

CFA 一级百题预测

1. ETHICAL AND PROFESSIONAL STANDARDS
2. QUANTITATIVE METHODS
3. ECONOMICS
4. FINANCIAL REPORTING AND ANALYSIS
5. CORPORATE FINANCE
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4. Financial Reporting and Analysis

4.1. The Role of Financial Reporting

4.1.1. 重要知识点

4.1.1.1. Role of financial reporting

- Financial statement analysis definition
 - Use financial reports prepared by companies, combined with other information, to evaluate the past, current, and potential performance and financial position of a company for the purpose of **making investment, credit, and other economic decisions.**
- The role of financial reporting by companies is to **provide information** about a company's performance, financial position, and changes in financial position that is useful to a wide range of users in making economic decisions.

4.1.2. 基础题

Q-1. Providing information about the performance and financial position of companies so that users can make economic decisions best describes the role of:

- A. auditing.
- B. financial reporting.
- C. financial statement analysis.

4.2. Other Information Sources of Financial Statements

4.2.1. 重要知识点

4.2.1.1. Financial notes and supplementary schedules

- Notes and FSs are an integral part of the complete set of financial statements. Since it is important to understand different accounting choices between comparable, sometimes need to make necessary adjustments so that the financial statement data used are more comparable.
- **The notes** provide information that is essential to understanding the information provided in the primary statements, which clarify the explanatory information about every line item (or almost every line item) on the balance sheet and income statement
- **Note disclosures** include information about the following
 - Accounting policies, methods, and estimates;
 - Financial instruments and risks arising from financial instruments;

- Commitments and contingencies;
- Denominated currency;
- Compliance of law & legal proceedings;
- Related-party transactions;
- Subsequent events (i.e., events that occur after the balance sheet date);
- Business acquisitions and disposals;
- Rounded figures & minor discrepancies;
- Operating segments' performance.

4.2.1.2. Management's discussion and analysis (MD&A)

- **General contents (publicly held companies):** nature of the business, past results, material uncertainty and future outlook.
- **Characteristic:** MD&A is a good for understanding information in the financial statements. In particular, the forward-looking disclosures in an MD&A, can be useful in projecting a company's future performance.
- Those **content elements** include
 - The nature of the business;
 - Management's objectives and strategies;
 - The company's significant resources, risks, and relationships;
 - Results of operations;
 - Critical performance measures.

4.2.1.3. SEC requires listed companies to provide an MD&A and specifies the content.

- Form S-1
 - Registration statement filed prior to initial public offerings.
- Form 10-K
 - Financial statements reported annually.
- Form 10-Q
 - Financial statements reported quarterly.
- Form DEF-14A
 - Proxy statements.
- Form 8-K
 - Major events as acquisitions or disposals of corporate assets, corporate governance and management changes.
- Form 144
 - Notice of the proposed sale of restricted securities or securities held by an affiliate of the issuer.
- Forms 3,4,5
 - Report beneficial ownership of securities.

4.2.1.4. Other sources of information

- **Proxy statements**
 - Management compensation; stock performance; potential conflict of interests;
 - Matters that are to be put to a vote at the company's annual (or special) meeting of shareholders.
- **Interim reports**
 - Provided by the company either semiannually or quarterly, depending on the applicable regulatory requirements.
 - Interim reports generally present the four basic financial statements and condensed notes but are not audited.
 - These interim reports provide updated information on a company's performance and financial position since the last annual period.
- **Earnings announcements**
 - Followed by a conference call in which the company's senior executives
 - Describe the company's performance and answer questions posed by conference call participants.
- **External information**
 - Economy, the industry, the company, and peer (comparable) companies;
 - Helpful in assessing the company's future.

4.2.2. 基础题

Q-2. Information about material events and uncertainties would best be found in:

- A. footnotes.
- B. the proxy statement.
- C. management's discussion and analysis.

Q-3. Assume U.S. GAAP applies unless otherwise noted. When an issue is going to be put to a vote, by shareholders, at an annual general meeting the company prepares a(n):

- A. annual report.
- B. proxy statement.
- C. management statement of responsibility.

4.3. Audits of Financial Statements

4.3.1. 重要知识点

4.3.1.1. Audits of financial statements

- **定义** : Audit refers to the process that an independent accounting firm examined the company's financial statements to ensure their accordance with specified auditing standards.
- **理解** : Audits provide **reasonable assurance** that the financial statements are fairly presented, meaning that there is a high degree of probability that they are free of material error, fraud or illegal acts. Also, the auditors must also express an opinion on the company's internal control systems.
- Audit report 有四种类型分别是: unqualified opinion, qualified opinion, adverse opinion, disclaimer of opinion
 - **Unqualified (clean) opinion**: the financial statements are compliance with applicable accounting standards;
 - **Qualified opinion**: the statements contains several exceptions or limitations from accounting principles and the explanations of these deviations will be presented for users to determine their importance;
 - **Adverse opinion**: the statements are unfairly presented and contains material deviations from accounting standards;
 - **Disclaimer of opinion**: the limitations of financial statements hinder the auditor's ability to express an opinion.

4.3.2. 基础题

Q-4. Assume U.S. GAAP applies unless otherwise noted. Which of the following statements best describes the level of accuracy provided by a standard audit report?

- A. There is reasonable assurance that the financial statements contain no errors.
- B. There is full assurance that the financial statements are free of material errors.
- C. There is reasonable assurance that the financial statements are fairly presented.

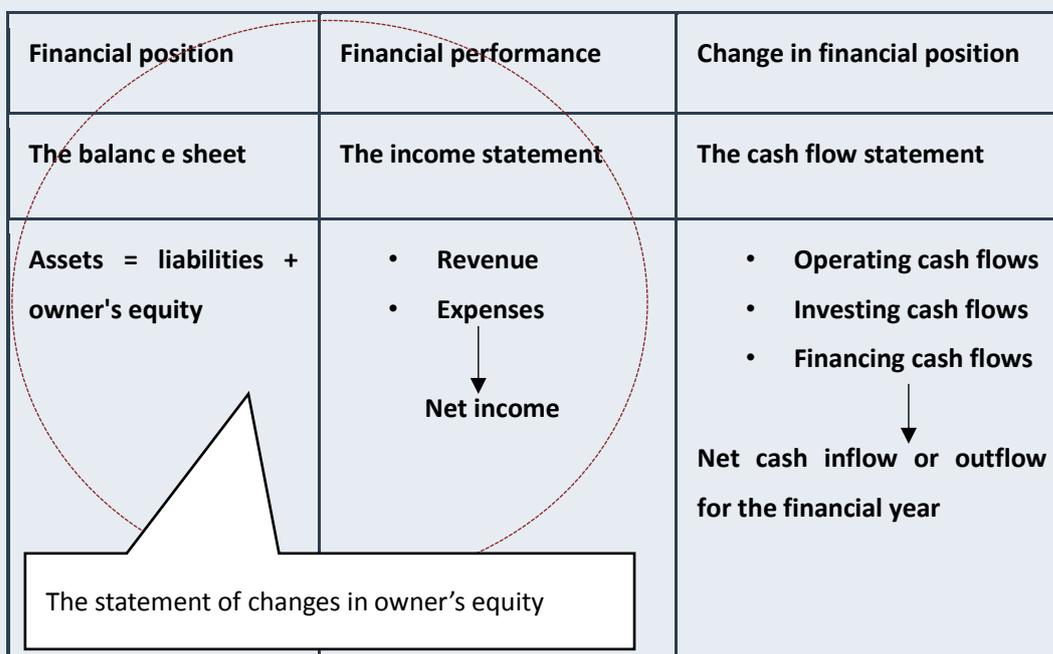
Q-5. In the audit report, an additional paragraph that explains an exception to an accounting standard is best described as a(n):

- A. adverse opinion.
- B. qualified opinion.
- C. disclaimer of opinion.

4.4. Related Issues in Financial Statements

4.4.1. 重要知识点

4.4.1.1. 四个报表之间的关系



4.4.1.2. Financial statement elements

- **Financial statement elements are the major classifications of assets, liabilities, owners' equity, revenues, and expenses.**
 - **Assets** are resources **controlled by an enterprise** as a result of **past events** and from which **future economic benefits** to the enterprise are expected to flow. Examples: cash, inventory, receivables, etc.
 - **Liabilities** are present **obligations** of an enterprise **arising from past events**, the settlement of which is expected to result in **an outflow of resources** of a company. Examples: accounts payable, financial liabilities, etc.
 - **Owners' equity** is the excess of assets over liabilities; the **residual interest** of shareholders in the asset of an entity after deducting the entity's liability. Owners' equity includes: capital, retained earnings, other comprehensive income, etc.
 - **Income** is the increases in economic benefits in the form of inflows or enhancements of assets, or decreases of liabilities that result in an increase in equity (other than increases resulting from contributions by owners).
 - **Expenses** are outflows of economic resources or increases in liabilities that result in decreases in equity (other than decreases because of distributions to owners). Example: cost of goods sold (COGS), selling, general, and

administrative expenses (SG&A), etc.

