outcome as anticipated? Why or why not?

1.2. The Process for the Enforcement of the Code and Standards

1.2.1. 重要知识点

1.2.1.1. The process for the enforcement of the code and standards:



1.2.1.2. Primary principles:

- Fairness of the process to members and candidates.
- Confidentiality of the proceedings.

1.2.1.3. The CFA Institute board of governors maintains oversight and responsibility for the Professional Conduct Program (PCP).

1.2.1.4. PCP and Disciplinary Review Committee (DRC) and responsible for enforcement of the Code and Standards.

1.2.1.5. How to detect

- Self-disclosure
- Written complaints
- Public sources
- CFA exam proctor

1.2.1.6. The designated officer may decide

- That no disciplinary sanctions are appropriate.
- To issue a cautionary letter.
- To discipline the member or candidate.

1.2.1.7. Hearing panel

- Consists of DRC members and CFA Institute member volunteers affiliated with the DRC.
- The hearing panel's task is to determine whether a violation of the Code and Standards occurred and, if so, what sanction should be imposed.

1.2.1.8. Sanction 一般会有三种处理方法: 由轻到重依次为: private censure, public censure, timed revocation, suspension, revocation**1.2.1.9. AMC & Code and standards**

- AMC was drafted specifically for firms.
- Code and standards is aimed at individual investment professionals.

1.2.2. 基础题

Q-5. After reviewing the material obtained during the investigation, then confirming violation, the CFA Designated Officer will:

- A. Issue a cautionary letter.
- B. Conclude the inquiry with no disciplinary sanction.
- C. Propose a disciplinary sanction.

Solution: C.

First step: a designated officer investigates a violation, then propose a disciplinary sanction.

Q-6. Which of the following is most likely included in the primary principles of the Procedure for Proceedings Related to Professional Conduct?

- A. Fairness of the process to members and candidates
- B. Timeliness of a disciplinary sanction
- C. Public disclosure of investigation results

Solution:A.

Two principles of the Rules of Procedure for Proceedings Related to Professional Conduct are confidentiality of proceedings and fair process to the members and candidates.

Q-7. If a member does not accept a sanction from a designated officer of CFA PCP, the matter is referred to a hearing panel made up of:

- A. Local CFA society board member.
- B. The CFA Institute Standards of Practice Council.
- C. DRC members and CFA Institute member volunteers.

Solution: C.

C is correct because a hearing panel is composed of DRC members and CFA Institute member volunteers affiliated with the DRC. The hearing panel reviews materials and presentations from the Designated Officer and from the member or candidate.

Q-8. Michael Dyson, CFA, is an investment manager. Recently he was accused of violating the CFA Code of Ethics. A principle sanction was proposed that his CFA Institute membership will be suspended for two years. Michael doesn't accept the sanction. Which of the following actions by Michael is most consistent with the CFA Institute Professional Conduct Program?

- A. Refer the matter to the hearing panel
- B. Still presenting himself as a CFA charter holder to the public
- C. Make a complaint to Professional Conduct Program

Solution: A.

If a member or candidate rejects the sanction, the matter is referred to a hearing panel composed of DRC members and CFA Institute member volunteers affiliated with the DRC.

1.3. Knowledge of law**1.3.1. 重要知识点****1.3.1.1. 如果有传递关系，遵循最后一个生效的 law or regulations;**

Work (applicable)	Live	Comply with
Ms → Live	Ls	Ls < Code → Code
Ls → Live	Ms	Ms > Code → Ms

1.3.1.2. 必须了解并遵守与工作相关(governing their professional activities) 的法律法规，但不需要成为 **expert on compliance**;

1.3.1.3. 如果法律法规之间存在冲突,总是遵守最严格的;

1.3.1.4. 不能故意(knowingly)参与或协助违法违规行为，同时必须脱离干系;

1.3.1.5. Guidance of compliance

- 如果你怀疑(suspect) 有人违法，首先要咨询相关人士（如独立第三方），但咨询结果如果是错误的，你也不能免责;
- 如果你知道(know)有人在违法，还可以采取分步骤的方法：向公司里的适当人员（supervisor or compliance department）汇报，也可以选择直面当事人（confronting wrongdoers），如果仍没有改进，则你必须与违法行为划清界限（disassociate）并且保存相关记录，甚至辞职；同时要进一步咨询以便采取进

一步的行动;

- 1.3.1.6.** 当发现有违法行为时, CFA Institute 并不要求你向政府管理机构汇报。是否汇报取决于适用法律(applicable law)是否有相关要求。
- 1.3.1.7.** 如果一个人新到一家公司工作发现其内部有问题(明确具体的问题是什么), 应该 **Quit the job;**
- 1.3.1.8.** Inaction combined with continuing association with those involved in illegal or unethical conduct may be construed as participation or assistance in the illegal or unethical conduct.
- 1.3.1.9.** 投资产品的开发与销售: 投资产品的开发者、销售及维护人员要注意产品销售地和来源地的法律; 对于分销商, 同样要注意其是否遵守了法律。
- 1.3.1.10.** 跨境业务: 需要 **due diligence**, 为了保证公司及自身的声誉, 要了解适用的法律
- 1.3.1.11.** 对于个人: 1) stay informed; 2) encourage 公司时常对合规程序进行 review; 3) 保存 readily accessible current reference copies of applicable statutes, rules, regulations.
- 1.3.1.12.** 对于公司: **The formality and complexity of compliance procedures for firms depend on the nature and size of the organization and the nature of its investment operations**
- 公司要 Develop or adopt a code of ethics, Provide information on applicable laws, Establish procedures for reporting violations.

1.3.2. 基础题

- Q-9.** Jane and Joe work for an investment company and even in the same group. Jane, CFA, always shares some latest information in the industry with Joe, who is studying for the CFA level 2 exam. One day Joe discovered that Jane may conduct something that maybe harmful to the company's clients. What should Joe do with this situation?
- A. Do nothing because he takes no supervisory duties and should appreciate the help from Jane
- B. Report to the CFA committee
- C. Disassociate from the misconduct and report to the company's compliance department

Solution: C.

If finding colleagues involved in illegal actions, must dissociate, and report to compliance department or supervisor.

- Q-10.** Charlie Mancini, CFA, is the Managing Director for Business Development at VES Financial (VES), a large U.S.-based mutual fund organization. Mancini has been under pressure recently to increase revenues. In order to secure business from a large hedge fund manager based in Asia, Mancini recently approved unusual terms for the fund's

client agreement. To allow for time zone differences, the agreement allows the hedge fund to trade in all of VES's mutual funds six hours after the close of U.S. markets. According to the Standards of Practice Handbook, did Mancini violate any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, because he failed to inform his other clients of the unusual terms under the new client agreement, thus not treating clients equally
- C. Yes, because he failed to review regulations on late-trading and did not consult with VES's compliance director to determine if late-trading was acceptable

Solution: C.

The Standards relating to Market Manipulation requires members/candidates not to engage in practices that distort prices or artificially inflate trading volume with the intent to mislead market participants. Mancini failed to follow regulations on late trading and allowed the hedge fund client to manipulate the time of its trading and thereby misled other market participants and benefited itself.

About late trading: Late trading refers to the practice of placing orders to buy or redeem mutual fund shares after the time as of which a mutual fund has calculated its net asset value (NAV), usually as of the close of trading at 4:00 p.m. Eastern Time, but receiving the price based on the prior NAV already determined as of that day. Late trading violates the federal securities laws concerning the price at which mutual fund shares must be bought or redeemed and defrauds innocent investors in those mutual funds by giving to the late trader an advantage not available to other investors.

Q-11. A central bank fines a commercial bank it supervises for not following statutory regulations regarding nonperforming loan provisions on three large loans as a result of the bank's loan provisioning policy. Louis Marie Buffet, CFA, sits on the board of directors of the commercial bank as a non-executive director, representing minority shareholders. He also chairs the bank's internal audit committee that determines the loan provisioning policy of the bank. Mercy Gatabaki, CFA, is the bank's external auditor and follows international auditing standards whereby she tests the loan portfolio by randomly selecting loans to check for compliance in all aspects of central bank regulations. Which charterholder is *most likely* in violation of the Code and Standards?

- A. Gatabaki
- B. Buffet

C. Both

Solution: B.

Buffet sat on the audit committee that determined the bank's provisioning policies that were contrary to the statutory regulations of the central bank. As a result, he most likely violated Standard I—Professionalism by not abiding by regulations of a regulatory body. Gatabaki did not violate Standard I - Professionalism because it is not apparent she knowingly facilitated the incorrect provisioning policy.

Q-12. In regard with Standard I(A) Knowledge of the law, members and candidates should not:

- A. Be a law expert.
- B. Be familiar with the details of law concerning your project.
- C. Understand your firm's rules and regulations.

Solution: A.

When questions arise, members and candidates should know their firm's policies and procedures for accessing compliance guidance. On the basis of their reasonable and good faith understanding, members and candidates must comply with the laws and regulations that directly govern their professional activities and resulting outcomes and that protect the interests of the clients. However, this standard does not require members and candidates to become expert.

1.4. Independence and Objectivity

1.4.1. 重要知识点

1.4.1.1. Basic principle

- Must not offer, solicit, or accept any gift, benefit, compensation, or consideration that reasonably could be expected to compromise their own or another's independence and objectivity.

1.4.1.2. 雇主可能为了与其他公司保持业务关系，可能会要求研究人员 **issue favorable research reports**，正确的做法是保持客观独立，按照客观事实撰写报告。

1.4.1.3. 社交活动也可能违反 I(B), **When seeking corporate financial support for conventions, seminars, weekly society luncheons, evaluate both the actual effect on independence and whether objectivity might be perceived to be compromised in the eyes of clients.**

1.4.1.4. Investment banking

- Firewall—minimizes conflicts of interest. Separate reporting structures for personnel on the research side and personnel on the investment banking side;

- Compensation should not link analyst remuneration directly to investment banking assignments in which analyst may participate as a team member.
- It is appropriate to have analysts work with investment bankers only when the conflicts are adequately and effectively managed and disclosed.

1.4.1.5. Public companies

- Analysts should not be pressured to issue favorable research by the companies they follow.
- Can promise to cover the firm, should not promise favorable report about the firm.
- Due diligence in financial research and analysis involves gathering information from public disclosure documents and also company management and investor-relations personnel, suppliers, customers, competitors, and other relevant sources.

1.4.1.6. Buy-side clients

- Sell-side analyst should not be pressured by buy-side firms to issue favorable research on current or prospective investment-banking clients.
- 基金经理也要尊重卖方分析师的独立性

1.4.1.7. Gift from client & Gift from the third party

- 最好能拒绝所有会 compromise their own or another's independence and objectivity 的礼物。Modest gift is OK, but as long as its purpose is not to compromise the objectivity.
- 判断的原则：第一是礼物的金额很少（modest）；第二是礼物不能是单独为你准备的(arrangement not unusual)。
- Gift from client 可以接受，但必须披露，否则违反 I(B)。尽量接受前披露，如果实在没法披露，也要事后披露。

1.4.1.8. Fund manager relationships

- Members and candidates who are responsible for hiring and retaining outside managers should not accept gifts, entertainment, or travel funding that may be perceived as impairing their decisions.
- For meeting sponsored funds, members and candidates must review the merits of each offer individually in determining whether they may attend yet maintain their independence of conduct regarding the analytic process and the distribution of their reports.

1.4.1.9. Performance measurement and attribution

- As performance analysts, their analysis may reveal instances where managers may appeared to stray from their mandate.
- The performance analyst may receive requests to alter the construction of

composite indices due to negative results for a selected account or fund.

- The member or candidate must not allow internal or external influences to affect their independence and objectivity as they faithfully complete their performance calculation and analysis related responsibilities.

1.4.1.10. The rating agencies

- Members and candidates at rating agencies should ensure that procedures at the agencies prevent undue influences from a sponsoring company during the analysis.
- Abide by their agencies' and the industry's standards of conduct regarding the analytical process and the distribution of their reports
- Develop the necessary firewalls and protections to allow the independent operations of their different business lines.
- When using information provided by credit rating agencies, members and candidates should be mindful of the potential conflicts of interest.

1.4.1.11. Influence during the manager selection/procurement process

- When hiring or firing of those who provide many business services beyond investment management or when working to earn a new investment allocation, members and candidates should not receive, solicit or offer gifts, contributions, or other compensation to influence the decision of the hiring representative.

1.4.1.12. Issuer-paid research

- Analysts' compensation for preparing such research should be limited, and the preference is for a flat fee that is not linked to their conclusions or recommendations (directly or indirectly)
- Must fully disclose potential conflict of interest, including the nature of compensation. If not → misleading investors
- Conduct a thorough analysis of the company's financial statements based on public information, benchmarking within a peer group, and industry analysis. (Distinguish between fact and opinion)

1.4.1.13. Travel funding

- Best practice: always use commercial transportation rather than accept paid travel arrangements from an outside company.
- Should commercial transportation be unavailable, members and candidates may accept modestly arranged travel to participate in appropriate information-gathering events, such as a property tour.
- May be influenced by discussions exclusively with the company executives when flying on a corporate or chartered jet.

1.4.1.14. Procedures for compliance

- Protect the integrity of opinions: unbiased, design compensation systems with integrity.
- Create a restricted list: if unwilling to issue unfavorable, put it on a restricted list and only issue factual information.
- Restrict special cost arrangement: pay charges by themselves when visiting headquarter, not reimbursed for air fees by corporate issuer, limit use firm's aircraft only when no commercial transportation. Should not always be hosted by issuer.
- Limit gifts: Customary, business-related entertainment is okay as long as its purpose is not to influence professional independence or objectivity; 礼物的价值要参考 local customs 并且说明价值限制是 per gift or annual total amount.
- Restrict investments: develop formal policies about employee purchases of equity or equity-related ipos, require prior approval for employee to participate in ipos, disclose timely investment actions following the offering, strict limit on investment personnel acquiring securities in private placements.
- Review procedures: implement effective supervisory and review procedures about personal investment activities.
- Independence policy: formal written policy, not influenced by any parties that could comprise their independence.
- Appointed officer: to supervise for compliance; provide procedures and policies for reporting violation to every employee.

1.4.2. 基础题

Q-13. An analyst has been writing research reports on a firm for many years. As part of the analyst's continuing research efforts, the analyst allowed the firm to fly him to the firm's headquarters 500 miles away and put him up in the guest quarters the firm had for all corporate visitors. In the current year, the firm is planning a secondary share offering that coincides with the tenth anniversary of the firm going public. When the analyst arrived at the headquarters, he found a new set of high-quality golf clubs as a gift to him. On the golf clubs was the firm's logo, and the firm was giving the clubs to all visitors this year in honor of the anniversary and the IPO. Based upon this information, Standard I (B), Independence and Objectivity, has:

- A. Been broken because of the value of the golf clubs and the value of the trip to the headquarters.
- B. Been broken because of the value of the golf clubs.
- C. Not been broken because the trip is allowed and the firm is giving the clubs to all visitors.

Solution: B.

Modest gifts and entertainment are acceptable. Should commercial transportation be unavailable, modestly arranged travel may be accepted to participate in appropriate information gathering events.

Q-14. Romar Brockman, CFA, is a sell-side analyst. Approximately half of Brockman's compensation comes from his firm's Investment-banking division. Brockman was asked to write a report about Anacortes Concrete (AC), an Investment-banking client. Despite concerns about the slowdown in concrete demand, Brockman issued a very positive report on AC. When issuing his report, Brockman least likely violates the CFA Institute Standard relating to:

- A. Loyalty to Employer.
- B. Loyalty, Prudence, and Care.
- C. Independence and Objectivity.

Solution: A.

The Standards require members to put client interests ahead of member and employer interests. As Brockman's compensation is dependent upon investment banking revenues, Brockman may not be objective. When issuing the report, he is in jeopardy of violating Standards relating to Independence and Objectivity; Loyalty, Prudence, and Care; and Disclosure of Conflicts.

Q-15. Kavily Poven recently left his job as a research analyst for a large investment adviser. While looking for a new position, he was hired by an investor-relations firm to write a research report on one of its clients, a small educational software company. The investor-relations firm hopes to generate investor interest in the technology company. The firm will pay Poven a flat fee plus a bonus if any new investors buy stock in the company as a result of Poven's report. If Poven accepts this payment arrangement, he most likely violates the Code and Standards with respect to:

- A. Disclosure of Conflicts.
- B. Misconduct.
- C. Independence and Objectivity.

Solution: C.

If Poven accepts this payment arrangement, he will be in violation of Standard I(B) because the compensation arrangement can reasonably be expected to compromise his independence and

objectivity. The agent option granted by Poven may compromise his objectivity.

1.5. Misrepresentation

1.5.1. 重要知识点

1.5.1.1. 下面的形式都与 Misrepresentation 相关

- Oral representations, advertising, electronic communications, or written materials. (written materials include research reports, market letters, newspaper columns, and books; electronic communications includes internet communications, web pages, chat room, and e-mail).
- Misrepresentation 是指 untrue statement or omission of a fact 或者 false or misleading.
- 将“明知故犯”(knowingly) 界定为知道或者应该知道 misrepresentation was being made or that omitted information could alter the investment decision-making process.
- 分析时要考虑多种情形 (from very positive scenarios to extremely negative scenarios)。

1.5.1.2. Impact on investment practice:

- 不能保证 specific return which is inherently volatile.
- **Not prohibit** from guaranteeing return which is built into the structure of the product or for which an institution has agreed to cover any losses. 如,联邦储蓄利率是 2%, 那么保证 2%利率是可以的。
- 不可以对客户说“我们可以提供你需要的所有服务”, 正确的做法是提供一个公司所能提供的服务清单;
- 不能 **misrepresent qualifications**, 一旦发现要立即改正, 如果过了很长时间不改正, 就会被定义为 misrepresent (如名片打印错误一年后才发现就算违反)。
- 如果通过 **outside managers** 进行投资, must disclose intended use of external managers, members and candidates must not represent outside managers' investment practices as their own.
- 使用第三方信息要注意: Exercise care and diligence, 同时如果影响到了投资业绩, investment professional 要对此负责。
- **Social media:** Members and candidates 在社会媒体上为客户所提供的信息必须要和通过其他传统交流方式所提供的信息一致, 并且也同样不能出现一些虚假或者内幕消息。
- **Social media:** members and candidates 还必须遵守一些专门针对一些社会媒体交流所制定的 Code and Standards. 在社会媒体上故意散播错误的投资建议或者虚假陈述专业投资活动的信息, 都会被视为违反了 Standard I(C).

- **Omission:** the omission of a fact or an outcome can be misleading. 当 members and candidates 依赖模型来找寻新的投资机会, 建立投资工具, 提供投资建议, 但是往往通过模型得出的结论不会是事实。在选择 composite 的组成时, 要建立严格的政策来防止“cherry picking”。
- **业绩基准的选择**容易扭曲业绩报道, Members and candidates 不能选择一个与投资策略不相符的业绩基准。不一定每一个投资组合都要选择一个 benchmark, 像 hedge fund 这种比较复杂的投资组合就不需要一个基准。
- 虚假陈述还会出现在**对不流通证券(illiquid securities)进行定价的时候**。当出现多个不同的信息来源时, Members and candidates 应该为客户提供准确并且可靠的证券定价信息。定价机构的选择应当保持一致性, 不能因为新的定价机构提供了一个较高的证券报价信息而随意更换现在的定价机构。信息的一致性在一定程度上也限制了虚假陈述。

1.5.1.3. Plagiarism

- **Plagiarism 定义为:** Copying or using in substantially the same form materials prepared by others without acknowledging the source of the material or identifying the author and publisher of such material.
- 适用于任何场合, 包括口头交流, 媒体采访等。
- 未经许可 **copy (or represent as their own) original ideas/material** 就算违反, 必须 acknowledge and identify the source of ideas/material.
- **常见形式:** Using excerpts from others' reports without acknowledgement; Citing quotations as “leading analysts” and “investment experts” without naming specific reference; Using charts and graphs without stating sources; Presenting statistical estimates of forecasts prepared by others and identifying the sources without including the qualifying statements or caveats that may have been used; Copying proprietary computerized spreadsheets or algorithms without authorization; Preparation of research reports based on multiple sources without acknowledging the sources.
- 引用别人的思想需要鸣谢(credit or acknowledgement), 否则就是 Plagiarism;
- 引用他人的模型, 分析师作了少许修改, 把模型作为自己的, 属于 plagiarism 行为, 违反了 I(C), 正确的做法是鸣谢这个模型的出处来源;
- 引用媒体的转载, obtain the information directly from the author and cite only that author 或者 use the information provided by the intermediary and cite both sources, 不能 only cite the information from the intermediary.
- 无心的打印错误不违反 misrepresentation, 但是如果发现错误, 却没有纠正, 那么就违反了 misrepresentation.

1.5.1.4. Work completed for employer

- The firm retains the right to continue using the work completed after a member or candidate has left the organization. 公司可以 issue future reports without providing attribution to the prior analysts, 但公司内其他员工不能 reissue a previously released report solely under his name.

1.5.1.5. Procedures

- **Factual presentations:** written list of available services and a description of qualifications, 并且指定专人作为公司发言人。
- **Qualification summary:** 对于 representations of qualifications, 公司要定期检查 employee correspondence and documents.
- **Verify outside information:** 对于第三方要 verify, 防止其因为错误陈述而影响公司声誉. Encourage to develop policy to verify.
- **Maintain webpage:** 保存网页; Protect site's integrity, confidentiality, and security; not misrepresent and fully disclose.
- **Plagiarism policy:** maintain copies of all research reports with research ideas, material with new methodologies, and other materials being relied on in preparing the research report; attribute quotations, including projections, tables, statistics, model/product ideas, and new methodologies prepared by persons other than recognized financial and statistical reporting service or similar service; attribute summaries or paraphrase.

1.5.2. 基础题

Q-16. In the past few years, a few clients were served by Tylar Smith, a research analyst. Tylar wants to start his own business so he states in the ads that he has provided service to thousands of clients and achieved remarkable performance. Does Tylar conform to Standards of Professional Conduct?

- A. Yes
- B. No, related to Independence and Objectivity
- C. No, related to Misrepresentation

Solution: C.

Since Tylar just served a few clients, stating in the ads that his client base is a larger number is a misrepresentation and a violation of Standard I (C).

Q-17. Robert is responsible for the creation and distribution of ABC Company's marketing materials. In the materials, it says that the asset value of the company is 350 billion, but actually the true value is 35 billion. Before Robert could make necessary change to the

data, his subordinates had distributed these materials to their clients without seeking Roberts' permission. Robert doesn't know the distribution of the materials. Under this circumstance, does Robert violate any CFA Standards of Professional Conduct?

- A. No.
- B. Misrepresentation.
- C. Misconduct.

Solution: A.

This belongs to typographical error. Robert did not check the numbers before public and it's not on purpose. So he did not violate misrepresentation.

Q-18. Elis is a portfolio manager of high net worth clients. One day, she received a material from her brokerage introducing an investment product that claimed to provide an insured income. She quickly reviewed the product and sent out the emails to all her clients. The email heading was "New fixed income product! Hot opportunity!", And she also in-closed the products prospectus in her email. Did Elis *most likely* violate which of the following standards?

- A. Misrepresentation the nature of the product only
- B. Misrepresentation the nature of the product and fail to disclose the detail of the product
- C. Fail to disclose the detail of the product

Solution: A.

Insured income differs from fixed income. She in-closed the products prospectus in her email, she didn't fail to disclose the detail of the product.

1.6. Misconduct

1.6.1. 重要知识点

1.6.1.1. Scope of application

- 凡是有关于欺诈的(dishonesty, fraud, or deceit), 或者影响到 professional reputation, integrity, or competence 的行为都是 misconduct.
- 但是职业无关的除欺诈以外的行为不当行为或则违法行为是不违反 misconduct 的, 比如作为某一环保组织成员参加游行。
- Excessive drinking at lunch during work making negative effect on your ability to make sound investment decisions is a violation of Standard I (D).

1.6.1.2. 个人破产 **may not reflect on the integrity or trustworthiness of the person declaring bankruptcy**

- 如果是经营破产（如与欺诈无关），免责；
- 如果是因欺诈(fraudulent or deceitful business conduct)导致的破产，不能免责。

1.6.1.3. Recommended procedures

- Code of ethics: every employee should subscribe and make clear that the unethical activities will not be tolerated.
- List of violations: potential violations and associated disciplinary sanctions.
- Employee references: check potential employee's character and eligible for work in the investment industry because of past infractions of the law.

1.6.2. 基础题

Q-19. Frank Luis, a fund manager, decided to file for personal bankruptcy because of a huge loss on his personal investment. Does Frank violate any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, related to Misconduct
- C. Yes, related to Knowledge of law

Solution: A.

If it is not because of deceitful conduct, personal bankruptcy doesn't violate code and standards.

Q-20. A CFA Candidate purchased copyrighted CFA exam preparatory study guide from a publisher. Two weeks prior to the exam, the Candidate lost the study guide, so he photocopied a copy that his friend had purchased. According to the Standards of Practice Handbook, did the Candidate *most likely* violate the CFA Institute Standards of Professional Conduct?

- A. Yes
- B. No, because he had purchased his own copy
- C. No, because both had purchased their own copies

Solution: A.

The Candidate violated Standard I (A)-Knowledge of the Law and Standard I (D)-Misconduct. By photocopying the material without the permission of the author and publisher, the Candidate violated copy write laws and effectively stole the intellectual property of the author and publisher, hence acted in a dishonest way.

Q-21. As a condition of his employment with an investment bank, Abasi Hasina, CFA, was

required to sign an employment contract, including a non-compete clause restricting him from working for a competitor for three years after leaving the employer. After one year, Hasina quits his job for a comparable position with an investment bank in a country where non-compete clauses are illegal. Lawyers with whom he consulted prior to taking the new position determined the non-compete clause was a violation of human rights and thus illegal. Did Hasina *most likely* violate the CFA Institute Code of Ethics?

- A. Yes
- B. No, because the non-compete clause violates his human rights
- C. No, because the non-compete clause is illegal in the new country of employment

Solution: A.

A is correct because by failing to adhere to the non-compete clause he agreed to abide by when signing his employment contract, Hasina shows a lack of professional integrity toward his employer. This behavior reflects poorly on the good reputation of members and is a violation of the Code of Ethics, which states that members and candidates must act with integrity, and Standard I (D) Misconduct, which states that members and candidates must not engage in any professional conduct involving dishonesty, fraud, or deceit or commit any act that reflects adversely on their professional reputation, integrity, or competence. The Code of Ethics at times requires a member or candidate to uphold a higher standard than that required by law, rule, or regulation, or in this case the strict application of the employment agreement.

1.7. Material Nonpublic Information

1.7.1. 重要知识点

1.7.1.1. 如果持有 MNI，自己不能利用或促使他人利用 MNI 进行投资

1.7.1.2. 判断 material 的条件：来源可靠，对股价影响明确

1.7.1.3. 比如：substance and materiality

- Earnings.
- M&A, acquisitions, tender offers, or joint ventures.
- Changes in assets, Changes in management.
- Innovative products, processes, or discoveries.
- New licenses, patents, registered trademarks, or regulatory approval/rejection of a product.
- Developments regarding customers or suppliers (e.g., the acquisition or loss of a contract).
- Changes in auditor notification or the fact that the issuer may no longer rely on an

auditor's report or qualified opinion.

- Defaults on senior securities, calls of securities for redemption, repurchase plans, stock splits, changes in dividends, changes to the rights of security holders, public or private sales of additional securities, and changes in credit ratings.
- Bankruptcies.
- Significant legal disputes.
- Government reports of economic trends (employment, housing starts, currency information, etc.).
- Orders for large trades before they are executed.
- 竞争对手的预测不能认为是 MNI.

1.7.1.4. 其他情形:

- 有名的公司或者分析师对股价的研究对市场有影响, 算是 material.
- Suppliers: 从供应商处了解到一个公司的信息, 如果来源是可靠的, 则算是 MNI, 不能使用; 如果是自己观察到的, 属于 Mosaic 理论, 可以使用。竞争者的分析, 不算 material.
- 不管通过什么途径, 公开发行的报告就是 public (失误引起的提前发行, 算不算做公开发布? 算, can use for trading) .
- 如果公司在分析师会议上内幕信息, 怎么办? Can't use.
- Selective disclosure may violate MNI. If MNI was disclosed **selectively**, the listed company should issue a press release or reach public dissemination.

1.7.1.5. 可以使用内幕消息的情况: 如果 A member or candidate 在根据商业协议为目标公司的活动 (这些活动包括兼并、贷款认购、信用评级以及其他提供服务) 做尽职调查时, 用到公司合法提供的没有公开的内部消息, 不算违背 Standard II(A)。如果为了其他目的使用内幕信息, 尤其是为了诱惑他人对该公司的证券进行交易, 则违背了 Standard II(A)。

1.7.1.6. Social media: 一些社交媒体平台只能把信息提供给注册会员。Members and candidates 需要确认这些信息能否从其他公开渠道获得。Members and candidates 在通过这些社交媒体平台和客户进行交流时, 只要其他投资大众也有权查阅这类信息, 那么这就不违背 standard II(A)。另外根据 Standard I(A), 会员需要完成同社交媒体有关的相关监管文件的填写。

1.7.1.7. Industry expert: Members and candidates 需要对外部聘用的行业专家所提供的信息负责, 不能用一些 material nonpublic information。如果行业专家提供了一些企业的 material nonpublic information, 在这些信息被公开之前, members and candidates 不能使用这些信息进行投资。

1.7.1.8. Mosaic theory: 可以使用 material public information and non-material non-public information, 但必须 save and document all the research.

1.7.1.9. Simply because the public in general find the conclusions material does not require that the analyst make his/her work public. Investors who are not clients of the analyst can either do the work themselves or become clients of the analyst for access to the analyst's expertise.

1.7.1.10. 公司如果拥有 MNI, 不必禁止所有自营交易 (Proprietary trading)

- 如果是做市商 market maker, remain passive to the market, take only the contra side of unsolicited customer trades;
- In risk arbitrage trading, Best to stop; If not stop, prove the adequacy of their internal procedures and must document firm trades.

1.7.1.11. Achieve public dissemination

- If material, should try to achieve public dissemination.
- Encourage the firm to make it public, if not possible, report only to designated supervisory and compliance personnel within her firm.
- not invest on MNI, or induce insider to disclose MNI.

1.7.1.12. Adopt compliance procedures

- Encourage firms to adopt compliance procedures to prevent the misuse of MNI.
- Particularly important is improving compliance in such areas as the review of employee and proprietary trading, documentation of firm procedures, and the supervision of interdepartmental communications in multi-service firms.
- Compliance procedures should suit the particular characteristics of a firm, including its size and the nature of its business.

1.7.1.13. The minimum elements of such firewall include, but are not limited to, the following:

- substantial control of interdepartmental communications, preferably through a clearance area in either the compliance or legal department;
- Review of employee trading through the maintenance of "watch," "restricted," and "rumor" lists;
- Documentation of the procedures designed to limit the flow of information between departments and of the actions taken to enforce those procedures;
- heightened review or restriction of proprietary trading while a firm is in possession of material nonpublic information.

1.7.1.14. Physical separation of departments

1.7.1.15. Prevention of personnel overlap

1.7.1.16. A reporting system

- Authorized people review and approve communications between departments.
- Consult a designated compliance officer to determine whether sharing the information is necessary and how much information should be shared.

- If the sharing is necessary, the compliance officer should coordinate the process of “looking over the wall”.
- A single supervisor or compliance officer should have the specific authority and responsibility of deciding whether or not information is material and whether it is sufficiently public to be used as the basis for investment decisions.
- Ideally, the officer is independent.

1.7.1.17. Personal trading limitations.

- Consider restrictions or prohibitions on personal trading and carefully monitor proprietary trading and personal trading.
- Require employees to make periodic reports of their own transactions and transactions made for the benefit of family members.
- Securities should be placed on a restricted list when a firm has or may have MNI.
- A watch list shown to only the few people responsible for compliance should be used to monitor transactions in specified securities.

1.7.1.18. Record maintenance.

- Multi-service firms should maintain written records of the communications between various departments.
- Firms should place a high priority on training and should consider instituting comprehensive training programs, particularly for employees in sensitive areas.

1.7.1.19. Communication to all employees.

- Written compliance policies and guidelines should be circulated to all employees of a firm.
- Policies and guidelines should be used in conjunction with training programs aimed at enabling employees to recognize MNI.
- Sufficient training to either make an informed decision or to realize they need to consult a supervisor or compliance officer before engaging in questionable transactions.

1.7.2. 基础题

Q-22. Andy Miller, a portfolio manager, works for a local investment firm. In a restaurant, he overheard about a merger which is not released to public by two fund managers. The next day, Andy bought the stock for his clients. Does Andy violate any code and standards?

- A. No
- B. Yes, related to Material Nonpublic Information
- C. Yes, related to Market Manipulation

Solution: B.

The information is surely considered as material nonpublic information as it has not been released, and it would have a clear impact on the target company. So it cannot be used before releasing to public.

Q-23. Which of the following most likely describes the mosaic theory?

- A. Using the information from the senior management of the target company
- B. Using the information that the target company is involved in M&A transaction
- C. Using material public information and nonmaterial nonpublic information

Solution: C.

The information from senior management could be considered as “source reliable.” The information of M&A could be considered as a “clear impact.” The mosaic theory states that analysts can use material public information and nonmaterial nonpublic information.

Q-24. Andrews, a private wealth manager, is conducting interviews for a new research analyst for his firm. One of the candidates is Wright, an analyst with a local investment bank. During the interview, while Wright is describing his analytical skills, he mentions a current merger in which his firm is acting as the adviser. Andrews has heard rumors of a possible merger between the two companies, but no releases have been made by the companies concerned. Which of the following actions by Andrews is *least likely* a violation of the Code and Standards?

- A. Waiting until the next day before trading on the information to allow time for it to become public
- B. Notifying all investment managers in his firm of the new information so none of their clients are disadvantaged
- C. Placing the securities mentioned as part of the merger on the firm's restricted trading list

Solution: C.

The guidance to Standard II(A)—Material Nonpublic Information recommends adding securities to the firm's restricted list when the firm has or may have material nonpublic information. By adding these securities to this list, Andrews would uphold this standard. Because waiting until the next day will not ensure that news of the merger is made public, answer A is incorrect. Negotiations may take much longer between the two companies, and the merger may never happen. Andrews must wait until the information is disseminated to the market before he trades

on that information. Answer B is incorrect because Andrews should not disclose the information to other managers; no trading is allowed on material nonpublic information.

Q-25. Miguel Sanchez, CFA, an analyst working in an investment firm. One day he overheard the conversation between the CEO of a listed company and a portfolio manager that the earnings of the company has doubled and that information has not been released to public. Which of the following actions by Miguel is least likely a violation to the CFA Institute Standards of Professional Conduct?

- A. Taking no investing action
- B. Disclose the information to some of his clients
- C. Purchasing the stock for his clients

Solution: A.

The information is considered as material nonpublic information as it has not been released, and it would have a clear impact on the company. No trading is allowed on material nonpublic information.

Q-26. Charlotte BILLO, a junior analyst in a regional brokerage firm, overheard three senior managers of a large listed company talking about a staff restructuring plan while she was waiting for her flight. The managers determined those who would be dismissed. Charlotte could not remember the names but was sure that they were just ordinary employees. After returning from her journey, she made a thorough research on the company and found that the company was likely to shut down a plant situated in her local town because of a great loss on a new product line. She launched immediately a recommendation Sell on the stock. Did she comply with the Standards?

- A. Yes, because the recommendation was based on mosaic theory and she made a diligent research
- B. No, because she did not reach her conclusion on a reasonable basis because she did not remember the names of those who would be dismissed
- C. No, because she took advantage of non-public material information

Solution: C.

The restructuring of staff should be considered material, and fire determination of ordinary can't change the nature of materiality, so she can't make investment recommendation using non-public material information.

Q-27. While waiting in the business class lounge before boarding an airplane, Becca Msafari, CFA, an equity analyst, overhears a conversation by a group of senior managers, including members of the board, from a large publicly listed bank. The managers discuss staff changes necessary to accommodate their regional expansion plans. Msafari hears several staff names mentioned. Under what circumstances could Msafari *most likely* use this information when making an investment recommendation to her clients? She can use the information:

- A. If the discussed changes are unlikely to affect investor perception of the bank.
- B. Under no circumstances.
- C. If she does not breach the confidentiality of the names of the staff.

Solution: A.

To comply with the Code and Standards, a member or candidate cannot use material nonpublic information when making investment recommendations. The information overheard would not be considered material only if any public announcement of the staff removal would be unlikely to move the share price of the bank, nor would the regional expansion substantially impact the value of the bank.

Q-28. An investment banking department of a brokerage firm often receives material nonpublic information that could have considerable value if used in advising the firm's brokerage clients. In order to conform to the Code and Standards, which one of the following is the best policy for the brokerage firm?

- A. Permanently prohibit both "buy" and "sell" recommendations of the stocks of clients of the investment banking department
- B. Establish physical and informational barriers within the firm to prevent the exchange of information between the investment banking and brokerage operations
- C. Monitor the exchange of information between the investment banking department and the brokerage operation

Solution: B.

The best policy to prevent violation of Standard II(A)-Material Nonpublic Information is the establishment of firewalls in a firm to prevent exchange of insider information. The physical and informational barrier of a firewall between the investment banking department and the brokerage operation prevents the investment banking department from providing information to analysts on the brokerage side who may be writing recommendations on a company stock. Prohibiting recommendations of the stock of companies that are clients of the investment banking department is an alternative, but answer A states that this prohibition would be

permanent, which is not the best answer. Once an offering is complete and the material nonpublic information obtained by the investment banking department becomes public, resuming publishing recommendations on the stock is not a violation of the Code and Standards because the information of the investment banking department no longer gives the brokerage operation an advantage in writing the report. Answer C is incorrect because no exchange of information should be occurring between the investment banking department and the brokerage operation, so monitoring of such exchanges is not an effective compliance procedure for preventing the use of material nonpublic information.

1.8. Market Manipulation

1.8.1. 重要知识点

1.8.1.1. 定义: distort prices or artificially inflate trading volume with the intent to mislead market participants.

1.8.1.2. The intent of the action is critical to determine whether it is a violation of this standard. 需要注意什么时候是违反的, 出于什么样的目的是不违反的: (for tax and inefficiency) 利用市场的非有效赚钱, 是否违反? 为了税收的目的, 是否违反? No!!!

- 一家交易所与做市商签署协议, 要求做市商保证最低交易量, 同时, 交易所承诺佣金折让。如果他们的目的旨在操纵市场, 则违反了 II(B); 如果他们的目的旨在活跃市场, 且此协议对外公布, 则不违反 II(B).

1.8.1.3. 以操纵为目的的信息发布(information based)和交易(transaction based)都是违反的;

- Info-based: spreading false or misleading information.
- Transaction-based: transactions that deceive or would be likely to mislead market participants by distorting the price-setting mechanism of financial instruments.

1.8.2. 基础题

Q-29. Chen Zhang, CFA, is a portfolio manager in an investment company. His clients are disappointed at his investment performance and they tell Chen Zhang that if this situation continues this year, they will redeem their shares. In order to improve the investment performance, Chen Zhang purchased 10,000 shares of the target company in his personal account so that the stock price rises. Does Chen Zhang violate any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, related to Market Manipulation
- C. Yes, related to Material Nonpublic Information

Solution: B.

Chen Zhang violates Market Manipulation because he is attempting to manipulate an increase in the share price.

Q-30. John Wallace, CFA, is an analyst in an investment management firm. He short sells the stock of Gravity Company. In order to profit from the short selling, he make up some negative news of the target company and disclose them to the public. Which of John 's following actions is least likely to be in violation of the CFA Institute Standards of Professional Conduct?

- A. Short selling
- B. Fabricate negative news
- C. Spread the fake news to the public

Solution: A.