Elements	Definition		Relationship
Assets	◇ Current assets	The Balance sheet	Assets = liabilities + owner's equity Owner's equity = Contributed capital + Beginning retained earning + Net income (current year) - Dividend (current year) + Other comprehensive income
	◇ Non-current assets (Long-lived assets)		
Liabilities	◇ Current liabilities		
	◇ Non-current liabilities (Long-term liabilities)		
Owner's equity	◇ Capital	The income statement	Revenue – expenses = net income (current year)
	◇ Additional paid-in capital		
	◇ Retained earnings		
	◇ Other comprehensive income		
Revenue		The income statement	Revenue – expenses = net income (current year)
Expenses	◇ Cost of good sold ◇ Other expense ◇ Losses		

4.4.1.3. Accounting equation 掌握公式：

- Assets = Liabilities + Owners' equity
- Assets = Liabilities + Contributed Capital + Ending retained Earnings + accumulated OCI

Assets = Liabilities + Contributed Capital + Beginning Retained Earnings + Revenue – Expenses – Dividends + accumulated OCI

4.4.2. 基础题

Q-6. Assume U.S. GAAP applies unless otherwise noted. Which of the following is *least likely* to be classified as a financial statement element?

- A. Revenue.
- B. Liability.
- C. Net income.

Q-7. At the start of the year, a company's capital contributed by owners and retained earnings accounts had balances of \$10,000 and \$6,000, respectively. During the year,

the following events took place:

Net income earned	\$4,000
Interest paid on debt	\$500
Repayment of long-term debt	\$1,000
Proceeds from shares issued	\$2,000
Dividends paid	\$600

The end-of-year owners' equity is closest to:

- A. \$19,900.
- B. \$19,400.
- C. \$21,400.

Q-8. The following information is available for a company (\$):

December 31, 2018:	
Total assets	120,000
Net income for the year	5,000
Dividends paid	0
Financial leverage ratio for the company is 2.	
50% of the equity comes from contributed capital	
December 31, 2019	
Total assets	112,000
Net income (loss) for the year	(4,000)
No new debt or equity issued or repurchased	

In 2019, the company most likely:

- A. paid a dividend of \$4,000.
- B. Paid a dividend of \$8,000
- C. paid a dividend of \$12,000.

4.5. Accruals and Other Adjustments in Preparing Financial Statements

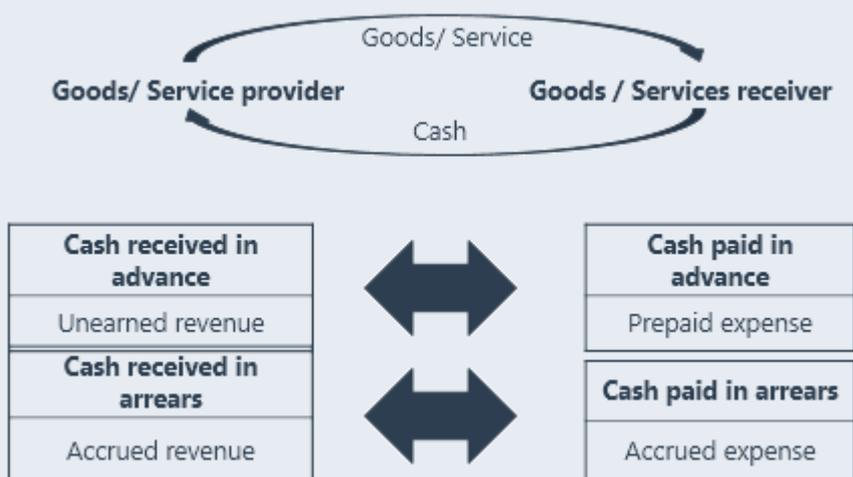
4.5.1. 重要知识点

4.5.1.1. 掌握以下几种权责发生制 (accrual basis):

➤ 权责发生制是以权利和责任的发生来决定收入和费用归属期的一项原则。

4.5.1.2. 收入应与为取得该收入所发生的费用、成本相匹配，以正确计算在该会计期间所获得的净损益。

4.5.1.3. 除了基本概念以外还需要掌握几个名词



- **Unearned revenue 或 deferred revenue (liability):** The firm receives cash before it provides a good or service to customers
- **Unbilled revenue 或 accrued revenue (asset):** If the revenue is earned, and it is just that the billing debt has not raised the bill, then you should take up the revenue under accrued receivables and for most purposes, they should be the same as accounts receivables. (未开票前 , 称为 unbilled ; 开票后 , 从 unbilled 转为 A/R)
- **Prepaid expenses (asset):** The firm pays cash ahead of time for unanticipated expense.
- **Accrued expenses (liability):** An expense that is incurred, but not yet paid for, during a given accounting period.

4.5.2. 基础题

Q-9. Before adjusting accounting entries, a liability and a cash has been occurred in the balance sheet. This process is *most likely* to be:

- A. an unearned revenue.
- B. a prepaid expense.
- C. an accrued expense.

4.6. IASB Conceptual Framework

4.6.1. 重要知识点

4.6.1.1. Objectives

- **The objective to provide financial information** the provision of financial information that is useful to current and potential providers of resources in making decisions.

4.6.1.2. Qualitative characteristics of financial statement under IASB

➤ **Fundamental qualitative characteristics**

- **Relevance: Information is relevant if it would potentially affect or make a difference in user's decisions.**

- ◆ Predictive value. Useful in making forecast;
- ◆ Confirmatory value. Useful to evaluate past decisions or forecasts;
- ◆ Materiality. Omission or misstatement of information could influence users' decisions. Materiality is a function of the nature and/or magnitude of the information.

- **Faithful representation: Information is relevant if it would potentially affect or make a difference in user's decisions.**

- ◆ Complete: all information necessary is depicted.
- ◆ Neutral: no bias.
- ◆ Free from error: no errors of commissions or omission in the description of the economic phenomenon.

➤ **Four enhancing qualitative characteristics**

- **Comparability** requires the measurement and report of financial information are similar in different firms. Comparability helps analysts identify and analyze the real economic differences across companies and time periods.

- **Verifiability** means that different knowledgeable and independent observers would agree that the information presented faithfully represents the economic phenomena it purports to represent.

- **Timeliness** means timely information is available to decision makers prior to their decisions.

- **Understandability** means users should be able to readily understand the information. Clear and concise presentation of information enhances understandability.

4.6.1.3. Constraints on financial statement

- **Relevant vs. timely:** There is a trade off between relevant and timely.
- **Cost vs. benefits:** The benefit users gain from the information should be greater than the cost of presenting it.
- **Non-quantifiable:** Non-quantifiable information (reputation, brand loyalty, capacity for innovation, etc.) cannot be captured directly in financial statements.

4.6.1.4. General features for preparing financial statements

- Fair presentation;
- Going concern;
- Accrual basis;
- Materiality and aggregation;
- No offsetting;
- Frequency of reporting;
- Comparative information;
- Consistency of presentation.

4.6.1.5. U.S. GAAP & IFRS

- Standard-setting bodies: make the rules, such as FASB—U.S. GAAP; IASB—IFRS.
- Regulatory authorities: enforce the rules
 - SEC—美国
 - FSA—英国
- 国际组织
 - International Organization of Securities Commissions (IOSCO)
- Barriers of universally accept standard (两个准则制定机构；三个监管机构；business groups 的施压)。

4.6.1.6. Barriers to coherent of financial reporting framework

- **Valuation:** Measurement bases for valuation that require little judgment, such as historical cost, may be less relevant than a basis like fair value that requires more judgment.
- **Standard-setting approach**
 - **Principles-based:** require the preparations of financial reports and auditors to exercise considerable judgment in financial reporting — IFRS.
 - **Rules-based:** establishes specific rules for each element or transaction — U.S. GAAP.
 - The common conceptual framework is moving toward an **objectives-oriented approach**.

4.6.2. 基础题

Q-10. Which of the following is not a characteristic of a coherent financial reporting framework?

- A. Timeliness.
- B. Consistency.
- C. Transparency.

Q-11. Which of the following is not a required financial statement according to IAS No. 1?

- A. Statement of financial position.
- B. Statement of changes in income.
- C. Statement of comprehensive income.

Q-12. Under the International Accounting Standards Board's (IASB's) Conceptual Framework, one of the qualitative characteristics of useful financial information is that different knowledgeable users would agree that the information is a faithful representation of the economic events that it is intended to represent. This characteristic is best described as:

- A. comparability.
- B. verifiability.
- C. understandability.

4.7. Revenue Recognize Criteria: General Principle

4.7.1. 重要知识点

4.7.1.1. Revenues (sales)

- Generated from selling goods or service in routine business activities.
- **Net Revenue** = Revenue - adjustments (e.g., cash discounts, volume discounts, or estimated returns);

4.7.1.2. Expenses are outflows of economic resources or increases in liabilities that result in decreases in equity (other than decreases because of distribution to owners); reductions in net assets associated with the creation of revenues.

- Expenses are grouped together by their nature or function
 - By nature: e.g., depreciation expenses are displayed in one account regardless of whether they come from manufacturing or administration.
 - By Function: e.g., cost of goods sold is composed of all manufacturing costs,

such as raw materials, depreciation, labor, etc.

4.7.1.3. Gross profit is the amount of revenue available after subtracting the costs of delivering goods or services.

- **Operating profit or operating income:** operating profit results from deducting operating expenses such as selling, general, administrative, and research and development expenses from gross profit.

4.7.1.4. The standard describes the application of five steps in recognizing revenue

- Identify the contract(s) with a customer;
- Identify the separate or distinct performance obligations in the contract;
- Determine the transaction price;
- Allocate the transaction price to the performance obligations in the contract;
- Recognize revenue when (or as) the entity satisfies a performance obligation.