Short selling is a investment strategy and does not necessarily violate any aspect of the Code and Standards.

1.9. Loyalty, Prudence and Care**1.9.1. 重要知识点****1.9.1.1. 信托义务和 loyalty, prudence, and care 的区别。**

- 不管和客户有没有建立信托关系，Members and candidates 都必须对客户尽有 Loyalty, Prudence, and Care 的责任。
- 信托关系可以增加与客户之间的信任度。虽然 Members and candidates 必须遵守合法的信托义务，但是 Code and Standards 并不要求每一个 Members and candidates 都成为信托人。
- Standard III(A)要求 Members and candidates 为客户争取最大利益。

1.9.1.2. 作为交易的执行者，但不需要为客户提供建议时：

- Use their skills and diligence to execute trades in the most favorable terms that can be achieved. (争取达到最好的结果)

1.9.1.3. 作为交易的执行者同时为客户提供投资建议时：

- The extent of the advisory arrangement and limitations should be outlined in the agreement with the client at the outset of the relationship. 必须根据客户自身的 objectives and risk tolerances, 以及自身需求给出建议。

1.9.1.4. 4 类客户

- Individuals: An investment manager manages the personal assets of an individual.
- Beneficiary: When the manager is responsible for the portfolios of pension plans

or trusts, the client is the beneficiaries of the plan or trust. The duty of loyalty is owed to the ultimate beneficiaries.

- Mandate: In some situations, the actual client or beneficiaries may not exist. Members and candidates managing a fund to an index or an expected mandate owe the duty of loyalty, prudence, and care to the stated mandate.
- Investing public: *The client may be the investing public as a whole, the goals of independence and objectivity of research surpass the goal of loyalty to a single organization.*

1.9.1.5. Develop client's portfolios

- Should ensure that the client's objectives and expectations of the account are realistic and suitable to their circumstances and that the risks involved are appropriate.
- Recommended investment strategies should relate to the long-term objectives and circumstances of the client.
- 检查 investment manager or the firm 的利益是否 conflict with the best interests and objectives of the client.
- 一定遵守 any guidelines set by clients.
- 投资决策要基于整个 portfolio.

1.9.1.6. Soft commission policies.

- "Soft dollars" or "soft commissions" should benefit clients, not investment manager.
- If pay a higher commission without corresponding benefit to the client, violate.
- "directed brokerage" is ok, but still obligated to seek "best price" and "best execution", and be assured by the client that the goods or services purchased from the brokerage will benefit the account beneficiaries. In addition, should disclose to the client that the client may not be getting best execution from the directed brokerage.
- "Best execution" refers to a trading process that seeks to maximize the value of the client's portfolio within the client's stated investment objectives and constraints. 如果客户执意要求 directed brokerage, 而不考虑利益的最大化, 应该取得客户的书面同意。

1.9.1.7. Regular account information should submit to each client, at least quarterly, an itemized statement showing:

- The funds and securities in the custody or possession plus all debits, credits, and transactions that occurred during the period;
- Where the assets are to be maintained, as well as where or when they are moved;

- Should separate the client's assets from any others' and their own assets.

1.9.1.8. Client approval.

- If uncertain, should ask what he/she would expect or demand if the member/candidate was the client.
- If in doubt, should disclose questionable matter in writing to the client and obtain client approval.

1.9.1.9. Should diversify unless diversification is not consistent with plan guidelines or is contrary to the account objectives

- Vote proxies in the best interest of beneficiaries and clients, 并不是任何时候使用 vote proxies 都是有益的, 如果考虑到成本和收益之间关系的话, 可以放弃每次的投票。(Blind voting 是违反的). Should determine who is authorized and for the benefit of beneficiaries, should disclose any change in voting proxy policy.

1.9.2. 基础题

Q-31. Steven Mills, CFA, is a portfolio manager in an investment firm. Recently, Steven decided not to vote the proxy of a company which is located in Tibet because the travel expense is too high. Does Steven violate the CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, related to Loyalty, prudence and care
- C. Yes, related to Fair Dealing

Solution: A.

If it is based on a cost-benefit analysis, the conclusion that voting proxies may not be necessary in all instances is not considered a violation of Loyalty, Prudence, and Care.

Q-32. One of the discretionary accounts managed by Farnsworth is the Jones Corporation employee profit-sharing plan. Jones, the company president, recently asked Farnsworth to vote the shares in the profit-sharing plan in favor of the slate of directors nominated by Jones Corporation and against the directors sponsored by a dissident stockholder group. Farnsworth does not want to lose this account because he directs all the account's trades to a brokerage firm that provides Farnsworth with useful information about tax-free investments. Although this information is not of value in managing the Jones Corporation account, it does help in managing several other accounts. The brokerage firm providing this information also offers the lowest commissions for trades and provides best execution. Farnsworth investigates the director issue, concludes that

the management-nominated slate is better for the long-run performance of the company than the dissident group's slate, and votes accordingly. Farnsworth:

- A. Violated the Standards in voting the shares in the manner requested by Jones but not in directing trades to the brokerage firm.
- B. Did not violate the Standards in voting the shares in the manner requested by Jones or in directing trades to the brokerage firm.
- C. Violated the Standards in directing trades to the brokerage firm but not in voting the shares as requested by Jones.

Solution: B.

This question relates to Standard III (A) Loyalty, Prudence, and Care—specifically, a member's or candidate's responsibility for voting proxies and the use of client brokerage. According to the facts stated in the question, Farnsworth did not violate Standard III(A). Although the company president asked Farnsworth to vote the shares of the Jones Corporation profit-sharing plan a certain way, Farnsworth investigated the issue and concluded, independently, the best way to vote. Therefore, even though his decision coincided with the wishes of the company president, Farnsworth is not in violation of his responsibility to be loyal and to provide care to his clients. In this case, the participants and the beneficiaries of the profit-sharing plan are the clients, not the company's management. Had Farnsworth not investigated the issue or had he yielded to the president's wishes and voted for a slate of directors that he had determined was not in the best interest of the company, Farnsworth would have violated his responsibilities to the beneficiaries of the plan. In addition, because the brokerage firm provides the lowest commissions and best execution for securities transactions, Farnsworth has met his obligations to the client in using this brokerage firm. It does not matter that the brokerage firm also provides research information that is not useful for the account generating the commission, because Farnsworth is not paying extra money of the client's for that information.

Q-33. Ryan Copland, CFA, is an investment manager. One day a client who had not had contact in for more than one year made a phone call to Ryan and stated that he had inherited a large sum of money. Ryan congratulated the client and recommended him to invest in several high-risk stocks. Did Ryan conform to CFA standards?

- A. Yes
- B. No, related to Loyalty, Prudence and Care
- C. No, related to Diligence and Reasonable Basis

Solution: B.

Ryan had not updated his client's profile in more than one years thus should not have made further investments. He is required to update the client's risk and return objectives before making investment recommendation.

Q-34. Vincent Suarez, a fund manager, wants to increase efficiency of his investment work, so he recently bought some new computers by using the soft dollar. Does Vincent violate the CFA Code and Standards?

- A. No
- B. Yes, by using the soft dollar to buy new computers
- C. Yes, by improving investment skill

Solution: B.

Vincent violated "loyalty, prudence and care" because soft dollar is clients' property, it should be used directly to benefit clients. Buying computers is not acceptable because it doesn't benefit clients directly.

Q-35. Thomas Muller, a portfolio manager, works for an investment firm. A brokerage firm offered Muller better prices for his personal transactions than that of his clients so that Muller directs all transactions to the brokerage firm. According to CFA Institute Code and Standards, Muller most likely violate:

- A. Loyalty, prudence and care
- B. Referral fees
- C. Priority of transaction

Solution: A.

Since the broker offers better price than clients, it hurts the benefits of clients. It's a violation of loyalty, prudence and care. It doesn't mention the referral fees in the question, so it is not a violation. It also does not mention that Muller executes the transactions before clients do.

Q-36. Dimitri Kuznetsov, CFA, is a portfolio manager and holds shares of Barnikoff Limited and Matric Ventures in all client portfolios. Both companies have upcoming annual general meetings scheduled for the same day. The management of Barnikoff proposes to change its financial year-end from September to December, while Matric Ventures proposes to enter into a high-risk venture. The proxy voting policy clause in all client investment management agreements managed by Kuznetsov states, "When voting proxies provides a cost benefit to the client, the manager must vote a proxy." Regarding

the proxy votes for Matric and Barnikoff, Kuznetsov would least likely violate CFA Institute Standard III (A) Loyalty, Prudence, and Care if he votes:

- A. With management.
- B. Only the Matric proxy.
- C. Only the Barnikoff proxy.

Solution: B.

B is correct because Standard III (A) Loyalty, Prudence, and Care states: it is a member's or candidate's duty to vote proxies on behalf of clients in an informed and responsible manner. However, if a cost-benefit analysis shows voting all proxies may not benefit the client, voting all proxies may not be necessary. The member or candidate is responsible for informing all clients if this is the policy of the fund manager. The member or candidate must take steps to disclose this proxy voting policy to clients. Voting the Barnikoff proxy does not appear to offer a benefit because the issue is not of a critical nature, while voting the proxy for Matric involves a material issue and is a benefit that should be voted on.

1.10. Fair Dealing

1.10.1. 重要知识点

1.10.1.1. Fair 不等于 equal; 如果 equally, 有可能违反 fair dealing.

1.10.1.2. 可以为不同的客户设置不同的服务等级, 但是必须不对顾客造成负面影响。

Different clients have different levels of service. 这是可以的, 只要满足前提: 不损害其他客户的利益、对所有客户进行披露并且所有客户在满足条件后都可以获得。

1.10.1.3. Investment recommendation 的发表可以有多种方式: brief update report, by addition to or deletion from a recommended list, or simply by oral communication, 都必须确保 all clients have a fair opportunity to act on every recommendation.

- 投资建议时, disclosure of inequitable allocation system, even accepted by clients, can't be exempt from fair dealing for disclosure and acceptance. Disclose trade allocation procedures 需要注意 disclosure of inequitable allocation methods does not relieve the member of this obligation.

1.10.1.4. 发现是一个股票是 hot issue, 给自己喜欢的顾客多配了一些, 违反了 fair dealing;

1.10.1.5. 把新的投资建议 e-mail 给顾客之后找大机构客户讨论细节, 没有违反 fair dealing;

1.10.1.6. Investment action

- When making investments in new offerings or in secondary financings, should distribute the issues to all customers who are suitable for the investment and consistent with the policies of allocating blocks of stock.
- 对于 oversubscribed issues: round-lot basis, forgo any sales to themselves or

immediate families in order to free up additional shares for clients→not violate.

- If the investment professional's family-member accounts are managed similarly to the accounts of other clients of the firm, these accounts should not be excluded from buying such shares.
- Must make every effort to treat all individual and institutional clients in a fair and impartial manner.
- Disclose to clients and prospective clients the documented allocation procedures in place and how the procedures would affect them.
- Should not take advantage of their position to the detriment of clients.

1.10.1.7. Procedures

- Limit the number of people who are privy to the fact that a recommendation is going to be disseminated.
- Shorten the time frame between decision and dissemination, Disseminate a short summary report including the conclusion might be published in advance.
- Publish guideline for pre-dissemination behavior.
- Communicate recommendations both within the firm and to customers simultaneously.
- Maintain a list of clients and their holdings.
- Processing and executing orders on a first-in, first-out basis.
- Giving all client accounts participating in a block trade the same execution price and charging the same commission.
- When the full amount of the block order is not executed, allocating partially executed orders among the participating client accounts pro rata on the basis of order size while not going below an established minimum lot size for some securities.
- Allocate partially executed orders among client accounts pro rata based on order size (not account size), not below a minimum lot size.
- When allocating trades for new issues, obtaining advance indications of interest, allocating securities by client (rather than portfolio manager), and providing for a method for calculating allocations.

1.10.2. 基础题

- Q-37.** Antonio Davis, CFA, a research analyst at an investment firm, has more than two thousand clients. Due to the constraints of email system, he is not able to send more than 1000 emails one time. So his clients could not receive his recommendation simultaneously. Does Antonio violate any CFA Institute Code of Ethics?

- A. No
- B. Yes, related to Fair Dealing
- C. Yes, related to Loyalty, Prudence and Care

Solution: A.

Antonio does not intend to disadvantage any of his clients, it is just because of the constraints of email system. So it is not a violation to Fair Dealing.

Q-38. Clive Bowers, CFA, is a portfolio manager at Burlington Advisors (BA). Bowers manages two mutual funds along with a number of individual accounts. All of the portfolios, including the mutual funds, have similar return objectives, risk tolerances, and tax constraints. When Bowers allocates shares from block trades, he fills the mutual fund orders first and often allocates the remaining shares to the individual accounts based on their portfolio size. When allocating shares from block trades, does Bowers violate any CFA Institute Standards?

- A. No
- B. Yes, with respect to suitability
- C. Yes, with respect to fair dealing

Solution: C.

Members must deal fairly with clients when taking investment actions for them. By treating the mutual funds more favorably than the individual portfolios, Bowers violates the standard relating to fair dealing. Additionally, shares should be allocated on order size basis.

Q-39. Daniel O'Brien, CFA, is a fund manager working in an investment company. When allocating the oversubscribed IPO to clients, which of the following actions by Daniel most likely conform to the CFA Code and Standards?

- A. Allocate based on order size
- B. Allocate based on account size
- C. Allocate based on management fees

Solution: A.

Members are required to allocate to clients pro rata on the basis of order size, not account size or management fees.

Q-40. Jeremy Carter, a fund manager, decided to change his recommendation for a listed

company from “buy” to “sell” after his thorough analysis. He mailed this change to the clients who bought the stock. However, he did not inform the other clients. Did Jeremy violate any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, related to Fair Dealing
- C. Yes, related to Priority of Transaction

Solution: B.

Jeremy violated Fair Dealing by selectively distributing the change of recommendation to the clients who bought the stock.

Q-41. Massimo Conti, CFA, is a portfolio manager in an investment company. Conti institutes a new policy stating that the clients who are willing to pay additional fee will have their accounts executed earlier than other clients. He disclose this policy to all existing and potential clients. Did Conti most likely violate any CFA Institute Standards of Professional Conduct?

- A. Yes, related to Fair Dealing
- B. Yes, related to Communication with Clients
- C. No

Solution: A.

The new policy disadvantages other clients so it is a violation of Fair Dealing, even though he disclosed this policy to all clients.

1.11. Suitability

1.11.1. 重要知识点

1.11.1.1. When in an advisory relationship

- Know clients, suitable and under portfolio; when to a specific mandate, consistent with stated objectives and constraints; suitability doesn't prevent from losing value.
- Make a reasonable inquiry into a client or prospective client's investment experience, risk and return objectives, and financial constraints prior to making any investment recommendation or taking investment action, must reassess and update regularly.
- Judge the suitability in the context of the client's total portfolio.

1.11.1.2. If unsolicited trade is known unsuitable: refrain from making the trade until he or she

discusses the concerns with the client.

- An unsolicited request may be expected to have only a minimum impact on the entire portfolio because the size of the requested trade is small or the trade would result in a limited change to the portfolio's risk profile.
 - Necessitate client approval for executing unsuitable trades. At a minimum, the client should acknowledge the discussion and accept the conditions that make the recommendation unsuitable.
- Unsolicited request expected to have a material impact on the portfolio, the member or candidate should use this opportunity to update the investment policy statement.
 - Some clients that decline to modify their policy statements while insisting an unsolicited trade be made. Members or candidates will need to evaluate the effectiveness of their services to the client and ultimately determine whether they should continue the advisory arrangement with the client.
 - Some firms may allow for the trade to be executed in a new unmanaged account.

1.11.1.3. Developing an investment policy

- Gather client information at the inception of the advisory relationship.
- Information should be incorporated into a written investment policy statement (IPS).

1.11.1.4. Updating an investment policy

- Repeated at least annually and also prior to material changes.
- Client should fully disclose complete financial portfolio, including those portions not managed by the member or candidate,如果客户不如实汇报,无法进行 suitability analysis. Analysis only based on provided information.

1.11.1.5. Need for diversification

- An investment with high relative risk may be suitable in the context of the entire portfolio or when the client's stated objectives contemplate speculative or risky investments.
- Managing to an Index or Mandate
- Invest in a manner consistent with the stated mandate.
- Not responsible for any individual investor, only those who have advisory relationship are responsible for individual clients.

1.11.1.6. IPS

- Client identification—(1) type and nature of client, (2) the existence of separate beneficiaries, and (3) approximate portion of total client assets under

management.

- Investor objectives—(1) return objectives and (2) risk tolerance.
- Investor constraints—(1) liquidity needs, (2) expected cash flows, (3) investable funds, (4) time horizon, (5) tax considerations, (6) regulatory and legal circumstances, (7) investor preferences, prohibitions, circumstances, and unique needs, and (8) proxy voting responsibilities and guidance.
- Performance measurement benchmarks.

1.11.1.7. Regular updates.

- Objectives and constraints should be maintained and reviewed periodically to reflect any changes in the client's circumstances.
- Should regularly compare constraints with capital market expectations to arrive at an appropriate asset allocation.
- Annual review is reasonable unless business or other reasons, such as a major change in market conditions, dictate more frequent review.
- Should document attempts to carry out review if circumstances prevent it.
- **The suitability test procedures** should require the investment professionals to look beyond the potential return of the investment and include the following:
 - An analysis on the impact on the portfolio's diversification.
 - A comparison of the investment risks with the client's assessed risk tolerance.
 - The fit of the investment with the required investment strategy.

1.11.2. 基础题

Q-42. Abigail Unger, CFA, is a portfolio manager at Cascade Investments (CI). After thoroughly researching MBS and checking client investment objectives for appropriateness, Unger purchased two of the bonds for several clients. Following steep declines in MBS, several clients complain to CI, claiming the bonds were unsuitable investments. Has Unger violated any CFA Institute Standards?

- A. No
- B. Yes, with respect to suitability
- C. Yes, with respect to diligence and reasonable basis

Solution: A.

Unger exercised diligence in her research, had a reasonable basis for the investment, and confirmed the suitability of the investment for her clients. Her actions were consistent with the Standards.

Q-43. Ronan Keisler, CFA, is a manager of a mutual fund. The investment policy dictates that the mutual fund are expected to invest to low risk large-cap stocks. One of his clients asked Ronan to invest in small-cap stocks because he has higher risk tolerance. Ronan ignores the client's request. Did Ronan violate the CFA Institute Code and Standards?

- A. No
- B. Yes, related to Suitability
- C. Yes, related to Loyalty, Prudence and Care

Solution: A.

Ronan should be responsible for the mandate of the mutual fund, not a single client. Therefore ignoring the request of the client and complying with the IPS is not a violation.

1.12. Performance Presentation

1.12.1. 重要知识点

1.12.1.1. Should be accurate, complete and fair;

- Not misrepresent past performance or reasonably expected performance.
- 不可以说明或暗示有能力与过去业绩相同的收益;
- Include terminated portfolio as part of performance history.
- Weighted rate of return rather than a single performance.

1.12.1.2. If the presentation is brief.

- Make available to clients and prospects, on request, the detailed information supporting that communication.
- **Best practice:** brief presentations include a reference to the limited nature of the information provided.

1.12.1.3. 推荐 apply GIPS standards, 如果不遵循 GIPS 也可以。

- Considering the knowledge and sophistication of the audience to whom a performance presentation is addressed.
- Presenting the performance of the weighted composite of similar portfolios rather than using a single representative account.
- Including terminated accounts as part of performance history with a clear indication of when the accounts were terminated.
- Including disclosures that fully explain the performance results being reported: 用模型模拟出来的业绩? 获得该业绩时所担任的职位? Performance record from prior entity? Gross of fees (investment management fee), net of fees, or after tax?
- Maintaining the data and records.

1.12.2. 基础题

Q-44. Ricky Stanly, CFA, is an analyst who is responsible for performance presentations at his investment firm. When Ricky presents the performance, the performance results he prepares show outcomes based on assumptions reflecting upward bias and positive risk assessments. Does Ricky most likely violate any CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. No
- B. Yes, related to Performance Presentation
- C. Yes, related to Communication with clients

Solution: B.

B is correct because the performance results he presents do not provide a fair and accurate representation of performance.

Q-45. Sam Snead, CFA, is the founder and portfolio manager of the Everglades Fund. In its first year the fund generated a return of 30%. Building on the fund's performance, Snead created new marketing materials that showed the fund's gross 1-year return as well as the 3-, and 5-year returns which he calculated by using back-tested performance information. As the marketing material is used only for presentations to institutional clients, Snead did not mention the inclusion of back-tested data. According to the Standards of Practice Handbook, did Snead violate any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, because he did not disclose the use of back-tested data
- C. Yes, because he failed to deduct all fees and expenses before calculating the fund's track record

Solution: B.

The Standard III (D) Performance Presentation prohibits members/candidates from making any statements that misrepresent the performance achieved by them or their firms and requires every reasonable effort to be made to ensure that performance information is fair, accurate, and complete. By failing to identify the simulated performance results, Snead violated the standard. Snead should have disclosed the fact that the returns were generated only in one year of the fund's operation and the other performance information is back-tested.

1.13. Preservation of Confidentiality**1.13.1. 重要知识点**

1.13.1.1. Keep information about current, former, and prospective clients confidential unless

- The information concerns illegal activities on the part of the client;
- Disclosure is required by law; or
- The client or prospective client permits disclosure of the information.

1.13.1.2. III(E) is applicable when

- Receiving information because of special ability to conduct a portion of the client's business or personal affairs, and
- Receiving information that arises from or is relevant to that portion of the client's business that is the subject of the special or confidential relationship.

1.13.1.3. Status of client

- Maintain the confidentiality of client records even after the client relationship has ended. ***If a client or former client expressly authorizes the disclosure, may follow the terms of the authorization and provide the information.***

1.13.1.4. 遵守法律规定

- If applicable law requires disclosure of client information in certain circumstances, members and candidates must comply with the law.
- ***If applicable law requires maintaining confidentiality***, even if the information concerns illegal activities on the part of the client, should not disclose.
- When in doubt, should consult with compliance personnel or legal counsel before disclosing confidential information about clients.

1.13.1.5. Electronic Information and Security

- Not require members or candidates to become experts in information security technology, but they should have a thorough understanding of the policies of their employers.

1.13.1.6. When permissible under applicable law, shall consider the PCP an extension of themselves when requested to provide information about a client in support of a PCP investigation into their own conduct

- Encouraged to cooperate with investigations into the conduct of others.
- Any information turned over to the PCP is kept in the strictest confidence.
- Will not be considered in violation of this standard by forwarding confidential information to the PCP.

1.13.1.7. The simplest, most conservative and effective way to comply with III(E) is to avoid disclosing any information received from a client except to authorized fellow employees who are also working for the client.**1.13.1.8. Electronic information and security:** 很多雇主对于通过电子设备交流以及存放的客户信息都有严格的规定。近几年，对于移动远程数字通信，法规机构建立了更为

严格的数据安全法律。Members and candidates 应该鼓励公司对人员进行定期的关于保密流程的训练。

1.13.1.9. Communication to clients: 随着科技的进步，与客户的交流方式不断增加。

Members and candidates 需要确保公司支持的通信方式以及合规流程符合防止信息以外泄露的操作指导。Members and candidates 还应该告诉客户机传递机密信息的合理方式，并且告诉客户公司现有的资源并不都支持这种沟通方式。

1.13.1.10. In some instances, however, a member/candidate may want to disclose information received from clients outside the scope of the confidential relationship and does not involve illegal activities. Before making such a disclosure, a member/candidate should ask the following:

- In what context was the information disclosed? If disclosed, is the information relevant to the work?
- Is the information background material that, if disclosed, will enable better service to the client?

1.13.2. 基础题

Q-46. Townsend was recently appointed to the board of directors of a youth golf program that is the local chapter of a national not-for-profit organization. The program is beginning a new fund-raising campaign to expand the number of annual scholarships it provides. Townsend believed that many of her clients made annual donations to charity. The next week in her regular newsletter to all clients, she included a small section discussing the fund-raising campaign and her position on the organization's board. Which of the following is correct regarding to Townsend?

- A. Townsend did not violate the Code and Standards
- B. Townsend violated the Code and Standards by soliciting donations from her clients through the newsletter
- C. Townsend violated the Code and Standards by not getting approval of the organization before soliciting her clients

Solution: A.

Townsend did not provide any information about her clients to the leaders or managers of the golf program; thus, she has not violated Standard III (E) Preservation of Confidentiality. Providing contact information about her clients for a direct-mail solicitation would have been a violation.

Answer B is incorrect because the notice in the newsletter did not violate Standard III (E). Answer C is incorrect because the golf program's fund-raising campaign had already begun, so discussing the opportunity to donate was appropriate.

- Q-47.** Lewis McChord, CFA, a research analyst, covers the auto industry at an investment bank. McChord recently read a report on an auto manufacturing company written by Pierce Brown. Brown's report provided extensive coverage of the company's newly launched products indicating that sales volume, not yet publicly available, would raise future profits. Intrigued by the report, McChord called a senior executive at the company whom she has known personally for years. The officer gave her specific details on new vehicle sales, indicating that profits would double in the current quarter. McChord added this data to Brown's report and then circulated it within her firm as her own report. McChord least likely violated which of the following CFA Institute Code of Ethics and Standards of Professional Conduct?
- A. Misrepresentation
 - B. Preservation of Confidentiality
 - C. Material Nonpublic Information

Solution: B.

B is correct because Standard III (E) Preservation of Confidentiality has not been violated. The analyst has a personal relationship with the officer of the auto company, and he is not a current, former, or prospective client, so there is no obligation for the analyst to maintain client confidentiality. However, the analyst did violate Standard I(C) Misrepresentation when she represented another analyst's work as her own. In addition, the analyst violated Standard II(A) Material Nonpublic Information by including data in her research report on sales figures, which were material and nonpublic.

1.14. Loyalty to Employer

1.14.1. 重要知识点

1.14.1.1. Core rule is not to injure the firm, deprive of its profit, or deprive of the employee's advantage of ability and skills.

1.14.1.2. "Undertaking independent practice" means engaging in competitive business, as opposed to making preparations to begin such practice.

1.14.1.3. Should abstain from independent competitive activity that could conflict with the interests of their employer,必须告知雇主:

- Types of services they will render to prospective independent clients,
- The expected duration of the services,
- The compensation for the services,
- 没有得到雇主同意不能进行 independent practice.

1.14.1.4. 兼职工作：投资分析师，同时担任市长要披露吗？兼职教书可以吗？——考虑是否太耗时间。

1.14.1.5. 在职揭发(whistleblowing). 如果为保护客户利益、市场诚信和其他非个人利益目标，是可以不将雇主利益放在首位的；In such instances, activities that would normally violate a member's/candidate's duty to his/her employer (such as contradicting employer instructions, violating certain policies and procedures, or preserving a record by copying employer records) may be justified.

1.14.1.6. 独立的合同签约人(independent contractors)必须遵守与雇主所达成的协议。(oral or written agreement)

1.14.1.7. 在辞职前，雇员不可以做的行为包括但不限于以下所列：

- 盗用(misappropriation)客户的商业秘密(trade secrets);
- 盗用(misappropriation)客户名单 (client lists)。 Memorizing client lists (name and address) is not permitted, unless the info does not come from the records of former employer or violate non-compete agreement.
- 滥用(misuse)保密信息(confidential information);
- 辞职前劝诱(solicit)客户转移业务;
- 盗用(misappropriation)客户资料;
- Self-dealing (appropriating for one's own property a business opportunity or information belonging to one's employer).

1.14.1.8. Protocol for broker recruiting: 雇主和雇员会签署一份协议，同意雇员辞职后可以带走一部分信息。

- Members and candidates 需要严格按照协议规定的内容带走可以带走的物品或者信息。例如，在美国的经济业务的中间商之间存在一个协议，辞职的个人可以带走一般性的客户信息，但是需要把带走的客户信息提供给原雇主的管理委员会审核。
- 另外，客户的具体信息只能给离职员工使用，但是不能给新公司的其他员工使用。

1.14.1.9. Use of social media: 社交媒体对 loyalty to employer 的影响。

- 通过社交媒体通知员工离职的信息需要符合公司的规章制度。以提供专业服务为目的而建立起来的用户账号应当被视为公司资产的一部分。
- 因此要求在员工离职的时候需要根据公司的章程规定对账号进行转移或者删除。最好的方法是把个人账号和以提供专业服务为目的的公司账号分开，如果不能分开，需要和公司讨论到底应该怎样处理。

1.14.1.10. 仅仅知道原雇主的客户名字是不属于机密 unless deemed such by contract or law;

1.14.1.11. 在雇主那儿学习的工作经验和技能是可以使用的, even if contract exists. (比如

和原雇主签订合同说离职之后不能使用这些技能，但是实际是可以用的，因为这个合同本身就存在问题）；但是，在职过程中自己开发的模型不可以带走。

1.14.1.12. 自己电脑上或者纸质文件保存的工作资料要删除或归还公司。

1.14.1.13. 推荐公司执行 **Competition policy**:

- Must understand any restrictions placed by the employer on offering similar services outside the firm while still employed.
- If an employer elects to have its employees sign a non-compete agreement, should ensure that the details are clear and fully explained prior to signing the agreement.

1.14.1.14. 推荐公司执行 **termination policy**:

- Should establish clear procedures regarding the resignation process, including addressing how the termination will be disclosed to clients and staff.
- May also outline the procedures for transferring responsibilities of ongoing research responsibilities and account management.

1.14.1.15. 推荐公司执行 **incident-reporting procedures**

- Should be aware of firm's policies related to whistleblowing and encourage firms to adopt industry best practices. Many firms are required by regulatory mandates to establish confidential and anonymous reporting procedures that allow employees to report potentially unethical and illegal activities in the firm.
- Firms are encouraged to adopt a standardized classification structure for employees and indicate how each of the policies applies to each employee class.

1.14.2. 基础题

Q-48. Jimmy Laurence, a research analyst, is working in an investment firm. He wants to start his own business. So he sent the detailed records of his investment performance history as advertising material to prospective clients. Does Jimmy violate any Code and Standards?

- A. No
- B. Yes, he violates Additional Compensation Arrangement
- C. Yes, he violates Loyalty

Solution: C.

C is correct because he cannot use the investment performance history without permission from his prior employer.

Q-49. Marc Davidson, CFA, works as a trust specialist for Integrity Financial. Davidson starts a part-time consulting business providing advice to trustees for a fee. He conducts this

business on his own time and therefore did not notify Integrity Financial of his consulting. Davidson asks his assistant to compile a list of Integrity's clients and their contact information. The following month, Davidson is offered a similar role at Integrity's largest competitor, Legacy Trust Services, Inc. After he begins working at Legacy, his new manager arranges for him to meet with a number of prospective clients, many of whom are clients of Integrity. After meeting with Davidson, a number of former Integrity clients decide to transfer their business to Legacy. Did Davidson's action violate the Code and Standards?

- A. Yes, both Davidson's part-time consulting business and his meetings with Integrity clients are violations of the Standards
- B. Yes, Davidson's part-time consulting business is a violation of the Standards
- C. No

Solution: B.

Members and candidates are required to disclose any compensation arrangement to their employers that involves performing tasks or services that their employers can charge for. Disclosure is required even if the activities occur during non-work hours.

Q-50. Norah Hill, CFA, is an analyst at an investment company. She disagrees with the buy recommendation for a listed company by her research team, although the recommendation is based on extensive research. Which of the following actions by Norah is most likely a violation to CFA Institute Standards?

- A. Leave her name on the report
- B. Remove her name from the report
- C. Release a sell recommendation on her blog

Solution:C.

Release a contradictory recommendation will do harm to employer so it is a violation to Loyalty to Employer.

Q-51. Scott Campbell, CFA, developed a complex quantitative model for selecting mortgage bonds. Campbell was careful to document in writing all assumptions in the model and his reasoning for the assumptions. Another firm offered Campbell a position leading the startup of a mortgage bond research department. In his new position, Campbell created a similar model and supporting documents. Does Campbell violate any CFA Institute Standards?

- A. No
- B. Yes, with respect to record retention
- C. Yes, with respect to loyalty to employer

Solution: A.

The Standards do not impose a prohibition on the use of experience or knowledge gained at one employer from being used at another employer. As records created on behalf of an employer are the property of the firm and not the member, Campbell must take care not to use the property or records of his former employer when creating a model for his new employer.

Q-52. Woody Mason, CFA, is responsible for the trading department in an investment firm. After thorough research, Woody concludes that Blizzard Company is undervalued. He bought the stock in his personal account as well as for his employer. Woody least likely violates which of the following CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. Material Nonpublic Information
- B. Priority of transaction
- C. Loyalty to employer

Solution: A.

Woody violated Loyalty to employer because he did not give his employer the opportunity to take advantage of his recommendation. Buying the shares for his own account and for his employer the same time is a violation to Priority of transaction.

1.15. Additional Compensation Arrangement

1.15.1. 重要知识点

- 1.15.1.1.** 礼物包括从顾客或其他第三方收取的直接和间接的好处；只要造成了利益冲突，就不能收，除非 obtain written consent from all parties involved.
- 1.15.1.2.** 所有安排必须得到雇主的同意(**No arrangement without the employer's approval**)，从雇主之外收取的其他收益必须立即以书面形式(immediate written report)向雇主说明所收到收益和服务的详细情况 (amount and nature of consideration)；
- 1.15.1.3.** 当 **member or candidate** 作为兼职时，在招聘过程中需要和雇主讨论以及协商作为兼职在提供同现雇主相竞争的服务时存在的局限性。
- 1.15.1.4.** 披露的目的在于：雇主有权知道雇员的报酬情况来评估服务的真实成本和对雇员忠诚和客观的影响。
- 1.15.1.5.** Make an immediate written report to employer specifying any compensation they

propose to receive for services in addition to the compensation or benefits received from their employer.

1.15.1.6. The details of the report should be confirmed by the party offering the additional compensation, including performance incentives by clients.

1.15.1.7. Members/candidates must obtain permission for additional compensation/benefits because such arrangements may affect loyalty and objectivity and create potential conflicts of interest.

Disclose	Consent	Violate
√	×	IV(B)
√	√	--
×	×	IV(B)→I(A)→I(B),

1.15.1.8. The written report should state the terms of any agreement under which a member or candidate will receive additional compensation.

- Include the nature of the compensation, the approximate amount of compensation, and the duration of the agreement.

1.15.2. 基础题

Q-53. Alexandra Zagoreos, CFA, is the head of a government pension plan. Whenever Zagoreos hires a money management firm to work with the pension plan, she finalizes the deal over dinner at a nice restaurant. At these meals, Zagoreos also arranges for the money manager to provide her payments equal to 10% of the management fee the manager receives from the pension plan. Zagoreos keeps half of the payments for her own use and distributes the remainder as cash incentives to a handful of her most trusted staff. Zagoreos *least likely* violated which of the following CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. Referral fees
- B. Loyalty, Prudence and Care
- C. Additional Compensation Arrangements

Solution: A.

As the money should not be accepted without receiving written consent from all parties involved, therefore Zagoreos is in violation of Standard IV (B) Additional Compensation Arrangements. However, there is no indication that the member has received compensation, consideration, or benefit received from, or paid to, others for the recommendation of products or services and therefore has not violated Standard VI (C) Referral Fees.

- Q-54.** Buta Singh, CFA, has a large extended family and manages the portfolios of several family members. Singh does not charge the family members a management fee, but receives a small percentage of each portfolio's profits. Singh accepted a position as portfolio manager for Bhotmange Investments to manage high net worth accounts. As the family portfolios were not normal client relationships, Singh did not inform his new employer of his side activity. With respect to the family portfolios; did Singh violate any CFA Institute Standards of Professional Conduct?
- A. No
- B. Yes, because he failed to obtain consent from his employer
- C. Yes, because he failed to disclose his new employment to his existing clients

Solution: B.

Members who plan to engage in independent practice for compensation should not render services until receiving written consent from their employer.

1.16. Responsibility of Supervisors

1.16.1. 重要知识点

1.16.1.1. Make reasonable efforts to detect and prevent violations by anyone subject to their supervision.

1.16.1.2. 通过 establishing and implementing the written compliance system and ensuring such system is followed through periodic review 来执行 reasonable supervision.

1.16.1.3. 在建立制度时，必须明确：What an adequate system is.

1.16.1.4. 如果将管理的职责委托给（delegate）他人，管理者不能免除监督管理的职责，且必须 instruct 被委托的人 how to detect and prevent the violations of laws, rules and code.

1.16.1.5. 对于 inadequate 的管理制度，管理者应提请上层注意并提出改进(corrective)建议。

1.16.1.6. 如果由于不存在（nonexistent）制度或制度不完善(poor)，管理者必须以书面形式拒绝接受管理职责 until the firm adopts adequate system.

1.16.1.7. Once knowing a potential violation, supervisor must promptly initiate an investigation.

- Relying on employee's statements or assurances that the wrongdoing will not recur is not enough.
- Reporting the misconduct up the chain of command and warning the employee to cease the activity are also not enough.
- Should take steps to ensure that the violation will not be repeated, by placing

limits on the employee's activities or increasing the monitoring of the employee's activities.

1.16.1.8. Detection procedures

- If adopted reasonable procedures and took steps to institute an effective compliance program, may not violate IV(C) if he does not detect violations that occur despite these efforts.
- May violate IV(C) if he knows or should know that the procedures designed to detect and prevent violations are not being followed.

1.16.1.9. Enforcement of non-investment-related policies.

- Those who have supervisory responsibility should enforce policies related to investment and non-investment-related activities equally.
- Establish policies related to attendance and acceptable workplace actions, such as mandatory vacations for specific positions.

1.16.1.10. Adequate procedure.

- Be clearly written and tailored to the firm's operations;
- In plain language, easy to understand;
- Designate a compliance officer;
- Describe hierarchy of supervision and assign duties among supervisors;
- Create a system of checks and balances;
- Outline the scope of the procedures and procedures to document the monitoring and testing of compliance procedures;
- Outline permissible conduct;
- Delineate procedure for reporting violations and sanctions.

1.16.1.11. Once the compliance program is instituted, the supervisor should:

- Disseminate the contents of the program to personnel;
- Periodically update procedures to ensure that the measures are adequate under the law;
- Continually educate personnel regarding compliance procedures;
- Issue periodic reminders of procedures to personnel;
- Incorporate professional conduct evaluation in employee's performance review;
- Review the actions of employees;
- Take steps to enforce procedures once violation occurred.

1.16.1.12. Once violation is discovered, a supervisor should

- Promptly respond;
- Thoroughly investigate to determine the scope of the wrongdoing;
- Increase supervision or place appropriate limitations on the wrongdoer pending

the outcome of the investigation.

1.16.2. 基础题

Q-55. Ailey, CFA, is designated as a new supervisor in a large investment advisory company. She requires that anyone under her supervision must comply with the Code and Standard. Is her request appropriate?

- A. Yes
- B. No, only members and candidates
- C. No, only members, candidates and analysts

Solution: A.

Ailey is responsible to ensure that anyone subject to her supervision complies with applicable laws, rules, regulations, and the Code and Standards.

Q-56. Wayne RUBY, a CFA Charterholder, is a director of brokerage department of a large investment bank. Someone told him that a member in his team, Max CHANG, often front-ran their clients. However, Max assured that the whistle-blower wanted to take his place. Wayne was going to lead an investigation on the affair. Before he could arrive at any conclusion, he permitted Max to stay on his current position with more closely supervision. Did Wayne comply with the Standards?

- A. Yes, because he was making an investigation
- B. Yes, because he had strengthened the supervision
- C. No, because he just permitted Max to stay on the current position before a conclusion was arrived

Solution: B.

According to Standard IV (C) Responsibilities of Supervisors, once a supervisor learns that an employee has violated or may have violated the law or the Code and Standards, the supervisor must promptly initiate an investigation to ascertain the extent of the wrongdoing while placing limitations on the wrongdoer's activities.

Q-57. Craig Rivers is the head of the research department in an investment firm. If Craig delegates some of his responsibility to subordinates, which of the following statements best describes his responsibility according to the CFA Institute Standards?

- A. Craig's supervisory responsibilities do not apply to those subordinate staff who are not subject to the CFA Institute Standards

- B. Craig would not have responsibility for supervision if those duties were delegated to his staff
- C. Craig still has the responsibility for supervision even if those duties have been delegated to his staff

Solution: C.

Member and candidates may delegate his (her) responsibilities, but such delegation does not relieve members and candidates of their responsibilities for supervision. Answer A is incorrect because whether his (her) subordinates are subject to the CFA Institute Standards is irrelevant.

Q-58. Andy Roy, CFA, is the head of the investment bank in a brokerage firm. Lucy Chole, one of Andy's subordinates is an environmental activist. She has been arrested for trespassing on the property of a large petrochemical plant that is accused of damaging the environment. Does Andy violate any CFA Institute Standards?

- A. No
- B. Yes, related to Responsibilities of Supervisors
- C. Yes, related to Misconduct

Solution: A.

Lucy doesn't violate Misconduct because such conduct does not reflect poorly on the member's professional reputation or integrity. So it is not a violation of CFA Institute Standards for Andy as well.

Q-59. Nick Anderson, CFA, was recently promoted to the head of the research department at an investment bank. However, Nick learns that the compliance system is inadequate. According to the CFA Code and Standards, Nick's most appropriate course of action would be to:

- A. Accept the supervisory responsibility even the compliance system is inadequate
- B. Decline to accept the supervisory responsibility until there is adequate compliance system
- C. Advise others to accept the supervisory responsibility

Solution: B.

If there is no adequate compliance system, Nick should decline to accept supervisory responsibility until the firm adopts reasonable compliance system to allow the member to adequately exercise supervisory responsibility.

1.17. Diligence and Reasonable Basis

1.17.1. 重要知识点

1.17.1.1. The requirements for research conclusions vary in relation to the role in investment decision-making process, but must make reasonable efforts to cover all pertinent issues when arriving at a recommendation.

1.17.1.2. Provide supporting information to clients → enhance transparency

1.17.1.3. Defining diligence and reasonable basis.

- In providing investment service, often use a variety of resources.
- 考虑: current stage of the industry's business cycle; company's operating and financial history; mutual fund's fee structure and management history; output and potential limitations of quantitative models; quality of the assets included in a securitization; appropriateness of selected peer-group comparisons.
- Can base decisions only on the information available at the time the decision is made. The steps taken in developing a diligent and reasonable recommendation should minimize unexpected downside events.

1.17.1.4. Secondary or third-party research.

- 检查 Criteria in forming an opinion on whether research is sound, If suspect the soundness, must not rely on that information.
- May rely on others in the firm to determine soundness and use the information in good faith assuming the due diligence process was deemed adequate.
- Should verify that the firm has a policy about the timely and consistent review of approved research providers to ensure the quality of the research.
- If such policy not in place, should encourage development and adoption.

1.17.1.5. Quantitatively oriented research.

- Need to have an understanding of the parameters used in the model or quantitative research.
- Although not required to be experts in technical aspects of the models, must be able to explain to their clients the importance of the quantitative research and how the results were used in the decision-making process.
- Need to consider the time horizon of data input in financial models.
- In development of a recommendation, may need to test the models by using volatility and performance expectations that represent scenarios outside the observable databases.
- In reviewing computer models or the resulting output, pay attention to the assumptions and rigor of the analysis to ensure that the model incorporates negative market events.
- Members and candidates 需要对投资分析和建议报告所用到的数据来源进行调查, 保证这些数据的准确性。对通过网络搜集到的信息, Members and

candidates 需要进行更为严格的审核。如果公司没有这项制度，会员或者候选人需要鼓励公司采取这项制度。

- 新模型的创建者需要比模型最终使用者在审核模型的时候表现出更高的审慎原则，即模型开发者要比模型使用者更懂模型。
- 负责创建并且检验模型的 Members and candidates 需要对产品的技术有一个彻底的了解。在模型发布之前需要对模型以及模型运行结果进行全面彻底的检验。

1.17.1.6. Selecting external advisers and subadvisers

- Ensure that the firm has standardized criteria for reviewing external advisers,包含以下几方面。
 - Reviewing the adviser's established code of ethics;
 - Understanding the adviser's compliance and internal control procedures;
 - Assessing the quality of the published return information;
 - Reviewing the adviser's adherence to its stated strategy.

1.17.1.7. 关于 group research

- The conclusions or recommendations of the group report represent the consensus of the group, but may not necessarily be the views of the member or candidate, even though his name is included on the report.
- 如果不同意结论，但是 consensus opinion has a reasonable and adequate basis and is independent and objective，那么 need not decline to be identified with the report.
- 如果不同意结论，而且 not confident in the process, should dissociate from the report whether it does not reflect his opinion or not.
- Always recommending "hot" issue indicates without sound analysis→ **NO** reasonable basis.

1.17.1.8. Establish a policy requiring that research reports, credit ratings, and investment recommendations have a basis that can be substantiated as reasonable and adequate.

1.17.1.9. Develop detailed, written guidance for analysts and review committees for judging reasonable and adequate basis of a particular recommendation.

1.17.1.10. Develop measurable criteria for assessing the quality of research, the reasonableness and adequacy of the basis for any recommendation or rating, and the accuracy of recommendations over time.

1.17.1.11. Develop detailed, written guidance that establishes minimum levels of scenario testing of all computer-based models used in developing, rating, and evaluating financial instruments.

1.17.1.12. Develop measurable criteria for assessing outside providers.

- Adopt a standardized set of criteria for evaluating the adequacy of external advisers. The policy should include how often and on what basis the allocation of funds to the adviser will be reviewed.

1.17.2. 基础题

Q-60. Joey Leonard, CFA, is a research analyst in a brokerage firm. After his thorough analysis, he concluded a sell recommendation on Aries Company. However, his boss puts pressure on him to make a buy recommendation on that company because his boss doesn't want to deteriorate the relationship with Aries Company. What course of action is most appropriate for Joey to prevent any violation of the CFA Code or Standards?

- A. Quit his job
- B. Change the recommendation from sell to buy
- C. Doesn't change the recommendation

Solution: A.

Because the boss puts pressure on him to change the recommendation with no reasonable basis, this shows a disregard for the CFA Standards. So Joey's best course of action is to quit his job.

Q-61. Joyce La Valle, CFA is a portfolio manager at a global bank. La Valle has been told she should use a specific vendor for equity investment research that has been approved by the bank's headquarters. As La Valle is located in a different country, she is uncomfortable with the validity of the research provided by this vendor when it applies to her country and would like to use a local vendor on whom she has conducted due diligence. Which of the following actions concerning the research vendor should La Valle *most likely* take to avoid violating the CFA Institute Standards of Professional Conduct?

- A. Use the local research vendor
- B. Use the bank-approved research vendor
- C. Use both the local and the bank-approved research vendors

Solution: A.

When a member has reason to suspect that either secondary or third-party research or information comes from a source that lacks a sound basis, he/she must not rely on that information as indicated by Standard V(A) Diligence and Reasonable Basis.

Q-62. Sallie Lewis, CFA, is a research analyst covering the mining industry. Along with other analysts, Lewis visited the primary mine of Gold Rush Mines (GR). During the visit, a major piece of equipment failed and Lewis overheard an unidentified employee state that production would be stalled for six months. Lewis immediately filed a sell recommendation on GR without any additional research. Has Lewis violated any CFA Institute Standards?

- A. No
- B. Yes, with respect to diligence and reasonable basis
- C. Yes, with respect to material nonpublic information

Solution: B.

Lewis must investigate the reliability of the information before making an investment recommendation based on the information.

Q-63. Venia Roso, CFA, an equity research analyst at an investment bank, writes a research paper with his research team. After thorough research, they make a buy recommendation. Venia disagrees with the recommendation so he insists his name removed from the report. According to the Standards of Practice Handbook, did Venia most likely violate any CFA Institute Standards of Professional Conduct?

- A. Yes, with respect to diligence and reasonable basis
- B. Yes, with respect to performance presentation
- C. No

Solution: C.

Since the recommendation is based on thorough research, they are in compliance with Diligence and Reasonable Basis. Because Venia's opinion did not agree with the report, removing her from the report is accepted.

1.18. Communication with Clients and Prospect Clients

1.18.1. 重要知识点

1.18.1.1. Key points of communication with clients and prospective clients:

- Distinguish between fact and opinion.
 - "...Will be..." → fact.
 - "...May be ..." → opinion.
- Informing clients of the investment process.

- Keep clients informed on an ongoing basis about changes to the investment process.
- Understanding the basic characteristics of an investment is important in judging suitability on a stand-alone basis, it's especially important in determining the impact each investment will have on the characteristics of a portfolio.
- Should inform clients about the specialization or diversification expertise of external advisers.

1.18.1.2. 交流有很多方式，包括 in person, over the call, or by the computer。 If recommendations are in capsule form (such as a recommended stock list), should notify clients that additional information and analyses are available upon request.

1.18.1.3. 内容包括：

- Include limitations of the analysis and conclusions in the report.
- Distinction between Facts and Opinions in Reports.
- If not indicate that earnings estimates, changes in the dividend outlook, and future market price information are opinions subject to future circumstances, thus fail to separate past from future and violate V(B).
- In the case of complex quantitative analyses, analysts must clearly separate fact from statistical conjecture and should identify the known limitations of an analysis
- Changes in style, ceilings, committee, universe of investment should disclose to the clients and prospect clients. 如果投资过程发生了改变，如改变了投资方法，用 DDM 改为指数化投资、由个人决策到委员会决策等，都必须向 Clients and prospects 进行披露。Illiquidity and capacity should be disclosed.
- Capacity is the investment amount beyond which returns will be negatively affected by new investments.
- Communicate significant risk and limitation of analysis:
 - Members and candidates 需要告诉客户在这些投资产品中所存在的风险。一般来说，使用杠杆的风险，市场相关的风险，使用复杂的金融工具所产生的风险都属于比较重要的风险，都需要告知客户。投资中所产生的局限性也要告知客户，比如投资流动性和投资最大效能。
 - 在投资之前 member 和 candidate 需要把自己已经意识到的风险向客户披露，没有意识到的风险无需向客户披露。在合规的过程中，对于谣传的风险和局限性要有一定的认知。在衡量风险和局限性的时候，一次性的投资损失不能作为长期的因素来进行考量。如果是因为一些没有意识到的风险或限制导致了损失并不违背 V(B)，这只能说明没有充分行使审慎性原则。
 - Report presentation: member or candidate 的分析报告必须包括对分析以及报告的结论有重要影响的因素，这样读者就清楚的知道报告的投资逻辑并

且可以对投资逻辑进行挑战和质疑。如果报告撰写者已经做了充分的调研,在报告中他突出重要的领域,简单提及或者省略其他不太重要的地方,只要把这种局限性披露给投资者就不违反。投资意见要基于数量模型以及分析,这些数量模型以及分析需要得到现有的参考资料的支持。分析模型和方法需要保持一致性,若发生变动,需强调说明。

1.18.2. 基础题

Q-64. Jimmi Alvarez, CFA, is the founder of an investment advisory firm serving high net worth investors. For the past decade, Alvarez has invested his clients' money in mid-cap stocks. After much research, Alvarez determines that small-cap stocks are undervalued and moves a portion of all of his clients' assets into these stocks. Alvarez plans to inform his clients of this change with their year-end statements in three months. Has Alvarez violated any CFA Institute Standards?

- A. No
- B. Yes, with respect to misrepresentation
- C. Yes, with respect to communication with clients and prospective clients

Solution: C.

According to the Standards, members must promptly disclose to clients any changes to their investment process. Alvarez should notify his clients promptly of the change in his investment process and strategy.

Q-65. Colin Caldwell, CFA, is the chief investment officer of Northwest Mutual Fund, whose investment objective is to invest in fixed income emerging market securities. Caldwell allocates the fund's assets primarily to bonds of commodity producers in emerging markets and invests in a combination of several different investments to ensure an acceptable level of risk. The allocation is clearly disclosed in all fund communications. High volatility in the commodities markets at the start of the year makes Caldwell pessimistic about returns, so he shifts the fund into emerging market and U.S. government securities, positions he maintains at the end of the year. This change is noted in the next annual report to fund shareholders. Caldwell's investment change *least likely* violated the CFA Institute Code of Ethics and Standards of Professional Conduct concerning:

- A. Diversification.
- B. Communication with clients.
- C. Investments outside his mandate.

Solution: A.

A is correct because the investment officer has invested in a combination of several different investments to ensure an acceptable level of risk rather than having all assets in a single investment, and he has sought a reasonable amount of diversification. However, the shift into emerging market and U.S. government securities was communicated to clients in the annual report and not on an ongoing basis, in violation of Standard V (B) Communication with Clients and Prospective Clients. Additionally, the investment officer has not followed the investment style previously communicated to fund investors (i.e., to invest in fixed income emerging market securities), specifically, when he invested in U.S. government securities, a violation of Standard III (C) Suitability.

1.19. Record Retention**1.19.1. 重要知识点****1.19.1.1. 必须保留得出投资结论和投资操作的所有研究记录，这些记录是公司的财产；**

- 如果当地没有明确的规定，CFA 协会要求记录必须保留 7 年；
- If applicable law requires 5-year record, 保存 5 年。

1.19.1.2. Records can be maintained either in hard copy or electronic form;**1.19.1.3. Records are property of the firm**

- Records created in professional activities are the property of the firm. When leaving the firm, cannot take those records, including originals or copies of supporting records of his work, to the new employer without the express consent of the previous employer.
- Cannot use historical recommendations or research reports created at the previous firm because the supporting documentation is unavailable.
- For future use, must re-create the supporting records at the new firm through public sources, or directly from covered company, and not from memory or sources through previous employer unless with permission.

1.19.1.4. The responsibility to maintain records that support investment action generally falls with the firm rather than individuals.

- Must archive research notes and other documents, either electronically or in hard copy, that support their current investment-related communications.
- Doing so will assist their firms in complying with requirements for preservation of internal or external records.

1.19.1.5. New media record: 随着科技进步，新的社会媒体对记录保存带来挑战。

- 会员以及候选人需要理解虽然雇主以及当地的监管者会制定针对数字媒体记

录保存的政策规定，但是这个规定往往会滞后于新传播途径的诞生。

- 这种滞后就要求会员以及候选人自己确保所有的相关信息记录的保存。这些无纸质形式的媒体类型包括但不限于：邮件，短息，博客，Twitter 上的资料。

1.19.2. 基础题

Q-66. Guillermo Sandoval, CFA, owns an asset management firm with offices downtown. To minimize rent expenses, each year Sandoval ships the previous year's research records to a nearby warehouse. There, the reports are digitized and stored in both electronic and hard-copy forms. After five years, all paper copies are destroyed and only electronic copies are retained. Are Sandoval's record-retention procedures in compliance with the CFA Institute Standards of Practice?

- A. Yes
- B. No, because he did not retain the copies in his offices
- C. No, because he failed to retain the original documents

Solution: A.

The Standards do not require on-site storage.

Q-67. An analyst made a recommendation. As required by the firm, all documents written on paper are destroyed in five years but the documents in hard disk should be retained for ten years. The analyst recorded all documents in a movable hard disk while keeping paper documents as required. Did the analyst comply with the Standards?

- A. Yes, because he keep record retention for a sufficient period
- B. No, because he destroyed paper documents in less than seven years
- C. No, because he should not use a movable hard disk to record documents

Solution: A.

Trap: Seven years is recommended if no legal requirement for record retention.

1.20. Disclosure of Conflicts

1.20.1. 重要知识点

1.20.1.1. Must make full and fair disclosure of all matters that could reasonably be expected to impair their independence and objectivity or interfere with respective duties to their clients, prospective clients, and their employer.

1.20.1.2. Ensure that such disclosures are prominent, are delivered in plain language, and communicate the relevant information effectively.

- Best practice is to update disclosures when the nature of a conflict of interest changes materially.

1.20.1.3. If an analyst was asked to cover the company,而且他 inherit 该公司股票。

- Must disclose if continue to follow.
- Best practice: assign another analyst to follow up the company.

1.20.1.4. Restrict personal trading, outside board membership, and related activities to prevent situations that could give the appearance of a conflict of interest.

1.20.1.5. Disclosure to Clients: corporate financing; market making relationship; Security holding; Directorship; Individual relationship.

1.20.1.6. Also disclose fee arrangements, subadvisory arrangements or situations involving nonstandard fee structures. Equally important is to disclose arrangements in which the firm benefits directly from recommendations.

1.20.1.7. 部门间的冲突

- Internal conflict between R&D and ibanking.
- External conflict with listed firms.
- Broker-sponsored limited partnerships to invest venture capital.

1.20.1.8. 持股的冲突

- May prohibit from owning any such securities → overly burdensome.
- Sell-side disclose ownership in stock recommended, buy-side disclose procedures for reporting requirements for personal transactions.

1.20.1.9. Conflicts as a director

- Duties owed to clients and to shareholders of the company.
- Investment personnel as a director receive the securities or options.
- Board service receiving MNI.

1.20.1.10. Performance arrangement 的披露

- Firms are encouraged to include information on compensation package in firms' promotional literature.
- If fee based on capital gains or capital appreciation (performance fee), should disclose;
- If outstanding options exist for incentives, should disclose the amount and expiration date of these options as a footnote to any research report published.

1.20.1.11. Incentive fees should not be in conflict with the interests of clients'

- If Yes, should disclose to clients;
- If employer not permit disclosure, should dissociate, or quit the job.

1.20.2. 基础题

Q-68. Yao Tsang, CFA, has a large percentage of his net worth invested in the Australian

mining company Outback Mines, which he has held for many years. Tsang is in the process of moving to a new employer where he will be responsible for initiating research on U.S. domestic mining companies. Shortly after his move, Tsang is asked to complete a research report on Outback Mines. In order to meet the CFA Institute Standards of Professional Conduct concerning his stock holding, which of the following is the *most* appropriate action for Tsang to take?

- A. Disclose his stock holding to his employer and to clients
- B. Sell his stock holdings to eliminate any potential conflict of interest
- C. Refuse to write the report and ask his employer to assign another analyst to complete the analysis

Solution: A.

Even though the best practice is to avoid conflicts, when conflicts cannot be reasonably avoided, full disclosure should be made as required by Standard VI (A). As the stock in question has been held for many years, it may not be practical to sell it due to things like tax consequences. Since the analyst has been hired to initiate coverage of mining companies, it is unlikely that another analyst at that firm would be as competent in completing a research report on mining companies.

Q-69. Raymond Ortiz, CFA, provides investment advice to high-net-worth investors. Ortiz has just completed an analysis of Continental Wheat, a manufacturer of wheat-based food products. He rated the company a long-term hold for investors seeking growth and income. Ortiz's analysis included a review of the company's management team, financial data, pro forma financial positions, dividends and dividend policy, and a comparison of Continental with its competitors. Although he does not tell anyone, five years ago, Ortiz worked for and managed the commodities derivatives trading unit of Continental. As part of his compensation at Continental, he received stock, which he still owns. Based upon his research, Ortiz recommends Continental to clients who have a moderate risk tolerance. Two weeks later Continental announces its quarterly earnings are 30% less than a year ago. Consequently, shares of Continental drop by 50%. Ortiz *most likely* violated the CFA Institute Code of Ethics and Standards of Professional Conduct related to his stock:

- A. Research.
- B. Ownership.
- C. Recommendation.

Solution: B.

B is correct because there is a violation of Standard VI (A) Disclosure of Conflicts; the analyst worked for Continental and still has ties to the company in the form of his stock ownership.

Q-70. Jamison is a junior research analyst with Howard & Howard, a brokerage and investment banking firm. Howard & Howard's mergers and acquisitions department has represented the Britland Company in all of its acquisitions for the past 20 years. Two of Howard & Howard's senior officers are directors of various Britland subsidiaries. Jamison has been asked to write a research report on Britland. What is the best course of action for her to follow?

- A. Jamison may write the report but must refrain from expressing any opinions because of the special relationships between the two companies
- B. Jamison should not write the report because the two Howard & Howard officers serve as directors for subsidiaries of Britland
- C. Jamison may write the report if she discloses the special relationships with the company in the report

Solution: C.

This question involves Standard VI(A)—Disclosure of Conflicts. The question establishes a conflict of interest in which an analyst, Jamison, is asked to write a research report on a company that is a client of the analyst's employer. In addition, two directors of the company are senior officers of Jamison's employer. Both facts establish that there are conflicts of interest that must be disclosed by Jamison in her research report. Answer B is incorrect because an analyst is not prevented from writing a report simply because of the special relationship the analyst's employer has with the company as long as that relationship is disclosed. Answer A is incorrect because whether or not Jamison expresses any opinions in the report is irrelevant to her duty to disclose a conflict of interest. Not expressing opinions does not relieve the analyst of the responsibility to disclose the special relationships between the two companies.

Q-71. Richard Morris is a research analyst with a large brokerage firm. He made a buy recommendation on Linex Corporation. Which of the following situations most likely violates the Code and Standards?

- A. Richard often buys products made from Linex Corporation
- B. Richard has common shares of Linex Corporation in his own account but with no disclosure
- C. Richard 's sister-in-law is a supplier to Linex Corporation

Solution: B.

Owning stock with no disclosure violated Standard VI (A)-Disclosure of Conflicts. Answer A and Answer C doesn't violate the Standards because there are no conflicts of interest to disclosure.

1.21. Priority of Transaction**1.21.1. 重要知识点****1.21.1.1. Investing public > client > employer > individual (Beneficial owner)****1.21.1.2. Avoiding potential conflicts**

- Conflicts between the client's interest and an investment professional's personal interest may occur.
- Although conflicts of interest exist, it's OK for individual managers, advisers, or fund employees making money from personal investments as long as: 1) the client is not disadvantaged by the trade; 2) the investment professional does not benefit personally from trades undertaken for clients; 3) comply with applicable regulatory requirements.

1.21.1.3. Standards for nonpublic information

- Prohibit from conveying nonpublic information to any person whose relationship to the member or candidate makes him a beneficial owner of the person's securities. Must not convey this information to any other person if the nonpublic information can be deemed material.

1.21.1.4. Family accounts

- Family accounts that are client accounts should be treated like any other firm account, should not be disadvantaged because of that relationship.
- Disadvantage parents who are normal fee-paying clients: violate III (B) fair dealing.
- If a member/candidate has a beneficial ownership in the account, however, the member or candidate may be subject to pre-clearance or reporting requirements of the employer or applicable law.

1.21.1.5. Recommended procedures for compliance

- Limited participation in equity ipos.
- Restrictions on private placements.
- Establish blackout/restricted periods.
- Best method: 1) disclosure of personal holdings/beneficial ownerships upon commencement of the employment relationship and at least annually thereafter; 2) Providing duplicate confirmations of transactions; 3) preclearance of participation in ipos.
- Once trading restrictions are in place, must be enforced..

➤ Disclosures of policies.

1.21.2. 基础题

Q-72. Teresa Avila, CFA, is a micro-cap investment analyst at a hedge fund. The fund requires Avila to hold any securities that she recommends for the fund in her own account as well. The president of the fund has stated, “We require our analysts to eat their own cooking”. As Avila has such a small account, whenever she trades for her own portfolio, she combines the transactions with those of the hedge fund, so that she is sure to have her account aligned with the fund. Has Avila violated any CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, related to Misconduct
- C. Yes, related to Priority of Transactions

Solution: C.

Standard VI (B) requires that investment transactions for clients and employers have priority over transactions in which members have beneficial ownership. By executing her own accounts transactions with those of the hedge fund, the analyst has violated this standard. Micro cap securities can be thinly traded and easily influenced by changes in the volume of activity, so the analyst may benefit when she combines her transactions with the funds, and she should let the fund execute its orders before she makes changes to her account.

Q-73. Spencer Rivers, CFA chart holder, manages the accounts of an institution, the employer and his parents. His father does not pay for the investment service fee. When oversubscribed IPOs become available, how should he do?

- A. Allocate to the institution client and to the employer
- B. Allocate to the institution client, his father and the employer
- C. Allocate to the institution client, the employer and his father

Solution: A.

Investment transaction for clients must have priority over investment transactions for employers. Although his father does not pay for the investment service fee, his father’s account still is not client comparable to other clients (normal fee-paying account).

Q-74. A broker overheard that his firm was going to execute a block of large order on a thinly traded stock. The order was so large that it would pull the stock price to a historically

high level. He returned and made a front-running. Which of the Standards did he violate?

- A. Standard II (A): Material Non-public Information
- B. Standard VI (B): Priority of Transactions
- C. Both Standard II(A): Material Non-public Information and Standard VI(B): Priority of transactions

Solution: C.

The activity his firm intends to do will significantly influence the price of that stock, so it is considered an MNI. He should place his clients and employer's interest before himself. So he violates Standard VI (B): Priority of Transactions.

Q-75. Mina Jones, CFA, a senior portfolio manager, works for an investment firm. Before Mina executes stock trading for her clients, she will make a phone call to her friend, Frieda and tells her to buy the stocks. Frieda is not Mina's client and doesn't pay her for the recommendation. Does Mina most likely violate any CFA Institute Code and Standards?

- A. No
- B. Yes, related to Referral fees
- C. Yes, related to Priority of transaction

Solution: C.

She violates Standard VI (B): Priority of Transactions because she disadvantaged her clients and employer's interest when executing the transaction..

1.22. Referral Fees

1.22.1. 重要知识点

1.22.1.1. Disclosure 的目的在于让客户和雇主评估：1) any partiality shown in any recommendation of services; 2) the full cost of the services;

1.22.1.2. Disclose to the clients being referred and employer if necessary; Disclose nature of consideration.

1.22.1.3. Encourage employers to develop procedures for referral fees.

1.22.1.4. Firm may completely restrict such fees, if not restrict, should indicate the appropriate steps for requesting approval.

1.22.1.5. Employers should have investment professionals provide to the clients notification of approved referral fee programs and provide the employer regular (at least quarterly) updates on the amount and nature of compensation received.

1.22.1.6. Summary: disclosure of referral fee to clients or employers.

Situations	Employer	Clients and prospects
Inter-firm referral	√	√
Inter-department referral	×	√
Salesperson promotion	×	×
Funds manager promotion	×	×(best practice √)

1.22.2. 基础题

Q-76. Which of the following statements is a stated purpose of disclosure in Standard VI(C)—Referral Fees?

- A. Disclosure will allow the client to request discounted service fees
- B. Disclosure will help the client evaluate any possible partiality shown in the recommendation of services
- C. Disclosure means advising a prospective client about the referral arrangement once a formal client relationship has been established

Solution: B.

Answer B gives one of the two primary reasons listed in the Handbook for disclosing referral fees to clients under Standard VI(C)—Referral Fees. (The other is to allow clients and employers to evaluate the full cost of the services.) Answer A is inconsistent because Standard VI(C) does not require members or candidates to discount their fees when they receive referral fees. Answer C is inconsistent with Standard VI(C) because disclosure of referral fees, to be effective, should be made to prospective clients before entering into a formal client relationship with them.

Q-77. Fred Brubacher, CFA, is an analyst at Van City Bank (VCB). Brubacher receives compensation for referrals to the bank's brokerage and personal financial-planning divisions. His recent referrals are long-time clients from his previous employer, and Brubacher does not mention VCB's referral arrangement. Does Brubacher violate any CFA Institute Standards?

- A. No
- B. Yes, with respect to misrepresentation
- C. Yes, with respect to conflicts of interest

Solution: C.

Compensation or other benefits received for the recommendation of products or services represents a conflict of interest. According to the Standards, Brubacher must disclose the referral

fee arrangement.

1.23. Responsibilities as a CFA Institute Member or CFA Candidate; Reference to CFA Institute, Designation

1.23.1. 重要知识点

1.23.1.1. Violations include:

- Cheating on the CFA exam or other CFA Institute's exams.
- Not complying with rules and policies of the CFA program.
- Divulging the confidential information to others.
- Improperly using the designation.
- Misrepresenting information on Professional Conduct Statement of the CFA.
- Cheating on the CFA exam, violate VII(A), I(D).

1.23.1.2. VII(A) 会员或候选人的行为 (Conduct as Members and Candidates)。成员或候选人不得从事任何有损于 CFA 协会和 CFA 称号名誉和声望，以及 CFA 考试公正性和含金量的行为。CFA 考试或者其它任何考试中作弊都属于违反。

1.23.1.3. Over-promise the competency of an individual 和 over-promise future investment results as lower risk, higher performance 都不可以。

1.23.1.4. The order of CFA and CPA has nothing to do.

1.23.1.5. 如果要获得使用 CFA 称号的权利，必须满足几个条件：是 CFA 协会的在册会员，按时交会费 (Membership due)，依次通过 CFA 的三次考试，按时完成并提交年度述职报告 (annual conduct report)。

1.23.1.6. 在名片上，CFA 的字体大小不能超过自己名字的字体大小。

1.23.1.7. CFA 是形容词，不是名词，不能说有几个 cfas.

1.23.1.8. 唯一正确的表述是：CFA, Chartered Financial Analyst;其他说法都不对，如 cfa, C.F.A, CFA-typed, China-CFA.

1.23.1.9. CFA mustn't be used as part of the name of the firm.

1.23.1.10. Shouldn't cite the expected date of exam completion and award of charter.

1.23.1.11. 只通过三级考试，没有持证的人不可以自称 CFA.

1.23.1.12. 广告中，如果说明三次考试一次就通过，只要陈述是事实就可以了；但是，如果说 CFA 持证人有着高超的投资业绩，则违反了 VII (B);

1.23.1.13. 如果好几年没交会费，虽然以前是持证人，在名片后如果写 CFA，违反了 VII (B).

1.23.1.14. 成员不需要向 clients and prospective clients 披露 duty to comply with the Code.

1.23.1.15. 持证人可以在个人的名片和个人的 letter head 上使用 CFA,但公司不可以。

1.23.2. 基础题

Q-78. The basic structure for enforcing the CFA Institute Code and Standards under its

Professional Conduct Program is not formed by which of the following? The CFA Institute's:

- A. Bylaws.
- B. Rules of procedures.
- C. Board of Governors.

Solution: C.

Although the Board of Governors maintains oversight and responsibility for the PCP, the Institute's Bylaws and Rules of Procedure form the basic structure for enforcement of the Code and Standards.

Q-79. A CFA charterholder is the fund manager for a non-profit organization. During a presentation regarding the restructuring of their investment portfolio's asset allocation, the Head of the Finance Committee questions the manager. As part of his response, the manager states, "I am a CFA charterholder. I know what I'm talking about, and you should do what I say". According to the Standards of Practice Handbook, has the charterholder violated any of the CFA Institute Standards of Professional Conduct?

- A. No
- B. Yes, Responsibilities as a CFA Institute Member
- C. Yes, Communication with Clients and Prospective Clients

Solution: B.

Being a CFA charterholder does not mean absolute right what he/she said. The words like "I am a CFA charterholder. I know what I'm talking about, and you should do what I say" violated responsibilities as a CFA Institute Member.

Q-80. Tammi Holmberg is enrolled to take the Level I CFA exam. While taking the exam, the candidate on Holmberg's immediate right took a stretch break and a piece of paper from his pocket fell onto Holmberg's desk. Holmberg glanced at the paper and realized there was information written on the paper, which included a formula Holmberg needed for the question she was working on. Holmberg had not memorized this formula and could not complete the question without this information. Holmberg pushed the paper off her desk and used the formula to complete the question. According to the CFA Institute Code of Ethics and Standards of Professional Conduct, Holmberg *most likely*:

- A. compromised her exam.

- B. was free to act on the information that fell on her desk.
- C. is responsible for notifying exam proctors of her neighbor's violation.

Solution: A.

Holmberg's conduct compromised the validity of her exam and violated Standard VII (A). Her conduct was also a violation of the rules and regulations of the CFA Program, the Candidate pledge, and the CFA Institute Code and Standards.

Q-81. Dorre, CFA, just founded her own investment company. On a TV advertisement, she said: "through the CFA program, I improved my investment skill". On that TV show, she also assured that all her client's investment return will increase with higher level investment skill gained from CFA program. According to Code and Ethics and Standards of Practice Handbook, which of following is allowed?

	Improve my investment skill	Increase clients' investment return
A.	Yes	No
B.	No	No
C.	No	Yes

Solution: A.

Standard VII is intended to prevent promotional efforts that make promises or guarantees that are tied to the designation. Statement referencing CFA institute, the CFA designation, or the CFA program must not over-promise the competency of an individual or over promise future investment result. "Improving skill" is allowed as long as this statement is true and is not linked to performance or does not imply superior ability. The "assure" statement prominently links the first statement to superior performance is not allowed.

1.24. GIPS Verification and GIPS Composite**1.24.1. 重要知识点****1.24.1.1. Misleading practices that hinder performance comparability:**

- Representative accounts-showing a top-performing portfolio as representative of firm's results.
- Survivorship bias-excluding wake performance.
- Varying time periods- showing performance for selected time periods with outstanding returns.

1.24.1.2. Complying with the GIPS standards is voluntary.**1.24.1.3. Only an investment management firm that actually manage assets can claim**

compliance with the standards.

- Plan sponsors & consultants → can't claim compliance unless actually manage assets.
- Software (and vendor of software) cannot be compliant → can assist firms in compliance with GIPS.

1.24.1.4. Firm-wide and full compliance

- Can't be achieved on a single product or composite.
- Two options: (1) Fully comply with all requirements; (2) Not comply with all requirements and not claim compliance.

1.24.1.5. Benefit 2 groups: investment management firm and prospective clients.**1.24.1.6. 关于 composite**

- A composite is a grouping of individual discretionary portfolios representing a similar investment strategy, objective, or mandate.
- A composite, such as Global Equities, must include all portfolios (current and past) that the firm has managed in accordance with this particular strategy.
- The firm should identify which composite each managed portfolio is to be included in before the portfolio's performance is known.
- All actual, fee-paying, discretionary portfolio must be included in at least one composite. Non-fee-paying discretionary portfolio may be included in a composite. Non-discretionary portfolios must not be included in a firm's composites.

1.24.1.7. Verification

- Verification is the review of an investment management firm's performance measurement processes and procedures by an independent third-party "verifier".
- Whether the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis.
- Whether the firm's processes and procedures are designed to calculate and present performance results in compliance with the GIPS standards.
- A single verification report is issued in respect of the whole firm; verification cannot be carried out for a single composite.

1.24.1.8. Firm 的定义

- The definition should reflect the "distinct business entity" that is held out to clients and prospects as the investment firm.
- GIPS are ethical standards for performance presentation which ensure fair representation of results and full disclosure.

1.24.1.9. Include all actual fee-paying, discretionary portfolios in composites for a minimum of 5 years or since firm or composite inception. After presenting five years of compliant

data, the firm must add annual performance each year going forward up to a minimum of 10 years.

1.24.1.10. No partial compliance and only full compliance can be claimed.

1.24.1.11. Firms are required to use certain calculation and presentation standards and make specific disclosures, E.g. Composite → asset weighted.

1.24.1.12. GIPS contain both required and recommended provisions.

1.24.1.13. Follow the local laws for cases in which a local or country-specific law or regulation conflicts with GIPS, but disclose the conflict.

1.24.1.14. Nine major sections of GIPS.

- 0. Fundamentals of compliance
- 1. Input data
- 2. Calculation methodology
- 3. Composite construction
- 4. Disclosure
- 5. Presentation and reporting
- 6. Real estate
- 7. Private equity
- 8. Wrap fee/Separately Managed Account Portfolios

1.24.1.15. **0. Fundamentals of compliance**

- Firms must document their policies and procedures used in establishing and maintaining compliance with the GIPS standards.
- Statements referring to the performance of a single, existing client portfolio as being “calculated in accordance with the Global Investment Performance Standards” are prohibited, except when a GIPS-compliant firm reports the performance of an individual client’s portfolio to that client.
- Firms must make every reasonable effort to provide a compliant presentation to all prospective clients. Must not choose to whom they present a compliant presentation. As long as a prospective client has received a compliant presentation within the previous 12 months, the firm has met this requirement.
- Firms must provide a compliant presentation for any composite listed on the firm’s list of composite descriptions to any prospective client on request.
- Firms must be defined as an investment firm, subsidiary, or division held out to clients or prospective clients as a distinct business entity.
- For periods after January 2011, total firm assets must be the aggregate fair value of all discretionary and non-discretionary assets managed by the firm.
- Changes in a firm’s organization must not lead to alteration of historical composite

performance.

- When the firm jointly markets with other firms, the firm claiming compliance with the GIPS standards must be sure that it is clearly defined and separate relative to other firms being marketed, and that it is clear which firm is claiming compliance.
- **Fair Value:** the amount at which an investment could be exchanged in a current arm's length transaction between willing parties in which the parties each act knowledgeably and prudently.
- **Valuation hierarchy:** 1) market price 2) market price for similar investment 3) market-based inputs for pricing the investment 4) subjective unobservable inputs for pricing the investment.

1.24.1.16. 1. Input data

- For periods beginning on or after 1 January 2011, portfolios must be valued in accordance with the definition of fair value and the GIPS Valuation Principles.

1.24.1.17. 2. Calculation methodology

- Firms must calculate time-weighted rates of return that adjust for external cash flows. Both periodic and sub-period returns must be geometrically linked.

1.24.1.18. 3. Composite construction

- All actual, fee-paying, discretionary portfolios must be included in at least one composite. Although non-fee-paying discretionary portfolios may be included in a composite (with appropriate disclosure), non-discretionary portfolios must not be included in a firm's composites.
- Firms must not link performance of simulated or model portfolios with actual performance.

1.24.1.19. 5. Presentation and reporting

- At least 5 years of performance (or since inception if less than five years) that meets the requirements of the GIPS standards. After a firm presents a minimum of five years of GIPS compliant performance, the firm must present an additional year of performance each year, building up to a minimum of 10 years of GIPS compliant performance.
- Firms must not link non-GIPS-compliant performance for periods beginning on or after 1 January 2000 to their GIPS-compliant performance. Firms may link non-GIPS-compliant performance to GIPS-compliant performance provided that only GIPS-compliant performance is presented for periods beginning on or after 1 January 2000.

1.24.1.20. 7. Private equity

- Firms must calculate the annualized since-inception internal rates of return

(SI-IRR).

1.24.1.21. 8. Wrap fee/separately managed account (SMA) portfolios.

- **Wrap fee:** A type of bundled fee and are specific to a particular investment product.
- **A wrap fee portfolio** is sometimes referred to as a “Separately managed account” (SMA) or “managed account.”.

1.24.2. 基础题

Q-82. ABC Investment Management Company claims compliance with GIPS, but the GIPS compliance is not verified. Does this company comply with GIPS?

- A. Yes
- B. No, because the company should be verified
- C. No, because the internal control personnel should conduct the verification work

Solution: A.

Firms are encouraged to pursue independent verification from a third party on a firm-wide basis, verification is not an obligation.

Q-83. A GIPS-compliant investment firm presents its historical record for a global growth stock composite. Which of the following method is *least likely* to violate the CFA institute Standard?

- A. Excluded terminated accounts
- B. No portfolio below minimum asset level is included
- C. Use a top-performing portfolio as representative of firm's results

Solution: B.

According to GIPS composite construction, A, C are not permitted.

Q-84. According to the GIPS standards, which of the following is most likely correct when calculating a firm's assets?

- A. Non-fee-paying accounts must not be included
- B. Fee- and non-fee-paying discretionary and non-discretionary accounts must be included
- C. Non-discretionary accounts must not be included

Solution: B.

When calculating total firm assets, the aggregate fair value of all discretionary and

non-discretionary assets managed by the firm must be included, no matter they are fee-paying or non-fee-paying.