4.7.2. 基础题

Q-13. An artists' cooperative sells its artwork on a consignment basis through a local art gallery. The cooperative should most likely recognize revenue when the art gallery:

- A. signs the contract.
- B. fulfills related obligations regarding the sale of the artwork.
- C. determines the amount related to the obligations.

Q-14. An example of an expense classification by function is:

- A. tax expense.
- B. interest expense.
- C. cost of goods sold.

4.8. Non-Recurring Items

4.8.1. 重要知识点

4.8.1.1. Non-recurring items 分为三种

- **Above the line-unusual or infrequent items (nonrecurring items)**
 - Unusual in nature or infrequent in occurrence. Not both.
 - Reported "**above the line**" and presented on a **pretax basis**.
 - Example
 - ◆ G/L from the sale of assets or part of a business;
 - ◆ Impairments;
 - ◆ Write-offs, write-downs, and restructuring costs.

➤ **Below the line**

- Discontinued operations (presented on net of tax).
 - ◆ When a company disposes of or establishes a plan to dispose of one of its component operations and will have no further involvement in the operation, the income statement reports separately the effect of this disposal as a "discontinued" operation under both IFRS and US GAAP.
 - ◇ Reported separately in the income statement
 - ◇ Net of tax, after income from continuing operations
 - ◇ On the measurement date, the company will accrue any estimated loss during the phase-out period and any estimated loss on the sale of the business. Any expected gain on the disposal cannot be reported until after the sale is completed.

4.8.1.2. Accounting changes: 包括 changes in accounting principles, changes in accounting estimates.

- **Changes in accounting principles 需要追溯调整**，即 retrospective，放在 R/E beginning (在美国准则下这一条已经不再显示了，现在来自于这里的变动全部直接调整期初留存收益)。
- **Changes in accounting estimates** 一般是由于有了新的信息所导致的估计调整。**不需要追溯调整**，只考虑以后，即 prospective.
- **Error adjustment is recorded in prior period adjustment,也要求追溯调整。**

4.8.2. 基础题

Q-15. Which of the following statement is *least likely* a non-operating item for a manufacturing company?

- A. Receiving dividends from investments classified as available-for-sale.
- B. Paying interest on subordinated debentures.
- C. Recording bad debt expense for accounts receivables.

4.9. Basic EPS and Dilutive EPS

4.9.1. 重要知识点

4.9.1.1. EPS 掌握计算：

➤ **公式**

■ **Basic EPS**

$$\text{Basic EPS} = \frac{\text{Net income} - \text{preferred dividends}}{\text{Weighted average number of common shares outstanding}}$$

■ **Diluted EPS**

$$\text{Dilutive EPS} = \frac{\text{Adjusted income available for common shares}}{\text{Weighted avg. common \& potential common shares outstanding}}$$

$$= \frac{\left[\begin{array}{c} \text{NI} \\ - \text{div}_{\text{preferred}} \end{array} \right] + \left[\begin{array}{c} \text{div}_{\text{convertible preferred}} \end{array} \right] + \left[\begin{array}{c} \text{interest}_{\text{convertible debt}} \end{array} \right] (1-t)}{\text{WACSO} + \left[\begin{array}{c} \text{shares}_{\text{conversion of conv. pfd. shares}} \end{array} \right] + \left[\begin{array}{c} \text{shares}_{\text{conversion of conv. debt}} \end{array} \right] + \left[\begin{array}{c} \text{shares}_{\text{issuable from stock opt.}} \end{array} \right]}$$

◆ 在有 stock option 时，如果平均的市场价格 > 执行价 X，则用 treasury stock method。

➤ **计算 Diluted EPS 步骤**

- Firstly, calculate basic EPS
- Then, to identify dilutive securities
- In the end, to calculate diluted EPS
- Diluted EPS is no higher than basic EPS

➤ **关键**

- 考试中经常出现的是 weighted average number of common shares outstanding，要记得 stock dividend 和 stock split 要追溯处理，stock new issue 和 repurchase 只要时间加权
- Dilutive EPS 的计算，就是 convertible bond，convertible preferred stock 和 stock option，warrant 是否会让 basic EPS 稀释。对于各自可稀释性债券分子，分母需要考虑什么，一定要记熟
- 如果公司有 option 或者 warrant 的情况下，计算的 Dilutive EPS 用的是 treasury stock method，如果在考试中遇到这个称法不要觉得陌生，其实不影响计算的过程。事实上，treasury stock method 的意思是假设公司使用收入的期权实行费用来回购股票，抵消一部分稀释。当期权执行价格低于股票市场平均价格，该期权是稀释的。
 - ◆ 注意，在计算可转债带来的稀释时，不要忽略税盾。
 - ◆ **Treasury stock 投票权问题** : treasury stock has no voting rights and does not receive dividends.

4.9.2. 基础题

Q-16. Assume U.S. GAAP applies unless otherwise noted. An analyst gathered the following information about a company:

Shares of common stock	1,000,000
Net income for the year	\$1,500,000
Par value of convertible bonds with a 4% coupon rate	\$10,000,000
Par value of cumulative preferred stock with a 7% dividend rate	\$2,000,000
Tax rate	30%

The bonds were issued at par and can be converted into 300,000 common shares. All securities were outstanding for the entire year. Dilutive earnings per share for the company are *closest* to:

- A. \$1.05.
- B. \$1.26.
- C. \$1.36.

Q-17. Bingo Ltd. had 800,000 average shares outstanding during all of 2019. During 2019, Bingo also had 12,000 options outstanding with exercise prices of \$12 each. The average stock price of Bingo during 2019 was \$20. For purposes of computing diluted earnings per share, how many shares would be used in the denominator?

- A. 920,000.
- B. 807,200.
- C. 804,800.

Q-18. An analyst gathered the following information about a company:

- 1,000,000 common shares outstanding from the beginning of the year.
- Earnings of \$1,250,000.
- 1,000 preferred stocks, which pay fixed dividend of 7% each year, and its face value is \$1000 for each preferred stock
- For preferred stocks, 700 preferred stocks can be converted into 25 shares each, and these stocks are outstanding as of the beginning of the year.
- The tax rate is 40%.

The company's diluted EPS is closest to:

- A. \$1.21.
- B. \$1.18.
- C. \$1.15.

Q-19. In order to compute the diluted EPS for the company, which one of the security will

least likely to influence the numerator?

- A. Convertible debt.
- B. Convertible preferred stocks.
- C. Stock options.

4.10. Comprehensive Income

4.10.1. 重要知识点

Comprehensive income 的基本了解

4.10.1.1. 综合收益 comprehensive Income: all changes in equity except for owner contributions and distributions, 单列在 NI 后面的, 不放在 I/S 中。

4.10.1.2. CI=NI + other comprehensive income (在股东权益变动表中也包含这些项目, IFRS 下没有 CI, 但有 OCI)。

4.10.1.3. Other comprehensive income 4+1 项内容

- Foreign currency translation adjustment on a foreign subsidiary;
- Unrealized G/L on derivatives contracts accounted for as cash flow hedges;
- Unrealized G/L on available for sale (FVTOCI) securities;
- Certain costs of a company's defined benefit post-retirement plans that are not recognized in the current period.
- (Solely for IFRS) changes in the value in excess of historical cost of long lived assets measured using the revaluation model rather than the cost model.

4.10.1.4. Accumulated other comprehensive income aggregates past and current OCI 并显示在 B/S 中的 equity 中 (IFRS 没有明确规定在 B/S 中列出 Accumulated other comprehensive income 的数额)。

4.10.1.5. The statement of changes in equity

- A summary of all transactions within the equity accounts

4.10.2. 基础题

Q-20. Which of the following is not included in other comprehensive income?

- A. Foreign currency translation adjustment on a foreign subsidiary.

- B. Unrealized G/L on derivatives contracts accounted for as cash flow hedges.
- C. Unrealized G/L on hold-for-maturity securities.

Q-21. The following data are available on a company for the current year:

Metric	£ thousands
Total comprehensive income	345,000
Dividends paid	45,000
Dividend declared	80,000
Ending retained earnings	985,000
Opening retained earnings	643,000

The company will most likely report other comprehensive income (OCI) (in £ thousands)

as a:

- A. loss of 42,000.
- B. loss of 77,000.
- C. gain of 422,000.

4.11. Understanding Balance Sheet

4.11.1. 重要知识点

4.11.1.1. 掌握 balance sheet 里面的知识点：

- **Assets**
 - Provide **probable future economic benefits controlled** by an entity as a **result of previous transactions**.
 - Current and Non-current assets (Long-lived assets)
- **Liabilities**
 - Are **obligations** owed by an entity from **previous transactions** that are expected to result in an **outflow of economic benefits in the future**.
 - Current and non-current liabilities (long-term liabilities).
- **Stockholders' equity**
 - Residual interest in assets that remains after subtracting a firm's liabilities

4.11.1.2. Uses and limitations of the balance sheet in financial analysis.

- The balance sheet discloses what an entity owns(or controls), what it owes, and what the owners' claim at the specific point of time.
 - Liquidity is the company's ability to meet its short-term commitment.
 - Solvency refers to a company's ability to meet its financial obligations over the longer term.

4.11.1.3. Shareholders' equity:

Capital	Common stock, preferred stock
Additional paid-in-capital	Capital in excess of par i.e. premium
Treasury stock	◇ Stock has been reacquired by the issuing firm but not yet retired ◇ No voting rights, no dividend
Retained earnings	◇ Net Income-dividend
Accumulated other comprehensive income	◇ Foreign currency translation adjustment on a foreign subsidiary ◇ Unrealized G/L on derivatives contracts accounted for as cash flow hedges ◇ Unrealized G/L on available for sale securities ◇ Certain costs of a company's defined benefit post-retirement plans that are not recognized in the current period ◇ (Solely for IFRS) changes in the value in excess of historical cost of long lived assets measured using the revaluation model rather than the cost model.
Minority interest (MI)	◇ Group accounting

4.11.2. 基础题

Q-22. Resources controlled by a company as a result of past events are:

- A. equity.
- B. assets.
- C. liabilities.

Q-23. Which of the following statements is most accurate?

- A. A classified balance sheet arises when in an auditor's opinion the financial statements materially depart from accounting standards and are not presented fairly.
- B. Non-controlling interest on the balance sheet represents a position the company owns in other companies.
- C. Treasury stock is non-voting and receives no dividends.

4.12. Accounting Treatment to Marketable Securities

4.12.1. 重要知识点

金融资产和负债的计量

4.12.1.1. 判断证券所属的种类，held-to-maturity, trading securities 还是 available-to-sale, 并

了解这三种证券不同的 accounting treatment (考试常考) :

Category	Measurement	Unrealized/realized gains or losses
Held-to-maturity (amortized cost)	Amortized cost	<u>Unrealized: not reported</u> Realized: reported in I/S
Trading securities (FVTPL)	Fair value	<u>Unrealized: reported in I/S</u> Realized: reported in I/S
Available-to-sale (FVTOCI)	Fair value	<u>Unrealized: reported in equity (OCI)</u> Realized: reported in I/S

- Dividend and interest income and realized gains and losses are recognized in the income statement for all three classifications of securities.

4.12.1.2. 三种 marketable securities 在 U.S.GAAP 与 IFRS 下基本一致 :对于 Realized gain/loss

在 I/S 中确认 ;对于 AFS ,Unrealized G/L 在 OCI 中确认 ;对于 trading ,Unrealized G/L

在 I/S 中确认。两者唯一的差别是，对于 Debt AFS，在 IFRS 下，对于汇率变化的影

响在 I/S 中确认；在 GAAP 下，对于汇率变化的影响全部在 OCI 中确认。

4.12.2. 基础题

Q-24. Assume U.S. GARP applies unless otherwise noted. For financial assets classified as available for sale, how are unrealized gains and losses reflected in shareholders' equity?

- A. They are not recognized.
- B. They flow through retained earnings.
- C. As a separate line item (other comprehensive income).

4.13. Calculation of Bad Debt

4.13.1. 重要知识点

4.13.1.1. 掌握 bad debt 的计算 :

Beginning balance allowance
+ Bad expenses

- write-offs of bad debt allowance

= Ending balance allowance

- Bad debt 会增加 allowance for doubtful accounts (contra-assets accounts)
- Bad debt 注销会减少 gross receivable and allowance account

4.13.2. 基础题

Q-25. Based on the above information about a company's trade receivables, the bad debt expense (in millions) for 2014 is closest to:

(£ millions)	2014	2013
Accounts receivables, gross	6,620	4,840
Allowance for doubtful accounts	92	56
Write-offs during the year	84	42

- A. £36.
- B. £84.
- C. £120.

4.14. Classification of Different Activities in Cash Flow Statement

4.14.1. 重要知识点

理解各种 activities 的区分：

4.14.1.1. 三种 activities

- **Operating activities** 和每天的运营相关的现金流的流进流出
- **Investing activities** 和由于投资引起的购买或出售相关
- **Financing activities** 包含长期借钱，还钱，发新股，回购，分红（不包括付息），但是对于金融公司，这些都属于 operating activities

Item	U.S. GAAP	IFRS
Interest received	CFO	CFO or <u>CFI</u>
Interest paid	CFO	<u>CFO</u> or CFF
Dividend received	CFO	CFO or <u>CFI</u>
Dividend paid	CFF	CFO or <u>CFF</u>
Taxes paid	CFO	<u>CFO</u> , CFI or CFF

4.14.1.2. 特别注意公司的主营业务和投资产品的主要性质

- 如果是银行，存款和贷款就是 operating activities，因为本身就是银行的主营业务
- 如果投资的产品持有期很短，高流动性，或者本身就是以交易为目的，就不考虑在 Investing activities 当中

4.14.2. 基础题

Q-26. A conversion of a face value \$1 million convertible bond for \$1 million of common stock would most likely be:

- A. reported as a \$1 million investing cash inflow and outflow.
- B. reported as a \$1 million financing cash outflow and inflow.
- C. reported as supplementary information to the cash flow statement.

Q-27. Purchasing other companies' long-term bonds should be classified as:

- A. operating activities.
- B. investing activities.
- C. financing activities.

Q-28. In the statement of cash flows, interest paid by a company is most likely included in:

- A. either the operating or financing section under US GAAP.
- B. either the operating or financing section under IFRS.
- C. only the financing section under both IFRS and US GAAP.

4.15. Calculation of CFO: Direct Method and Indirect Method

4.15.1. 重要知识点

CFO 掌握概念及公式：

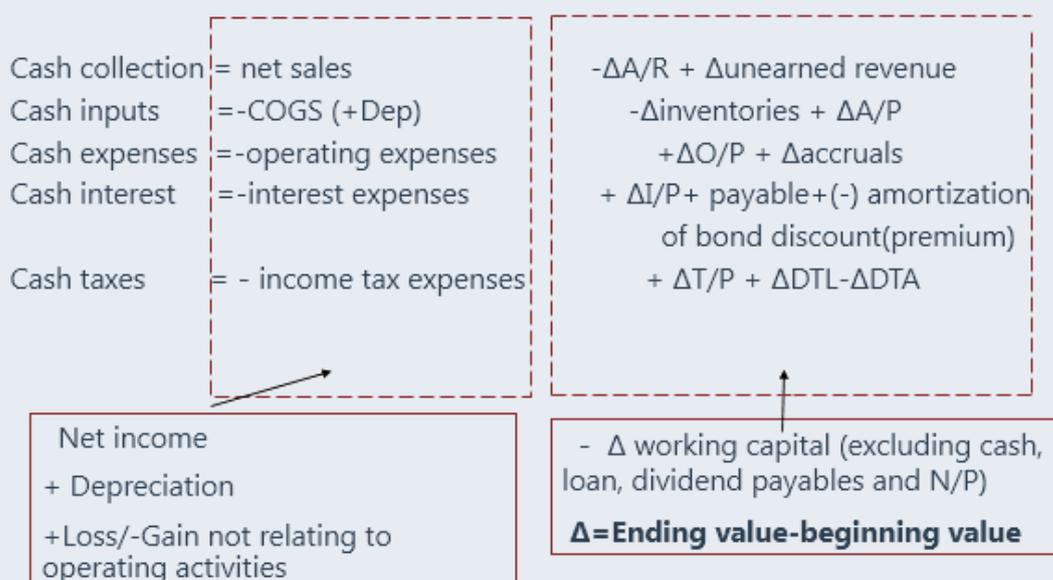
4.15.1.1. CFO 计算方式：直接法和间接法，熟练掌握 2 种方法（公式）

4.15.1.2. Both IFRS and US GAAP 都鼓励使用直接法，但都可以使用间接法。在 US GAAP 下，直接法下必须披露间接法，IFRS 没有这样的要求；如果用间接法，没有要求

披露直接法。

4.15.1.3. CFO 理解：firstly, 考题中会出现计算是无疑的；secondly, 考题中会考核考生对 CFO 和 NI 之间关系的掌握；lastly, CFO 和 working capital 之间的关系，有时也会成为考核点。

4.15.1.4. CFO 直接法&间接法



4.15.2. 基础题

Q-29. An analyst gathered the following information from a company's 2010 financial statements (in \$ millions):

Year Ended 31 December	2009	2010
Net sales	296.5	284.6
Cost of goods sold (D&A excluded)	157.4	148.3
Accounts receivable	102.3	105.5
Inventory	56.3	64.8
Accounts payable	25.5	24.1

Based only on the information above, the company's 2010 statement of cash flows in the direct format would include amounts (in \$ millions) for cash received from customers and cash paid to suppliers, respectively, that are *closest* to:

cash received from customers cash paid to suppliers

- A. 281.4 158.2
- B. 287.8 158.2
- C. 281.4 155.4

Q-30. Under GAAP, an analyst gathered the following information from a company's financial statements. Using indirect method, the company's operating cash flows are *closest* to:

Net income	\$240
Decrease in inventory	\$40
Depreciation	\$50
Increase in account receivables	\$20
Decrease in wages payable	\$10
Increase in unearned revenues	\$30
Increase in PP&E	\$70
Gains from the sale of a segment	\$4

- A. \$197.
- B. \$270.
- C. \$326.

Q-31. The following items are from a company's cash flow statement.

Classification of Cash Flow	Description	Amount
Operating activities	Cash received from customers	110,000
Investing activities	Interest and dividends received	200,000
Financing activities	Net repayment of revolving credit loan	24,000

Which of the following standards and formats did the company *most likely* use in the preparation for its financial statements?

- A. IFRS, indirect format.
- B. Either IFRS or US GAAP, direct format.
- C. IFRS, direct format.

Q-32. During the fiscal year, the interest payable for GF Company decreases. Compared to the amount of interest paid, GF Company's interest expense is most likely to be:

- A. higher.
- B. lower.
- C. the same.