- Q-85.** Wonder Investment Company (WIC) claims compliance with the GIPS Standards. The compliant presentation includes a footnote states that WIC complies with the GIPS standards except for its private equity investments. Did WIC violate the GIPS standards?
- A. Yes, because they cannot claim compliance unless all requirements of the GIPS are met
 - B. No, because the footnotes meet the requirements of the Standards
 - C. No, because the provisions do not apply to the private equity investments

Solution: A.

Firms must meet all the requirements in the GIPS standards and cannot claim partial compliance.

- Q-86.** According to the GIPS, which of the following statements about composite construction is least accurate?
- A. All actual, fee-paying, discretionary portfolio must be included in at least one composite
 - B. Non-fee-paying discretionary portfolio may be included in a composite
 - C. Non-discretionary portfolios may be included in a firm's composites

Solution: C.

C is correct because non-discretionary portfolios must not be included in a firm's composites.

- Q-87.** If there is conflict between local laws and GIPS standards, which of the following actions is most likely appropriate for firms who have claimed GIPS compliance?
- A. They can't claim GIPS compliance
 - B. Still follow local laws, continue to claim GIPS compliance, and disclose the conflict to the public
 - C. Follow GIPS standards

Solution: B.

When local laws conflicts with GIPS standards, firms can still claim GIPS compliance and follow local laws. But they must disclose this conflict to the public.

- Q-88.** Which of the following is most likely a requirement of the GIPS standards? Firms must:
- A. include all discretionary, fee-paying portfolios in at least one composite.
 - B. present a minimum of ten years of annual investment performance compliant with the GIPS standards.

- C. have their performance records verified by an independent third party.

Solution: A.

According to GIPS standards, firms are required to include all discretionary, fee-paying portfolios in at least one composite. They must present a minimum of five years, not ten years of annual investment performance compliant with the GIPS standards. It is not a requirement for firms to have an independent third party verification.

Q-89. If ABC parent company claims that ABC company is complied with the GIPS standards, its subsidiary:

- A. Should claim compliance with the GIPS standards.
- B. Not need to make any claim.
- C. Should inquire its parent company.

Solution: A.

The firm is defined as the whole ABC company.

1.25. 进阶题

Q-90. Colin Gifford, CFA, is finalizing a monthly newsletter to his clients, who are primarily individual investors. Many of the clients' accounts hold the common stock of Capricorn Technologies. In the newsletter, Gifford writes, "Based upon the next six months earnings of \$1.50 per share and a 10% increase in the dividend, the price of Capricorn's stock will be \$22 per share by the end of the year." Regarding his stock analysis, the least appropriate action Gifford should take to avoid violating any CFA Institute Standards of Professional Conduct would be to:

- A. Separate fact from opinion.
- B. Include earnings estimates.
- C. Identify limitations of the analysis.

Solution: B.

While pro forma analysis may be standard industry practice, it is not required by the Standards. Earnings estimates are opinions and must be clearly identified as such.

Q-91. Grey recommends the purchase of a mutual fund that invests solely in long-term U.S. Treasury bonds. He makes the following statements to his clients:
Statement 1: "The payment of the bonds is guaranteed by the U.S. government;

therefore, the default risk of the bonds is virtually zero."

Statement 2: "If you invest in the mutual fund, you will earn a 10 percent rate of return each year for the next several years based on historical performance of the market."

Did Grey's statements violate the CFA Institute Code and Standards?

- A. Neither statement violated the Code and Standards
- B. Only Statement 1 violated the Code and Standards
- C. Only Statement 2 violated the Code and Standards

Solution: C.

This question involves Standard I(C)—Misrepresentation. Statement 1 is a factual statement that discloses to clients and prospects accurate information about the terms of the investment instrument. Statement 2, which guarantees a specific rate of return for a mutual fund, is an opinion stated as a fact and, therefore, violates Standard I(C). If Statement 2 were rephrased to include a qualifying statement, such as "in my opinion, investors may earn. . .," it would not be in violation of the Standards.

Q-92. Roberto Sanchez, CFA, and Andreas Lopez, CFA, worked as financial analysts for oneworld Analytics for years. While at oneworld, Lopez created a highly complex financial valuation model with Sanchez making small contributions to its development. Recently, Lopez left oneworld to start his own company using a simplified model he developed prior to joining oneworld. Over a six-month period, he improves this software, duplicating features he used at oneworld. His upgraded program produces predictions similar to the results of the oneworld program. At One World, Sanchez continues to use the complex model he and Lopez developed and attains superior results. Whose behavior *most likely* conforms to the CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. Lopez but not Sanchez
- B. Sanchez but not Lopez
- C. Both Lopez and Sanchez

Solution: C.

C is correct because both Lopez and Sanchez upheld the requirements of Standard I (C) Misrepresentation regarding work completed for an employer Sanchez has the right to continue using the software primarily developed by Lopez because oneworld Analytics, not the employee, owns the software. Lopez does not leave with the model he developed while employed by oneworld Analytics, and therefore, he is not in violation of the Standards. Once Lopez leaves

oneworld, he develops a separate model based on a model he developed prior to joining oneworld Analytics. The simplified model remains the intellectual property of Lopez. The duplication of features is allowable under Standard IV (A) in that Lopez's expertise gained at his former employer is not considered to be confidential or privileged. Therefore, both Lopez and Sanchez upheld the Standards.

Q-93. Dorian Solot, CFA, is responsible for a team of research analysts at Apac Bank, located in a country with strict laws prohibiting intellectual property transfers. Solot believes the work of one of her analysts, Blaine Paddock, CFA, is not completed as carefully and thoroughly as it should be. Solot completely reviews all of Paddock's research and confirms her suspicions. Solot then confronts Paddock about his poor quality research and tells him he can leave Apac voluntarily or be fired. Paddock chooses to leave the bank, walking out with his personal papers and research notes that were created prior to his joining Apac. Subsequently, Paddock uses this intellectual property to help establish a high-net-worth investment advisory firm. When a prospective client asks Paddock if he left Apac because of questions on the quality of his work, Paddock says it was to start his own business. Paddock *least likely* violated the CFA Institute Standards of Professional Conduct concerning his:

- A. Research.
- B. Intellectual property.
- C. Prospective client disclosure.

Solution: B.

B is correct because the analyst has not violated Standard related to intellectual property because there is no indication the analyst was ignorant of, or has violated, any law related to intellectual property, because these documents were created by the analyst prior to his employment at Apac.

Q-94. Angelina Macy, CFA, suffered a huge loss on her own investment which led to personal bankruptcy 10 years ago. Recently she was fired by her employer because of her deceitful business conduct. Consequently she defaulted on the bank loan and decided to file for personal bankruptcy. Does Angelina's bankruptcy most likely violate Standard I (D) Misconduct?

- A. No
- B. Yes, related to the loss on her own investment
- C. Yes, related to get fired by employer

Solution: C.

If the personal bankruptcy doesn't involve fraudulent business conduct, it is not a violation of Misconduct. However, her second personal bankruptcy is because of fraud, it is a violation.

Q-95. Carter works for Invest Today, a local asset management firm. A broker that provides Carter with proprietary research through client brokerage arrangements is offering a new trading service. The broker is offering low-fee, execution-only trades to complement its traditional full-service, execution-and-research trades. To entice Carter and other asset managers to send additional business its way, the broker will apply the commissions paid on the new service toward satisfying the brokerage commitment of the prior full-service arrangements. Carter has always been satisfied with the execution provided on the full-service trades, and the new low-fee trades are comparable to the fees of other brokers currently used for the accounts that prohibit soft dollar arrangements. Which of the following is correct conduct for Carter?

- A. Carter can trade for his accounts that prohibit soft dollar arrangements under the new low-fee trading scheme
- B. Carter cannot use the new trading scheme because the commissions are prohibited by the soft dollar restrictions of the accounts
- C. Carter should trade only through the new low-fee scheme and should increase his trading volume to meet his required commission commitment

Solution: A.

The question relates to Standard III(A)—Loyalty, Prudence, and Care. Carter believes the broker offers effective execution at a fee that is comparable with those of other brokers, so he is free to use the broker for all accounts. Answer B is incorrect because the accounts that prohibit soft dollar arrangements do not want to fund the purchase of research by Carter. The new trading scheme does not incur additional commissions from clients, so it would not go against the prohibitions. Answer C is incorrect because Carter should not incur unnecessary or excessive "churning" of the portfolios (excessive trading) for the purpose of meeting the brokerage commitments of soft dollar arrangements.

Q-96. Zhao Xuan, CFA, is a sell side investment analyst. While at a software industry conference, Zhao hears rumors that Green Run Software may have falsified its financial results. When she returns to her office, Zhao conducts a thorough analysis of Green Run. Based on her research, including discussions with some of Green Run's customers, Zhao is convinced that Green Run's reported 50% increase in net income during recent

quarters is completely fictitious. So far, however, Zhao is the only analyst suspicious about Green Run's reported earnings. According to the CFA Institute Code of Ethics and Standards of Professional Conduct, the least appropriate action for Zhao is to:

- A. Report her suspicions to Green Run's management.
- B. Do nothing, until other analysts support her analysis.
- C. Recommend her clients sell their Green Run shares immediately.

Solution: B.

B is correct because the analyst has conducted thorough research that indicates the company falsified its financial results, and she should request the company address this issue publicly as recommended by Standard II (A) Material Nonpublic Information. If a member or candidate determines that information is material, the member or candidate should make reasonable efforts to achieve public dissemination of the information. This effort usually entails encouraging the issuer company to make the information public. If public dissemination is not possible, the member or candidate must communicate the information only to the designated supervisory and compliance personnel within the member's or candidate's firm and must not take investment action on the basis of the information.

Q-97. While at a bar in the financial district after work, Ellen Miffitt, CFA, overheard several employees at one of her competitors discussing how they would manipulate down the price of a thinly traded micro-cap stock over the next few days. Miffitt's clients had large positions of this stock and when she arrived at work the next day, she immediately sold all of these holdings. As she had determined that the micro-cap stock was suitable for all of her accounts, even at its previously higher price, Miffitt bought back her clients' original exposure at the end of the week at the new, lower price. Which CFA Institute Standards of Professional Conduct did Miffitt *least likely* violate:

- A. Market Manipulation.
- B. Preservation of Confidentiality.
- C. Material Nonpublic Information.

Solution: B

Miffitt has not violated the confidentiality Standard. Even though she did not initiate the market manipulation, Miffitt added to the stock's price movement when she sold into a declining market. By repurchasing the shares for her clients, she was seeking to take advantage of the manipulation and was in violation of Standard II (B). Miffitt has attempted to benefit her clients by trading on information that could affect the value of the micro-cap stock and as such would be classified as

material nonpublic information. Information that is known regarding orders for large trades before they are executed is considered material nonpublic information.

Q-98. Pete Carson, CFA, is a research analyst in an investment firm. He read the newspaper and found that the government will restrict the production of automobiles. After research, Pete concluded that the Motors Company may be influenced so he issue a sell recommendation. The next week the Motors Company made an announcement that their revenues decline 40% and the stock price went down sharply. Does Pete violate any CFA code and standards?

- A. No
- B. Yes, related to market manipulation
- C. Yes, related to Material Nonpublic Information

Solution: A.

The mosaic theory states that analysts can use material public information and nonmaterial nonpublic information. Pete read the news from newspaper so they are not considered as material nonpublic information.

Q-99. Clark Foye, a research analyst, decided to change his recommendation for a listed company from “sell” to “buy” after his thorough analysis. To avoid violating the CFA Institute Standards of Professional Conduct it would be most appropriate for Clark to distribute the new investment recommendation to:

- A. mail this change to all of his clients
- B. post it on his public blog
- C. first mail to his high-wealth clients

Solution: A.

According to Standard III (A) Loyalty, Prudence and Care members and candidates must place their clients’ interests first before their own interests. So Clark must distribute the new recommendation to his clients first.

Q-100. Jeffery Mills, CFA, is a portfolio manager in an investment firm. He claims that all his recommendation is based on his own research. Actually his recommended list includes some recommendation obtained from third party advisor. Jeffery doesn’t think it is a problem since the third party advisor has already completed due diligence. Does Jeffery violate any CFA Institute Standards of Professional Conduct?

- A. Yes, only Diligence and Reasonable Basis
- B. Yes, only Misrepresentation
- C. Yes, both Diligence and Reasonable Basis & Misrepresentation

Solution: C.

Jeffery doesn't disclose he used third party advisor which violates Misrepresentation. He doesn't make due diligence on the recommendation from third party advisor is a violation to Diligence and Reasonable Basis.

Q-101. John Bradly, CFA, a research analyst in a brokerage firm. After his analysis, he issued a "sell" recommendation on the Novak Company. John found that many research paper from other analysts issue a "buy" recommendation on that Company. So he doubted his research results and change the recommendation from "sell" to "buy" and sent the email to all his clients. Which of the following standards John would most likely violate?

- A. Fair Dealing
- B. Misrepresentation
- C. Diligence and Reasonable Basis

Solution: C.

The information from other analysts without any additional research is not an adequate basis for John to change his recommendation.

Q-102. ABC Investment Management acquires a new, very large account with two concentrated positions. The firm's current policy is to add new accounts for the purpose of performance calculation after the first full month of management. Cupp is responsible for calculating the firm's performance returns. Before the end of the initial month, Cupp noticed that one of the significant holdings of the new accounts was acquired by another company, causing the value of the investment to double. Because of this holding, Cupp decided to account for the new portfolio as of the date of transfer, thereby allowing ABC Investment to reap the positive impact of that month's portfolio return.

- A. Cupp did not violate the Code and Standards because the GIPS standards allow composites to be updated on the date of large external cash flows.
- B. Cupp did not violate the Code and Standards because companies are allowed to determine when to incorporate new accounts into their composite calculation.
- C. Cupp violated the Code and Standards because the inclusion of the new account produces

an inaccurate calculation of the monthly results according to the firm's stated policies.

Solution: C.

Cupp violated Standard III (D)-Performance Presentations when he deviated from the firm's stated policies solely to capture the gain from the holding being acquired. Answer A is incorrect because the firm does not claim GIPS compliance and the GIPS standards require external cash flows to be treated in a consistent manner with the firm's documented policies. Answer B is incorrect because the firm does not state that it is updating its composite policies. If such a change were to occur, all cash flows for the month would have to be reviewed to ensure their consistent treatment under the new policy.

Q-103. Jennifer Pears, a research analyst, has been released by her firm. She has an interview with a large brokerage firm. Jennifer got permission from her former employer to use the performance history. During the interview, Jennifer describes details of her research department and provides the names and assets information of clients' accounts. Jennifer least likely violated the CFA Institute Standards of Professional Conduct regarding:

- A. details of her research department
- B. the portfolio's performance history
- C. providing details on the clients' accounts

Solution: B.

Since she got permission from her former employer to use the performance history, describing performance history is no violation. However, providing details of her research department and details on the clients' accounts violates the CFA Institute Standards.

Q-104. Bobby Marques, CFA, was recently promoted to a senior management position. He noticed that there is no firewall between the brokerage department and the investment banking department. When Bobby reported this situation to the firm, his boss told him not to worry about it. According to the CFA Code and Standards, Bobby's most appropriate course of action would be to:

- A. Accept the new position
- B. Decline to accept the supervisory responsibility until there is adequate compliance system
- C. Report to CFA institutes

Solution: B.

If there is no adequate compliance system, Toby should decline to accept supervisory responsibility until the firm adopts reasonable compliance system to allow the member to adequately exercise supervisory responsibility.

Q-105. Abe Seneca, CFA, supervises a team of analysts who create index funds for institutional investors. When Seneca provides sales demonstrations to potential clients simulating the fund's performance, the scenarios he prepares show outcomes based on assumptions reflecting upside bias and positive risk assessments. Gail Tremblay, CFA, an analyst in Seneca's group, observes that the actual performance of these index funds is less than indicated in the scenario outcomes shown in the sales meetings. Seneca *least likely* violated which of the following CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. Loyalty
- B. Performance Presentation
- C. Responsibilities of Supervisors

Solution: C.

C is correct because Standard IV (C) Responsibilities of Supervisors has not been violated; Seneca is not responsible for the supervision of any employees when he makes sales demonstrations to clients because he prepared the material himself. Seneca violated Standard IV (A) Loyalty by misleading potential investors on the performance they might achieve with the index funds, thereby causing reputational risk to his employer Seneca has also violated Standard III (D) Performance Presentation because the sales demonstrations he conducts do not provide a fair and accurate representation of performance that clients are likely to experience.

Q-106. Leo Randell, CFA, is a research analyst at an investment firm. His research team issue a sell recommendation on a listed company. Leo disagrees with that recommendation although he is confident that the research process is reasonable. Leo removed his name from the report and states "I don't agree with the sell recommendation at all!" on his blog. Which of the following actions by Leo is most likely a violation to CFA Institute Standards?

- A. Disagree with the team opinion
- B. Remove his name from the report
- C. Release his opinion on the blog

Solution: C.

Release a contradictory recommendation will do harm to employer so it is a violation to Loyalty to Employer.

Q-107. Isiah James, CFA, is a portfolio manager in an investment firm. Isiah discloses to the public that he uses sub advisors when making recommendations. Isiah used the information from sub advisors directly because he thinks the sub advisor has already completed due diligence. Isiah most likely violated the CFA Institute Standards of Professional Conduct regarding:

- A. Using sub advisors
- B. Disclose the information to the public
- C. Doesn't do due diligence

Solution: C.

Using sub advisors is accepted, but Isiah still is required to complete due diligence.

Q-108. David Gunard, CFA, is an equity analyst at Curry Securities. He received an assignment to analyze Enterloch Corporation, of which the stocks were held by several of Curry's clients. Gunard completed a thorough, fundamental analysis of Enterloch. Given his analysis and the sharp rise in the company's stock price during the past year, Gunard concluded that the shares were substantially overvalued. After the approval of the report by Gunard's supervisor, but prior to the release, Gunard called his father to suggest that he sell his Enterloch shares immediately. Gunard's father informed him that he had disposed of his holding. According to the Standards of Practice Handbook, has Gunard violated the CFA Institute Standard of Professional Conduct relating to:

	<u>Duties to clients?</u>	<u>Reasonable basis?</u>
A.	No	Yes
B.	Yes	No
C.	Yes	Yes

Solution: B.

By communicating this information to his father prior to the release of the report, Gunard failed to put the firm's clients' interests above his own. Nothing in the question indicates that he did not have a reasonable basis for his recommendation; he conducted a thorough fundamental analysis and his report was approved. The fact that Gunard's father had disposed of the shares does not negate the fact that Gunard violated a duty to the firm's clients.

- Q-109.** Mailaka Securities (MS) advertises the use of a “bottom up” investment style in its marketing material. Recently, MS senior management decided to switch to a “top down” approach, citing the fact that it is less labor intensive. All other aspects of the research process are to remain the same. The head of research at MS, Mara Cherogony, CFA, was instructed to supervise the implementation of the new procedures, to notify clients of the changes, and to revise the text of marketing materials when new material was produced. Which of the following CFA Standards pertaining to Investment Analysis, Recommendations and Actions is Cherogony *least likely* in danger of violating?
- A. Supervisory Responsibility
 - B. Communication with Clients
 - C. Diligence and Reasonable Basis

Solution: C.

Research can still be considered diligent and having a reasonable basis if done using a “top down” research methodology as opposed to a “bottom up” methodology. Violates Standard V (B) – Communication with Clients for not promptly disclosing the change. As a supervisor, Cherogony is responsible for ensuring compliance with the Code and Standards.

- Q-110.** Loris Grant, CFA, a portfolio manager, notices that there is a fund-raising program for children who drop off for poverty. Loris knows some of his clients make annual donations to charities. So he sent the names and contact information of these clients to the charity organization. Does Loris violate any CFA Institute Standards of Professional Conduct?
- A. No
 - B. Yes, regarding with Disclosure of Conflicts
 - C. Yes, regarding with Preservation of Confidentiality

Solution: C.

Loris is required to have permission from clients before he provides the information of his clients to charity organization; thus, he has violated Standard III (E)-Preservation of Confidentiality. There is no conflicts that need to be disclosed.

- Q-111.** Yip Wai Yin, a CFA Candidate, is an independent mutual fund sales agent. For every front-end load product she promotes, Yip receives a portion of the front-end fee as commission at the time of sale. For every back-end load fund she sells, Yip receives a smaller commission paid at the end of the year. Yip always informs her clients she is

paid a commission as an agent, but does not provide details of the compensation structure. When pitching her favored front-end load product line, she tells clients 20% of her commission is always invested in the same fund as proof of her confidence in the fund she recommends. Which CFA Code of Standards with regard to Conflicts of Interest does Yip *least likely* violate?

- A. Referral Fees
- B. Disclosure of Conflicts
- C. Priority of Transactions

Solution: C.

Yip's investments do not adversely affect the interest of the clients and therefore do not violate the Priority of Transactions requirement. A Candidate having the same investment positions does not always create a conflict of interest and in some instances, having an aligned investment portfolio can be beneficial to the client.

Q-112. Eric Pantoja is enrolled as a candidate in the CFA examination program. He works as an assistant for Chehalis Investments (CI). Pantoja saw CI's purchase list and purchased several of the recommended stocks. Pantoja *least likely* violates the CFA Institute Standard relating to:

- A. Misconduct.
- B. Priority of Transactions.
- C. Diligence and Reasonable Basis.

Solution: C.

Pantoja *least likely* violates the Standard relating to Diligence and Reasonable Care because he is taking investment actions on his own behalf rather than on behalf of clients. His actions violate the Standards relating to Priority of Transactions (he trades ahead of his employer and its clients), Loyalty to Employer (his actions cause harm to his employer), and Misconduct (his actions reflect adversely on his professional integrity).

Q-113. Kazuya Kato, CFA, is a widely followed economist at a global investment bank. When Kato opines on economic trends, markets react by moving stock valuations considerably. When Kato received information of a temporary oversupply of rare earth metals, he issued a forecast that price trends for rare earth metals would be down significantly on a long-term basis. Kato also secretly sold his report to a widely followed Internet site. Prior to issuing this forecast, Kato emailed all portfolio managers at his bank with a

copy of his report indicating that his opinion would be reversed shortly so there would be trading opportunities. Kato *least likely* violated which of the following CFA Institute Code of Ethics and Standards of Professional Conduct?

- A. Market Manipulation
- B. Priority of Transactions
- C. Additional Compensation Arrangements

Solution: B.

The Priority of Transactions Standard has not been violated as it relates to investment transactions for clients and employers having priority over Member/Candidate transactions. There is no indication in this case that transactions have occurred as a result of the report being issued by the economist. Although it is reasonable to expect there will be transactions, it is only when these happen that a violation will have occurred.

Q-114. Steven Jonathan, an analyst, has recently passed CFA level III exam. He states on his blog that studying CFA helps him improve his investing skills and he will have better investment performance. Does Steven violate any CFA Code of Ethics or Standards of Professional Conduct?

- A. No
- B. Yes, by saying improving his investing skills
- C. Yes, by saying he will have better investment performance

Solution: C.

Stating facts is accepted, so Steven says that studying CFA can help him improve investing skills is not a violation. Over-promise future investment results is a violation to Responsibilities as a CFA Institute member.

Q-115. Which of the following is a key characteristic of the Global Investment Performance Standards (GIPS)? The GIPS Standards:

- A. Rely on the integrity of input data.
- B. Consist of required provisions for firms to follow to achieve best practice.
- C. Must be applied with the goal of achieving excellence in performance presentation.

Solution: A.

A key characteristic of the Standards is that the Standards rely on the integrity of input data. The accuracy of input data is critical to the accuracy of the performance presentation.

Q-116. According to the Fundamentals of Compliance section of the Global Investment Performance Standards, issues that a firm must consider when claiming compliance include all of the following except:

- A. Replicating performance.
- B. Properly defining the firm.
- C. Documenting firm policies and procedures used in establishing and maintaining compliance with the Standards.

Solution: A.

Replication of performance is not included in the Fundamentals of Compliance section within the GIPS standards.



金程教育

GOLDEN FUTURE

2018 年 06 月 CFA 一级百题预测

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

近年来，CFA 考试的难度在逐步提高。针对 2018 年 6 月的考试，考生对于占比较高的几门科目需要引起充分重视，如：财务报表分析、职业伦理和数量分析，所以百题中所标示的基础题目必须掌握。2018 年相比于 2017 年的考纲基本没有变动，只在数量、衍生、企业理财等科目中，删除了部分章节，并将原有企业理财中，股利的概念部分并入权益，基本都是考察定性的内容。百题中的题目，紧密贴合考纲和真题难度，依据金程多年 CFA 培训经验，由资深研究员与明星师资共同编写。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. Equity

7.1. Overview of Financial Market: Function & Regulation

7.1.1. 重要知识点

7.1.1.1. 金融市场的三种主要功能

- The achievement of the purposes for which people use the financial system;
- The discovery of the rates of return that equate aggregate savings with aggregate borrowings;
- The allocation of capital to the best uses.

7.1.1.2. Achievement of purposes in the financial system

- To save money for the future;
- To borrow money for current use;
- To raise equity capital;
- To manage risks;
- To exchange assets for immediate and future deliveries;
- To trade on information.

7.1.1.3. The objectives of market regulation are to

- Control fraud;
- Control agency problems;
- Promote fairness;
- Set mutually beneficial standards;
- Prevent undercapitalized financial firms from exploiting their investors by making excessively risky investments;
- Ensure that long-term liabilities are funded.

7.1.1.4. When regulators fail to solve the problems discussed above, the financial system does not function well.

- Hedgers withdraw from markets;
- Producers become reluctant to specialize;
- Good ideas cannot fund their projects;
- Production becomes less efficient as producers chose safer technologies.

7.1.1.5. Characteristics of a good market

- Timely and accurate information;
- Liquidity(marketability, price continuity, depth);
- Internal efficiency (low transaction cost);
- Informational efficiency.

7.1.2. 基础题

Q-117. The government of a country whose financial markets are in an early stage of development has hired you as a consultant on financial market regulation. Your first task is to prepare a list of the objectives of market regulation. Which of the following is *least likely* to be included in this list of objectives?

- A. Minimize agency problems in the financial markets.
- B. Ensure that financial markets are fair and orderly.
- C. Ensure that investors in the stock market achieve a rate of return that is at least equal to the risk-free rate of return.

Solution: C.

Ensure that investors in the stock market achieve a rate of return that is at least equal to the risk-free rate of return is *least likely* to be included as an objective of market regulation. Stocks are risky investments and there would be occasions when a stock market investment would not only have a return less than the risk-free rate but also a negative return. Minimizing agency costs and ensuring that financial markets are fair and orderly are objectives of market regulation.

7.2. Intermediaries of Financial Markets

7.2.1. 重要知识点

7.2.1.1. Brokers and dealers, exchanges

- **Brokers** are agents who fill orders for their clients. They do not trade with their clients. Instead, they search for traders who are willing to take the other side of their clients' orders.
- **Dealers** fill their clients' orders by trading with them. When their clients want to sell securities or contracts, dealers buy the instruments for their own accounts. If their clients want to buy securities, dealers sell securities that they own or have borrowed. Dealers profit when they can buy at prices that on average are lower than the prices at which they sell.
- **Exchanges** provide places where traders can meet to arrange their trades.

7.2.1.2. Securitizers

- Buy assets, place them in a pool, and then sell securities that represent ownership of the pool;
- The financial intermediary avoids placing the assets and liabilities on its balance sheet by setting up a special corporation or trust that buys the assets and issues the securities. That corporation or trust is called a special purpose vehicle (SPV) or

alternatively a special purpose entity (SPE).

7.2.1.3. Arbitrageurs

- The purest form of arbitrage involves buying and selling the same instrument in two different markets;
- If information about prices is readily available to market participants, pure arbitrages involving the same instrument will be quite rare;
- Buying a risk in one form and selling it another form involves a process called replication.

7.2.1.4. Hedgers

- Hedgers trade to offset or insure against risks that concern them;
- The hedger and the other entity face exactly the opposite risks, so the transfer makes both more secure.

7.2.1.5. Clearinghouses and custodians

- Clearinghouses arrange for final settlement of trades.
 - Act only as escrow agents (transferring money from the buyer to the seller while transferring securities from the seller to the buyer);
 - Guarantee contract performance;
 - Require that their members have adequate capital and post-performance bonds (margins);
 - Limit the aggregate net (buy minus sell) quantities that their members can settle.

7.2.2. 基础题

Q-118. If a trader buy and sell identical or essentially similar instruments at different price in different market, which type will the trader *most likely* be?

- A. Information motivators.
- B. Arbitrageurs.
- C. Securitizers.

Solution: B.

Arbitrageurs trade when they can identify opportunities to buy and sell identical or essentially similar instruments at different prices in different markets. They profit when they can buy in one market for less than they sell in another market.

7.3. Classification of Assets and Market

7.3.1. 重要知识点

7.3.1.1. Classification of assets**➤ Financial assets**

- **Security:** debt securities, equity securities, public securities, private securities;
- **Derivative contracts:** finance derivative contracts, physical derivative contracts;
- **Currency.**

➤ Real assets

- **Commodity**
- **Real Estate**
 - ◆ **Direct;**
 - ◆ **Indirect: REITs, MLP.**

➤ Securities

- **Fixed income securities:** predetermined payment schedules that usually include interest and principal payments.
- **Equity securities**
 - ◆ **Common stock:** callable, puttable;
 - ◆ **Preferred stock;**
 - ◆ **Warrants.**

➤ Pooled investment vehicles

- **Mutual funds** are investment vehicles that pool money from many investors for investment in a portfolio of securities;
- **Exchange-traded funds and exchange-traded notes;**
- **Asset-backed securities;**
- **Hedge funds** are investment funds that generally organize as limited partnerships.

➤ Real assets

- Include such tangible properties as real estate, airplanes, machinery, or lumber stands;
- Provide the income and tax benefits that they often generate, and changes in their values may have a low correlation with other investments that the managers hold;
- Require substantial management to ensure that the assets are maintained and used efficiently. Real assets generally differ in their conditions, remaining useful lives, locations, and suitability for various purposes. Therefore, real assets tend to trade in very illiquid markets.

7.3.1.2. Many financial intermediaries create entities, such as real estate investment trusts

(REITs) and master limited partnerships (MLPs), to securitize real assets and to facilitate indirect investment in real assets.

7.3.1.3. Classification of market

- **Money market and capital market**
 - **Money markets** trade debt instruments maturing in one year or less;
 - **Capital markets** trade instruments of longer duration, whose values depend on the credit-worthiness of the issuers and on payments of interest or dividends that will be made in the future and may be uncertain.
- **Primary market and secondary market**
 - **Primary market:** the market where securities are first sold and the issuers receive the proceeds.
 - **Secondary market:** the market where securities are traded among investors.
- **Traditional market and alternative market**
 - **Traditional investment markets:** markets for traditional investments, which include all publicly traded debts and equities and shares in pooled investment vehicles that hold publicly traded debts and/or equities.
 - **Alternative markets:** market for investments other than traditional securities investments. The term usually encompasses direct and indirect investment in real estate and commodities; hedge funds, private equity, and other investments requiring specialized due diligence.

7.3.2. 基础题

Q-119. A hedge fund holds its excess cash in 90-day commercial paper and negotiable certificates of deposit. The cash management policy of the hedge fund is *best* described as using:

- A. capital market instruments.
- B. money market instruments.
- C. intermediate-term debt instruments.

Solution: B.

The 90-day commercial paper and negotiable certificates of deposit are money market instruments.

Q-120. An investor primarily invests in stocks of publicly traded companies. The investor wants to increase the diversification of his portfolio. A friend has recommended investing in real estate properties. The purchase of real estate would best be characterized as a

transaction in the:

- A. derivative investment market.
- B. traditional investment market.
- C. alternative investment market.

Solution: C.

The purchase of real estate properties is a transaction in the alternative investment market.

Q-121. The Standard & Poor's Depository Receipts (SPDRs) is an investment that tracks the S&P 500 stock market index. Purchases and sales of SPDRs during an average trading day are best described as:

- A. primary market transactions in a pooled investment.
- B. secondary market transactions in a pooled investment.
- C. secondary market transactions in an actively managed investment.

Solution: B.

SPDRs trade in the secondary market and are a pooled investment vehicle.

7.4. Primary Market

7.4.1. 重要知识点

7.4.1.1. Primary capital markets

- Are the markets in which companies and governments raise capital (funds).

7.4.1.2. Public offering

- **Underwritten offering 包销**: The investment bank guarantees the sale of the issue at an offering price that it negotiates with the issuer;
- **Best efforts 代销**: the investment bank acts only as broker. If the offering is undersubscribed, the issuer will not sell as much as it hoped to sell.
- Investment banks have a conflict of interest with respect to the offering price in underwritten offerings. As agents for the issuers, they generally are supposed to select the offering price that will raise the most money. But as underwriters, they have strong incentives to choose a low price.

7.4.1.3. Other offering in primary market

- Private placement;
- Shelf registration;
- A dividend reinvestment plan;
- Rights offering.

7.4.2. 基础题

Q-122. A German publicly traded company, to raise new capital, gave its existing shareholders the opportunity to subscribe for new shares. The existing shareholders could purchase two new shares at a subscription price of €4.58 per share for every 15 shares held. This is an example of a(n):

- A. rights offering.
- B. private placement.
- C. initial public offering.

Solution: A.

This is an example of right offering. Right offering refers to the right for exist shareholders of purchasing new shares at a specific price. The purchasing volume is depend on the number of holding shares.

7.5. Secondary Market

7.5.1. 重要知识点

7.5.1.1. Function of the secondary market

- Corporations and governments can raise money in the primary markets at lower cost when their securities will trade in liquid secondary markets.
- Trading in the secondary market helps identify the proper price for the offering.

7.5.1.2. Call markets & continuous markets (重点)

- **In a call market**, trades can be arranged only when the market is called at a particular time and place. Buyers can easily find sellers and vice versa in call markets because all traders interested in trading (or orders representing their interests) are present at the same time and place.
- **In a continuous trading market**, trades can be arranged and executed anytime the market is open.

Call Markets	Continuous Markets
At specific times	At any time when market is open
All bids and asks are gathered and then a negotiated price is produced to make the demand quantity as close as possible to the supply quantity.	The price is determined either by an auction process or through a dealer bid-ask process.

7.5.1.3. Quote-drive Market, order driven market and brokered market

- **Quote-driven market:** A market in which dealers acting as principals facilitate

trading;

- **Order-driven markets:** A market (generally an auction market) that uses rules to arrange trades based on the orders that traders submit; in their pure form, such markets do not make use of dealers;
- **Brokered markets:** A market in which brokers arrange trades among their clients.

7.5.2. 基础题

Q-123. A market participant buys all outstanding shares of a company and sells these shares to individual investors with higher prices. The market is *mostly like* a(n):

- A. quote-driven market.
- B. order-driven market.
- C. brokered market.

Solution: A.

In quote-driven markets (sometimes called price-driven or dealer markets), customers trade with dealers.

Order-driven markets arrange trades using rules to match buy orders to sell orders.

In brokered markets, brokers arrange trades between their customers. Brokered markets are common for transactions of unique instruments, such as real estate properties, intellectual properties, or large blocks of securities.

Q-124. A security market in which all the bids and asks for a stock are gathered to arrive at a single price that satisfies most of the orders is best described as a:

- A. call market.
- B. dealer market.
- C. primary market.

Solution: A.

In call Markets, different from the continuous markets, the stock is only traded at specific times, all trades bids, and asks are declared and then one negotiated price is set that clears the market for the stock.

Dealer market is often defined as Quote-Driven Markets or OTC markets, trader transact with dealers who post bid and ask prices.

Primary markets refer to the sale of newly issued securities.

Q-125. Which of the following market is most suitable for a trader who intends to purchase

real estate properties or art masterpieces?

- A. order-driven market.
- B. brokered market.
- C. quote-driven market.

Solution: B.

Brokered markets are common for transactions of unique instruments, such as real estate properties, intellectual properties, or large blocks of securities.

Q-126. If the trading assets is unique and the traders can hardly find the counterparty in a market. The market is *mostly likely* a(n):

- A. brokered market.
- B. order-driven market.
- C. quote-driven market.

Solution: A.

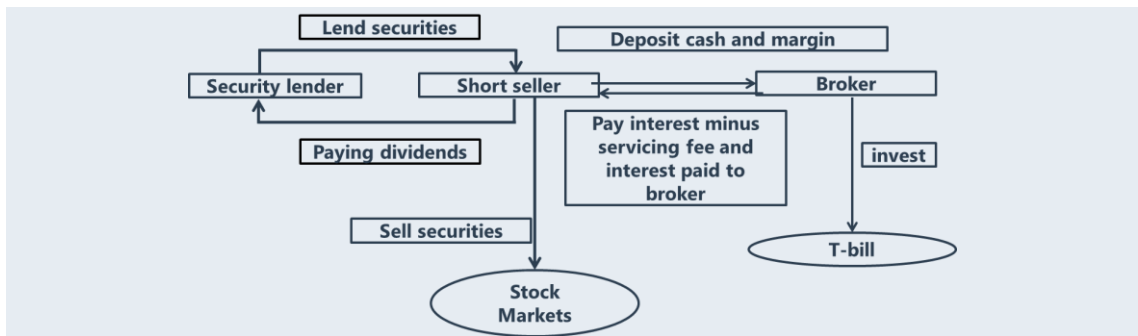
A market in which traders can hardly find the counterparty, they need brokers to provide liquidity.

7.6. Long & Short Position in Transaction

7.6.1. 重要知识点

7.6.1.1. Short sale 的作用，掌握过程

- Short sellers borrow securities from security lenders who are long holders. The short sellers then sell the borrowed securities to other traders;
- Short sellers close their positions by repurchasing the securities and returning them to the security lenders;
- Lenders require that the short seller leave the proceeds of the short sale on deposit with them as collateral for the stock loan;
- The short sellers will pay the long sellers all dividends or interest that they otherwise would have received had they not lent their securities.



7.6.2. 基础题

Q-127. Which of the following is the least accurate statement about the short sale of stocks?

- A. The short seller must pay all dividends or interest to the lender of shares.
- B. Short sales involve time limits for returning the shares borrowed to the lender.
- C. A short sale can be made only on an uptick or a zero uptick trade if the previous trade was an uptick trade.

Solution: B.

Short sales have no time limits. However, if the lender of shares decides to sell them, the broker must find another investor willing to lend the shares.

7.7. Leverage Position in Transaction

7.7.1. 重要知识点

7.7.1.1. Margin transaction 掌握概念及计算

- **概念:** Margin transactions involve buying securities with borrowed money.
- **计算** Trigger price margin of long position $= P_0 \left(\frac{1-IM}{1-MM} \right)$
 - IM=initial margin
 - MM=maintenance margin

7.7.1.2. Leverage ratio

- Leverage Ratio=Asset/Equity=1/Margin

7.7.2. 基础题

Q-128. An investor purchased 5,000 stocks at 57 dollars on margin. The initial margin he deposited to his broker is 40%. The broker will make a margin call when the margin account is less than 25%. The price that will cause a margin call is *closest* to:

- A. 30.0.
- B. 45.6.
- C. 23.0.

Solution: B.

$$\text{Trigger price} = P_0 \left(\frac{1 - \text{initial margin}}{1 - \text{maintenance margin}} \right) = 57 \left(\frac{1 - 40\%}{1 - 25\%} \right) = 45.6$$

Q-129. An online brokerage firm has set the minimum margin requirement at 55 percent. What is the maximum leverage ratio associated with a position financed by this minimum margin requirement?

- A. 1.55.
- B. 1.82.
- C. 2.22.

Solution: B.

The maximum leverage ratio is $1.82 = 1 / 55\%$. The maximum leverage ratio associated with a position financed by the minimum margin requirement is one divided by the minimum margin requirement.