4.16. Calculation of CFI and CFF

4.16.1. 重要知识点

4.16.1.1. CFI 和 CFF 掌握理解及公式

- **理解**：CFI consist of the inflows and outflows of cash resulting from the acquisition or disposal of long-term assets and certain investments.

+CF	-CF
Sale proceeds from debt & equity investments	Acquisition of debt & equity investment
Sale proceeds from fixed assets	Acquisition of fixed assets
Principal received from loans made to others	Loans made to others

- $\text{Gain or loss} = \text{proceeds received} - \text{disposal NBV}$
- $\text{BV}_{\text{end}} = \text{BV}_{\text{begin}} + \text{purchase} - \text{Disposal BV} - \text{depreciation}$

4.16.1.2. CFF: cash inflows and outflows due to changes in capital structure; CFF consist of the inflows and outflows of borrowing, repayment, new issue, repurchase, div paid.

- $\text{Dividend paid} = - \text{Dividend declared} + \Delta \text{dividend payables}$
- $\text{Opening R/E} + \text{Net Income} - \text{Dividend declared} = \text{Ending R/E}$

+CF	-CF
Proceeds from issuing stocks	Payments to reacquire stock
Principal amounts of debt issued	Principal paid on debt
	Dividends paid to shareholders

4.16.2. 基础题

- Q-33.** Silverago Incorporated, an international metals company, reported a loss on the sale of equipment of \$2 million in 2010. In addition, the company's income statement shows depreciation expense of \$8 million and the cash flow statement shows capital expenditure of \$10 million, all of which was for the purchase of new equipment. Using the following information from the comparative balance sheets, how much cash did the company receive from the equipment sale?

Balance Sheet Item	12/31/2009	12/31/2010	Change
Equipment	\$100 million	\$105 million	\$5 million
Accumulated depreciation—equipment	\$40 million	\$46 million	\$6 million

- A. \$1 million.
- B. \$2 million.
- C. \$3 million.

Q-34. Assume U.S. GAAP applies unless otherwise noted. At the end of the year, a company sold equipment for \$40,000 cash. The company paid \$100,000 for the equipment several years ago and had accumulated depreciation of \$60,000 for the equipment at the time of sale. All else equal, the equipment sale will result in the company's cash flow from:

- A. investing activities decreasing by \$10,000.
- B. investing activities increasing by \$40,000.
- C. operating activities being \$40,000 more than net income.

Q-35. In 20X8, a company recorded several transactions under U.S. GAAP. The company purchased a new machine to update its manufacturing line for \$150,000. During the year, \$140,000 of convertible preferred stocks were exercised; \$24,000 dividends were received; and \$42,000 dividends were paid. The mortgage payment of the company includes \$34,000 of principal. The investing cash flows and the financing cash flows of the company were *closest* to:

	CFI	CFF
A.	(\$10,000)	(\$42,000)
B.	(\$150,000)	(\$42,000)
C.	(\$150,000)	(\$76,000)

4.17. FCFE and FCFF

4.17.1. 重要知识点

4.17.1.1. FCFE & FCFF: (需要重点掌握 , 经常考到)

➤ Formula

- $FCFF = EBIT \times (1 - \text{tax rate}) + NCC - FCInv - WCInv$
- $FCFF = NI + NCC + [Int \times (1 - \text{tax rate})] - FCInv - WCInv$
- $FCFF = CFO + Int \times (1 - t) - FCInv$
- $FCFE = CFO - FCInv + \text{Net borrowing}$
- $FCFE = FCFF - Int (1 - \text{tax rate}) + \text{net borrowing}$

4.17.2. 基础题

Q-36. Assume U.S. GAAP applies unless otherwise noted. An analyst gathered the following annual information (\$ millions) about a company that pays no dividends and has no debt:

Net income	91.6
Depreciation	36.4
Loss on sale of equipment	3.2
Decrease in accounts receivable	8.4
Increase in inventories	10.8
Increase in accounts payable	9
Capital expenditures	14.6
Proceeds from issuance of new shares	17

The company's annual free cash flow to equity (\$ millions) is *closest* to:

- A. 106.2.
- B. 116.8.
- C. 123.2.

Q-37. An analyst is planning to make a valuation on a privately held company by using a FCF Model. In order to determine the free cash flow to all capital suppliers, he collected the following data (in million):

Operating cash flow	500
Interest paid	30
Investment in working capital	80
Investment in fixed asset	60
Tax rate	30%

The free cash flow the analyst is planning to determine is *closest* to:

- A. 440.
- B. 381.
- C. 461.

Q-38. Which of the following is an appropriate method of computing free cash flow to the firm?

- A. Add operating cash flows plus capital expenditures and deduct after-tax interest payments.
- B. Add operating cash flows plus after-tax interest payments and deduct capital expenditures.
- C. Deduct both after-tax interest payments and capital expenditures from operating cash flows.

Q-39. If a company capitalizes an expenditure related to capital assets instead of expensing it, ignoring taxes, the company will most likely report:

- A. the same free cash flow to the firm (FCFF) in that period.

- B. a lower cash flow per share in that period.
- C. a higher earnings per share in future periods.

4.18. Financial Analysis Techniques

4.18.1. 重要知识点

4.18.1.1. Financial analysis techniques

- Common-size statement: identify different methods to create common-size income statement and common-size balance sheet.
- **Profitability ratios**
 - net profit margin = $\frac{\text{net income}}{\text{revenue}}$
 - gross profit margin = $\frac{\text{gross profit}}{\text{revenue}}$
 - operating profit margin = $\frac{\text{operating income}}{\text{revenue}} = \frac{\text{EBIT}}{\text{revenue}}$
 - ROE (return on equity) = $\frac{\text{net income}}{\text{average equity}}$
 - ROA (return on asset) = $\frac{\text{net income}}{\text{average assets}}$

Or ROA (return on asset) = $\frac{\text{net income} + \text{interest} (1-t)}{\text{average assets}}$
- **Activity ratio (measure asset utilization): the closer these ratios to the industrial average, the better.**
 - receivable turnover = $\frac{\text{annual sales}}{\text{average receivables}}$

days of receivables collection = $\frac{365}{\text{receivables turnover}}$ (average time to collect account receivables)
 - inventory turnover = $\frac{\text{COGS}}{\text{average inventory}}$

days of inventory on hand = $\frac{365}{\text{inventory turnover}}$ (average time from purchase to sale of the inventory)
 - payables turnover = $\frac{\text{purchase}}{\text{average account payables}}$

days of payable = $\frac{365}{\text{payables turnover}}$
 - **operating cycle**= days of receivables collection + days of inventory on hand
 - **Cash conversion cycle**= days of receivables collection + days of inventory on hand – number of days of payables
 - **The higher cash conversion cycle, the higher the days of inventory and sales outstanding and the shorter payable period. (重点掌握)**

- $\text{total asset turnover} = \frac{\text{revenue}}{\text{average total assets}}$

➤ **Liquidity ratio (measure liquidity): the higher the ratios, the better solvency the company in the short run.**

- $\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$

- $\text{quick ratio} = \frac{\text{cash} + \text{marketable securities} + \text{receivables}}{\text{current liabilities}}$

- $\text{cash ratio} = \frac{\text{cash} + \text{marketable securities}}{\text{current liabilities}}$

➤ **Solvency ratio (measure leverage): the higher the ratios, the higher default risks of the company.**

- Leverage

- ◆ $\text{Long-term debt-to-equity ratio} = \frac{\text{total long-term debt}}{\text{total equity}}$

- ◆ $\text{debt-to-equity ratio} = \frac{\text{total debt}}{\text{total equity}}$

- ◆ $\text{total debt ratio} = \frac{\text{total debt}}{\text{total assets}}$

- ◆ $\text{financial leverage} = \frac{\text{total assets}}{\text{total equity}}$

- Coverage

- ◆ $\text{interest coverage ratio} = \frac{\text{EBIT}}{\text{interest}}$

- ◆ $\text{fixed charge coverage ratio} = \frac{\text{EBIT} + \text{lease payment}}{\text{interest} + \text{lease payment}}$

➤ **DuPont system of analysis 杜邦因素分析法是十分重要的, 3 因素和 5 因素都要掌握, 尤其是 5 因素分析。**

- 3 因素分析

- ◆ $\text{ROE} = \frac{\text{net income}}{\text{sales}} \times \frac{\text{sales}}{\text{assets}} \times \frac{\text{assets}}{\text{equity}}$

- ◆ $\text{ROE} = \text{profit margin} \times \text{asset turnover} \times \text{financial leverage}$

- 5 因素分析

- ◆ $\text{ROE} = \frac{\text{net income}}{\text{EBT}} \times \frac{\text{EBT}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{revenue}} \times \frac{\text{revenue}}{\text{assets}} \times \frac{\text{assets}}{\text{equity}}$

- ◆ $\text{ROE} =$
 $\text{tax burden} \times \text{interest burden} \times \text{EBIT margin} \times \text{asset turnover} \times$
 $\text{financial leverage}$

- 杜邦分析的内容有可能和权益里的内容一起考，通过 ROE retention rate, 来计算 g ，进而使用 DDM 进行估值。

◆ $g = ROE \times \text{retention ratio} = ROE \times (1 - DPR)$

4.18.1.2. Formula of coverage ratio

Cash flow interest coverage ratio = $(CFO + \text{interest paid} + \text{taxes paid}) / \text{interest paid}$

Other cash flow ratio 的公式总结如下：

Other cash flow ratios	
Performance ratios	Calculation
Cash flow to revenue	CFO/ Revenue
Cash return on assets	CFO/ Average total assets
Cash return on equity	CFO / Average total equity
Cash to income	CFO/ Operating income
Cash flow per share	$(CFO - \text{Preferred dividends}) / \text{Weighted average NO. of common shares}$

Other cash flow ratios	
Coverage ratio	Calculation
Debt coverage	CFO / Total debt
Interest coverage	$(CFO + \text{Interest paid} + \text{Taxes paid}) / \text{Interest paid}$
Reinvestment	CFO / Cash paid for long-term assets
Debt payment	CFO / Cash paid for long-term debt repayment
Dividend payment	CFO/ dividend paid
Investing and financing	CFO/Cash outflows from investing and financing activities

4.18.1.3. Common-size

- **Common-sized I/S ratios** ---- item in the income statement account / revenues (net sales)
- **Common-sized B/S ratios** ---- item in the balance sheet account / total assets
- **Common-sized CF/S ratio:**
 - Item in the CF statement account / revenues
 - CF outflow / total outflows OR CF inflow / total inflows
- **Common-size** 一般有横向比较 (公司间)，纵向比较 (年份间)，体现 trend.