Q-130. A trader has purchased 200 shares of a non-dividend-paying firm on margin at a price of \$50 per share. The leverage ratio is 2.5. Six months later, the trader sells these shares at \$60 per share. Ignoring the interest paid on the borrowed amount and the transaction costs, what was the return to the trader during the six-month period?

- A. 20%.
- B. 33.33%.
- C. 50%.

Solution: C.

The return is 50 percent. If the position had been unleveraged, the return would be $20\% = (\$60 - \$50) / \$50$. Because of leverage, the return is $50\% = 2.5 \times 20\%$.

From another way to think about it: The minimum margin requirement is $40\% = 1/2.5$, so he contribute $\$4000 = 40\% \times (200 \text{ shares} \times \$50)$ to the margin. Six month later, the amount in the margin is $\$6000 = \$4000 + (\$60 - \$50) \times 200 \text{ shares}$. Hence, the return is $50\% = (\$6000 - \$4000) / \$4000$

7.8. Execution Instructions

7.8.1. 重要知识点

7.8.1.1. Execution instructions 的分类

- **Market orders** are the orders to buy or sell a security at the best current price, is

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the most frequent type of order.

- **Limit orders** specify the buy or sell order. Limit orders waiting to execute are called standing limit orders.
 - **Make a new market:** if the buy order is placed above the best bid but below the best offer, traders say the order makes a new market because it becomes the new best bid.
 - **Make the market:** a buy order placed at the best bid.
 - **Take the market:** those who trade with them at posted prices are said to.
 - **Behind the market:** prices specified in orders that are worse than the best current price.
 - **Far from the market:** same as behind the market but the price is much further from the best bid/ask price.
- **All-or-nothing orders execute only if the whole order can be filled.**
- **Hidden orders** are exposed only to the brokers or exchanges that receive them. These agencies cannot disclose hidden orders to other traders until they can fill them.
- **Iceberg orders:** any additional size is hidden from the public but can be filled if a suitably large order arrives.

7.8.2. 基础题

Q-131. A market has the following limit orders standing on its book for a particular stock. The bid and ask sizes are number of shares in hundreds.

Bid Size	Limit Price (€)	Offer Size
5	9.73	
12	9.81	
4	9.84	
6	9.95	
	10.02	5
	10.10	12
	10.14	8

What is the market?

- A. 9.73 bid, offered at 10.14.
- B. 9.81 bid, offered at 10.10.
- C. 9.95 bid, offered at 10.02.

Solution: C.

Simply find the information in the panel, namely the highest bid price and the lowest offer price.

Q-132. Consider an order-driven system that allows hidden orders. The following four sell orders on a particular stock are currently in the system's limit order book. Based on the commonly used order precedence hierarchy, which of these orders will have precedence over others?

Order	Time of Arrival (HH:MM:SS)	Limit Price (€)	Special Instruction (If Any)
I	9:52:01	20.33	
II	9:52:08	20.29	Hidden order
III	9:53:04	20.29	
IV	9:53:49	20.29	

- A. Order I (time of arrival of 9:52:01).
- B. Order II (time of arrival of 9:52:08).
- C. Order III (time of arrival of 9:53:04).

Solution: C.

Order III (time of arrival of 9:53:04) has precedence. In the order precedence hierarchy, the first rule is price priority. Based on this rule, sell orders II, III, and IV get precedence over order I. The next rule is display precedence at a given price. Because order II is a hidden order, orders III and IV get precedence. Finally, order III gets precedence over order IV based on time priority at same price and same display status.

Q-133. Consider the following limit order book for a stock. The bid and ask sizes are number of shares in hundreds.

Bid Size	Limit Price (¥)	Offer Size
3	122.80	
8	123.00	
4	123.35	
	123.80	7
	124.10	6
	124.50	7

A new buy limit order is placed for 300 shares at ¥123.40. This limit order is said to:

- A. take the market.
- B. make the market.

C. make a new market.

Solution: C.

This order is said to make a new market. The new buy order is at ¥123.40, which is better than the current best bid of ¥123.35. Therefore, the buy order is making a new market. Had the new order been at ¥123.35, it would be said to make the market. Because the new buy limit order is at a price less than the best offer of ¥123.80, it will not immediately execute and is not taking the market.

7.9. Validity Instructions

7.9.1. 重要知识点

7.9.1.1. Validity instructions 的分类

- **Day orders:** orders are good for the day on which it is submitted. If it has not been filled by the close of business, the order expires unfilled.
- **Good-till-cancelled orders (GTC):** orders will continue to work until the order fills or is canceled.
- **Immediate or cancel orders:** orders are cancelled unless they can be filled immediately. They are also known as fill or kill orders.
- **Good-on-close orders:** orders can only be filled at the close of trading.
- **Good-on-open orders:** orders are only filled at the open of the trading day.
- **Stop orders** are orders in which traders have specified a stop price condition. The stop order may not be filled until the stop price condition has been satisfied.
 - **Stop-sell order:** the stop price condition suspends execution of the order until a trade occurs at or below the stop price. After that trade, the stop condition is satisfied and the order becomes valid for execution, subject to all other execution instructions attached to it;
 - **Stop-buy:** a buy order with a stop condition becomes valid only after a price rises above the specified stop price.

7.9.2. 基础题

Q-134. You have placed a sell market-on-open order—a market order that would automatically be submitted at the market's open tomorrow and would fill at the market price. Your instruction, to sell the shares at the market open, is a(n):

- A. execution instruction.
- B. validity instruction.
- C. clearing instruction.

Solution: B.

Execution instructions specify how to trade;

Validity instructions specify when the order can be filled;

Clearing instructions specify how to settle the trade.

Q-135. Which of the following orders are validity instructions?

- A. Kill or fill orders.
- B. Iceberg orders.
- C. All or nothing orders.

Solution: A.

Kill or fill orders also known as immediate or cancel orders are good only upon receipt by the broker or exchange. If they cannot be filled in part or in whole, they cancel immediately. They are one of the validity instructions.

Q-136. Jim White has sold short 100 shares of Super Stores at a price of \$42 per share. He has also simultaneously placed a "good-till-cancelled, stop 50, limit 55 buy" order. Assume that if the stop condition specified by White is satisfied and the order becomes valid, it will get executed. Excluding transaction costs, what is the maximum possible loss that the order can realize?

- A. \$800.
- B. \$1,300.
- C. Unlimited.

Solution: B.

If the stock price crosses \$50, the stop buy order will be triggered and will get executed at a maximum limit price of \$55. The maximum loss per share is $\$13 = \$55 - \$42$, or \$1,300 for 100 shares. If the price jumped above \$55, the order cannot be filled and the loss cannot be realized.

Q-137. You own shares of a company that are currently trading at \$30 a share. Your technical analysis of the shares indicates a support level of \$27.50. That is, if the price of the shares is going down, it is more likely to stay above this level rather than fall below it. If the price does fall below this level, however, you believe that the price may continue to decline. You have no immediate intent to sell the shares but are concerned about the possibility of a huge loss if the share price declines below the support level. Which of the following types of orders could you place to most appropriately address your

concern?

- A. Short sell order.
- B. Good-till-cancelled stop sell order.
- C. Good-till-cancelled stop buy order.

Solution: B.

The most appropriate order is a good-till-cancelled stop sell order. This order will be acted on if the stock price declines below a specified price (in this case, \$27.50). This order is sometimes referred to as a good-till-cancelled stop loss sell order. You are generally bullish about the stock, as indicated by no immediate intent to sell, and would expect a loss on short selling the stock. A stop buy order is placed to buy a stock when the stock is going up.

Q-138. A stock now available in the market is quoted \$14, a trader place a stop-buy at 15, limit at \$20 order. Which interval the stock price will be if the order is *most likely* get satisfied?

- A. Below 15.
- B. Between 15 to 20.
- C. Above 20.

Solution: B.

A stop-buy order becomes valid only after a price rises above the specified stop price, and both conditions are get satisfied at the interval of \$15 to \$20.

Q-139. A portfolio manager will most likely use a stop-buy order when she:

- A. believes that a security is overvalued.
- B. intends to place a limit on the loss of a long position.
- C. intends to place a limit on the loss of a short position.

Solution: C.

A trader similarly might use a stop-buy order or a call option to limit losses on a short position.

A portfolio manager might use a stop-buy order when the manager believes that a security is undervalued but is unwilling to trade without market confirmation.

Q-140. A trader who has bought a stock at \$30 is concerned about a downside movement in the stock and would like to place an order that guarantees selling it at \$25. Which of the following will *most likely* help the trader achieve her objective?

- A. "GTC, stop 25, market sell" order.
- B. "GTC, stop 25, limit 25 sell" order.
- C. "put option buy" market order with a strike price of 25.

Solution: C.

Option contracts can be viewed as limit orders for which execution is guaranteed at the strike price. Therefore, a "put buy" order at a strike price of 25 will guarantee selling the stock at 25.

Q-141. Zhen Hu Li has submitted an immediate-or-cancel buy order for 500 shares of a company at a limit price of CNY 74.25. There are two sell limit orders standing in that stock's order book at that time. One is for 300 shares at a limit price of CNY 74.30 and the other is for 400 shares at a limit price of CNY 74.35. How many shares in Li's order would get cancelled?

- A. None (the order would remain open but unfilled).
- B. 200 (300 shares would get filled).
- C. 500 (there would be no fill).

Solution: C.

The order for 500 shares would get cancelled; there would be no fill. Li is willing to buy at CNY 74.25 or less but the minimum offer price in the book is CNY 74.30; therefore, no part of the order would be filled. Because Li's order is immediate-or-cancel, it would be cancelled.

7.10. Security Market Index

7.10.1. 重要知识点

7.10.1.1. The functions of the market index

- Reflection of market sentiment;
- Benchmark of manager performance;
- Measure of market return and risk;
- Measure of beta and risk-adjusted return;
- Model portfolio for index funds.

7.10.1.2. Characteristics of equity indexes 注意掌握不同组合的构成。

- Broad market index: 涵盖市场总市值的 90%以上;
- Multi-market index: 由多个国家的指数构成;
- Multi-market index with fundamental weighting: 由多个国家的指数构成,同时考虑了基本面因素(比如 GDP);
- Sector Index: 用于衡量行业的回报;

- Style index: 用于衡量市场资本成长型战略、价值型战略的回报。

7.10.1.3. Rebalancing and reconstitution

- **Rebalancing** refers to adjusting the weights of the constituent securities in the index.
- **Reconstitution** is the process of changing the constituent securities in an index.

7.10.2. 基础题

Q-142. Which of the following statement is most likely correct?

- A. Equal weighted indices require the most frequent rebalancing among the three indices.
- B. The rebalancing frequency of a price-weighted index is more than that of a market capitalization weighted index.
- C. Resconstitution instead of rebalancing will lead to turnover within an index.

Solution: A.

After an equal weighted index is constructed and the prices of constituent securities change, the index is no longer equally weighted. Therefore, maintaining equal weights requires frequent adjustments (rebalancing) to the index.

Q-143. Which kind of stock index will be *most likely* affected by a large-cap stock?

- A. Nikkei 225 Dow Jones index.
- B. CAC 40 index.
- C. Value Line Index.

Solution: B.

Nikkei 225 Dow Jones index is price-weighted index.

Value Line Index is geometric-weighted index.

CAC 40 index is market-value weighted index. Only market-value weighted index is affected by large-cap stocks.

Q-144. Reconstitution of a security market index reduces:

- A. portfolio turnover.
- B. the need for rebalancing.
- C. the likelihood that the index includes securities that are not representative of the target market.

Solution: C.

Reconstitution is the process by which index providers review the constituent securities, re-apply the initial criteria for inclusion in the index, and select which securities to retain, remove, or add. Constituent securities that no longer meet the criteria are replaced with securities that do. Thus, reconstitution reduces the likelihood that the index includes securities that are not representative of the target market.

Q-145. Which of the following is an example of a style index? An index based on:

- A. geography.
- B. economic sector.
- C. market capitalization.

Solution: C.

Style indices represent groups of securities classified according to market capitalization, value, growth, or a combination of these characteristics.

7.11. Different Weighting Method in Securities' Index

7.11.1. 重要知识点

7.11.1.1. 计算:

➤ Price-weighted index

$$\text{Price-weighted index} = \frac{\text{sum of stock prices}}{\text{number of stocks in index adjusted for splits}}$$

- Assumption: purchasing an equal number of shares of each stock in the index.

➤ Value-weighted index

$$\text{Value-Weighted Index} = \frac{\text{current total market value of the stocks}}{\text{base year total market value of the stocks}} \times \text{base year index value}$$

- Assumption: making proportionate market value investments in each stock.

➤ Equal-weighted index

- Places an equal weight on the returns of all index stock, regardless of their price or market value.
- Assumption: Investing the same dollar in each stock in the index.
- Arithmetic mean: HPR_i is the return on each stock:

$$\blacklozenge \text{ Change in average index value} = \frac{\sum HPR_i}{n}$$

- Geometric mean: $X_i = 1 + HPR_i$:

$$\blacklozenge \text{ change in average index value} = \sqrt[n]{x_1 x_2 \times \times \times x_n} - 1$$

➤ Fundamental weighting indices generally will have a contrarian style and value-tilt.

7.11.1.2. 难点：股票分割时，价格权重指数不会变化，所以要调整因子。

7.11.1.3. Bias:各个 index 应用时的 bias.

- **Price-weighted bias** places a downward bias on the index because large successful firms tend to split their stocks more often than low growth stocks and will weight within the index simply by splitting their stock. (Dow Jones Industrial Average)受高价格股票价格变动影响大。
- **Value-weighted bias** is that firms with greater market capitalization have a greater impact on the index than do firms with lower market capitalization.受高市值股票价格变动影响大。
- **Unweighted bias** places a downward bias in the index by the use of the geometric mean rather than the arithmetic mean.

7.11.2. 基础题

Q-146. Compared to its market-value-weighted counterpart, a fundamentally weighted index will *least likely* have a:

- A. value tilt.
- B. contrarian “effect.”
- C. momentum “effect.”

Solution: C.

Momentum “effect” is a characteristic of a market-value-weighted index, not a fundamentally weighted index.

Q-147. An analyst gathers the following information for an equal-weighted index comprised of assets Able, Baker, and Charlie:

Stock	Beginning period price	End of period price	Total dividends
A	10	12	0.75
B	20	19	1.00
C	30	30	2.00

The total return of the index is:

- A. 5%
- B. 7.9%
- C. 11.4%

Solution: C.

The total return of an index is calculated on the basis of the change in price of the underlying securities plus the sum of income received or the sum of the weighted total returns of each security. The total return of Able is 27.5 percent; of Baker is 0 percent; and of Charlie is 6.7 percent.

Able: $(12 - 10 + 0.75)/10 = 27.5\%$

Baker: $(19 - 20 + 1)/20 = 0\%$

Charlie: $(30 - 30 + 2)/30 = 6.7\%$

An equal-weighted index applies the same weight (1/3) to each security's return; therefore, the total return = $1/3 \times (27.5\% + 0\% + 6.7\%) = 11.4\%$.

Q-148. An analyst gathers the following information for a price-weighted index comprised of securities ABC, DEF, and GHI:

Security	Beginning of Period Price (€)	End of Period Price (€)	Total Dividends (€)
ABC	25.00	27.00	1.00
DEF	35.00	25.00	1.50
GHI	15.00	16.00	1.00

The price return of the index is:

- A. -4.6%.
- B. -9.3%.
- C. -13.9%.

Solution: B.

The price return of the price-weighted index is the percentage change in price of the index: $(68 - 75)/75 = -9.3\%$.

Security	Beginning of Period Price (f)	End of Period Price (f)
ABC	25.00	27.00
DEF	35.00	25.00
GHI	<u>15.00</u>	<u>16.00</u>
TOTAL	75.00	68.00

Q-149. The values of a price return index and a total return index consisting of identical equal-weighted dividend-paying equities will be *most likely* equal:

- A. only at inception.
- B. at inception and on rebalancing dates.
- C. at inception and on reconstitution dates.

Solution: A.

At inception, the values of the price return and total return versions of an index are equal.

Q-150. An analyst gathers the following information for a market-capitalization-weighted index comprised of securities MNO, QRS, and XYZ.

Security	Beginning of Period Price (¥)	End of Period Price (¥)	Dividends Per Share (¥)	Shares Outstanding
MNO	2,500	2,700	100	5,000
QRS	3,500	2,500	150	7,500
XYZ	1,500	1,600	100	10,000

The total return of the index is *closest to*:

- A. 1.04 %.
- B. -5.35 %.
- C. -10.23 %.

Solution: B.

The total return of the market-capitalization-weighted index is calculated below:

Security	Beginning of Period Value (V)	End of Period Value (V)	Dividend Value (V)
MNO	12,500,000	13,500,000	500,000
QRS	26,250,000	18,750,000	1,125,000
XYZ	15,000,000	16,000,000	1,000,000
Total	53,750,000	48,250,000	2,625,000

So return= (End Value + Dividend – Begin Value)/ Begin Value= -5.35%

Q-151. If the price return of an equal-weighted index exceeds that of a market-capitalization-weighted index comprised of the same securities, the *most likely* explanation is:

- A. stock splits.
- B. dividend distributions.
- C. outperformance of small-market-capitalization stocks.

Solution: C.

The main source of return differences arises from outperformance of small-cap securities or underperformance of large-cap securities. In an equal-weighted index, securities that constitute the largest fraction of the market are underrepresented and securities that constitute only a

small fraction of the market are overrepresented. Thus, higher equal-weighted index returns will occur if the smaller-cap equities outperform the larger-cap equities.

Q-152. Which of the following index weighting methods requires an adjustment to the divisor after a stock split?

- A. Price weighting.
- B. Fundamental weighting.
- C. Market-capitalization weighting.

Solution: A.

In the price weighting method, the divisor must be adjusted so the index value immediately after the split is the same as the index value immediately prior to the split.

Q-153. If an index places increasing weights to the stocks with lower relative value and decreasing weights to the stocks with higher relative value, the index is most likely a(n):

- A. equal weighting index.
- B. float-adjusted market-capitalization weighting index.
- C. fundamental weighting index.

Solution: C.

Fundamental weighting indices generally will have a contrarian "effect" in that the portfolio weights will shift away from securities that have increased in relative value and toward securities that have fallen in relative value whenever the portfolio is rebalanced.

Q-154. Which of the following index weighting methods is *most likely* subject to a value tilt?

- A. Equal weighting.
- B. Fundamental weighting.
- C. Market-capitalization weighting.

Solution: B.

Fundamental weighting leads to indices that have a value tilt.

Q-155. One month after inception, the price return version and total return version of a single index (consisting of identical securities and weights) will be equal if:

- A. market prices have not changed.
- B. capital gains are offset by capital losses.

C. the securities do not pay dividends or interest.

Solution: C.

The difference between a price return index and a total return index consisting of identical securities and weights is the income generated over time by the underlying securities. If the securities in the index do not generate income, both indices will be identical in value.

Q-156. Hari Raju, CEO of Securities Tracking Associates (STA), is thinking of devising a new index for the Indian stock market. He does not, however, like an index that requires adjustment for stock splits. Given this preference, Raju would be *least likely* to develop which of the following types of Indexes?

- A. Un-weighted Index.
- B. Price-weighted Index.
- C. Value-weighted Index.

Solution: B.

A price-weighted index, such as the Dow Jones Industrial Average, is computed by summing up the prices of individual stocks and dividing by a divisor that is adjusted for stock splits such that the index value is the same before and after the split.

Q-157. An ETF analyst collected data of an index comprising three stocks as follows:

	December 31 2009		January 1 2009	
	Price	Stocks	Price	Stocks
Hymalaya	65	600,000	30	1,000,000
Blanc	42	3,000,000	50	3,000,000
Kirimazaro	40	5,000,000	96	2,500,000

The base of the index on January 1st, 2009 is 137; the market value weighted index is *closest* to:

- A. 157.
- B. 87.
- C. 119.

Solution: C.

The base market capitalization is

$$30 \times 1,000,000 + 50 \times 3,000,000 + 96 \times 2,500,000 = 420,000,000$$

$$\text{Index} = \frac{65 \times 600,000 + 42 \times 3,000,000 + 40 \times 5,000,000}{30 \times 3,000,000 + 50 \times 3,000,000 + 96 \times 2,500,000} \times 137 = 86.9\% \times 137 \approx 119$$

7.12. Other Market Index

7.12.1. 重要知识点

7.12.1.1. Several issues with the construction of fixed income indexes

- The number of fixed-income securities is many times larger than the number of equity securities. (Large universe);
- Fixed-income markets are predominantly dealer markets and are relatively illiquid;
- High turnover.

7.12.1.2. Alternative investment indexes

- **Commodity indexes:** commodity indices consist of futures contracts on one or more commodities, such as agricultural products, livestock, precious and common metals, and energy commodities.
- **Weighting method:** the returns of these indices may differ because each index may use a different weighting method. The different weighting methods can also lead to large difference in exposure to specific commodities.
- **Real estate indexes:** Real estate indices can be categorized as appraisal indices, repeat sales indices, and real estate investment trust (REIT) indices.
- **Hedge fund indexes:** Most of these indices are equal weighted and represent the performance of the hedge funds within a particular database. Performance survivorship bias suffered overlap and survivorship bias.

7.12.2. 基础题

Q-158. Which of the following statements regarding fixed-income indices is most accurate?

- A. Liquidity issues make it difficult for investors to easily replicate fixed-income indices.
- B. Rebalancing and reconstitution are the only sources of turnover in fixed-income indices.
- C. Fixed-income indices representing the same target market hold similar numbers of bonds.

Solution: A.

The large number of fixed-income securities combined with the lack of liquidity of some securities makes it costly and difficult for investors to replicate fixed-income indices.

Q-159. Fixed-income indices are *least likely* constructed on the basis of:

- A. maturity.
- B. type of issuer.
- C. coupon frequency.

Solution: C.

Fixed income indexes can be classified by issuer, collateral, coupon, maturity and credit risk and inflation protection. But coupon frequency is not a dimension on which fixed-income indices are based.

Q-160. Which of the following is not a real estate index category?

- A. Appraisal index.
- B. Initial sales index.
- C. Repeat sales index.

Solution: B.

Real estate indexes can be constructed using returns based on appraisals of properties, repeat property sales, or the performance of Real Estate Investment Trusts (REITs). Initial sales index is not a real estate index category.

Q-161. A unique feature of hedge fund indices is that they:

- A. are frequently equal weighted.
- B. are determined by the constituents of the index.
- C. reflect the value of private rather than public investments.

Solution: B.

Hedge funds are not required to report their performance to any party other than their investors. Therefore, each hedge fund decides to which database(s) it will report its performance. Thus, for a hedge fund index, constituents determine the index rather than index providers determining the constituents.

Q-162. Because of the features of the prices constructed a commodity index, the index will *least likely* reflect:

- A. Roll yield.
- B. Risk-free interest rate.
- C. Changes in the spot prices of the underlying commodities.

Solution: C.

Commodity index returns reflect the risk-free interest rate, the changes in future prices, and the roll yield. Therefore, a commodity index return can be quite different from the return based on

changes in the prices of the underlying commodities.

Q-163. Which of the following most accurately describes the basis for construction of nearly all bond market indices?

- A. Dealer prices.
- B. Market prices.
- C. Model prices.

Solution: A.

Firms (dealers) are assigned to specific securities and are responsible for creating liquid markets for those securities by purchasing and selling them from their inventory. In addition, many securities do not trade frequently and, as a result, are relatively illiquid. As a result, index providers must contact dealers to obtain current prices on constituent securities to update the index, or they must estimate the prices of constituent securities using the prices of traded fixed-income securities with similar characteristics.

7.13. Efficient Market Hypothesis

7.13.1. 重要知识点

7.13.1.1. EMH 掌握概念

- **Efficient market:** security price adjust rapidly to infusion of new information, and therefore current security prices fully reflect all available information.

7.13.1.2. Factors affect the degree of market efficiency

- **The number participants** such as investors, financial analysts who follow or analyze a security or asset should be positively related to market efficiency.
- **Information availability** (e.g., an active financial news media) and financial disclosure should promote market efficiency.
- Market efficiency is impeded by any **limitation on arbitrage resulting** from operating inefficiencies, such as difficulties in executing trades in a timely manner, prohibitively high trading costs.
- **Higher costs of information**, analysis, and trading, more inefficient of the market.

7.13.1.3. 区分 strong-form EMH & semi-strong form EMH & weak-form EMH 定义

- **Strong form EMH** states that stock prices fully reflect all information from public and private sources;
- **Semi-strong form EMH** states that stock prices reflect all publicly known and available information;
 - If markets are semi-strong-form efficient, then passive portfolio management

strategies are most likely to outperform active trading strategies.

- **Weak form EMH** states that stock prices fully reflect all past market data.

7.13.1.4. 如果 EMH 成立哪种分析无效

- Weak form: 技术分析无效;
- Semi-strong form: 基本面分析无效;
- Strong form: 全部无效, 不可能打败市场。

7.13.1.5. 检验 (包含 6 anomalies)

- **Tests for weak-form EMH (success)**
 - Statistical tests of independence
 - ◆ Auto correlation tests;
 - ◆ Runs tests.
 - Tests of trading rules
- **Tests for semi-strong form EMH**
 - Event studies(success).
- **Tests for strong-form EMH**
 - Corporate insider trading (1970s 以前 fail, 1980s 以后成功);
 - Stock exchange specialists(fail);
 - Security analysts (success).

7.13.2. 基础题

Q-164. Which of the following inferences concerning market efficiency most accurate?

- A. Fully exploitable over and under-reactions often occur in efficient markets.
- B. Market pricing anomalies and behavioral biases are contrary to the existence of market efficiency.
- C. If a market is semi-strong form efficient neither technicians nor fundamental analysts can expect to consistently earn abnormal returns.

Solution: C.

If securities markets are semi-strong form efficient, active trading to exploit price patterns or public information is not likely to generate abnormal returns. Thus, both technical and fundamental analyses become futile exercises.

Q-165. If the investor is a fundamental analyst, which of the following market is consistent with the abnormal return investor can achieve?

- A. Weak.
- B. Semi-strong.

C. Strong.

Solution: A.

The weak form of the efficient markets hypothesis states that current security prices fully reflect all currently available security market data. Fundamental analysis is based on public information such as earnings, dividends, and various accounting ratios and estimates, so an investor cannot achieve abnormal return under semi-strong market efficiency.

Q-166. Arbitrage activity will *most likely* be higher in securities markets:

- A. that are efficient.
- B. with no restrictions on short selling.
- C. with high information-acquisition costs.

Solution: B.

Short selling helps in price discovery. Arbitrageurs benefit from pricing discrepancies (inefficiencies); therefore, arbitrage activity will be higher in markets with no restrictions on short selling.

Q-167. In which efficient market hypothesis, the technical analysis can have abnormal return?

- A. Weak form inefficiency.
- B. Weak form.
- C. Semi-strong form.

Solution: A.

In a weak form market, technical analysis cannot have an abnormal return, and if the technical analysis does have an abnormal return, that is to say, the market is weak form inefficiency.

Q-168. If markets are semi-strong-form efficient, then passive portfolio management strategies are *most likely* to:

- A. earn abnormal returns.
- B. outperform active trading strategies.
- C. underperform active trading strategies.

Solution: B.

Costs associated with active trading strategies would be difficult to recover; thus, such active trading strategies would have difficulty outperforming passive strategies on a consistent

after-cost basis due to its higher fees.

Q-169. With respect to efficient markets, a company whose share price reacts gradually to the public release of its annual report *most likely* indicates that the market where the company trades is:

- A. semi-strong-form efficient.
- B. subject to behavioral biases.
- C. receiving additional information about the company.

Solution: C.

If markets are efficient, the information from the annual reports is reflected in the stock prices; therefore, the gradual changes must be from the release of additional new information.

Q-170. Researchers have found that value stocks have consistently outperformed growth stocks. An investor wishing to exploit the value effect should purchase the stock of companies with above-average:

- A. dividend yields.
- B. market-to-book ratios.
- C. price-to-earnings ratios.

Solution: A.

Higher than average dividend yield is a characteristic of a value stock, along with low price-to-earnings and low market-to-book ratios. Growth stocks are characterized by low dividend yields and high price-to-earnings and high market-to-book ratios.

Q-171. The intrinsic value of an undervalued asset is:

- A. less than the asset's market value.
- B. greater than the asset's market value.
- C. the value at which the asset can currently be bought or sold.

Solution: B.

The intrinsic value of an undervalued asset is greater than the market value of the asset, where the market value is the transaction price at which an asset can be currently bought or sold.

Q-172. The market value of an undervalued asset is:

- A. greater than the asset's intrinsic value.
- B. the value at which the asset can currently be bought or sold.

C. equal to the present value of all the asset's expected cash flows.

Solution: B.

The market value is the transaction price at which an asset can be currently bought or sold.

7.14. Market Anomalies

7.14.1. 重要知识点

7.14.1.1. Anomalies in time-series data

- **Calendar anomalies:** January effect shows that returns in January are significantly higher than the rest of the months in that year (reasons: window dressing, tax loss selling). Others includes the day-of-the-week effect, the weekend effect, turn-of-the-month effect and holiday effect.
- **Overreaction and momentum anomalies** indicate investors overreact to the release of unexpected public information. Therefore, stock prices will be inflated (depressed) for those companies releasing good (bad) information.
- **Momentum effects** refer to when securities that have experienced high returns in the short term tend to continue to generate higher returns in subsequent periods.

7.14.1.2. Anomalies in cross-sectional data

- **The size effect:** results from the observation that equities of small-cap companies tend to outperform equities of large-cap companies on a risk-adjusted basis;
- **The value effect:** A number of global empirical studies have shown that value stocks, which are generally referred to as stocks that have below-average price-to-earnings (P/E) and market-to-book (M/B) ratios, and above-average dividend yields, have consistently outperformed growth stocks over long periods of time.

7.14.1.3. Other anomalies

- **Closed-end investment funds:** Theoretically, these shares should trade at a price approximately equal to their net asset value (NAV) per share. An abundance of research, however, has documented that, on average, closed-end funds trade at a discount from NAV. explanation for the discount is that tax liabilities are associated with unrealized capital gains/losses and liquidity;
- **Earnings Surprise:** The unexpected part of the earnings announcement, or earnings surprise, is the portion of earnings that is unanticipated by investors and, according to the efficient market hypothesis, merits a price adjustment. Positive (negative) surprises should cause appropriate and rapid price increases (decreases). Most of the results indicate that earnings surprises are reflected

quickly in stock prices, but the adjustment process is not always efficient;

- **Initial public offerings:** The percentage difference between the issue price and the closing price at the end of the first day of trading is often referred to as the degree of underpricing;
- **Economic fundamentals:** researchers have documented that equity returns are related to prior information on such factors as interest rates, inflation rates, stock volatility, and dividend yields.

7.14.1.4. Implications for investment strategies

- In fact, most researchers conclude that observed anomalies are not violations of market efficiency but, rather, are the result of statistical methodologies used to detect the anomalies. As a result, if the methodologies are corrected, most of these anomalies disappear.
- Another point to consider is that in an efficient market, overreactions may occur, but then so do under-reactions. Therefore, on average, the markets are efficient.
- Investors face challenges when they attempt to translate statistical anomalies into economic profits.

7.14.2. 基础题

Q-173. Which of the following market anomalies is inconsistent with weak-form market efficiency?

- A. Earnings surprise.
- B. Momentum pattern.
- C. Closed-end fund discount.

Solution: B.

Trading based on historical momentum indicates that price patterns exist and can be exploited by using historical price information. A momentum trading strategy that produces abnormal returns contradicts the weak form of the efficient market hypothesis, which states that investors cannot earn abnormal returns on the basis of past trends in prices.

Q-174. Which of the following is *least likely* to explain the January effect anomaly?

- A. Tax-loss selling.
- B. Release of new information in January.
- C. Window dressing of portfolio holdings.

Solution: B.

The excess returns in January are not attributed to any new information or news.

Tax-loss selling——investors sell losing positions in December to realize losses for tax purposes and then repurchase stocks in January, pushing their prices up.

Window dressing—— portfolio managers sell risky stocks in December to remove them from their year-end statements and repurchases them in January.

7.15. Behavior Finance

7.15.1. 重要知识点

7.15.1.1. Behavioral finance

- **Traditional finance models**, including efficient markets, are based on an assumption that the market as a whole acts rationally, although some individual investors may not.
- **Loss aversion:** investors dislike losses more than they like gains of an equal amount. Dislike of losses may explain investor overreaction. However, investor underreaction is just as common as overreaction, and loss aversion does not explain underreaction.
- Investors sometimes **overestimate their ability to value securities.** If there is a prevalence of investor overconfidence, securities will be mispriced. However, it appears that this mispricing may be hard to predict. Overconfidence in their estimates also causes investors to hold portfolios that are not well diversified, increasing their portfolio risk but not overall market risk.
- Other behavioral biases that have been identified include
 - **Representativeness:** investors assume good companies or good markets are good investments.
 - **Gambler's fallacy:** recent results affect investor estimates of future probabilities.
 - **Mental accounting:** investors classify different investments into separate mental accounts instead of viewing them as a total portfolio.
 - **Conservatism:** investors react slowly to changes.
 - **Disposition effect:** investors are willing to realize gains but unwilling to realize losses.
 - **Narrow framing:** investors view events in isolation.
 - **Herding:** trading that occurs in clusters and is not necessarily driven by information.
 - **Information cascades:** is the transmission of information from those participants who act first and whose decisions influence the decisions of

others.

- One explanation for the evidence of the slow adjustment of security prices to new information is the concept of information cascades. This refers to the idea that uninformed traders, when faced with unclear information, watch the actions of informed traders to make their decisions. Recall the earnings surprise anomaly, in which prices were slow to adjust to earnings surprises. Information cascades can explain this occurrence.
- Behavior biases can affect all market participants, from the novice investor to the most experienced investment manager. An understanding of behavioral finance can help market participants recognize their own and others' behavioral biases.

7.15.2. 基础题

Q-175. Which of the following is not included in behavior finance?

- A. Risk aversion.
- B. Loss aversion.
- C. Overconfidence.

Solution: A.

Risk aversion belongs to traditional finance. Behavioral finance examines investor behavior, its effect on financial markets, how cognitive biases may result in anomalies, and whether investors are rational.

Q-176. Like traditional finance models, the behavioral theory of loss aversion assumes that investors dislike risk; however, the dislike of risk in behavioral theory is assumed to be:

- A. leptokurtic.
- B. symmetrical.
- C. asymmetrical.

Solution: C.

Behavioral theories of loss aversion allow for the possibility that the dislike for risk is not symmetrical, which allows for loss aversion to explain observed overreaction in markets such that investors dislike losses more than they like comparable gains.

Q-177. Observed overreactions in markets can be explained by an investor's degree of:

- A. risk aversion.
- B. loss aversion.

C. confidence in the market.

Solution: B.

Behavioral theories of loss aversion can explain observed overreaction in markets, such that investors dislike losses more than comparable gains (i.e., risk is not symmetrical).

7.16. Overview of Equity Investment

7.16.1. 重要知识点

7.16.1.1. Characteristics of various types of equity securities

- Common shares
 - Statutory voting system;
 - Cumulative voting.
- Puttable common shares: 股东有权按照预定价格卖回给公司。
- Callable common shares: 公司有权按照预定价格回购股票。
- Preference shares: fixed periodic payments do not have voting rights, no maturity.
- Cumulative preference: 当期未获得的优先股股利可以累积到下期。
- Convertible preference shares: 可以转为 common shares.

7.16.1.2. The returns on equity investments: price changes, dividend payments, and, in the case of equities denominated in a foreign currency, gains or losses from changes in exchange rates.

7.16.1.3. Risks of various types of equity securities

- Puttable stock < Preferred stock < Common stock < Callable stock
- Cumulative preferred stock < Non-cumulative preferred stock

7.16.1.4. Characteristics of private equity

- **Highly illiquid** because there is no active secondary market;
- Require **negotiations** between investors in order to be traded;
- **Financial statements and other important information** needed to determine the fair value of private equity securities may be **difficult to obtain**;
- Private equity **eliminates certain costs** that are necessary to operate a publicly traded company;
- Private equity firms score lower in terms of **corporate governance** effectiveness;
- Feels less pressured to focus on short-term results therefore **greater ability to focus on long-term objects**;
- Private equity provides investors with greater total return potential.

7.16.2. 基础题

Q-178. All of the following are characteristics of preference shares except:

- A. they are either callable or putable.
- B. they generally do not have voting rights.
- C. they do not share in the operating performance of the company.

Solution: A.

Preference shares do not have to be either callable or putable.

Q-179. Which of the following is *incorrect* about the risk of an equity security? The risk of an equity security is:

- A. based on the uncertainty of its cash flows.
- B. based on the uncertainty of its future price.
- C. measured using the standard deviation of its dividends.

Solution: C.

Some equity securities do not pay dividends, and therefore the standard deviation of dividends cannot be used to measure the risk of all equity securities.

Q-180. The type of equity voting right that grants one vote for each share of equity owned is referred to as:

- A. proxy voting.
- B. statutory voting.
- C. cumulative voting.

Solution: B.

Statutory voting: each share held is assigned one vote in the election of each member of the board of directors.

Cumulative voting: shareholders can allocate their votes to one or more candidates as they choose.

Proxy voting: having someone else vote as they direct them, on their behalf.

Q-181. Which of the following investment assets has the *least* investment risk?

- A. Putable common share.
- B. Putable preferred share.
- C. Convertible preferred share.

Solution: B.

Dividends on preference share are known and fixed, and they account for a large portion of the preference shares' total return. Therefore, it is less risky than common share. And puttable common or preference shares are less risky than the callable or non-callable counterparts because they give the investor the option to sell the shares to the issuer at a pre-determined price.

Q-182. A company's cost of equity is often used as a proxy for investors':

- A. average required rate of return.
- B. minimum required rate of return.
- C. maximum required rate of return.

Solution: B.

Companies try to raise funds at the lowest possible cost. Therefore, cost of equity is used as a proxy for the minimum required rate of return.

7.17. Non-Domestic Investment**7.17.1. 重要知识点****7.17.1.1. Methods for investing in non-domestic equity**

- **Direct investing:** buy and sell securities directly in foreign markets. This means that: all transactions are in the company's domestic currency; investors must be familiar with the trading, clearing, and settlement regulations and procedures of that market; and the market may be less liquid.
- **Depository receipts (DRs)** is a security that trades like an ordinary share on a local exchange and represents an economic interest in a foreign company. A depository receipt is created when the equity shares of a foreign company are deposited in a bank (i.e., the depository) in the country on whose exchange the shares will trade. The depository then issues receipts that represent the shares that were deposited. The number of receipts issued and the price of each DR is based on a ratio, which specifies the number of depository receipts to the underlying shares.
- A **global depository receipt (GDR)** is issued outside of the company's home country and outside of the United States.
- An **American depository receipt (ADR)** is a US dollar-denominated security that trades like a common share on US exchanges. They enable foreign companies to raise capital from US investors. Note that an ADR is one form of a GDR; however, not all GDRs are ADRs because GDRs cannot be publicly traded in the United

States. However, the issuing companies must fulfill all SEC requirements.

	Level I	Level II	Level III	Rule 144A
Stock Exchange	Over-the-counter (OTC) Markets	NYSE NASDAQ AMEX	NYSE NASDAQ AMEX	Private Equity
SEC Registration	Required	Required	Required	Not required
If Permit Fundraising in US	No	No	Yes	No
Listing cost	Low	Higher	Highest	low

7.17.2. 基础题

Q-183. Which of the following statements least accurately described the characteristics of investing in depository receipts (DRs)?

- A. DRs provide investors arbitrage opportunities and currency risk exposures.
- B. Un-sponsored DRs offer same rights as the direct owners of the common shares.
- C. Sponsored DRs are generally subject to greater reporting requirements than unsponsored DRs.

Solution: B.

Investors in sponsored DRs have the same rights as the direct owners of the common shares (e.g., the right to vote and the right to receive dividends).