4.18.2. 基础题

Q-40. An analyst has calculated a ratio using as the numerator the sum of operating cash flow, interest, and taxes, and as the denominator the amount of interest. What is this ratio, what does it measure, and what does it indicate?

- A. This ratio is an interest coverage ratio, measuring a company's ability to meet its interest obligations and indicating a company's solvency.
- B. This ratio is an effective tax ratio, measuring the amount of a company's operating cash flow used for taxes, and indicating a company's efficiency in tax management.
- C. This ratio is an operating profitability ratio, measuring the operating cash flow generated for taxes and interest and indicating a company's liquidity.

Q-41. For a manufacturing company, when it experience higher receivables turnover and longer payables period, its cash conversion cycle is *most likely* to:

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

Q-42. Galambos Corporation had an average receivables collection period of 19 days in 2003. Galambos has stated that it wants to decrease its collection period in 2004 to match the industry average of 15 days. Credit sales in 2003 were \$300 million, and analysts expect credit sales to increase to \$400 million in 2004. To achieve the company's goal of decreasing the collection period, the change in the average accounts receivable balance from 2003 to 2004 that must occur is closest to:

- A. -\$420,000.
- B. \$420,000.
- C. \$836,000.

Q-43. Assuming no changes in other variables, which of the following would decrease ROA?

- A. A decrease in the effective tax rate.
- B. A decrease in interest expense.
- C. An increase in average assets.

Q-44. The following selected balance sheet and ratio data are available for a company:

	2017	2016
Cash and cash equivalents	196.0	
Marketable securities	778.4	

Accounts receivables	24.0	
Other current assets	240.2	
Total current assets	1238.6	
Deferred revenues	170.0	
Other current liabilities	184.6	
Total current liabilities	354.6	
Cash ratio		2.26
Quick ratio		2.96
Current ratio		3.26

Which of the following ratios decreased between 2016 and 2017?

- A. Cash
- B. Quick
- C. Current

Q-45. Income statements for two companies (A and B) and the common-sized income statement for the industry are provided below:

All \$ figures in '000s	Company A	Company B	Industry
Sales	\$ 21,000	\$ 16,500	100.0%
Cost of goods sold	12,706	10,478	63.8%
Selling, general, and administrative expenses	5,250	4,042	24.8%
Interest expense	1,680	1,072	7.0%
Pretax earnings	1,364	908	4.4%
Taxes	410	290	1.6%
Net earnings	\$ 954	\$ 618	2.8%

The best conclusion an analyst can make is that:

- A. Company B's interest rate is the industry average.
- B. both companies' tax rates are higher than the industry average.
- C. Company A earns a higher gross margin than both Company B and the industry.

Q-46. The following financial data is available for a company:

Return on assets (ROA)	3.8%
Total asset turnover	1.82
Financial leverage	1.65

Dividend payout ratio	47.1%
-----------------------	-------

The company's sustainable growth rate is closest to:

- A. 3.00%.
- B. 3.32%.
- C. 3.78%.

Q-47. Selected information for a company is provided below.

	\$ millions
Sales	9,600
Cost of goods sold	5,760
Purchase	5,880
Average receivables	1,250
Average inventory	1,420
Average payables	290

The company's net operating cycle (in days) is closest to:

- A. 84.
- B. 120.
- C. 138.

Q-48. Which of the following ratio is solvency ratio?

- A. Return on assets.
- B. Interest coverage.
- C. Return on equity.

Q-49. A company's most recent balance sheet shows the following values (NZ\$ thousands):

Accounts payable	3,800
Long-term debt	5,590
Other long-term liabilities	800
Common stock	1,200
Retained earnings	1,810

The company's debt- to- capital ratio is closest to:

- A. 0.77
- B. 1.86
- C. 0.65

Q-50. The following common-size income statement data and tax rates are available on a

34-106

company.

Financial Item	Current Year (%)
Revenues	100
Cost of goods sold	37.6
Interest expense	3.0
Research expenses	4.3
Selling and general expenses	31.9
Income tax rate	20%
Prior Year's Profitability Ratios	
Gross profit margin	61.5%
Operating profit margin	25.8%
Net profit margin	17.8%

The profitability ratio that had the largest absolute increase in value in the current year

is the:

- A. operating profit margin.
- B. net profit margin.
- C. gross profit margin.

Q-51. The following data is available on a company:

	(\$ millions)
Total assets	290
Total revenues	564
Total expenses	482
Research & development expenses	24

Under a common-size analysis, the value used for research & development expenses is

closest to:

- A. 8.3%.
- B. 4.3%.
- C. 5.0%.

4.19. Valuation of Inventory

4.19.1. 重要知识点

Inventory 掌握公式及两种方法的比较：

4.19.1.1. Inventory BASE 法则

- $\text{Purchases} = \text{ending inventory} - \text{beginning inventory} + \text{COGS}$
- $\text{Beginning inventory} = \text{COGS} - \text{purchases} + \text{ending inventory}$
- $\text{Ending inventory} = \text{beginning inventory} + \text{purchases} - \text{COGS}$

4.19.1.2. Product cost vs periodic cost

- 判断标准：存货是否达到了可销售状态
- **Capitalized cost (product cost) include:** (重点掌握，很有可能考)
 - Purchase cost - trade discounts and rebates;
 - Conversion costs (e.g. labor and overhead);
 - Other costs required to make inventory in use.
- **Expensed cost (period cost):**
 - Abnormal waste of materials, labor, or overhead;
 - Storage costs (unless required as part of production);
 - Administrative and selling expenses.

4.19.1.3. Inventory valuation method

- **Specific identification:** match COGS and historical cost for each unit sold.
- **Last in first out (LIFO):** The newest goods purchased (or manufactured) are sold first and the oldest goods purchased (or manufactured), including beginning inventory, remain in ending inventory. (Only allowed under U.S. GAAP)
- **First in first out (FIFO):** The oldest goods purchased (or manufactured) are sold first and the newest goods purchased (or manufactured) remain in ending inventory.
- **Weighted average (AVCO):** The average cost of the goods available for sale (beginning inventory plus purchase, conversion, and other costs) during the accounting period to the units that are sold as well as to the units in ending inventory.

4.19.1.4. Periodic system VS perpetual system

Periodic	Perpetual
<ul style="list-style-type: none">◇ "Purchase" account;◇ Balances of inventory and COGS are reported at the end of accounting period.	<ul style="list-style-type: none">◇ Balances of inventory and COGS are reported <u>continuously</u>.
<ul style="list-style-type: none">◇ Same result for FIFO & Specific identification method;◇ Different result for LIFO & AVCO.	

- LIFO provides the most useful estimate of COGS
- FIFO provides the most useful estimate of inventory value

4.19.2. 基础题

Q-52. After reviewing the inventory records for Argo, the following cost related to inventory were incurred:

Fixed production overhead	\$450,000
Direct material purchased	\$225,000
Direct labour cost	\$135,000
Storage costs incurred during production	\$25,000
Storage cost incurred before deliver to customers	\$12,500
Normal waste costs	\$7,500
Abnormal waste costs	\$30,000

The inventory value capitalized in the balance sheet of Argo is closest to:

- A. \$810,000.
- B. \$842,500
- C. \$885,000.

Q-53. Zimt AG uses the FIFO method, and Nutmeg Inc. uses the LIFO method. Compared to the cost of replacing the inventory, during periods of rising prices, the cost of sales reported by:

- A. Zimt is too low.
- B. Nutmeg is too low.
- C. Nutmeg is too high.

Q-54. A firm that prepares its financial statements according to US GAAP and uses a periodic inventory system had the following transactions during the year:

Date	Activity	Tons (000s)	\$ per Ton
	Beginning inventory	1	600
February	Purchase	5	650
May	Sale	2	700
August	Purchase	3	680
November	Sale	4	750

The cost of sales (in thousands) is *closest* to:

- A. \$5,890 using weighted average.
- B. \$4,080 using LIFO.
- C. \$3,850 using FIFO.

Q-55. Compared to using the weighted average cost method to account for inventory, during a period in which prices are generally rising, the current ratio of a company using the FIFO method would most likely be:

- A. lower.
- B. higher.
- C. dependent upon the interaction with accounts payable.

Q-56. During the period when inventory's price is rising, compared to companies using FIFO method, firms using weighted average cost for inventory would be most likely to report lower value for its:

- A. return on sales.
- B. inventory turnover.
- C. debt-to-equity ratio.