Q-184. With respect to Level III sponsored ADRs, which of the following is *least likely* to be accurate? They:

- A. have low listing fees.
- B. are traded on the NYSE, NASDAQ, and AMEX.
- C. are used to raise equity capital in US markets.

Solution: A

American depository receipts (ADRs) are denominated in U.S. dollars and trade in the United States. Sponsored DR/ Un-sponsored DR : whether the firm is involved with the issue, the depository receipt is a sponsored or unsponsored DR. The listing fees on Level III sponsored ADRs are high.

Q-185. When investing in unsponsored depository receipts, the voting rights to the shares in the trust belong to:

- A. the depository bank.
- B. the investors in the depository receipts.
- C. the issuer of the shares held in the trust.

Solution: A.

In an unsponsored DR, the depository bank owns the voting rights to the shares. The bank purchases the shares, places them into a trust, and then sells shares in the trust-not the underlying shares-in other markets.

Q-186. A U.S. institutional money manager prefers to invest in depository instruments of non-domestic equity securities that are privately placed in the U.S. and not subject to the foreign ownership and capital flow restrictions. The type of security that is most appropriate for this investor is:

- A. global registered shares.
- B. global depository receipts.
- C. American depository shares.

Solution: B.

Global depository receipts (GDRs) meet the investor preferences. They are not subject to the foreign ownership and capital flow restrictions that may be imposed by the issuing company's home country because they are sold outside of that country. GDRs cannot be listed on U.S. exchanges, but they can be privately placed with the institutional investors based in the United States.

Q-187. An investor invested in a security in the United States with dollar. When he travelled to Europe, he noticed his cash was not enough for his visit. Therefore, he sold the securities and got Euro in his account. This security is *most likely*:

- A. global registered shares.
- B. global depository receipts.
- C. sponsored depository receipt.

Solution: A.

Global registered shares (GRS) are identical shares that can be traded in several countries with different local currencies.

Global depository receipts (GDRs) are DRs issued in any countries other than the United States and issuer's home country.

Sponsored DRs means the DR holder retain all rights of the shares.

7.18. Industry Analysis

7.18.1. 重要知识点

7.18.1.1. The uses of industry analysis

- Understanding a company's business and business environment;
- Identifying active equity investment opportunities;
- Portfolio performance attribution.

7.18.1.2. Methods of classification system

- Modern classification schemes are most commonly based on grouping companies by similar **products and/or services**;
- Companies are sometimes grouped on the basis of their relative sensitivity to the business cycle. This method often results in two broad groupings of companies—**cyclical and non-cyclical**;
- **Statistical approaches** to grouping companies are typically based on the correlations of past securities' returns.

7.18.1.3. Commercial classification

- Basic materials and processing (companies engaged in the production of building **materials, chemicals, paper and forest products, containers and packaging, and metal, mineral, and mining companies**).
- Customer discretionary firm are cyclical and sell goods and services in industries such as automotive, apparel, hotels and restaurants.
- Consumer staples consumer-related companies whose business tends to exhibit less economic sensitivity than other companies; for example, manufacturers of **food, beverage, tobacco, and personal care products**.
- Energy firms.
- Financial services firms.
- Health care.
- Manufacturers of capital goods and providers of commercial service(**heavy machinery and equipment manufacture, aerospace and defense, transportation services, and commercial services and supplies**).
- Technological firms.
- An limitation of current systems is that the narrowest classification unit assigned to a company generally cannot be assumed to be its peer group for the purposes

of detailed fundamental comparisons or valuation. A **peer group** is needed.

7.18.1.4. Growth

- **Growth companies:** earn higher returns than WACC; sales and earnings grow faster than similar risk firm and the overall economy; have low dividend-payout ratios.
- **Growth stocks:** with a higher rate of return than similar risk stocks; usually undervalued 注意：可能由于投资者过于乐观而使得增长型公司的股票价格已经被高估，及时公司利润仍在增长，该股票就不是增长型股票；相反，一个普通公司的股票，只要市场价格低于内在价值，就可以认为是增长型股票。

7.18.1.5. Defensive

- **Defensive company:** earnings are insensitive to downturns in the economy; have low business risk and moderate financial risk. 主要看公司的盈利增长和整体经济增长的相关性，如果相关性不高，盈利增长很稳定，就是防守型公司。
- **Defensive stock:** the stock's rate of return do not decline or decline less than the market; have a small positive or negative beta. 主要看股票的价格和市场指数的相关性，如果相关性不高，股价增长很稳定，就是防守型股票。

7.18.1.6. Business cycle

- **Cyclical**
 - **Cyclical company:** sales and earnings are heavily influenced by the aggregate business activity; have high business risk and financial risk 主要看公司的盈利增长和整体经济增长的相关性，如果相关性很高，就是周期性公司。
 - **Cyclical stock:** have high betas; the company of the cyclical stock are more volatile than the overall market 主要看股票的价格和市场指数的相关性，如果相关性很高，就是周期性股票。
- **Growth vs. value stock**
 - **Growth stock:** a stock of the company that is experiencing rapid growth and sales and earnings; have high P/E and P/B ratios.
 - **Value stock:** undervalued for reasons other than earnings growth potential; usually has low P/E and P/B ratios.

7.18.1.7. Peer group 及相关概念

- A **peer group** is a group of companies engaged in similar business activities whose economics and valuation are influenced by closely related factors;
- Commercial classification systems do provide a starting point for the construction of a relevant peer group because, by using such systems, an analyst can quickly discover the public companies operating in the chosen industry.
- Steps in constructing a preliminary list of peer companies

- Examine commercial classification systems, if available to the analyst. These systems often provide a useful starting point for identifying companies operating in the same industry;
- Review the subject company's annual report for a discussion of the competitive environment. Companies frequently cite specific competitors;
- Review competitors' annual reports to identify other potential comparable companies;
- Review industry trade publications to identify comparable companies;
- Confirm that each comparable company derives a significant portion of its revenue and operating profit from a business activity similar to the primary business of the subject company.

7.18.1.8. Industry life cycle

- Five stages
 - An **embryonic industry** is one that is just beginning to develop. Characteristics: slow growth and high prices. Substantial investment is generally required, and the risk of failure is high;
 - A **growth industry** tends to be characterized by rapidly increasing demand, improving profitability, falling prices, and relatively low competition among companies in the industry;
 - The **shakeout stage** is usually characterized by slowing growth, intense competition, and declining profitability;
 - Characteristics of a **mature industry** include little or no growth, industry consolidation, and relatively high barriers to entry;
 - During the **decline stage**, industry growth turns negative, excess capacity develops, and competition increases.
- **Companies in growth industries** should be building customer loyalty as they introduce consumers to new products or services, building scale, and typically reinvest their cash flows in new products and product platforms;
- **Companies in mature industries** are likely to be pursuing replacement demand rather than new buyers and are probably focused on extending successful product lines rather than introducing revolutionary new products.

7.18.1.9. Industry concentration

- Concentrated industries **do not always** have pricing power or that fragmented industries do not;
- The **relative market shares** of competitors matter as much as their **absolute market shares**;

- If the industry sells a commodity product that is difficult—or impossible—to differentiate, the **incentive to compete on price increases** because a lower price frequently results in greater market share;
- Capital-intensive industries can be **prone to overcapacity**, which mitigates the benefits of industry concentration.

7.18.1.10. Ease of entry

- Industries with low barriers to entry often have little pricing power because price;
- Money, intellectual capital, and attractiveness for customer should be considered to assess the ease of entry;
- Way to investigate the issue is by looking at historical data. if the same ten companies that dominate an industry today dominated it ten years ago, barriers to entry are probably fairly high;
- High barriers to entry do not guarantee pricing power, because incumbents may compete fiercely among each other;
- Do not confuse barriers to entry, however, with barriers to success.

7.18.1.11. Capacity

- Tight, or limited, capacity gives participants more pricing power as demand for the product or service exceeds supply, whereas overcapacity leads to price cutting and a very competitive environment as excess supply chases demand;
- Capacity is fixed in the short term and variable in the long term;
- Capacity additions frequently overshoot long-run demand;
- Note that capacity need not be physical;
- If new capacity is physical, it will take longer for new capacity to come on line to meet an increase in demand, resulting in a longer period of tight conditions.

7.18.1.12. Market share stability

- Examining the stability of industry market shares over time is similar to thinking about the frequency with which new players enter an industry;
- **Unstable market** shares often indicate highly competitive industries that have limited pricing power;
- **High switching costs** for orthopedic devices coupled with slow innovation resulted in a lower benefit from switching, which led to greater market share stability.

7.18.1.13. Principles of strategy analysis of an industry

- Differing competitive environments are often tied to the structural attributes of an industry, which is one reason industry analysis is a vital complement to company analysis;
- Michael Porter's "five forces" framework is the classic starting point for strategic

analysis; although it was originally aimed more at internal managers of businesses than at external security analysts, the framework is useful to both.

- The **threat of entry** to the industry, which depends on barriers to entry, or how difficult it would be for new competitors to enter the industry;
- The **power of suppliers**, which may be able to raise prices or restrict the supply of key inputs to a company;
- The **power of buyers**, which can affect the intensity of competition by exerting influence on suppliers regarding prices (and possibly other factors such as product quality);
- The **threat of substitutes**, which can negatively affect demand if customers choose other ways of satisfying their needs;
- The **rivalry among existing competitors**, which is a function of the industry's competitive structure.

7.18.1.14. Summary

- Higher barriers to entry reduce competition.
- Greater concentration (a small number of firms control a large part of the market) reduces competition, whereas market fragmentation (a large number of firms, each with a small market share) increases competition.
- Unused capacity in an industry, especially if prolonged, results in intense price competition.
- Stability in market share reduces competition. For example, loyalty of a firm's customers tends to stabilize market share and profits.
- More price sensitivity in customer buying decisions results in greater competition.
- Greater maturity of an industry results in slowing growth.

7.18.1.15. A company analysis should include the following elements

- Provide an overview of the company (corporate profile), including a basic understanding of its businesses, investment activities, corporate governance, and perceived strengths and weaknesses;
- Explain relevant industry characteristics;
- Analyze the demand for the company's products and services;
- Analyze the supply of products and services, which includes an analysis of costs;
- Explain the company's pricing environment;
- Present and interpret relevant financial ratios, including comparisons over time and comparisons with competitors.

7.18.2. 基础题

Q-188. With regard to forming a company's peer group, which of the following statements is *not correct*?

- A. Comments from the management of the company about competitors are generally not used when selecting the peer group.
- B. The higher the proportion of revenue and operating profit of the peer company derived from business activities similar to the subject company, the more meaningful the comparison.
- C. Comparing the company's performance measures with those for a potential peer-group company is of limited value when the companies are exposed to different stages of the business cycle.

Solution: A.

It is a fake statement. Reviewing the annual report to find management's discussion about the competitive environment and specific competitors is a suggested step in the process of constructing a peer group.

Q-189. When graphically depicting the life-cycle model for an industry as a curve, the variables on the axes are:

- A. price and time.
- B. demand and time.
- C. demand and stage of the life cycle.

Solution: B.

The industry life-cycle model shows how demand evolves through time as an industry passes from the embryonic stage through the stage of decline.

Q-190. If an industry tends to be characterized by falling price, relatively low barriers to entry, and relatively low competition, which of the following cycle the industry belongs to?

- A. Shakeout.
- B. Mature.
- C. Growth.

Solution: C.

A growth industry tends to be characterized by rapidly increasing demand, improving profitability, falling prices, and relatively low competition. The threat of new competitors entering the industry is usually highest when barriers to entry are relatively low.

Q-191. In which of the following life-cycle phases are price wars *most likely* to be absent?

- A. Mature.
- B. Decline.
- C. Growth.

Solution: C.

The growth phase is not likely to experience price wars because expanding industry demand provides companies the opportunity to grow even without increasing market share. When industry growth is stagnant, companies may only be able to grow by increasing market share, e.g., by engaging in price competition.

Q-192. In which sector would a manufacturer of personal care products be classified?

- A. Health care.
- B. Consumer staples.
- C. Consumer discretionary.

Solution: B.

Personal care products are classified as consumer staples in the "Description of Representative Sectors."

Q-193. Which of the following statements about commercial and government-industry classification systems is most accurate?

- A. Many commercial classification systems include private for-profit companies.
- B. Both commercial and government classification systems exclude not-for-profit companies.
- C. Commercial classification systems are generally updated more frequently than government classification systems.

Solution: C.

Commercial systems are generally updated more frequently than government systems, and include only publicly traded for-profit companies.

Q-194. Which of the following industry characteristics is generally *least likely* to produce high returns on capital?

- A. High barriers to entry.
- B. High degree of concentration.

- C. Short lead time to build new plants.

Solution: C.

With short lead times, industry capacity can be rapidly increased to satisfy demand, but it may also lead to overcapacity, and lower profits.

Q-195. Which factor is *most likely* associated with stable market share?

- A. Low switching costs.
- B. Low barriers to entry.
- C. Slow pace of product innovation.

Solution: C.

A slow pace of product innovation often means that customers prefer to stay with suppliers they know, implying stable market shares.

Q-196. An industry with high barriers to entry and weak pricing power *most likely* has:

- A. high barriers to exit.
- B. stable market shares.
- C. significant numbers of issued patents.

Solution: A.

An industry that has high barriers to entry generally requires substantial physical capital and/or financial investment. With weak pricing power in the industry finding a buyer for excess capacity (i.e., to exit the industry) may be difficult.

Q-197. An equity analyst did a reasearch about information technology industry. He found that a company named LC Technology has abundant proporietary techonolgy, unique products and lower than average fixed cost. However, the exit barrier of this industry is very high. Which of the following conclusions is most likely reasonable?

- A. This company would have potential larger economic profits.
- B. over-capacity problems.
- C. high bargaining power of customers.

Solution: A.

The economic profit (the spread between the return on invested capital and the cost of capital) tends to be larger in industries with differentiated products, greater pricing power, and high

switching costs to customers. Industry 1 has these features. Firms in Industry 2, on the other hand, have little pricing power (undifferentiated products and rapid shifts in market shares indicating intense rivalry), which is indicative of potentially smaller economic profits.

7.19. Discount Cash Flow Model

7.19.1. 重要知识点

7.19.1.1. Types of dividend

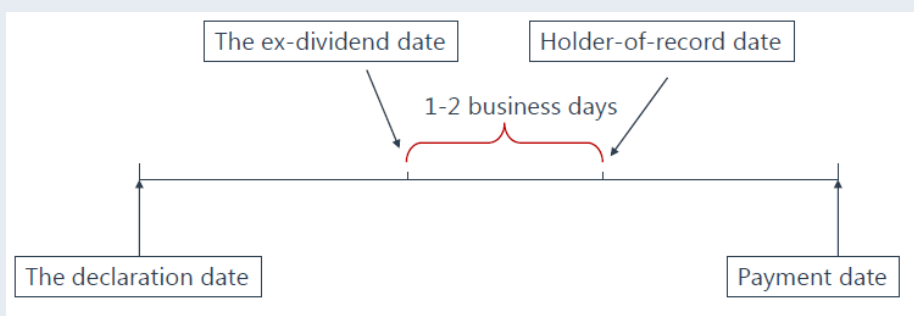
➤ Cash dividend

- Reduces both the value of the company's assets and the market value of equity.
- No effect on shareholder wealth.
- Types of cash dividend
 - ◆ Regular dividends (dividends are paid on a consistent schedule);
 - ◆ Special dividends (dividends are paid irregularly, on cash);
 - ◆ Liquidating dividends (dividends are paid when a company goes liquidating).

➤ Stock dividends & stock splits

- Both create more shares;
- A proportionate drop in the price per share;
- No effect on shareholder wealth.
- Reverse stock splits
 - ◆ Increase the share price;
 - ◆ Reduce the number of shares outstanding;

7.19.1.2. Payment Chronology



- Ex-Dividend date is usually one or two business days before Holder-of-Record Date.

7.19.1.3. DDM 计算

➤ The general DDM

$$\text{value} = \frac{D_1}{(1+r_e)^1} + \frac{D_2}{(1+r_e)^2} + \frac{D_3}{(1+r_e)^3} + \dots + \frac{D_n}{(1+r_e)^n}$$

➤ Multiple-year holding period DDM

$$\text{value} = \frac{D_1}{(1+r_e)^1} + \frac{D_2}{(1+r_e)^2} + \frac{P_2}{(1+r_e)^2}$$

➤ **Preferred stock valuation**

$$\text{value} = \frac{D_p}{r_p}$$

➤ **The constant growth DDM**

$$PV_0 = \frac{D_0(1+g_c)}{r_e - g_c} = \frac{D_1}{r_e - g_c} \quad (\text{GGM})$$

➤ **Assumption**

- The firm expects to pay a dividend, D, in one year;
- Dividends will grow at a constant rate, g, forever;
- The growth rate (g) is less than the required rate(r).

➤ **Limitations**

- Very sensitive to estimates of r and g;
- Difficult with non-dividend stocks;
- Difficult with unpredictable growth patterns(use multi-stage model).

➤ **Dividends grow at a constant rate g**, 通过公式的变形, 求 r 和 g 的关系。

$$r_e = \frac{D_1}{PV_0} + g_c$$

➤ **Sustainable growth (g)=(1-dividend payout ratio)×ROE**

7.19.1.4. Free cash flow to equity model

- $\text{FCFE} = \text{net income} + \text{depreciation} - \text{working capital investment (WC}_{\text{Inv}}) - \text{fixed capital investment (FC}_{\text{Inv}}) - \text{debt principle repayments} + \text{new borrowing}$
- $\text{FCFE} = \text{CFO} - \text{FC}_{\text{Inv}} + \text{net borrowing}$
- The required return for equity is calculated using CAPM model

7.19.2. 基础题

Q-198. Which of the following is equivalent to cash dividend?

- A. Stock dividends.
- B. Stock splits.
- C. Share repurchase.

Solution: C.

Because shares are repurchased using a company's own cash, a share repurchase can be considered an alternative to a cash dividend as a way of distributing earning to shareholder.

Q-199. Mary Young intends to take a position in Megasoft Industries once Megasoft begins paying dividends. A dividend of C\$4 is payable by Megasoft on 2nd December. The ex-dividend date for the dividend is 10th November, and the holder-of-record date is 12th November. What is the last possible date for Young to purchase her shares if she wants to receive the dividend?

- A. 9th November
- B. 10th November
- C. 12th November

Solution: A.

To receive the dividend, one must purchase before the ex-dividend date.

Q-200. A security exchange will *most likely* take the responsibility to determine:

- A. ex-dividend date.
- B. declaration date.
- C. holder-of-record date.

Solution: A.

The ex-dividend date is normally determined by the security exchange on which the shares are listed. The corporation determines the holder-of-record date and declaration date.

Q-201. Geo Telecommunications Inc. is a fast growing company with a double-digit growth rate that is expected to continue for three more years. In his pursuit of valuing the company's stock, Dimiter Nenkov, a free-lance equity analyst, has compiled the following data about the company:

Current years free cash flow to equity	€20 million
Growth rate in free cash flow during the next three years	30% in years 1 and 2
	20% in year 3
Growth rate in free cash flow for year 4 and beyond	8%
Weighted average cost of capital	12%
Cost of equity capital	15%
Number of outstanding shares	50 million

Based on the above information, Nenkov's best estimate of the value per share for Geo

Telecommunications would be *closest* to:

- A. €9.73.
- B. €10.13.
- C. € 17.17.

Solution: A.

Time Period	FCFE	PVIF @15%	Present Value
1	$20 \times 1.3 = 26$	0.869	€22.61
2	$20 \times 1.3^2 = 33.8$	0.7561	€25.56
3	$20 \times 1.3^2 \times 1.2 = 40.56$	0.6575	€26.67
4&Beyond	$V_3 = (40.56 \times 1.08) / (0.15 - 0.08) = 625.78$	0.6575	€411.46
Value of Equity			€486.30 million
Value per share = Value of Equity / # of outstanding shares			€9.73/share

Q-202. The best model to use when valuing a voting dividend-paying company that is just entering the growth phase is *most likely* the:

- A. gordon growth model.
- B. two-stage dividend discount model.
- C. three-stage dividend discount model.

Solution: C.

The Gordon growth model is best suited to valuing mature companies. The two-stage model is best for companies that are transitioning from a growth stage to a mature stage. The three-stage model is appropriate for young companies just entering the growth phase.

Q-203. An investor uses the data below and the constant growth model to evaluate a company's common stock. To estimate growth, she uses the average value of the:

1. dividend growth rate over the period 2004-2009 and
2. sustainable growth rate for the year 2009

Year	EPS	DPS	ROE
2009	\$3.20	\$1.92	12%
2008	\$3.60	\$1.85	17%
2007	\$2.44	\$1.74	13%
2006	\$2.08	\$1.62	15%
2005	\$2.76	\$1.35	11%

2004	\$2.25	\$1.25	9%
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If her required return is 15 percent, the stock's estimated value is *closest* to:

- A. \$23.71.
- B. \$25.31.
- C. \$30.14.

Solution: B.

Dividend growth rate over the period 2004-2009 = $1.25 \times (1 + g)^5 = 1.92$; $g = 8.96\% = 9\%$ Sustainable growth rate for the year 2009;

retention rate = $(1 - \text{Dividend payout ratio}) = [1 - (1.92/3.20)] = 0.40$

$g = b \times \text{ROE}$; $g = 0.40 \times 12\% = 4.8\%$

Average of the two approaches = $(9 + 4.8)/2 = 6.90\%$

$V_0 = D_1 / (r - g) = (\$1.92 \times 1.069) / (0.15 - 0.069) = 2.05 / 0.081 = \25.31

Q-204. An investor evaluating a company's common stock for investment has gathered the following data.

Current year's earnings per share	\$2.50
Dividend payout ratio	60%
Dividend growth rate expected during Year 1 and 2	25%
Dividend growth rate expected after Year 2	5%
Investors' required rate of return	12%

The value per share of this common stock is *closest* to:

- A. \$28.57.
- B. \$31.57.
- C. \$38.70.

Solution: B.

Current year's dividend per share = $\$2.50 \times 0.6 = \1.50

$V = 1.50(1.25)/1.12 + 1.50(1.25)^2/1.12^2 + 1.50(1.25)^2(1.05)/(0.12 - 0.05)/1.12^2 = \$1.67 + \$1.87 + 28.03 = \31.57

Q-205. An investor gathered the following data in order to estimate the value of the company's preferred stock:

Par value of preferred stock offered at a 6% dividend rate	100
Company's sustainable growth rate	5%
Yield on comparable preferred stock issues	11.5%

Investor's marginal tax rate

30%

The value of the company's preferred stock is *closest* to:

- A. \$52.17.
- B. \$74.53.
- C. \$96.92.

Solution: A.

$$V_0 = D_0/r = (\$100 \times 0.06)/0.115 = \$52.17$$

7.20. Price Multiple Model

7.20.1. 重要知识点

7.20.1.1. P/E Ratio 计算, 区分 trailing P/E (P_0 / E_0), leading P/E (P_0 / E_1).

- Justified P/E (使用 DDM 模型演算而来的 P/E)
 - Leading P/E $\frac{P_0}{E_1} = \frac{(D_1/E_1)}{r-g}$; $\frac{P_0}{E_1} = \frac{1-b}{r-g}$
 - Trailing P/E $\frac{P_0}{E_0} = \frac{(D_1/E_0)}{r-g} = \frac{(1-b)(1+g)}{r-g}$
- $\frac{P_0}{E_1} = \frac{PR=(D_1/E_1)}{r-g}$, 以及不同的 r 和 g 的组合对其大小影响。

7.20.1.2. Enterprise value to EBITDA (EV/EBITDA)

- **Enterprise value (cost to acquire the firm)**
 - Enterprise value (EV) is total company value, not equity.
 - $EV = \text{market value of common stock} + \text{market value of preferred equity} + \text{market value of debt} - \text{cash and short-term investments}$
- **Advantages**
 - Useful for comparing firms with different degrees of financial leverage;
 - EBITDA is useful for valuing capital-intensive business;
 - EBITDA is usually positive even when EPS is not.
- **Disadvantages**
 - Market value of debt is often not available;
 - Market value of similar debt can be used;
 - Book value of debt can be used.

7.20.1.3. required rate of return 所包含的三个因素: RFR_{real} , P , RP 。

- $r = \text{required rate of return} = (1 + RFR_{real})(1 + IP)(1 + RP) - 1$
- $r = \text{required rate of return (approximate)} \approx RFR_{real} + IP + RP$
- $g = (RR) \times (ROE)$

7.20.2. 基础题

Q-206. An investor gathers the following data. To estimate the stock's justified forward P/E, the investor prefers to use:

- the earnings growth rate rather than the dividends growth rate and
- the average of the payout ratios over the relevant period, in this case 2006-2009, rather than the most recent payout ratio.

Year	EPS	DPS	ROE
2009	\$3.20	\$1.92	12%
2008	\$3.60	\$1.80	17%
2007	\$2.44	\$1.71	13%
2006	\$2.50	\$1.60	15%

The yield on 10-year T-notes is 3 percent and the current equity risk premium is 6.5 percent. If beta is 1.3, then the stock's justified forward P/E is *closest* to:

- A. 12.
- B. 16.
- C. 21.

Solution: C.

Earnings growth rate over the period 2006-2009 = $2.50 \times (1 + g)^3 = 3.2$; $g = 8.6\%$

Average payout ratio = $(0.60 + 0.50 + 0.70 + 0.64) / 4 = 0.61$

Required rate of return on share $i = \text{Current expected risk-free rate of return} + \text{Beta} \times [\text{Market (equity) risk premium}] = 3\% + 1.3(6.5\%) = 11.45\%$

$P/E_1 = \text{payout rate} / (r - g) = 0.61 / (0.1145 - 0.086) = 21.4$

Q-207. An investor evaluating a company's common stock now available on the market is selling for \$15, and he has gathered the following data.

Current year's earnings per share	\$2.50
Dividend retention ratio	40%
Expected dividend growth rate	5%
Investors' required rate of return	12%

The justified leading P/E ratio is:

- A. 6.
- B. 8.57.
- C. 10.

Solution: B.

The justified leading P/E ratio is

$$\frac{P_0}{E_1} = \frac{\frac{D_1}{E_1}}{r-g} = \frac{1-b}{r-g} = \frac{60\%}{12\%-5\%} = 8.57$$

Q-208. An analyst makes the following statement: "Use of P/E and other multiples for analysis is not effective because the multiples are based on historical data and because not all companies have positive accounting earnings." The analyst's statement is *most likely*:

- A. inaccurate with respect to both historical data and earnings.
- B. accurate with respect to historical data and inaccurate with respect to earnings.
- C. inaccurate with respect to historical data and accurate with respect to earnings.

Solution: A.

The statement is inaccurate in both respects. Although multiples can be calculated from historical data, forecasted values can be used as well. For companies without accounting earnings, several other multiples can be used. These multiples are often specific to a company's industry or sector and include price to-sales and price to cash flow.

Q-209. An investor gathered the following information to estimate the enterprise value multiple.

Market value of long-term debt	\$6 million
Book value of long-term debt	\$4 million
Book value of debt	\$8 million
Market capitalization	\$40 million
Cash and short-term investments	\$2 million
EBITDA	\$15 million
Firm's marginal tax rate	30%

The company's EV/EBITDA multiple is *closest* to:

- A. 2.5.
- B. 3.2.
- C. 5.8.

Solution: B.

Enterprise value measures total company value.

EV = Market value of common and preferred stock + MV of debt - cash & short-term investments

MV of debt = MV of LT debt + MV of ST debt = MV of LT debt + (BV of debt – BV of LT debt)

EV = 40 + (6+8-4) - 2 = 48; EV/EBITDA = 48 / 15 = 3.2

Q-210. An analyst has determined that the appropriate EV/EBITDA for Rainbow Company is 10.2. The analyst has also collected the following forecasted information for Rainbow Company:

EBITDA = \$22,000,000

Market value of debt = \$56,000,000

Cash = \$1,500,000

The value of equity for Rainbow Company is *closest* to:

- A. \$169 million.
- B. \$224 million.
- C. \$281 million.

Solution: A.

$EV = 10.2 \times 22,000,000 = \$224,400,000$

Equity value = EV - Debt + Cash = $224,400,000 - 56,000,000 + 1,500,000 = \$169,900,000$

7.21. Asset-Based Model

7.21.1. 重要知识点

7.21.1.1. Asset-based valuation

- An asset-based valuation of a company uses estimates of the market or fair value of the company's assets and liabilities.
- Most applicable when the market value of the corporate assets is readily determinable and the intangible assets are a relatively small proportion of corporate assets.
- Asset-based valuation models are frequently used together with multiplier models to value private companies.

7.21.1.2. Compare the advantages and disadvantages of each category of valuation model.

- **Cash flow models**
 - Advantages of discounted cash flow models
 - ◆ They are based on the finance theory;
 - ◆ They are agreed on among the analysts.
 - Disadvantages of discounted cash flow models
 - ◆ Appropriate estimation for input is needed;
 - ◆ The result is highly sensitive to inputs.
- **Price multiples**
 - The major advantage of using price multiples
 - ◆ Allow for relative comparisons, both cross-sectional and in time series;

- ◆ Appropriate to value a particular industry or sector in which the expected best performing stocks are needed to identify;
- ◆ Price multiples are popular with investors;
- ◆ Many multiples are readily available from financial websites and newspapers.
- Advantages of EV/EBIT
 - ◆ Using EV/EBIT instead of market capitalization to determine a multiple can be useful to analysts. Even where the P/E is problematic because of negative earnings;
 - ◆ EV/EBIT is most useful when comparing companies with significant differences in capital structure.
- Disadvantages of price multiple model
 - ◆ Price multiples are lagging indicators and indicate the past performance;
 - ◆ The multiples for cyclical companies may be highly influenced by current economic conditions;
 - ◆ A stock may be relatively undervalued when compared with its benchmarks but overvalued when compared with an estimate of intrinsic value as determined by one of the discounted cash flow methodologies;
 - ◆ Differences in reporting rules among different markets and in chosen accounting methods can result in revenues, earnings, book values, and cash flows that are not easily comparable;
 - ◆ Denominators for price multiples are easily be negative for some firms. Negative price multiples are meaningless and useless.
- **Price multiple valuations on fundamentals**
 - Advantages of price multiple valuations based on fundamentals
 - ◆ They are grounded in valuation models that are sound in theory;
 - ◆ They Conform to the value metrics.
 - Disadvantages of price multiple valuations based on fundamentals
 - ◆ Little change in inputs will cause large change in price multiples. E.G. the $r - g$ denominator.
- **Asset-based models**
 - Advantages
 - ◆ This model offered a minimum value for analyst;
 - ◆ The model is reliable when the firm has a high portion of tangible assets and current assets;

- ◆ They become more popular in evaluating public firms that have fair values reported.
- Disadvantages of asset-based models
 - ◆ They are not suitable with assets that do not have easily determinable market (fair) values;
 - ◆ They are not suitable with asset and liability whose fair values can be very different from the book values;
 - ◆ They are not suitable with assets that are “intangible” are shown on the books of the company;
 - ◆ They are not suitable in a hyper-inflationary environment.

7.21.2. 基础题

Q-211. Which of the following firms would most appropriately be valued using an asset-based model?

- A. An energy exploration firm in financial distress that owns drilling right for offshore areas.
- B. A paper firm located in country that is experiencing high inflation.
- C. A software firm that invests heavily in research and development and frequently introduces new products.

Solution: A.

The energy exploration firm would be most appropriately valued using an asset-based model. Its near-term cash flows are likely negative, so a forward-looking model is of limited use. Furthermore, it has valuable assets in the form of drilling rights that likely have a readily determined market value. The paper firm would likely not be appropriately valued using an asset-based model because high inflation makes the values of a firm's assets more difficult to estimate. An asset-based model would not be appropriate to value the software firm because the firm's value largely consists of internally developed intangible assets.

7.22. 进阶题

Q-212. You decide to sell short 100 shares of Charlotte Horse Farms when it is selling at its yearly high of 56. Your broker tells you that your margin requirement is 45% and that the commission on the purchase is \$155. While you are short the stock, Charlotte pays a \$2.50 per share dividend. At the end of one year, you buy 100 shares of Charlotte at 45 to close out your position and are charged a commission of \$145. What is your rate of return on the investment?

- A. 20.56%.

- B. 22.65%.
- C. 18.56%.

Solution: A.

Profit on a short sale = Begin value — Ending value — Dividends(Interest)— Trans. Costs

- Beginning value of investment = $\$56.00 \times 100 = \$5,600$ (Sold under a short sale arrangement)
- Ending value of investment = $\$45.00 \times 100 = \$4,500$
- Transaction costs = $\$155 + \$145 = \$300.00$
- Dividends = $\$2.50 \times 100 \text{ shares} = \250.00
- Profit = $\$5,600 - \$4,500 - \$250 - \$300 = \$550.00$
- Initial investment = Margin requirement + Commission = $(0.45 \times \$5,600) + \$155 = \$2,520 + \$155 = \$2,675$
- The rate of return on your investment is $20.56\% = \$550.00 / \$2,675$

Q-213. In a recent presentation, Doug Pearce made two statements about dividends:

Statement 1: "A stock dividend will increase share price, all other things being equal."

Statement 2: "One practical concern with a stock split is that it will reduce the company's price-to-earnings ratio."

Are Pearce's two statements about the effects of the stock dividend and stock split correct?

- A. No for both statements.
- B. Yes for Statement 1 and no for Statement 2.
- C. No for Statement 1 and yes for Statement 2.

Solution: A.

Both statements are incorrect. A stock dividend will decrease the price per share, all other things being equal. A stock split will reduce the price and earnings per share proportionately, leaving the price-to-earnings ratio the same.

Q-214. An investor opens a margin account with an initial deposit of \$5,000. He then purchases 200 shares of PRK stock at \$46 in his margin account, which has a margin maintenance requirement of 25 percent. Ignoring commissions and interest, the minimum price that PRK stock can fall to before the investor receives a margin call is *closest to*:

- A. \$20.00.
- B. \$28.00.
- C. \$33.33.

Solution: B.

Determine the price (P) that is equal to 25%

$$\text{Trigger price} = P_0 \left(\frac{1 - \text{initial margin}}{1 - \text{maintenance margin}} \right) = 46 \times \left(\frac{1 - 54.35\%}{1 - 25\%} \right) = 28.00$$

Q-215. Jason Williams purchased 500 shares of a company at \$32 per share. The stock was bought on 75 percent margin. One month later, Williams had to pay interest on the amount borrowed at a rate of 2 percent per month. At that time, Williams received a dividend of \$0.50 per share. Immediately after that he sold the shares at \$28 per share. He paid commissions of \$10 on the purchase and \$10 on the sale of the stock. What was the rate of return on this investment for the one-month period?

- A. -12.5 percent.
- B. -15.4 percent.
- C. -50.1 percent.

Solution: B.

Total cost of the purchase = \$16,000 = 500 × \$32

Equity invested = \$12,000 = 0.75 × \$16,000

Amount borrowed = \$4,000 = \$16,000 - \$12,000

Interest paid at month end = \$80 = 0.02 × \$4,000

Dividend received at month end = \$250 = 500 × \$0.50

Proceeds on stock sale = \$14,000 = 500 × 28

Total commissions paid = \$20 = \$10 + \$10

Net gain/loss = -\$1,850 = -16,000 - 80 + 250 + 14,000 - 20

Initial investment including commission on purchase = \$12,010

Return = - 15.4% = -\$1,850 / \$12,010

Q-216. A market has the following limit orders standing on its book for a particular stock:

Buyer	Bid Size (Number of Shares)	Limit Price	Offer Size (Number of Shares)	Seller
Keith	1,000	19.70		
Paul	200	19.84		

150-210

Ann	400	19.89		
Mary	300	20.02		
		20.03	800	Jack
		20.11	1,100	Margaret
		20.16	400	Jeff

Ian submits a day order to sell 1,000 shares, limit £19.83. Assuming that no more buy orders are submitted on that day after Ian submits his order, what would be Ian's average trade price?

- A. £19.70.
- B. £19.92.
- C. £20.05.

Solution: B.

Ian's average trade price is:

$$19.92 = \frac{300 \times 20.02 + 400 \times 19.89 + 200 \times 19.84}{300 + 400 + 200}$$

Ian's sell order first fills with the most aggressively priced buy order, which is Mary's order for 300 shares at £20.02. Ian still has 700 shares for sale. The next most aggressively priced buy order is Ann's order for 400 shares at £19.89. This order is filled. Ian still has 300 shares for sale. The next most aggressively priced buy order is Paul's order for 200 shares at £19.84. A third trade takes place. Ian still has 100 shares for sale.

The next buy order is Keith's order for 1,000 shares at £19.70. However, this price is below Ian's limit price of £19.83. Therefore, no more trade is possible.

Q-217. The following limit orders were listed on the book of a market:

Buyer	Bid Size (# of shares)	Limit Price (\$)	Seller	Offer Size (# of shares)	Limit Price (\$)
1	600	35.50	1	200	37.20
2	400	35.70	2	200	38.35
3	500	36.20	3	400	39.50
4	100	37.10	4	100	39.65
5	300	37.15	5	200	39.70

The average price of an immediate-or-cancel limit buy order for 750 shares at a price of \$39.50 will be closest to:

- A. \$37.35.
- B. \$38.58.

C. \$39.60.

Solution: B.

$$\text{Average price} = [(200 \times \$37.20) + (200 \times \$38.35) + (350 \times \$39.50)] / 750 = \$38.58$$

Q-218. Two analysts Bran and Whily held different opinions towards the share price of iRobot Incorporation. The current price is \$52. Bran took a long position on the stock and would like to close this position once the price rose to \$65. Whily took a short position and would like to cover his loss if the stock price rose to \$60. Which of the following orders will meet their requirements?

- | | Bran | Whily |
|----|--------------------|-------------------|
| A. | Limit sell at \$65 | Limit buy at \$60 |
| B. | Limit sell at \$65 | Stop buy at \$60 |
| C. | Stop sell at \$65 | Limit buy at \$60 |

Solution: B.

Bran needs to sell his shares at the price of 65 or above, therefore, a limit sell order is appropriate. However, Whily would like to cover his position when stock price rose to \$60. In other words, he decides to buy the stock once the stock price rose up to \$60, so a stop order is more appropriate.

Q-219. A price-weighted index series is composed of the following three stocks:

Stock	Price before Split End of Day 1	Price after Split End of Day 2
X	\$10	\$12
Y	\$20	\$19
Z	\$60	\$22

If stock Z completes a three-for-one split at the end of Day 1, the value of the index after the split (at the end of Day 2) is *closest* to:

- A. 32.3.
B. 31.7.
C. 29.9.

Solution: B.

The value of the price-weighted index is determined by dividing the sum of the security values by the divisor, which is typically set at inception to equal the initial number of securities in the index. In the case of a stock split, the index provider must adjust the value of divisor by dividing the sum

of the constituent prices after the split by the value of the index before the split. This adjustment results in a new divisor that keeps the index value at the same level as before the split. The new divisor will then be used to calculate the index value after the split.

$$\text{Index before the split} = \frac{10 + 20 + 60}{3} = 30$$

$$\text{New divisor, } x: 30 = \frac{10 + 20 + 20}{x}$$

$$x = 1.67$$

$$\text{Index after the split} = \frac{12 + 19 + 22}{1.67} = 31.7$$

Q-220. An analyst collected the following data about a listed company:

Earnings per share	20
Dividend declared	3
Return on assets	6%
Debt/Equity ratio	1.4
Net profit margin	12%

The constant growth rate of dividends is *closest* to:

- A. 2%.
- B. 12%.
- C. 20%.

Solution: B.

From debt/equity ratio we can calculate the Asset/Equity ratio=2.4.

$$\text{ROE} = \text{ROA} \times \text{Financial Leverage} = 6\% \times 2.4 = 14.4\%$$

$$\text{Constant growth rate of dividends } g = \text{ROE} \times \text{retention ratio} = \text{ROE} \times (1 - \text{payout ratio}) = 14.4\% \times (1 - 3/20) = 12.24\%$$

Q-221. The following data pertains to a margin purchase of a stock by an investor.

Stock's purchase price	\$50/share
Sale price	\$55/share
Shares purchased	500
Margin	45%
Call money rate	6%
Dividend	\$1.80/share
Transaction commission on purchase	\$0.05/share
Transaction commission on sale	\$0.05/share

If the stock is sold exactly one year after the purchase, the total return on the investor's

investment is *closest* to:

- A. 14%.
- B. 19%.
- C. 22%.

Solution: C.

Proceeds on sale: $\$55 \times 500$	\$27,500
Payoff loan: $\$50 \times 500 \times 0.55$	-\$13,750
Margin interest paid: $\$13,750 \times 0.06$	-\$825
Dividend received: $\$1.80 \times 500$	+\$900
commission paid on sale: $\$0.05 \times 500$	-\$25
Remaining equity	\$13,800
Initial investment (including commission): $(\$50 \times 500 \times 0.45) + (\$0.05 \times 500)$	\$11,275
Return on the initial investment: $(\$13,800 - \$11,275) / \$11,275$	22.4%



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2018 年 06 月 CFA 一级百题预测

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

近年来，CFA 考试的难度在逐步提高。针对 2018 年 6 月的考试，考生对于占比较高的几门科目需要引起充分重视，如：财务报表分析、职业伦理和数量分析，所以百题中所标示的基础题目必须掌握。2018 年相比于 2017 年的考纲基本没有变动，只在数量、衍生、企业理财等科目中，删除了部分章节，并将原有企业理财中，股利的概念部分并入权益，基本都是考察定性的内容。百题中的题目，紧密贴合考纲和真题难度，依据金程多年 CFA 培训经验，由资深研究员与明星师资共同编写。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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9. Derivatives

9.1. Derivatives Market and Instruments

9.1.1. 重要知识点

9.1.1.1. 衍生品的定义: A derivative is a financial instrument (contract) that derives its performance from the performance of an underlying asset.

9.1.1.2. 衍生品分类方法

➤ 根据合约特点分类: **Forward commitment & Contingent claim**

- Forward commitment: is an agreement between two parties in which one party, the buyer, agrees to buy from the other party, the seller, an underlying asset at a future date at a price established at the start → forward, futures and swap contracts
- Contingent claim: is derivative in which the payoffs occur if a specific event happens → option contracts
 - ◆ Credit default swaps (CDS) is essentially an insurance contract for the reference, the reference obligation is the fixed income security on which the swap is written-usually a bond but potentially also a loan.
 - ◆ Protection buyer receives a payment from the protection seller if default occurs on the reference entity.

➤ 根据交易场所分类: **Exchange-traded & Over-the-counter traded**

- Exchange-traded: 在一个固定的交易所交易。多空双方不直接见面，与清算所交易。(A—>Clearinghouse—>B)
- OTC traded: 没有固定交易场所，多空双方直接交易。(A—>B)

Exchange-traded	Over-the-counter
Standardized → Liquid	Customized/Specific needs
Backed by a clearinghouse	Trade with counterparty (default risk)
Trade in the a physical exchange	Not trade in organized markets
Regulated	Unregulated

- ◆ Market makers: buy at one price (the bid), sell at a higher price (the ask), and hedge whatever risk they otherwise assume.

9.1.2. 基础题

Q-222. Which of the following is most representative of forward contracts and contingent claims?

- | | | |
|----|---------------------------|---------------------------|
| | Forward Contracts | Contingent Claims |
| A. | Premium paid at inception | Premium paid at inception |

- | | | |
|----|------------------------------|------------------------------|
| B. | Premium paid at inception | No premium paid at inception |
| C. | No premium paid at inception | Premium paid at inception |

Solution: C.

Unlike a contingent claim, a forward commitment typically requires no premium to be paid up front. An intuitive way to look at this is to realize that a forward commitment is binding on both parties, so any up-front fees would cancel, while a contingent claim is binding only on the party in the short position. For this, the party in the short position demands (and receives) compensation.

Q-223. A contract has no contingent claim and is also over the counter traded. Which of the following contract satisfies the characteristics? (2012 年 12 月真题)

- A. Forward
- B. Option
- C. Futures

Solution: A.

Only forward contract has no contingent claim and over the counter traded.

Q-224. Which of the following statements is true about contingent claims?

- A. Either party can default to the other
- B. The payoffs are linearly related to the performance of the underlying
- C. The most the long can lose is the amount paid for the contingent claim

Solution: C.

The maximum loss to the long is the premium. The payoffs of contingent claims are not linearly related to the underlying, and only one party, the short, can default.

Q-225. Which of the following derivatives is classified as a contingent claim?

- A. Futures contracts
- B. Interest rate swaps
- C. Credit default swaps

Solution: C.

A credit default swap (CDS) is a derivative in which the credit protection seller provides protection to the credit protection buyer against the credit risk of a separate party. CDS are classified as a contingent claim.

A is incorrect because futures contracts are classified as forward commitments. B is incorrect because interest rate swaps are classified as forward commitments.

Q-226. Which of these is best classified as a forward commitment derivative?

- A. A swap agreement
- B. A convertible bond
- C. An asset-backed security

Solution: A.

A swap agreement is equivalent to a series of forward agreements that are described as forward commitment derivatives.

Q-227. Which of the following statements most accurately describes exchange-traded derivatives relative to over-the-counter derivatives? Exchange-traded derivatives are more likely to have:

- A. greater credit risk.
- B. standardized contract terms.
- C. greater risk management uses.

Solution: B.

Standardization of contract terms is a characteristic of exchange-traded derivatives. A is incorrect because credit risk is well-controlled in exchange markets. C is incorrect because the risk management uses are not limited by being traded over the counter.

Q-228. Which of the following characteristics is associated with over-the-counter derivatives?

- A. Trading occurs in a central location
- B. They are more regulated than exchange-listed derivatives
- C. They are less transparent than exchange-listed derivatives

Solution: C.

OTC derivatives have a lower degree of transparency than exchange-listed derivatives. Trading does not occur in a central location but, rather, is quite dispersed. Although new national securities laws are tightening the regulation of OTC derivatives, the degree of regulation is less than that of exchange-listed derivatives.

Q-229. Market makers earn a profit in both exchange and over-the-counter derivatives markets by:

- A. charging a commission on each trade.
- B. a combination of commissions and markups.
- C. buying at one price, selling at a higher price, and hedging any risk.

Solution: C.

Market makers buy at one price (the bid), sell at a higher price (the ask), and hedge whatever risk they otherwise assume. Market makers do not charge a commission. Hence, A and B are both incorrect.

9.2. Advantages & Disadvantages of Derivatives

9.2.1. 重要知识点

9.2.1.1. Advantages & disadvantages of derivatives

➤ **Advantage:**

- Price discovery
- Risk management: hedge and speculation
- Lowering transaction costs
- Low capital requirement
- Greater liquidity
- Ease of going short
- Enhance market efficiency

➤ **Disadvantage:**

- Too risky and High leverage
- Complex instruments
- Sometimes likened to gambling

9.2.2. 基础题

Q-230. Which of the following is not an advantage of derivative markets?

- A. They are less volatile than spot markets
- B. They facilitate the allocation of risk in the market
- C. They incur lower transaction costs than spot markets

Solution: A.

Derivative markets are not by nature more or less volatile than spot markets. They facilitate risk allocation by making it easier and less costly to transfer risk, and their transaction costs are lower

than those of spot markets.

Q-231. The reason that derivative markets have become popular is least likely to be that:

- A. Derivatives often trade at relatively low costs.
- B. Derivatives can be used to practice risk management.
- C. Derivatives are tools that can be much easier to use.

Solution: C.

Derivatives have lower transaction costs relative to traditional investment and can be used for to manage risk. However derivatives are relatively more complex and difficult to pricing.

Q-232. Which of the following responds to the criticism that derivatives can be destabilizing to the underlying market?

- A. Market crashes and panics have occurred since long before derivatives existed
- B. Derivatives are sufficiently regulated that they cannot destabilize the spot market
- C. The transaction costs of derivatives are high enough to keep their use at a minimum level

Solution: A.

Derivatives regulation is not more and is arguably less than spot market regulation, and the transaction costs of derivatives are not a deterrent to their use; in fact, derivatives are widely used. Market crashes and panics have a very long history, much longer than that of derivatives.

Q-233. Derivative markets serve a number of purposes in global economic systems. Which of the following is least likely one of these purposes?

- A. Reveal prices and volatility of the underlying assets
- B. Improve market efficiency by lowering transaction costs
- C. Enable companies to more easily practice risk management

Solution: B.

Derivative markets improve market efficiency for the underlying assets by increasing market fairness and competitiveness, not by lowering transaction costs. Lower transaction cost is a characteristic of derivative markets that is required for them to exist, not a purpose for derivative markets.

9.3. Forward Contract

9.3.1. 重要知识点

9.3.1.1. Classification of forward contract

- Commodity forward contract
- Financial forward contract

9.3.1.2. Characteristics forward contracts

- Each party are exposed to default risk (or counterparty risk)
- Zero-sum game

9.3.1.3. Settling a forward contract

- **At expiration**
 - Physical settlement: deliver an actual asset, 存在储存成本, 多用于商品远期;
 - Cash settlement: the party that has a position with negative value is obligated to pay that amount to the other party, 多用在金融远。
- **Prior to expiration:**
 - Offsetting with a different party: some credit risk remains.
 - Offsetting with the original party: can avoid credit risk.

9.3.2. 基础题

Q-234. The usefulness of a forward contract is limited by some problems. Which of the following is most likely one of those problems?

- A. Once you have entered into a forward contract, it is difficult to exit from the contract
- B. Entering into a forward contract requires the long party to deposit an initial amount with the short party
- C. If the price of the underlying asset moves adversely from the perspective of the long party, periodic payments must be made to the short party

Solution: A.

As opposed to a futures contract, trading out of a forward contract is quite difficult. There is no exchange of cash at the origination of a forward contract. There is no exchange on a forward contract until the maturity of the contract.

Q-235. Which of the following have the largest counterparty risk?

- A. Option
- B. Forward
- C. Futures

Solution: B.

Forward contracts are traded on over-the-counter markets. They are largely unregulated markets and each contract is with a counterparty, which may expose the owner of a derivative to default risk.

Q-236. Derivative markets serve a number of purposes in global economic systems. Which of the following is least likely one of these purposes?

- A. Reveal prices and volatility of the underlying assets
- B. Improve market efficiency by lowering transaction costs
- C. Enable companies to more easily practice risk management

Solution: B.

Derivative markets improve market efficiency for the underlying assets by increasing market fairness and competitiveness, not by lowering transaction costs. Lower transaction cost is a characteristic of derivative markets that is required for them to exist, not a purpose for derivative markets.

Q-237. Two counterparties sign a forward contract on a stock, the underlying stock price goes up afterward, which counterparty/counterparty suffer from credit default risk?

- A. The long position only
- B. The short position only
- C. Both long and short position

Solution: A.

Since long position gains positive profit when underlying price goes up, then long position may suffer from the credit default of the short position. So the long position only suffers from credit default risk when the underlying stock price goes up.

9.4. Forward Rate Agreements(FRA)

9.4.1. 重要知识点

9.4.1.1. 概念

- **Definition:** viewed as a forward contract for the long to get a loan from the short at a specific future date at a rate fixed in the contract.
- A forward rate agreement (FRA) is a forward contract on an interest rate (**LIBOR**).
- **Quotation:** A 60-day FRA on 90-day LIBOR (2×5 FRA) means: Settlement or expiration is 60 days from now and the payment at settlement is based on 90-day LIBOR 60 days from now.

9.4.1.2. LIBOR and Euribor

➤ LIBOR

- USD interest rates.
- Quoted as an annualized rates based on a 360-day a year
- Add-on rate
- Single interest

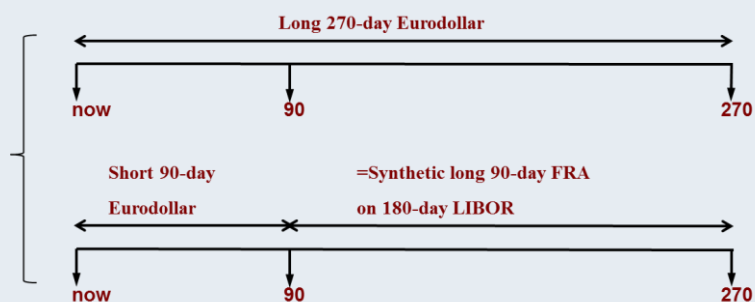
➤ Euribor is a similar rate for borrowing and lending in Euros.

9.4.1.3. Settlement

- Settle in cash, but no actual loan is made at the settlement date.
- Payoff
 - If the reference rate at the expiration date is above the specified contract rate, the long will receive cash payment from the short;
 - If the reference rate at the expiration date is below the contract rate, the short will receive cash payment from the long
 - Payoff of long=

$$(\text{Notional principal}) \left[\frac{(\text{Floating rate at settlement} - \text{forward rate}) \left[\frac{\text{days}}{360} \right]}{1 + \text{Floating rate at settlement} \left[\frac{\text{days}}{360} \right]} \right]$$

9.4.1.4. Synthetic FRA:



9.4.2. 基础题

Q-238. A 30-day FRA on 90-day LIBOR is quoted as:

- A. 1×4 FRA
- B. 1×3 FRA
- C. 3×1 FRA

Solution: A.

1×4 FRA is a forward rate agreement whose expiration date is 30 days from now and the payment at settlement is based on 90-day LIBOR 30 days from now

9.5. Futures Contract

9.5.1. 重要知识点

9.5.1.1. Futures contract 风险控制方法

➤ Margin

- Initial margin: The first deposit is called the initial margin. Initial margin must be posted before any trading takes place;
- Maintenance margin: is the amount of money that each participant must maintain in the account after the trade is initiated. If the margin balance is **lower than the maintenance margin**, the trader will get a margin call;
- Variation margin: used to bring the margin balance back up to the initial margin level.

➤ **Daily price limit:** Price limits are exchanged-imposed limits on how much the contract price can change from the previous day's settlement price.

➤ **Marking to market:** The margin requirement of a futures contract is low because at the end of every day there is a daily settlement process called marking to market.

➤ Difference between forward and futures

Forwards	Futures
Private contracts	Exchange-traded
Unique customized contracts	Standardized contracts
Little or no regulation	Regulated
Default risk is present	Guaranteed by clearinghouse
Settlement at maturity	Daily settlement(mark to market)
No margin deposit required	Margin required and adjusted

9.5.2. 基础题

Q-239. Tony Harris is planning to start trading in commodities. He has heard about the use of futures contracts on commodities and is learning more about them. Which of the following is Harris least likely to find associated with a futures contract?

- A. Existence of counterparty risk
- B. Standardized contractual terms
- C. Payment of an initial margin to enter into a contract

Solution: A.

Harris is *least likely* to find counterparty risk associated with a futures contract. There is limited counterparty risk in a futures contract because the clearinghouse is on the other side of every contract.

9.6. Future Margin vs Equity Margin

9.6.1. 重要知识点

9.6.1.1. 掌握股票与期货保证金的区别：

	期货 margin	股票 margin
目的	作抵押减少违约风险	借钱给你买股票，举杠杆
现金流方向	现金流出	现金流入
支付利息	不用支付利息	相当于贷款给你，要付利息
补交 margin 数额	回到 initial margin	回到 maintenance margin

➤ Clearinghouse

- Each exchange has a clearing house which is a third participant guaranteeing to each party that it ensures against the other party defaulting.
- A clearinghouse acts as the counterparty to each participant. The clearinghouse is the buyer to the seller and the seller to the buyer by crediting gains to the winners and charging losses to the losers.
- There is no need to worry about the counterparty default risk.
- Each participants are allowed by the clearinghouse to reverse their positions in the future.

9.6.2. 基础题

Q-240. When receive a margin call, an investor must deposit more money to meet the in the future market, whereas to meet the in the stock market:

- | | | |
|----|--------------------|--------------------|
| A. | Initial margin | Initial margin |
| B. | Maintenance margin | Maintenance margin |
| C. | Initial margin | Maintenance margin |

Solution: C.

In stock market, additional margin must be deposited to bring the ending balance up to the Maintenance margin requirement, however, in futures market; additional margin must be deposited to bring the ending balance up to the initial margin requirement.

Q-241. Which of the statements is most likely correct relating to the daily settlement of futures contracts?

- A. A margin call will be received if the margin balance is below the initial margin
- B. Variation margin should be deposited to bring the margin back to its maintenance margin
- C. Gains will be distributed to one party and losses will be charged to the other

Solution: C.

Losses and gains are collected and distributed to the respective parties. A margin call will be received if the margin balance is below the maintenance margin. The variation margin is used to bring the margin back to its initial margin.

9.7. Swap Contract**9.7.1. 重要知识点****9.7.1.1. 定义**

- **Swap contract:** A swap contract obligates two parties to change a series of cash flows on periodic settlement dates over a certain time period

9.7.1.2. 与 forward 相似点

- No payment required by either party at initiation except the principal values exchanged in currency swaps.
- Custom instruments.
- Not traded in any organized secondary market.
- Largely unregulated.
- Default risk is a critical aspect of the contracts.
- Institutions dominate.

9.7.1.3. Plain vanilla interest rate swap: involves trading fixed interest rate payments for floating-rate payment (paying fixed and receiving floating).

- **Counterparties:** The parties involved in any swap agreement are called the counterparties
- **Pay-fixed side:** The counterparty that makes fixed-rate interest payment in exchange for variable interest rate.
- **Pay-floating side:** The counterparty that makes variable-rate interest payment in exchange for fixed payment.

9.7.2. 基础题

Q-242. Which of the following characteristics is NOT correct for swap contracts?

- A. Largely unregulated
- B. Custom instruments
- C. Standardized contracts

Solution: C.

Swap contracts are over-the-counter contracts, so it's largely unregulated, and customized between the related parties. Futures contracts is standardized contracts.

9.8. Basic Concept of Options

9.8.1. 重要知识点

9.8.1.1. Basic characteristics of options (4 positions of options)

- An option to buy an asset at a particular price is termed a call option

Buyer of a call	Right to buy	
Seller of a call		Obligation to sell

- An option to sell an asset at a particular price is termed a put option

Buyer of a put	Right to sell	
Seller of a put		Obligation to buy

9.8.2. 基础题

Q-243. Which of the following is most similar to a short position in the underlying asset?

- A. Buying a put
- B. Writing a put
- C. Buying a call

Solution: A.

Buying a put is most similar to a short position in the underlying asset because the put increase the value if the underlying asset value decreases. The writer of a put and the holder of call have a long exposure to the underlying asset because their positions increase in value if the underlying asset value increase.

Q-244. Pierre-Louis Robert just purchased a call option on shares of the Michelin Group. A few days ago he wrote a put option on Michelin shares. The call and put options have the same exercise price, expiration date, and number of shares underlying. Considering both positions, Robert's exposure to the risk of the stock of the Michelin Group is:

- A. Long.
- B. Short.
- C. Neutral.

Solution: A.

Robert's exposure to the risk of the stock of the Michelin Group is long. The exposure as a result of the long call position is long. The exposure as a result of the short put position is also long. Therefore, the combined exposure is long.

9.9. Risk Neutrality

9.9.1. 重要知识点

9.9.1.1. Risk-neutral investors are willing to buy risky investments for which they expect to earn only the risk-free rate. They do not expect to earn a premium for bearing risk.

9.9.1.2. The expected payoff of the derivative can be discounted at the risk-free rate. And should yield the risk-free rate of return, if it generates certain payoffs.

9.9.2. 基础题

Q-245. An investor who requires no premium to compensate for the assumption of risk is said to be which of the following?

- A. Risk seeking
- B. Risk averse
- C. Risk neutral

Solution: C.

Risk-seeking investors give away a risk premium because they enjoy taking risk. Risk-averse investors expect a risk premium to compensate for the risk. Risk-neutral investors neither give nor receive a risk premium because they have no feelings about risk.

9.10. Moneyness, Intrinsic Value, Time Value

9.10.1. 重要知识点

9.10.1.1. Option 的主要种类: financial option (equity options, interest options, foreign currency options, bond options, index options), option on futures, commodity option).

- Moneyness (价值状态): 定性看 long 是否赚钱
 - In the money: Immediate exercise would generate a positive payoff.
 - At the money : Immediate exercise would generate no payoff.
 - Out of the money : Immediate exercise would generate a negative payoff.

- Moneyness:

Moneyness	Call option	Put option
In-the-money	$S > X$	$S < X$
At-the-money	$S = X$	$S = X$
Out-of-the-money	$S < X$	$S > X$

9.10.1.2. Intrinsic Value and Time Value

- The intrinsic value of an option is the amount that it is in the money, and zero otherwise.

- The difference between the value of an option (option premium) and its intrinsic value is termed its time value. If the option is deeply out of money or deeply in the money, time value is negligible.

- **option value=intrinsic value + time value**

9.10.1.3. For European put option, time value can be larger than, smaller than or equal to zero; for others, time value is not less than zero.

9.10.1.4. The Effect of difference in Time to expiration

- **American options**
 - $C_0(T_2) \geq C_0(T_1)$
 - $P_0(T_2) \geq P_0(T_1)$
- **European options**
 - $C_0(T_2) \geq C_0(T_1)$
 - ~~$P_0(T_2) \geq P_0(T_1)$~~
- $C_0(T_2) = \max[S_t - \frac{X}{(1+r_f)^{T_2}}, 0] \geq C_0(T_1) = \max[S_t - \frac{X}{(1+r_f)^{T_1}}, 0]$
- Long call + short put=long forward

9.10.2. 基础题

Q-246. Which of the following statements most closely relates to the concept of moneyness?

- The sum of money the option buyer pays the seller is called the premium
- Both call and put option prices decline as the time to expiration becomes shorter
- One would never exercise a call option if the price of the underlying is below the strike price

Solution: C.

Only an in-the-money option would be exercised. Moneyness describes the relationship between the price of the underlying and an option's exercise price.

Q-247. An investor has purchased a call option on Sagel, Inc, with a strike price at \$36. And the stock is currently selling for \$38. The intrinsic value and the moneyness of the call option respectively is:

	Intrinsic value	Moneyness
A.	\$2	in-the-money
B.	\$0	Out-of-the-money
C.	\$0	At-the-money

Solution: A.

Call value is $\text{Max}(0, S-X)$. So the call option has an intrinsic value of \$2 and is in-the-money, as the stock price is above the strike price.

Q-248. The recent price per share of Win Big, Inc. is €50 per share. Verna Hillsborough buys 100 shares at €50. To protect against a falling price, Hillsborough buys one put, covering 100 shares of Win Big, with a strike price of €40. The put premium is €1 per share. If Win Big closes at €45 per share at the expiration of the put and Hillsborough sells her shares at €45, Hillsborough's profit from the stay/put is closest to:

- A. -€1,100.
- B. -€600.
- C. €900.

Solution: B.

The loss on her stock is $(€45-€50) \times 100 = -€500$. She also paid €100 for the put. The put expires worthless, making her total loss €600.

Q-249. A market participant has a view regarding the potential movement of a stock. He sells a customized over-the-counter put option on the stock when the stock is trading at \$38. The put has an exercise price of \$36 and the put seller receives \$2.25 in premium. The price of the stock is \$35 at expiration. The profit or loss for the put seller at expiration is:

- A. -1.25.
- B. \$1.00.
- C. \$1.25.

Solution: C.

Profit = $\text{max}(0, -\text{payoff of put at expiration} + \text{premium}) = \text{max}(0, -(X - S) + \text{premium}) = -1 + 2.25 = \1.25

Q-250. An investor paid \$10 for an option that is currently in-the-money \$5. If the underlying is priced at \$90, which of the following best describes that option?

- A. Call option with an exercise price of \$80
- B. Put option with an exercise price of \$95
- C. Call option with an exercise price of \$95

Solution: B.

A put option is in-the-money if the stock price is less than the exercise price. The put option with an exercise price of \$95 is in-the-money \$5. The call option with an exercise price of \$80 is in-the-money \$10, and the call option with an exercise price of \$95 is out-of-the-money \$5.

9.11. Option Sensitivity

9.11.1. 重要知识点

9.11.1.1. 影响 call option 价格的因素:

Factor	European call	European put	American call	American put
Underlying asset price	+	-	+	-
Strike price	-	+	-	+
Time	+	?	+	+
Risk-less rate	+	-	+	-
Volatility	+	+	+	+
Payments on the underlying	-	+	-	+
Carrying cost	+	-	+	-

- There is an exception to the general rule that European put option thetas are negative. The put value may increase as the option approaches maturity if the option is deep in-the-money and close to maturity. The higher the risk-free rate, the stronger the negative relationship.
- **Moneyness (价值状态): 定性看 long 是否赚钱**
 - In the money: Immediate exercise would generate a positive payoff
 - At the money : Immediate exercise would generate no payoff
 - Out of the money : Immediate exercise would generate a negative payoff

9.11.2. 基础题

Q-251. Unless far out-of-the-money or far in-the-money, for otherwise identical call options, the longer the term to expiration, the lower the price for:

- A. American call options, but not European call options.
- B. both European call options and American call options.
- C. neither European call options nor American call options.

Solution: C.

Although there are exceptions, in general the longer the time to expiration the more valuable is the option, ceteris paribus. With the exception of the rare case in which [options] are so far out-of-the-money or in-the-money that the additional time is of no value, the longer term [options] will be worth more. In addition, it is not always true that a longer-term is beneficial to the holder of a European put.

Q-252. Which of the following statements about put and call options is least accurate?

- A. The price of the option is less volatile than the price of the underlying stock
- B. Option prices are generally higher the longer the time until the option expires
- C. For put options, the higher the strike price relative to the stock's underlying price, the more the put is worth

Solution: A.

Option prices are more volatile than the price of the underlying stock. The other statements are true. Options have time value, which means prices are higher the longer the time until the option expires, and a higher strike price increase the value of a put option.

Q-253. If the risk-free rate increases, the value of an in-the-money European put option will most likely:

- A. Decrease.
- B. Remain the same.
- C. Increase.

Solution: A.

An in-the-money European put option decreases in value with an increase in the risk-free rate. A higher risk-free rate reduces the present value of any proceeds received on exercise.

Q-254. The table below shows three European call options on the same underlying, which one of them has the highest value:

	Time to Expiration	Exercise Price
A. Option 1	3 months	\$100
B. Option 2	6 months	\$100
C. Option 3	6 months	\$105

Solution: B.

The value of a European call option is inversely related to the exercise price and directly related

to the time to expiration. Option 1 and Option 2 have the same exercise price; however, Option 2 has a longer time to expiration. Consequently, Option 2 would likely have a higher value than Option 1. Option 2 and Option 3 have the same time to expiration; however, Option 2 has a lower exercise price. Thus, Option 2 would likely have a higher value than Option 3.

Q-255. An increase in volatility of the underlying will most likely increase the value of:

- A. Call option
- B. Put option
- C. Both call option and put option

Solution: C.

The volatility of the underlying are positively related to the value of both call option and put option.

Q-256. The effects on the price of a call option from an Increase in volatility and an Increase in interest rates are:

	Increase in Volatility	Increase in Interest Rates
A.	Decrease	Increase
B.	Increase	Increase
C.	Increase	Decrease

Solution: B.

When volatility increases, the price of options increases. When interest rates increase, call option prices increase.

9.12. Option Value

9.12.1. 重要知识点

9.12.1.1. Min value & max value of call and put options

Option	Min Value	Max Value
European call	$\text{Max}[0, S_t - X/(1+RFR)^{T-t}]$	S_t
American call	$\text{Max}[0, S_t - X/(1+RFR)^{T-t}]$	S_t
European put	$\text{Max}[0, X/(1+RFR)^{T-t} - S_t]$	$X/(1+RFR)^{T-t}$
American put	$P_t \geq \text{Max}[0, X - S_t]$	X

9.12.2. 基础题

Q-257. A call with a strike price of \$40 is available on a stock currently trading for \$35. The call

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expires in one year and the risk-free rate of return is 10%. The lower bound on this call's value:

- A. is zero.
- B. is \$5 if the call is American-style.
- C. is \$1.36 if the call is European-style.

Solution: A.

For an American- or European-style call, the lower bound is the greater of zero or the difference between the stock price and the present value of the strike price.

$$\text{Max}[0, S_t - X / (1 + \text{RFR})^{T-t}] = \text{Max}[0, \$35 - (\$40 / 1.1)] = \$0.$$

Q-258. A put option with an exercise price of 75 will expire in 73 days. No cash payments will be made by the underlying asset over the life of the option. If the underlying asset is at 70 and the risk-free rate of return is 5.0 percent, the lower bounds for an American put option and a European put option, respectively, are closest to:

	Lower bound for American put option	Lower bound for European put option
A.	4.27	4.27
B.	4.27	5.00
C.	5.00	4.27

Solution: C.

When valuing European puts that have time left until expiration, the lower bound must reflect the fact that exercise is delayed until the expiration date. That is, with a European put one can't recognize the current intrinsic value, but must wait until expiration. This delay in receiving payment for selling (putting) the stock to the writer has a cost. The lower bound will therefore be below the intrinsic value (but never negative). This can be confirmed by applying the formula $P_0 = \text{Max}[0, X / (1 + r)^T - S_0]$. In this problem, the lower bound is the greater of 0 or $75 / (1.05)^{0.2} - 70 = 4.27$. Regarding the American put, as one can recognize the intrinsic value of an American put immediately if one chooses to, the lower bound of an American put, in the absence of intervening cash payments on the underlying asset, will simply be equal to the intrinsic value.

Q-259. Consider an American index call option with a strike price of \$1000 and expiring in 4 months. The underlying is trading for \$1040. Assuming the risk free rate is 3%, the lower bound for the option price is closest to:

- A. \$40.

- B. \$49.80.
C. 0.

Solution: B.

The lower bound on an American call is equal to the European call. It is either zero or the underlying asset's price minus the present value of the exercise price, whichever is greater.

$$\text{Max}[0, S_t - X / (1 + RFR)^{T-t}] = \text{Max}[0, \$1040 - (\$1000 / 1.03^{1/3})] = \$49.80.$$

Q-260. Which of the following shows correctly the differences between American option and European option?

- A. American option is always more expensive than European option.
B. The exercise style is different.
C. European options allow for exercise on or before the option expiration date.

Solution: B.

American option gives the holder the right to exercise before or at the expiration date, while European option can only be exercised at the expiration date, so the main difference is exercise style. Also since no one would exercise a American call option if the underlying stock pays no dividend, then the American call option may be equal to European call option.

9.13. Put-Call Parity

9.13.1. 重要知识点

9.13.1.1. Put-call parity

➤ 熟练掌握 put-call parity 公式的各种变形:

■ $S = C - P + X / (1 + RFR)^T$

■ $P = C - S + X / (1 + RFR)^T$

■ $C = S + P - X / (1 + RFR)^T$

■ $X / (1 + RFR)^T = S + P - C$

◆ Note that the options must be European-style and the puts and calls must have the same exercise price for these relations to hold.

◆ Fiduciary call: buy riskless bond that pays X at maturity and a call with exercise price X.

◆ Protective put: buy security and long put.

➤ Put-call parity 的作用:

- 为 option 定价
■ 合成 option

■ 无风险套利。在无风险套利中，遵循 long 小边，short 大边原则

◆ 如： $C + \frac{X}{(1+RFR)^T} > S + P$ ，套利方法是：long security, long put, short call, short bonds.

➤ Put-call-forward parity can be written as:

■ $p - c = [X - F(T)] / (1+r)^T$

➤ This means that the difference between the price of a put and the price of a call is equal to the difference between exercise price and forward price discounted at the risk-free rate.

9.13.2. 基础题

Q-261. A description that will least likely be used to explain put-call parity is:

- A. The (exercise) prices of calls and puts on an underlying asset must be consistent with each other to remove arbitrage opportunities.
- B. A fiduciary call option strategy and a protective put option strategy for an underlying asset are equal in value.
- C. A put is equivalent to long a call, a long position in the underlying asset, and a long position in the risk-free asset.

Solution: C.

For $P = C + Xe^{-rt} - S$

A put is equivalent to long a call, a short position in the underlying asset, and a long position in the risk free asset.

Q-262. A stock is selling at \$40, a 3-month put at \$50 is selling for \$11, a 3-month call at \$50 is selling for \$1, and the risk-free rate is 6%. How much, if anything, can be made on an arbitrage?

- A. \$0 (no arbitrage)
- B. \$0.28
- C. \$0.72

Solution: C.

A synthetic stock is $S = C - P + X / [(1+RFR)^T] = \$1 - \$11 + 50 / [(1.06)^{0.25}] = 39.28$. Since the stock is selling for \$40, you can short a share of stock for \$40 and buy the synthetic for an immediate arbitrage profit of \$0.72.

Q-263. Based on put-call parity, the combination of a long call, a short put and a long bond will create a synthetic:

- A. Short asset
- B. Long asset
- C. Short put

Solution: B.

Put-call parity is $P_0 + S_0 = C_0 + X/(1+r)^T$

A long asset can be synthetically created by combining a long call, a short put and a long bond.

Q-264. Using put-call parity, you can create a long position in a synthetic underlying asset by:

- A. combining long positions in a call option, a risk-free bond, and a short put option.
- B. combining short positions in a call option, a long position in risk-free bond, and a put option.
- C. combining long positions in a call option, a short position in risk-free bond, and a put option.

Solution: A.

Put-call parity is $P_0 + S_0 = C_0 + X/(1+r)^T$

Solving for the underlying asset, $S_0 = C_0 + X/(1+r)^T - P_0$

Therefore, the synthetic long assets are a combination of long the call, long the risk-free bond, and short the put option.

9.14. Arbitrage and No-Arbitrage Principle

9.14.1. 重要知识点

9.14.1.1. Risk-free arbitrage and no-arbitrage rule

- Arbitrage involves earning over the risk-free rate with no risk or earning an immediate gain with no future liabilities.
- Arbitrage opportunities: arbitrage occurs when equivalent assets or combinations of assets sell for two different prices.
- Law of one price: the condition in a financial market in which two equivalent financial instruments or combinations of financial instruments can sell for only one price. Equivalent to the principle that no arbitrage opportunities are possible.
- The role of arbitrage is to eliminate mispricing and lead to the market efficiency. That is why arbitrage also plays a role in pricing.

9.14.2. 基础题

Q-265. The law of one price is best described as:

- A. the true fundamental value of an asset.
- B. earning a risk-free profit without committing any capital.
- C. two assets that will produce the same cash flows in the future must sell for equivalent prices.

Solution: C.

The law of one price occurs when market participants engage in arbitrage activities so that identical assets sell for the same price in different markets.

A is incorrect because the law of one price refers to identical assets. B is incorrect because it refers to arbitrage not the law of one price.

Q-266. An investor who requires no premium to compensate for the assumption of risk is said to be which of the following?

- A. Risk seeking
- B. Risk averse
- C. Risk neutral

Solution: C.

Risk-seeking investors give away a risk premium because they enjoy taking risk. Risk-averse investors expect a risk premium to compensate for the risk. Risk-neutral investors neither give nor receive a risk premium because they have no feelings about risk.

Q-267. Which of the following best describes an arbitrage opportunity? It is an opportunity to:

- A. Earn a risk premium in the short run.
- B. Buy an asset at less than its fundamental value.
- C. Make a profit at no risk with no capital invested.

Solution: C.

C is correct because it is the only answer that is based on the notion of when an arbitrage opportunity exists: when two identical assets or portfolios sell for different prices. A risk premium earned in the short run can easily have occurred through luck. Buying an asset at less than fair value might not even produce a profit.

Q-268. Arbitrage opportunities exist when:

- A. two identical assets or derivatives sell for different prices.

- B. combinations of the underlying asset and a derivative earn the risk-free rate.
- C. arbitrageurs simultaneously buy takeover targets and sell takeover acquirers.

Solution: A.

Arbitrage opportunities exist when the same asset or two equivalent combinations of assets that produce the same results sell for different prices. When this situation occurs, market participants would buy the asset in the cheaper market and simultaneously sell it in the more expensive market, thus earning a riskless arbitrage profit without committing any capital. B is incorrect because it is not the definition of an arbitrage opportunity. C is incorrect because it is not the definition of an arbitrage opportunity.

9.15. Forward Pricing and Valuation

9.15.1. 重要知识点

9.15.1.1. Forward pricing and valuation

- Pricing a forward contract is the process of determining the no-arbitrage price that will make the value of the contract be zero to both sides at the initiation of the contract
 - $FP = S_0 + \text{Carrying Costs} - \text{Carrying Benefits}$
- Valuation of a forward contract means determining the value of the contract to the long (or the short) at some time during the life of the contract.

Time	Forward Contract Valuation
t=0	Zero, because the contract is priced to prevent arbitrage
t=t	$V_{long} = S_t - \frac{FP}{1 + R_f^{T-t}} \quad V_{short} = -V_{long} = \frac{FP}{1 + R_f^{T-t}} - S_t$
t=T	$S_T - FP$

- T-bill (zero-coupon bond) forwards
 - $FP = S_0 \times (1 + R_f)^T$
- Forward contracts on a dividend-paying stock
 - $FP = (S_0 - PVD_0) \times (1 + R_f)^T$
 - $V_{long} = (S_t - PVD_t) \times FP / (1 + R_f)^{T-t}$
 - General Equation: $FP = (S_0 - PVB_0 + PVC_0) \times (1 + R_f)^T$

9.15.2. 基础题

- Q-269.** Which of the following best describes the difference between the price of a forward contract and its value?

- A. The forward price is fixed at the start, and the value starts at zero and then changes
- B. The price determines the profit to the buyer, and the value determines the profit to the seller
- C. The forward contract value is a benchmark against which the price is compared for the purposes of determining whether a trade is advisable

Solution: A.

The forward price is fixed at the start, whereas the value starts at zero and then changes. Both price and value are relevant in determining the profit for both parties. The forward contract value is not a benchmark for comparison with the price.

Q-270. Forward prices are least likely to be affected by:

- A. The risk preference of the investors
- B. Costs incurred from the underlying
- C. Benefits such as dividends or interests from the underlying

Solution: A.

The costs of holding the underlying, known as carrying costs, and the dividends and interest paid by the underlying are extremely relevant to the forward price. How the investor feels about risk is irrelevant, (whether risk averse, risk seeking or risk neutral), because the forward price is determined by arbitrage.

Q-271. Consider an asset with no interim costs or benefits, the factor that is least likely to affect the spot price of the asset is:

- A. The purchasing price offered by others for the asset
- B. The time value of money
- C. Whether the investor is risk averse, risk seeking, or risk neutral

Solution: A.

The price recently paid by other investors is past information and does not affect the spot price. The time value of money and the risk aversion of investors determine the discount rate. Only current information is relevant as investors look ahead, not back.

Q-272. The price of a forward contract:

- A. is the amount paid at initiation.
- B. is the amount paid at expiration.

C. fluctuates over the term of the contract.

Solution: B.

The forward price is agreed upon at the start of the contract and is the fixed price at which the underlying will be purchased (or sold) at expiration. Payment is made at expiration. The value of the forward contract may change over time, but the forward price does not change.

Q-273. Stocks BWQ and ZER are each currently priced at \$100 per share. Over the next year, stock BWQ is expected to generate significant benefits whereas stock ZER is not expected to generate any benefits. There are no carrying costs associated with holding either stock over the next year. Compared with ZER, the one-year forward price of BWQ is most likely:

- A. lower.
- B. the same.
- C. higher.

Solution: A.

The forward price of each stock is found by compounding the spot price by the risk-free rate for the period and then subtracting the future value of any benefits and adding the future value of any costs. In the absence of any benefits or costs, the one-year forward prices of BWQ and ZER should be equal.