Q-57. Which of the following inventory valuation methods best matches the actual historical cost of the inventory items sold to their physical flow?

- A. LIFO.
- B. FIFO.
- C. Specific identification.

4.20. Adjustment of Valuation in Inventory

4.20.1. 重要知识点

4.20.1.1. Impairment of inventory

➤ U.S. GAAP:

- Lower of cost or market;
 - ◆ If replacement cost (RC) > NRV, market = NRV
 - ◆ If replacement cost (RC) < NRV – normal profit margin, market = NRV – normal profit margin
 - ◆ If $NRV - \text{normal profit margin} < RC < NRV$, market = replacement cost
- No write-up allowed under U.S.GAAP and no reversal after devaluation.

➤ IFRS:

- Lower of cost or NRV;
- $NRV = \text{sales price} - \text{selling cost}$;

- Inventory can be written up but only limited to the loss recognized previously;
- Reporting inventory above the historical cost is only permitted under IFRS and U.S. GAAP in certain industries **such as agricultural and forest products, mineral ores, and precious metals.**

4.20.2. 基础题

Q-58. The carrying value of inventories reflects:

- A. their original cost.
- B. their current value.
- C. the lower of original cost or net realizable value.

Q-59. For a manufacturing company, its information is shown in the table below:

	\$ million
Ending inventory (under FIFO)	4.3
NRV	4.1
Replacement cost	3.8
Normal profit margin	0.5

If the company is using International Financial Reporting Standards (IFRS) instead of US GAAP, its cost of goods sold (in millions) is most likely:

- A. 0.3 higher
- B. 0.3 lower
- C. The same

Q-60. Fernando's Pasta purchased inventory and later wrote it down. The current net realisable value is higher than the value when written down. Fernando's inventory balance will most likely be:

- A. higher if it complies with IFRS.
- B. higher if it complies with US GAAP.
- C. the same under US GAAP and IFRS.

Q-61. Zimt AG wrote down the value of its inventory in 2007 and reversed the write-down in 2008. Compared to the ratios that would have been calculated if the write-down had never occurred, Zimt's reported 2007:

- A. current ratio was too high.
- B. gross margin was too high.
- C. inventory turnover was too high.

4.21. LIFO Conversion/Liquidation

4.21.1. 重要知识点

4.21.1.1. LIFO and FIFO 之间的转换

- **LIFO reserve**
 - The difference between the reported LIFO inventory carrying amount and the inventory amount that would have been reported if the FIFO method had been used.
 - $\text{LIFO reserve} = \text{FIFO inventory} - \text{LIFO inventory}$
- **LIFO to FIFO conversion**
 - $\text{INV}_F = \text{INV}_L + \text{LIFO reserve}$
 - $\text{COGS}_F = \text{COGS}_L - \Delta \text{LIFO reserve}$
 - $\Delta \text{LIFO reserve} = \text{LIFO reserve}_1 - \text{LIFO reserve}_0$
 - $\Delta \text{NI} = \Delta \text{LIFO reserve} \times (1-t)$

4.21.1.2. LIFO liquidation

- LIFO liquidation occurs when purchased volume is less than sales volume. Or, the decrease in volume or quantity of inventory:
 - In this case, the prices for goods being sold are no longer recent prices.
- Under LIFO liquidation, and if price is rising:
 - COGS does not reflect current costs;
 - LIFO reserve may decline.
- An analyst should adjust COGS for decrease in LIFO reserve.

4.21.2. 基础题

Q-62. An investor collected a company's inventory data as follows:

	2009	2008
COGS	1200	1430
LIFO Reserve	800	820

If the company used FIFO method to recognize, what would the cost of goods sold be?

- A. 1220.
- B. 1200.
- C. 1180.

Q-63. Assume U.S. GAAP applies unless otherwise noted. Sipex Corporation uses the LIFO inventory method, but most of the other companies in Sipex industry use FIFO. To

adjust Sipex's ending inventory to the FIFO method, the amount reported for Sipex's ending inventory should be:

- A. increased by the ending balance in Sipex's LIFO reserve.
- B. decreased by the ending balance in Sipex's LIFO reserve.
- C. increased by the change in Sipex's LIFO reserve for that period.

Q-64. Assume U.S. GAAP applies unless otherwise noted. Sauerbraten Corp. reported 2017 sales (\$ in millions) of \$4,314 and cost of goods sold of \$3,654. Inventories at year-end 2017 and 2016, respectively, were \$1,106 and \$1,124. The company uses the LIFO method for inventory valuation and discloses that if the FIFO inventory valuation method had been used, inventories would have been \$126.6 million and \$113.6 million higher in 2017 and 2016, respectively. Compared to the inventory turnover ratio reported, if Sauerbraten had exclusively used the FIFO method its inventory turnover ratio would have been closest to:

- A. 2.95.
- B. 3.28.
- C. 3.49.

Q-65. An analyst can *most* accurately identify a LIFO liquidation by observing a(n):

- A. increase in gross margin.
- B. decrease in the LIFO reserve.
- C. change in inventory out of line with change in sales.

4.22. Long-Term Asset: Capitalize VS Expense

4.22.1. 重要知识点

4.22.1.1. 资本化和费用化对财务报表的影响 (重点掌握, 经常考)

- **Net income:** 费用化的 NI 当期较低, 以后较高; 资本化的 NI 当期高, 以后稍低, 利润表随时间波动小。
- **Shareholder's equity 与 net income 的变化趋势相同。**
- **Cash flow:** 费用化的现金流支出归入 CFO, 因而费用化的 CFO 低; 资本化的现金流归入 CFI, 所以资本化 CFI 低。
- **Financial ratios:** ROA 和 ROE 与 NI 同向变化, 费用化当期 ROA 和 ROE 比较低, 以后比较高, 资本化当期 ROA 和 ROE 高, 以后比较低, 资本化 ROA 和 ROE 比较平稳。

- **Interest coverage ratio (EBIT/ interest expense):** 资本化前期 Interest coverage ratio 比较大，因为 interest expense 小，后期比较小，因为 EBIT 小；费用化前期 Interest coverage ratio 比较小，因为 interest expense 比较大，后期比较大，因为 EBIT 后期比较大。
- 如果问哪一种财务处理较保守、激进，相对应地，应该是**资本化激进，费用化保守**。

F/S	Items	Capitalizing	Expensing
B/S & ratios	Total assets	Higher	Reverse
	Shareholders' equity	Higher	
	Leverage ratios (debt/equity & debt/assets)	Lower	
I/S & ratios	Income volatility	Lower	
	Net income – first year (ROA & ROE)	Higher	
	Net income – later years (ROA & ROE)	Lower	
CFS	Total cash flow	Same	Same
	Cash flow from operating	Higher	Reverse
	Cash flow from investing	Lower	

4.22.1.2. Long-term asset 资本化费用化问题

- **判断标准：**长期资产是否达到了可使用状态
- **资本化部分**
 - Purchase price
 - Tax, freight and insurance
 - Delivery
 - Installation
 - Testing
 - Asset enhancement cost (特殊)
- **费用化**
 - Depreciation
 - Repair and maintenance

- Staff training

4.22.1.3. Research and development cost 的资本化和费用化

➤ 一般的讲，企业本身开发的无形资产的费用应该费用化。例外：R&D, software.

Type of Expenditure	IFRS	U.S.GAAP
Research	Expense as incurred	
Development	Capitalize if certain criteria are met.	Expense as incurred Except for: <ul style="list-style-type: none"> ● Costs to develop a software <ul style="list-style-type: none"> ● For sales to others <ul style="list-style-type: none"> ✓ Expensed as incurred; ✓ Once economic feasibility is established, subsequent production costs can be capitalized. ● For own internal use <ul style="list-style-type: none"> ✓ Expense until it is probable that the project will be completed and that the software will be used as intended; thereafter, capitalized.

4.22.1.4. 利息费用的资本化和费用化

➤ Interest that accrues during the construction of an asset (for a firm's own use or resale) must be capitalized (e.g., depreciation or COGS).

➤ US GAAP 下不允许 netting 相关利息收入, IFRS 下要求 netting 相关利息收入

Items Impacts	Int. exp.	Income statement impacts	Net Income	Interest coverage ratio	CFI	CFO
Before completion	N/A	No	Higher	Higher? The same?	Understate	Overstate
After completion		Depreciation expense	Lower	Lower		

4.22.2. 基础题

Q-66. Assume U.S. GAAP applies unless otherwise noted. Two companies are identical except for their accounting treatment of R&D costs. One company expenses all such costs immediately, while the other capitalizes a portion of the costs. Compared with the company that capitalizes costs, the company that expenses immediately will *least likely*:

- A. earn a lower return on assets.
- B. have lower financial leverage.
- C. report lower cash flow from operations in the statement of cash flows.

Q-67. Under IFRS, BAURU, S.A., a Brazilian corporation, borrows capital from a local bank to finance the construction of its manufacturing plant. The loan has the following conditions:

Borrowing date	1 January 2009
Amount borrowed	500 million Brazilian real (BRL)
Annual interest rate	14 percent
Term of the loan	3 years, Annual payment of interest only.
Payment method	Principal amortization is due at the end of the loan term.

The construction of the plant takes two years, during which time BAURU earned BRL 10 million by temporarily investing the loan proceeds. Which of the following is the amount of interest related to the plant construction (in BRL million) that can be capitalized in BAURU's balance sheet?

- A. 130.
- B. 140.
- C. 210.