After subtracting the benefits related to BWQ, the one-year forward price of BWQ is lower than the one-year forward price of ZER.

Q-274. Which of the following factors most likely explains why the spot price of a commodity in short supply can be greater than its forward price?

- A. Opportunity cost
- B. Lack of dividends
- C. Convenience yield

Solution: C.

The convenience yield is a benefit of holding the asset and generally exists when a commodity is in short supply. The future value of the convenience yield is subtracted from the compounded spot price and reduces the commodity's forward price relative to its spot price. The opportunity cost is the risk-free rate. In the absence of carry costs, the forward price is the spot price compounded at the risk-free rate and will exceed the spot price. Dividends are benefits that

reduce the forward price but the lack of dividends has no effect on the spot price relative to the forward price of a commodity in short supply.

Q-275. Which of the following does not represent a benefit of holding an asset?

- A. The convenience yield
- B. An optimistic expected outlook for the asset
- C. Dividends if the asset is a stock or interest if the asset is a bond

Solution: B.

An optimistic forecast for the asset is not a benefit of holding the asset, but it does appear in the valuation of the asset as a high expected price at the horizon date. Convenience yields and dividends and interest are benefits of holding the asset.

Q-276. Which of the following best describes the value of the forward contract at expiration?

The value is the price of the underlying:

- A. minus the forward price.
- B. divided by the forward price.
- C. minus the compounded forward price.

Solution: A.

A is correct because the holder of the contract gains the difference between the price of the underlying and the forward price. That value can, of course, be negative, which will occur if the holder is forced to buy the underlying at a price higher than the market price.

9.16. Futures Pricing and Valuation

9.16.1. 重要知识点

9.16.1.1. Futures pricing and valuation: futures price and forward price

If the correlation between the underlying asset value and interest rate is...	Investors will...
Positive	Prefer to go long in a futures contract, and the futures price will be greater than the price of an otherwise comparable forward contract.
Zero	Have no preference
Negative	Prefer to go long in a forward contract, and the forward price will be greater than the

price of an otherwise comparable futures contract.
--

9.16.2. 基础题

Q-277. To the holder of a long position, it is more desirable to own a forward contract than a futures contract when interest rates and futures prices are:

- A. negatively correlated.
- B. uncorrelated.
- C. positively correlated.

Solution: A.

If futures prices and interest rates are negatively correlated, forwards are more desirable to holders of long positions than are futures. This is because rising prices lead to futures profits that are reinvested in periods of falling interest rates. It is better to receive all of the cash at expiration under such conditions. If futures prices and interest rates are uncorrelated, forward and futures prices will be the same. If futures prices are positively correlated with interest rates, futures contracts are more desirable to holders of long positions than are forwards.

Q-278. Which of the following best describes how futures contract payoffs differ from forward contract payoffs?

- A. Forward contract payoffs are larger
- B. They are equal, ignoring the time value of money
- C. Futures contract payoffs are larger if the underlying is a commodity

Solution: B.

Forward payoffs occur all at expiration, whereas futures payoffs occur on a day-to-day basis but would equal forward payoffs ignoring interest. Payoffs could differ, so forward payoffs are not always larger. The type of underlying is not relevant to the point of which payoff is larger.

9.17. Swap Pricing and Valuation

9.17.1. 重要知识点

9.17.1.1. Swap pricing and valuation

- **Equivalence of swaps to bonds:** An interest rate swap is identical to issuing a fixed-rate bond and using the proceeds to buy a floating-rate bond.
- **Equivalence of swaps to forward contracts (FRA):** A forward contract is an agreement to exchange future cash flows once, so a swap can be viewed as a

series of forward contracts.

9.17.2. 基础题

Q-279. Which of the following statement is least likely correct about swaps?

- A. Both the price and value of a swap is zero at initiation.
- B. The price of the swap is fixed through the life of the contract.
- C. The price can be determined by replication.

Solution: A.

Replication is the key to pricing a swap. The swap price is determined at initiation by replication. The value (not the price) of the swap is typically zero at initiation and the fixed swap price is typically determined such that the value of the swap will be zero at initiation.

Q-280. If the present value of the payments in a forward contract or swap is not zero, which of the following is most likely to be true?

- A. The contract cannot legally be created
- B. The contract must be replicated by another contract with zero value
- C. The party whose stream of payments to be received is greater has to pay the other party the present value difference

Solution: C.

The party whose stream of payments to be received is greater has to pay the other party the present value difference. Such a contract can legally be created, but the party receiving the greater present value must compensate the other party with a cash payment at the start. Replication is never required.

Q-281. A swap contract is equivalent to:

- A. a series of forward contracts created at different forward prices
- B. a series of forward contracts combined with future contracts
- C. a series of forward contracts with swap price

Solution: C.

Each implicit forward contract is said to be off-market, because it is created at the swap price, not the forward price, which would be the price created in the forward market.

Q-282. Which of the following statements about the value of a swap is most likely incorrect?

- A. the value of a swap is obtained through replication
- B. the value of a swap is non-zero at initiation
- C. the value of a swap will fluctuate over the life of the contract

Solution: B.

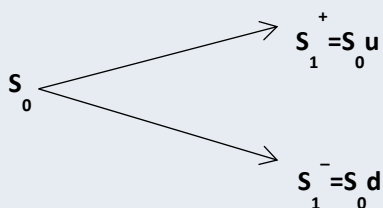
At initiation, the value of a swap is zero.

9.18. Option Pricing and Valuation

9.18.1. 重要知识点

9.18.1.1. Option pricing and valuation

- **Binomial model**
- A binomial model is for pricing options in which the underlying price can move to only one of two possible new prices.
- We start off by having only one binomial period, which means that the underlying price moves to two new prices at option expiration. We let S_0 be the price of the underlying stock now. One period later, the stock price can move up to S_1^+ or down to S_1^- . We then identify a factor, u , as the up move on the stock and d as the down move. Thus, $S_1^+ = S_0 u$ and $S_1^- = S_0 d$. We further assume that $u = 1/d$.



- Risk-neutral probability of an up move is π_u ; Risk-neutral probability of a down move is $\pi_d = 1 - \pi_u$

$$\pi_u = \frac{1 + R_f - d}{u - d}$$

- We should notice that:
 - On the first point, if volatility increases, the difference between S_1^+ and S_1^- increases, which widens the range between c_1^+ and c_1^- , leading to a higher option value. The upper payoff, c_1^+ , will be larger and the lower payoff, c_1^- , will be lower.
 - On the second point, the actual probabilities of the up and down moves do not matter. This result is because of our ability to construct a hedge and the rule of arbitrage.
- On the third point, the irrelevance of the actual probabilities is replaced by the

relevance of a set of synthetic or pseudo probabilities, π and $1-\pi$, which are called risk-neutral probabilities.

9.18.2. 基础题

Q-283. The most correct statement about the binomial option pricing formula is that:

- A. The discount rate to calculate the option price is the risk-free rate
- B. The discount rate to calculate the option price is the risk-free rate plus a risk premium
- C. The spot price is compounded at the risk-free rate to get the expected payoff

Solution: A.

Risk-neutral probabilities are used, and discounting is at the risk-free rate. There is no risk premium incorporated into option pricing because of the use of arbitrage.

Q-284. Which of the following terms directly represents the volatility of the underlying in the binomial model?

- A. The standard deviation of the underlying
- B. The difference between the up and down factors
- C. The ratio of the underlying value to the exercise price

Solution: B.

The up and down factors express how high and how low the underlying can go. Standard deviation does not appear directly in the binomial model, although it is implicit. The ratio of the underlying value to the exercise price expresses the moneyness of the option.

9.19. 进阶题

Q-285. A derivative is best described as a financial instrument that derives its performance by:

- A. passing through the returns of the underlying.
- B. replicating the performance of the underlying.
- C. transforming the performance of the underlying.

Solution: C.

A derivative is a financial instrument that transforms the performance of the underlying. The transformation of performance function of derivatives is what distinguishes it from mutual funds and exchange traded funds that pass through the returns of the underlying.

A is incorrect because derivatives, in contrast to mutual funds and exchange traded funds, do not simply pass through the returns of the underlying at payout. B is incorrect because a derivative transforms rather than replicates the performance of the underlying.

Q-286. Kaven, a hedge fund manager, observes that the spot gold price is negatively correlated with interest rate. He intends to get profit from the short-term price movement. Which instrument is most suitable to him to long?

- A. forward
- B. future
- C. swap

Solution: A.

If futures prices are positively correlated with interest rates, futures contracts are more desirable to holders of long positions than are forwards. A negative correlation between futures prices and interest rates leads to the opposite interpretation, with forwards being more desirable than futures to the long position.

If futures prices and interest rates are uncorrelated, forwards and futures prices will be the same.

If futures prices are positively correlated with interest rates, futures contracts are more desirable to holders of long positions than are forwards.

A negative correlation between futures prices and interest rates leads to the opposite interpretation, with forwards being more desirable than futures to the long position.

The more desirable contract will tend to have the higher price.

Q-287. A credit derivative is a derivative contract in which the:

- A. clearinghouse provides a credit guarantee to both the buyer and the seller.
- B. seller provides protection to the buyer against the credit risk of a third party.
- C. the buyer and seller provide a performance bond at initiation of the contract.

Solution: B.

A credit derivative is a derivative contract in which the credit protection seller provides protection to the credit protection buyer against the credit risk of a third party.

A is incorrect because the clearinghouse provides a credit guarantee to both the buyer and the seller of a futures contract, whereas a credit derivative is between two parties, in which the credit protection seller provides a credit guarantee to the credit protection buyer. C is incorrect because futures contracts require that both the buyer and the seller of the futures contract provide a cash deposit for a portion of the futures transaction into a margin account, often

referred to as a performance bond or good faith deposit.

Q-288. By nature, margin in futures contracts can be most likely regarded as a:

- A. Loan granted by brokers.
- B. Advance payment to carry out the ultimate settlement.
- C. Deposit of commission for brokers.

Solution: B.

A margin deposit in futures contract is in fact a guarantee of delivery of the underlying assets. The change in the amount of margin is a current gain or loss of counterparties of futures contracts. If a participant has a margin greater than his maintenance margin, he/she can withdraw the part above the maintenance level to realize the gain.

The loan granted by brokers is used in a purchase in margin of stocks. Commissions are a fee charged by brokers. It is a transaction cost and has no direct relation with margin.

Q-289. Compare an American call with a strike of 50 which expires in 90 days to an American call on the same underlying asset which has a strike of 60 and expires in 120 days. The underlying asset is selling at 55. Consider the following statements:

Statement 1: "The 50 strike call is in-the-money and the 60 strike call is out-of-the-money."

Statement 2: "The time value of the 60 strike call, as a proportion of the 60 strike call's premium, exceeds the time value of the 50 strike call as a proportion of the 50 strike call's premium."

Are the statements most likely correct or incorrect?

- A. Both statements are correct
- B. Statement 1 is incorrect, but Statement 2 is correct
- C. Statement 1 is correct, but Statement 2 is incorrect

Solution: A.

A call is in-the-money when the underlying asset price exceeds the strike price. The entire premium of the 60 strike call reflects time value; only a part of the 50 strike call's premium is time value, the rest will be intrinsic value.

Q-290. The greater of either zero or the present value of the exercise price minus the underlying price is most likely the lower bound on the price of a(n): **012 年 12 月真题)**

- A. European put option.

- B. American put option.
- C. American call option.

Solution: A.

For a European put, the exercise price must be adjusted to the present value because the option can only be exercised on expiration.

Option	Min Value	Max Value
European call	$\text{Max}[0, S_t - X/(1+\text{RFR})^{T-t}]$	S_t
American call	$\text{Max}[0, S_t - X/(1+\text{RFR})^{T-t}]$	S_t
European put	$\text{Max}[0, X/(1+\text{RFR})^{T-t} - S_t]$	$X/(1+\text{RFR})^{T-t}$
American put	$P_t \geq \text{Max}[0, X - S_t]$	X

Q-291. With respect to American calls, which of the following statements is most accurate?

- A. American calls should be exercised early if the underlying has reached its expected maximum price
- B. American calls should be exercised early if the underlying has a lower expected return than the risk-free rate
- C. American calls should be exercised early only if there is a dividend or other cash payment on the underlying

Solution: C.

Cash payments on the underlying are the only reason to exercise American calls early. Interest rates, the expected return on the underlying, and any notion of a maximum price is irrelevant. But note that a dividend does not mean that early exercise should automatically be conducted. A dividend is only a necessary condition to justify early exercise for calls.

Q-292. The effect of dividends on a stock on early exercise of a put is to:

- A. make early exercise less likely.
- B. have no effect on early exercise.
- C. make early exercise more likely.

Solution: A.

Dividends drive down the stock price when the dividend is paid. Thus, all else being equal, a stock paying dividends has a built-in force that drives down the stock price. This characteristic discourages early exercise, because stock price declines are beneficial to holders of puts.

Q-293. Assume the probability of bankruptcy for the underlying asset is high. Compared to the price of an American put option on the same underlying asset, the price of an equivalent European put option will most likely be:

- A. lower.
- B. higher.
- C. the same because the probability of bankruptcy does not affect pricing.

Solution: A.

In bankruptcy, the price of the bankrupt company's stock falls. In the limit it falls to zero. At a price of zero, the price cannot go any lower, and it would be advantageous to exercise the American put at that point in time rather than be forced to wait until the expiration date. Therefore, the American-style put is likely to have a higher price than an equivalent European-style put.

Q-294. Assume an asset pays no dividends or interest, and also assume that the asset does not yield any non-financial benefits or incur any carrying cost. At initiation, the price of a forward contract on that asset is:

- A. lower than the value of the contract.
- B. equal to the value of the contract.
- C. greater than the value of the contract.

Solution: C.

The price of a forward contract is a contractually fixed price, established at initiation, at which the underlying will be purchased (or sold) at expiration. The value of a forward contract at initiation is zero; therefore, the forward price is greater than the value of the forward contract at initiation.

Q-295. Which of the following conditions will not make futures and forward prices equivalent?

- A. Interest rates are known
- B. Futures prices are uncorrelated with interest rates
- C. The volatility of the forward price is different from the volatility of the futures price

Solution: C.

Known interest rates and the condition that futures prices are uncorrelated with forward prices will make forward and futures prices equivalent. The volatility of forward and futures prices has no relationship to any difference.

Q-296. With respect to the value of a futures contract, which of the following statements is

most accurate? The value is the:

- A. futures price minus the spot price.
- B. present value of the expected payoff at expiration.
- C. accumulated gain since the previous settlement, which resets to zero upon settlement.

Solution: C.

Value accumulates from the previous settlement and goes to zero when distributed.



金程教育

GOLDEN FUTURE

2018 年 06 月 CFA 一级百题预测

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

近年来，CFA 考试的难度在逐步提高。针对 2018 年 6 月的考试，考生对于占比较高的几门科目需要引起充分重视，如：财务报表分析、职业伦理和数量分析，所以百题中所标示的基础题目必须掌握。2018 年相比于 2017 年的考纲基本没有变动，只在数量、衍生、企业理财等科目中，删除了部分章节，并将原有企业理财中，股利的概念部分并入权益，基本都是考察定性的内容。百题中的题目，紧密贴合考纲和真题难度，依据金程多年 CFA 培训经验，由资深研究员与明星师资共同编写。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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10. Alternative Investments

10.1. Traditional Investment vs. Alternative Investment

10.1.1. 重要知识点

10.1.1.1. 理解其他类投资与传统投资的不同之处，并掌握其他类投资的特性

- Illiquidity of underlying investments;
- Narrow manage specialization;
- Low correlation with traditional investments;
- Low level of regulation and less transparency;
- Limited and potentially problematic historical risk and return data;
- Unique legal and tax considerations.

10.1.1.2. 掌握其他类投资在整个投资组合中的优点

- Low correlation;
- High return;
- High risk.

10.1.2. 基础题

Q-297. Generally, the purpose of a investor who adds alternative investments to their traditional investment portfolio is most likely:

- A. Persuing higher return through taking more risk.
- B. Persuing higher return while lowering the risk.
- C. Minimizing the portfolio risk by giving up some return.

Solution: B.

Adding an antervative investment to traditional investment portfolios is able to lower the total portfolio volatility because of the low correlation between these two assets. Also , the expected return will be higher due to the high return property of althervative investment.

Q-298. Relative to traditional investments, alternative investments are *least likely* to be characterized by:

- A. high levels of transparency.
- B. limited historical return data.
- C. significant restrictions on redemptions.

Solution: A.

Alternative investments are characterized as typically having low levels of transparency.

Q-299. Alternative investment funds are typically managed:

- A. actively.
- B. to generate positive beta return.
- C. assuming that markets are efficient.

Solution: A.

There are many approaches to managing alternative investment funds but typically these funds are actively managed and aim to generate positive alpha return.

10.2. Risk Management of Alternative Investments

10.2.1. 重要知识点

10.2.1.1. 掌握其他类投资的风险管理与尽职调查

➤ Risks management

- Traditional risk and return measures (such as mean return, standard deviation of returns, and beta) may not provide an adequate picture of characteristics of alternative investments.
- Because of the active use of derivatives by many alternatives managers, operational risk, financial risk, counterparty risk, and liquidity risk are key considerations for prospective investors.
- Asymmetric risk and return profiles, limited portfolio transparency, and illiquidity.
- Past performance is not necessarily representative of future performance.
- The reported correlations of those investments with other investments may vary from the actual correlations.
- The reported correlations of those investments with other investments may vary from the actual correlations.

➤ A typical due diligence process

- Organization;
- Portfolio management;
- Operations and controls;
- Risk management;
- Legal review;
- Fund terms.

10.2.2. 基础题

Q-300. An analyst who intends to assess the downside risk of an alternative investment is *least*

likely to use the investment's:

- A. Sortino ratio.
- B. Value at risk (VaR).
- C. Standard deviation of returns.

Solution: C.

Downside risk measures focus on the left side of the return distribution curve where losses occur. The standard deviation of returns assumes that returns are normally distributed. Many alternative investments do not exhibit close-to-normal distribution of returns, which is a crucial assumption for the validity of a standard deviation as a comprehensive risk measure. Assuming normal probability distributions when calculating these measures will lead to an underestimation of downside risk for a negatively skewed distribution. Both the Sortino ratio and the value-at-risk measure are both measures of downside risk.

10.3. Hedge Fund

10.3.1. 重要知识点

10.3.1.1. 了解对冲基金的收益目标（绝对和相对），投资策略，并能理解四种策略中的子策略，潜在收益与风险、估值方式、尽职调查的要点

➤ **Return objective**

- Absolute return: e.g. total return of 12%.
- Relative return: e.g. the return is 6% higher than DJIA.

➤ **Lockup period:** the minimum period before investors are allowed to make withdrawals or redeem shares from a fund;

➤ **Notice period:** the length of time (typically 30 to 90 days) in advance that investors may be required to notify a fund of their intent to redeem;

➤ **Fund of fund:** funds that hold a portfolio of hedge fund.

- Hedge funds of funds have multi-layered fee structures, while the fee structure for a single hedge fund is less complex.

➤ **Strategies**

■ **Event-driven strategies**

- ◆ **Merger arbitrage:** going long (buying) the stock of the company being acquired and going short (selling) the stock of the acquiring company;
- ◆ **Distressed/restructuring:** focus on the securities of companies either in bankruptcy or perceived to be near to bankruptcy;
- ◆ **Activist shareholder:** purchase of sufficient equity in order to influence a

company's policies or direction;

- ◆ **Special situations:** focus on companies that are currently engaged in restructuring activities other than merger/acquisitions and bankruptcy.

- **Relative value strategies**

- ◆ **Fixed income convertible arbitrage:** market neutral (zero beta) strategies that seek to exploit a perceived mispricing between a convertible bond and its component parts;
- ◆ **Fixed income asset backed:** take advantage of mispricing across different asset backed securities;
- ◆ **Fixed income general:** focus on the relative value within the fixed income markets;
- ◆ **Volatility:** use options to go long or short market volatility;
- ◆ **Multi-strategy:** looks for investment opportunities wherever they might exist.

- **Macro strategies**

- **Equity hedge strategies**

- ◆ **Market neutral:** Maintain a net position that is neutral with respect to market risk. The intent is to profit from individual securities movements while hedging against market risk;
- ◆ **Fundamental growth:** fundamental analysis to identify companies expected to exhibit high growth and capital appreciation;
- ◆ **Fundamental value:** buy equity securities believed to be undervalued based on fundamental analysis;
- ◆ **Quantitative directional:** technical analysis to identify companies that are under- and overvalued;
- ◆ **Short bias:** varies its net short exposure based upon market expectations, going fully short in declining markets.

- **Potential benefits and risks**

- Hedge fund strategies that generate the highest returns in some years can be the ones to perform the most poorly in subsequent years;

- In periods of financial crisis, the correlation of returns between global equities and hedge funds tends to increase, which limits hedge funds' effectiveness as a diversifying asset class.
- **Valuation**
 - The valuation of hedge fund may use market or estimated values of underlying positions.
- Key due diligence points to consider include **investment strategy, investment process, competitive advantage, track record, size and longevity, management style, key-person risk, reputation, investor relations, plans for growth, and systems risk management.**

10.3.2. 基础题

Q-301. Comparing to a fund of funds, a single hedge fund will be more suitable for an investor who seeks:

- A. due diligence expertise.
- B. more favourable redemption terms.
- C. Understandable management fees structure.

Solution: C.

The FoFs usually have more reliable due diligence and better redemption terms, however, the critical problem for FoFs is the fee structure is rather complex than other single funds.

Q-302. Hedge funds are similar to private equity funds in that both:

- A. are typically structured as partnerships.
- B. assess management fees based on assets under management.
- C. do not earn an incentive fee until the initial investment is repaid.

Solution: A.

Private equity funds and hedge funds are typically structured as partnerships where investors are limited partners (LP) and the fund is the general partner (GP). The management fee for private equity funds is based on committed capital whereas for hedge funds the management fees are based on assets under management. For most private equity funds, the general partner does not earn an incentive fee until the limited partners have received their initial investment back.

Q-303. A hedge fund invests primarily in distressed debts. Quoted market prices are available for the underlying holdings but they trade infrequently. Which of the following will the

hedge fund *most likely* use in calculating net asset value for trading purposes?

- A. Average quotes.
- B. Average quotes adjusted for liquidity.
- C. Bid prices for short positions and ask prices for long positions.

Solution: B.

Many practitioners believe that liquidity discounts are necessary to reflect fair value. This has resulted in some funds having two NAVs—for trading and reporting. The fund may use average quotes for reporting purposes but apply liquidity discounts for trading purposes.

- Q-304.** Mikey Chow is a financial analyst in Moonlight Hedge Fund. The fund is planning to make a substantial investment overseas. Through a diligent research on economics condition of several countries, Mikey found both India and China were good targets. He then identified some industries in both countries with promising futures. When Mikey made these investment decisions, he is *most likely* employing a:
- A. event-driven strategy.
 - B. macro strategy.
 - C. quantitative directional method.

Solution: B.

Macro strategy invest based on “top-down” research. Mikey began with analyzing target countries and then moved on to industries, displaying a typical macro strategy.

10.4. Fee Structure of Hedge Funds

10.4.1. 重要知识点

10.4.1.1. 掌握 hedge funds 的管理费用结构

➤ Management fee

- Based on capital under management
 - ◆ Attractive to portfolio managers because the management fee alone will generate significant revenue if assets under management are large.

- Earned irrespective of returns

➤ Incentive fee

- Based on profits net of (or before) management fee;
- Only earned if the return exceeds a hurdle rate;
- High water mark: highest value reported

- ◆ The hedge fund must recover past losses and return to previous high water mark before any additional incentive fee is earned;
- ◆ Protect clients from paying twice for the same performance.
- “2 and 20” means 2% management fee and 20% incentive fee for hedge funds;
- FoFs may charge extra 1% management fee and 10% incentive fee.
- **Negotiable terms**
 - Fees, notice and lockup periods are negotiable with potential investors.
 - ◆ Longer investment periods, lower fees.
- **FoF benefits and drawbacks**
 - Due diligence;
 - Diversification;
 - Lower minimum investment;
 - Better liquidity;
 - Lower mortality;
 - Drawbacks;
 - Fee;
 - Difficult to generate positive alpha after fees.

10.4.2. 基础题

Q-305. An investor will most likely prefer high water mark in the incentive fee structure of a specific hedge fund to avoid:

- A. Duplicated charge for same returns.
- B. prime brokerage fees.
- C. management fees.

Solution: A.

Clients are not charged an incentive fee if the latest cumulative return does not exceed the prior high water mark. This use of a high water mark protects clients from paying twice for the same performance. Although poorly performing hedge funds may not receive an incentive fee, the management fee is earned irrespective of returns.

Q-306. AWJ Capital is a hedge fund with \$100 million of initial investment capital. They charge a 2 percent management fee based on assets under management at year-end and a 20 percent incentive fee. In its first year, AWJ Capital has a 30 percent return. Assume

management fees are calculated using end-of-period valuation. If the incentive and management fees are calculated independently, what is an investor's effective return given this fee structure?

- A. 17.89%.
- B. 19.85%.
- C. 21.40%.

Solution: C.

AWJ fees

$\$130 \text{ million} \times 2\% = \$2.6 \text{ million management fee}$

$(\$130 - \$100) \text{ million} \times 20\% = \$6 \text{ million incentive fee}$

Total fees to AWJ Capital = \$8.6 million

Investor return: $(\$130 - \$100 - \$8.6)/\$100 = 21.40\%$

Q-307. AWJ Capital is a hedge fund with \$100 million of initial investment capital. They charge a 2 percent management fee based on assets under management at year-end and a 20 percent incentive fee. In its first year, AWJ Capital has a 30 percent return. Assume management fees are calculated using end-of-period valuation. If the fee structure specifies a hard hurdle rate of 5 percent, what is an investor's net return given this fee structure?

- A. 21.35%
- B. 22.92%
- C. 24.16%

Solution: B.

$\$130 \text{ million} \times 2\% = \$2.6 \text{ million management fee}$

$(\$130 - \$100 - \$100 \times 5\% - \$2.6) \text{ million} \times 20\% = \$4.48 \text{ million incentive fee}$

Total fees to AWJ Capital = $4.48 + 2.6 = \$7.08 \text{ million}$

Investor return: $(\$130 - \$100 - \$7.08)/\$100 = 22.92\%$

Q-308. The following information is collected from BKU Capital, a hedge fund with \$100 million of initial investment capital.

Gross return (before management and incentive fees)	30%
Management fees based asset valuation	5%
Incentive fees based on the return	20%
Soft hurdle rate	7%

Assume management fees are calculated using beginning-of-period valuation and the incentive fee is calculated after management fee. What is an investor's net return given this fee structure?

- A. 20.0%.
- B. 21.4%.
- C. 19.0%.

Solution: A.

Due to the management fee is calculated using beginning-of-period valuation:

Management fee: $100 \times 5\% = 5$.

The return is definitely surpass the 7% soft hurdle rate, therefore the incentive fee is counted as:

Incentive fee: $(30 - 5) \times 20\% = 5$

Net return: $(130 - 5 - 5) / 100 = 20\%$

10.5. Private Equity

10.5.1. 重要知识点

10.5.1.1. 了解 PE 的投资策略，了解 PE 的费用结构、退出策略、潜在收益与风险、估值方式、尽职调查的要点。

➤ Strategies

- **Leveraged buyouts (LBOs):** acquire companies with a significant percentage of the purchase price financed through debt. LBO 的两种形式：MBO 和 MBI
 - ◆ Management buyout(MBO): the current management team is involved in the acquisition;
 - ◆ Management buy-ins(MBI): an current management team is being replaced and the acquiring team will be involved in managing the company.
- **Venture capital (VC):** invest in private companies with high growth potential.
 - ◆ Formative stage: 包含 angel investing, seed stage (VC 真正进入阶段) 和 early stage 三个阶段;
 - ◆ Later stage;
 - ◆ Mezzanine-stage financing.
- **Development capital:** minority equity investments in more mature companies that are looking for capital to expand or restructure operations, enter new markets, or finance major acquisitions;
- **Distressed investing:** investing in securities of companies in financial difficulties.

➤ Structure and fees

- **Committed capital:** the amount that the limited partners have agreed to provide to the private equity fund;
- **Management fee:** typically 1%~3% of **committed capital**;
- **Incentive fee:** funds distributed by the general partner to the limited partner(s) based on realized profits.
- **Exit strategies**
 - **Trade Sale:** sale of company to a strategic buyer such as a competitors;
 - **IPO:** the portfolio company selling its shares to public investors through an IPO;
 - **Recapitalization:** the private equity firm re-leverages or introduces leverage to the company and pays itself a dividend;
 - **Secondary Sale:** a sale to another private equity firm or a group of investors;
 - **Write-off/Liquidation:** when a transaction has not gone well, the private equity firm is updating its value of the investment or liquidating the portfolio company to move on to other projects.
- **Potential benefits and risks**
 - Diversification benefits;
 - Greater risk;
 - Survivorship bias;
 - Backfill bias.
- **Valuation**
 - **Market/comparable approach:** value a company or its equity using multiples.
 - **Discounted cash flow approach**
 - ◆ FCFF and WACC → company value;
 - ◆ FCFE and K_e → company's equity value;
 - ◆ Simple approach: income or cash flow divided by a capitalization rate.
 - **Asset-based approach**
 - ◆ Arrives at the value of the company to the equity holders;
 - ◆ Assumes that the company value = Asset – liabilities;
 - ◆ Can be valued by using fair values or liquidation values.
- **Due diligence**
 - Manager's experience;
 - Valuation methods used;
 - Fee structure.

10.5.2. 基础题

Q-309. Angel investing capital is typically provided in which stage of financing?

- A. Later-stage.
- B. Formative-stage.

C. Mezzanine-stage.

Solution: B.

Formative-stage financing occurs when the company is still in the process of being formed and encompasses several financing steps. Angel investing capital is typically raised in this early stage of financing.

Q-310. An attractive target company for leveraged buyout will share all of the following characteristics except:

- A. Strong and sustainable cash flow.
- B. High leverage.
- C. Undervalued company.

Solution: B.

To serve as an attractive target for LBO, the company should have the following characteristics include, undervalued/depressed stock price, willing management, inefficient companies, strong and sustainable cash flow, low leverage and assets that can be used as security, and secured debt is cheaper than unsecured debt.

Q-311. A venture capital typically provides fund for firms to prepare initial public offering. In which stage this venture capital is most like provide financing?

- A. Formative stage.
- B. Mezzanine-stage.
- C. Later stage.

Solution: B.

Mezzanine-stage venture capital financing is provided to the firms which prepare to go public. It also represents the bridge between the expanding company and the IPO. Formative-stage financing occurs when the company is still in the process of being formed and encompasses several financial steps. Later stage financing is provided after commercial production and sales have begun but before any IPO.

10.6. Real Estate

10.6.1. 重要知识点

10.6.1.1. 掌握房地产投资的形式、潜在收益与风险、估值方法与尽职调查的要点

➤ Forms

- Residential property;
- Commercial real estate;
- REIT Investing;
- MBS;
- Timberland and farmland.
- **Performance measure**
 - Appraisal index
 - ◆ Use estimates of value (appraisals) as inputs to the indices;
 - ◆ Rely on comparable sales and cash flow analysis techniques;
 - ◆ Understate volatility.
 - Repeat sales index
 - ◆ Use changes in prices of properties to construct the indices;
 - ◆ Sample selection bias.
 - REIT indices
 - ◆ Use the prices of publicly traded shares of REITs to construct the indices;
 - ◆ More frequently traded, more reliable is the index.
- Real estate returns are highly correlated with global equity returns but less correlated with global bond returns.
- **Real estate valuation**
 - Comparable sales approach
 - Income approach
 - ◆ $\text{Property value} = \text{NOI} / \text{cap rate}$
 - ✓ $\text{NOI} = \text{net operating income}$
 - ✓ $\text{Cap rate} = \text{capitalization rate} = \text{discount rate} - \text{growth rate}$
 - Cost approach
- **REITs valuation**
 - Income based approach
 - ◆ $\text{REIT Value} = \text{FFO} / \text{cap rate}$
 - ✓ $\text{FFO} = \text{net income} + \text{depreciation charges on sales real state property} - \text{gains from sales of real state} + \text{losses on sales of real state property}$
 - ◆ $\text{REIT Value} = \text{AFFO} / \text{cap rate}$
 - ✓ $\text{AFFO} = \text{FFO} - \text{recurring capital expenditures}$

- Asset based approach
 - ◆ REIT NAV=market value of a REIT's total assets - market value of a REIT's total liabilities.
- **Due diligence** of real estate investment includes **national and global economic conditions, local real estate conditions, and interest rate levels**. Other risks inherent to real estate investments include the **ability of fund management to select, finance, and manage real properties**, and **changes in government regulations**.

10.6.2. 基础题

Q-312. An investor who intends to expose to real estate indirectly will most likely choose to invest in:

- A. Real estate investment trusts.
- B. Real estate limited partnerships.
- C. Commercial mortgage backed securities.

Solution: A.

Limited partnerships are direct real estate exposure, while commercial mortgage backed security (CMBS) is a form of indirect debt exposure.

Q-313. Those who pay considerable attention on the liquidity of the portfolio will most likely invest in:

- A. real estate investment trusts.
- B. hedge funds.
- C. private equity.

Solution: A.

Comparing to hedge funds and private equity traded privately, real estate investment trusts are publicly traded and thus provide more liquidity.

10.7. Commodities

10.7.1. 重要知识点

10.7.1.1. 掌握大宗商品的投資形式、潜在收益与风险及与定价相关的概念

- **Forms**
 - Futures, forwards, options and swaps;
 - Commodity ETF;

- Equities that are directly linked to a commodity;
- Managed futures funds;
- Individual managed accounts;
- Specialized funds in specific commodity sectors.
- **Potential benefits and risks**
 - Potential for returns;
 - Portfolio diversification;
 - Inflation protection.
- **Pricing**
 - **Futures price**=spot price \times (1 + r) + storage cost – convenience yield;
 - **Convenience yield**: the value of the convenience of having physical possession of the commodity and having it immediately available for use;
 - **Contango**: futures price > spot price;
 - **Backwardation**: futures price < spot price.
- **Sources of commodities futures returns**
 - **Roll yield**: the difference between the spot price of a commodity and the price specified by its futures contracts;
 - ◆ A positive roll yield of the futures contract (bearer) → *theory of storage*;
 - ◆ Spot and futures price is determined by user preferences and risk premiums → *hedging pressure hypothesis*.
 - **Collateral yield**: the interest earned on the collateral posted as a good-faith deposit for the futures contracts;
 - **Spot prices**: the primary determinant of spot (or current) prices is the relationship between current supply and demand, as discussed earlier.

10.7.2. 基础题

Q-314. The return on the assets posted as a good-faith deposit for the futures contracts can be best described as:

- A. collateral yield.
- B. storage cost.
- C. convenience yield.

Solution: A.

Collateral yield: the interest earned on the collateral posted as a good-faith deposit for the futures contracts

Q-315. An investor is most likely to consider adding alternative investments to a traditional investment portfolio because:

- A. of their historically higher returns.
- B. of their historically lower standard deviation of returns.
- C. their inclusion is expected to reduce the portfolio's Sharpe ratio.

Solution: A.

The historically higher returns to most categories of alternative investments compared with traditional investments result in potentially higher returns to a portfolio containing alternative investments. The less than perfect correlation with traditional investments results in portfolio risk (standard deviation) being less than the weighted average of the standard deviations of the investments. This has potential to increase the Sharpe ratio in spite of the historically higher standard deviation of returns of most categories of alternative investments.

10.8. Infrastructure

10.8.1. 重要知识点

10.8.1.1. Infrastructure

- **Definition:** real, capital intensive, long-lived assets, which are intended for public use and provide essential services;
- **Characteristics of infrastructure**
 - High barriers to entry;
 - Stable cash flows;
 - Protection against inflation;
 - Better match the longer-term liability structure of some investors.
- **Categories of Infrastructure Investments**
 - Economic VS social infrastructure assets;
 - Brownfield VS greenfield infrastructure investments
 - ◆ Investing in existing investable infrastructure assets may be referred to as **brownfield investments**;
 - ◆ Investing in infrastructure assets that are to be constructed may be referred to as **greenfield investments**.
- **Forms of infrastructure investments**
 - Invest directly in the underlying assets: large sum of money;
 - Indirect investment vehicles: no control;
 - Publicly traded: (master limited partnership, MLP);

- Non-publicly traded: private equity fund.

➤ **Risk and returns overview**

- Risk depends on underlying asset.
- An inherent risk to many infrastructure investments is regulatory risk.

10.8.2. 基础题

Q-316. Infrastructure investments may also be categorized by stage of development of the underlying assets. Investing in existing investable infrastructure assets may be referred to as:

- A. brownfield investments.
- B. greenfield investments.
- C. redfield investment.

Solution: A.

Investing in existing investable infrastructure assets may be referred to as brownfield investments.

Investing in infrastructure assets that are to be constructed may be referred to as investments.

10.9. 进阶题

Q-317. An investor is seeking an investment that can take long and short positions, may use multi-strategies, and historically exhibits low correlation with a traditional investment Portfolio. The investor's goals will be best satisfied with an investment in:

- A. real estate.
- B. a hedge fund.
- C. a private equity fund.

Solution: B.

Hedge funds may use a variety of strategies (event-driven, relative value, macro and equity hedge), generally have a low correlation with traditional investments, and may take long and short positions.

Q-318. If a commodity's forward curve is in contango, the component of a commodities futures return *most likely* to reflect this is:

- A. spot prices.
- B. the roll yield.
- C. the collateral yield.

Solution: B.

Roll yield refers to the difference between the spot price of a commodity and the price specified by its futures contract (or the difference between two futures contracts with different expiration dates). When futures prices are higher than the spot price, the commodity forward curve is upward sloping, and the prices are referred to as being in contango. Contango occurs when there is little or no convenience yield.

Q-319. When an investor hold the underlying asset of a future contract and concern about the backwardation in the future market, she will most likely:

- A. Sell forward.
- B. Buy forward.
- C. Sell the asset.

Solution: A.

A holder of an underlying asset will suffer from decreasing prices, thus he should sell a forward to lock his price at future price. Thus at expiration the payoff of the investor will be:

Cash received from selling asset: S_t

Exercise forward contract: $-(S_t - F_t)$

Payoff at expiration: $S_t - (S_t - F_t) = F_t$

Q-320. United Capital is a hedge fund with \$250 million of initial capital. United Capital charges a 2% management fee based on assets under management at year end, and a 20% incentive fee based on returns in excess of an 8% hurdle rate. After one year operation, the fund appreciated 16%. Assume management fees are calculated using end-of-period valuation. The investor's net return assuming the performance fee is calculated net of the management fee is *closest* to:

- A. 11.58%.
- B. 12.54%.
- C. 12.80%.

Solution: B.

The net investor return is 12.54%, calculated as:

End of year capital = \$250 million \times 1.16 = \$290 million

Management fee = \$290 million \times 2% = \$5.8 million

Hurdle amount 8% of \$250 million = \$20 million;

Incentive fee = $(\$290 - \$250 - \$20 - \$5.8)$ million $\times 20\% = \$2.84$ million

Total fees to United Capital = $(\$5.8 + \$2.84)$ million = $\$8.64$ million

Investor net return: $(\$290 - \$250 - \$8.64) / \$250 = 12.54\%$

Q-321. Under the cost storage theory, which of the following conditions will attribute to backwardation?

- A. When the storage costs is less than the convenience yield.
- B. When the cost of carry exceeds the convenience yield.
- C. When the roll yield is negative.

Solution: A.

Futures price \approx Spot price $(1 + r) +$ Storage costs $-$ Convenience yield

Storage cost $<$ convenience yield

Future price $<$ spot price, backwardation.