Q-68. Which of the following expenses could be capitalized?

- A. Advertising.
- B. R&D.
- C. Software development costs.

Q-69. JOOVI Inc. has recently purchased and installed a new machine for its manufacturing plant. The company incurred the following costs:

Purchase price	\$12,980
Freight and insurance	\$1,200

Installation	\$700
Testing	\$100
Maintenance staff training costs	\$500

The total cost of the machine to be shown on JOOVI's balance sheet is *closest* to:

- A. \$14,180.
- B. \$14,980.
- C. \$15,480.

Q-70. After reading the financial statements and footnotes of a company that follows IFRS, an analyst identified the following intangible assets:

- Product patent expiring in 40 years;
- Copyright with no expiration date; and
- Goodwill acquired 2 years ago in a business combination.

Which of these assets is an intangible asset with a finite useful life?

	Product Patent	Copyright	Goodwill
A.	Yes	Yes	No
B.	Yes	No	No
C.	Yes	Yes	Yes

4.23. Long-Term Asset: Depreciation Methods

4.23.1. 重要知识点

4.23.1.1. Tangible asset: 折旧就是一种将资产资本化的方式

- **Tangible asset** not used in the operations of the firm should be classified as investment assets.
- **Land 不必折旧、land improvement 需折旧、lease improvement 需折旧**
- **Depreciation:** the capitalized costs of long-lived tangible assets (other than land) with finite useful lives are allocated to subsequent periods as depreciation.
 - Carrying (book) value. (carrying value or net book value) = historical cost - accumulated depreciation.
 - Historical cost (gross investment in asset). The original acquisition cost of the asset including installation and transportation costs.
 - Depreciation can be classified as operating expense.
 - ◆ No current cash expenditures though (cash outflows occurred in the past);
 - ◆ Depreciation expenses cannot be ignored.

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Depreciation	
Straight-line	$\text{SL depreciation} = \frac{\text{cost} - \text{residual value}}{\text{useful life}}$
DDB	Depreciation expense = (2/asset life in years) × net book value at the beginning of year X
Units-of-production	unit of production depreciation $= \frac{\text{original cost} - \text{salvage value}}{\text{life in unit output units}}$ × output unit in period

- Revaluation model (only IFRS)

4.23.1.2. Component depreciation

- IFRS: each components of an asset should be depreciated separately.
- GAAP: permit separate depreciation but seldom applied.

4.23.1.3. Intangible asset: amortize 摊销

- Intangible assets with finite-life are amortized over their useful lives, and intangible assets with infinite life are making impairment test annually;
- **Goodwill 不折旧，不摊销，只做 annual impairment test (还要掌握 goodwill 的定义)**
 - Under IFRS, goodwill 的减值，直接将账面价值与 Implied value 进行比较。

4.23.2. 基础题

Q-71. A financial analyst at BETTO S.A. is analyzing the result of the sale of a vehicle for 85,000 Argentine pesos (ARP) on 31 December 2009. The analyst compiles the following information about the vehicle:

Acquisition cost of the vehicle	ARP 100,000
Acquisition date	1 January 2007
Estimated residual value at acquisition date	ARP 10,000
Expected useful life	9 years
Depreciation method	Straight-line

The result of the sale of the vehicle is *most likely*:

- A. a loss of ARP 15,000.

- B. a gain of ARP 15,000.
- C. a gain of ARP 18,333.

Q-72. Assume U.S. GAAP applies unless otherwise noted. Which of the following adjustments to the assumed useful life and assumed salvage value of a company's assets would *most likely* decrease the company's total asset turnover ratio?

	<u>Assumed useful life</u>	<u>Assumed salvage value</u>
A.	Longer	Lower
B.	Longer	Higher
C.	Shorter	Lower

Q-73. A company whose objective is to maximize income had spent \$1,000,000 for a machine with two significant components as indicated below. The machine is expected to have an overall useful life of 10 years and the company uses the straight line method of depreciation.

Component	Cost	Useful Life
A	\$500,000	10 years
B	\$500,000	5 years

The depreciation expense for the first year computed under IFRS compared with under U.S. GAAP will most likely be:

- A. the same.
- B. \$50,000 lower.
- C. \$50,000 higher.

Q-74. An analyst has gathered the following information about a company's capital assets:

Year ending	2017	2016	2015
Property, plant, and equipment	€5,000	€5,000	€5,000
Accumulated depreciation	750	500	250
Net book value	4,250	4,500	4750

As of the end of 2017, the expected remaining life of the assets, in years, is closest to:

- A. 6.
- B. 17.
- C. 20.

Q-75. At the start of the year, a company acquired new equipment at a cost of €100,000, estimated to have a three-year life and a residual value of €10,000. If the company

depreciates the asset using the double declining balance method, the depreciation expense that the company will report for the third year is closest to:

- A. €7,407.
- B. €1,111.
- C. €6,656.

Q-76. Using the following information, a Mexican corporation is computing the depreciation expense for a piece of manufacturing equipment that it purchased at the start of the current year. The company takes a full year's depreciation in the year of acquisition.

Cost of equipment	MXN2,000,000
Estimated residual value	MXN200,000
Expected useful life	10 years
Total productive capacity	5,000,000 units
Production during year	800,000 units

The depreciation expense (in MXN) will most likely be higher by:

- A. 112,000, using the double-declining method compared with the units-of-production method.
- B. 140,000, using the units-of-production method compared with the straight-line method.
- C. 180,000, using the double-declining balance method compared with the straight-line method.

4.24. Long-Term Asset: Impairment & Revaluation Model

4.24.1. 重要知识点

4.24.1.1. Impairment test

Tangible assets	Intangible assets
✧ Held for use Impairment indicators ↓ Impairment test	✧ Held for use Goodwill & Other IA with indefinite useful life ↓ Annual impairment test
✧ Held for sale No depreciation Immediate impairment test	✧ Held for sale No amortization Immediate impairment test

If Carrying value > NRV

If Carrying value > NRV

4.24.1.2. Impairment under US GAAP

➤ Step1 Recoverability test / Impairment test

$$\left(\begin{array}{c} \text{carrying} \\ \text{value} \\ \text{of assets} \end{array} \right) > \left(\begin{array}{c} \text{undiscounted} \\ \text{future cash flows} \\ \text{generated by} \\ \text{the assets} \end{array} \right)$$

➤ Step2 Loss measurement

$$\left(\begin{array}{c} \text{carrying} \\ \text{value} \\ \text{of assets} \end{array} \right) - \left(\begin{array}{c} \text{fair market value} \\ \text{or} \\ \text{PV of future CF} \end{array} \right)$$

➤ Cannot reverse the recognized loss

4.24.1.3. Impairment under IFRS

$$\left(\begin{array}{c} \text{carrying} \\ \text{value} \\ \text{of assets} \end{array} \right) > \left(\begin{array}{c} \text{recoverable} \\ \text{amount} \end{array} \right)$$

The higher of	
Fair value less cost to sell	Value in use i.e. the PV of its future cash flow from continued use

- Under cost model, impairment can reverse the loss, but write up is not allowed.
- Under revaluation model, revaluation gain will be recognized in equity. Revaluing the asset's value upward is even permitted under IFRS.

4.24.1.4. Impairment effect

- PP&E cost (asset) decrease & NI decrease (due to impairment expenses).
- But NI of next year will higher caused by lower PP&E level (PP&E 的 depreciation 在后续年度会降低).
- Impairment 对 ratio 的影响：在确认减值的当期，ROA，ROE 较小。在以后的几期，ROA, ROE 变大 (decreased depreciation).
- The impact of valuing asset upward to financial ratios: low leverage (high asset),

high ROA/ROE in the period of revaluation and low ROA/ROE in subsequent periods.

Impairment Effects	
Cash flow	--
Assets	↓
Equity	↓
Debt/equity ratio	↑
Current net income, ROA,ROE	↓
Future depreciation expense	↓
Future net income, ROA,ROE	↑
Future asset turnover ratios	↑

4.24.1.5. Revaluation

- Upward revaluation of assets will
 - Increase assets and equity → decrease leverage ratios (D/E)
 - Increase comprehensive income in the period the revaluation occur;
 - In subsequent periods
 - ◆ Higher depreciation expense and lower profitability;
 - ◆ Lower ROA and ROE.

4.24.1.6. Derecognition of asset

- **Sale of long-lived assets**
 - Report gains or losses (I/S) = sales proceed – carrying value of long-lived asset.
- **Retirement or abandonment of long-lived assets**
 - Remove carrying value (B/S);
 - Loss on the I/S.
- **Long-lived asset is exchanged**
 - G/L = fair value of the old asset (or fair value of new asset) - book value of the old asset.

4.24.2. 基础题

Q-77. Assume U.S. GAAP applies unless otherwise noted. An analyst determined the following information concerning Franklin, Inc.'s stamping machine:

Acquired	January 1, 1998
----------	-----------------

Cost	\$22 million
Depreciation	straight line method
Estimated useful life	12 years
Salvage value	\$4 million

As of December 31, 2004, the stamping machine is expected to generate \$1,500,000 per year for five more years and will then be sold for \$1,000,000. The stamping machine is:

- A. impaired because its carrying value exceeds expected future cash flows.
- B. impaired because expected salvage value has declined.
- C. not impaired because annual expected revenue exceeds annual depreciation.

Q-78. The demand of products sold by Argo has been decreased due to the market place change for the company, and this decrease is not expected to recover to the previous condition in the foreseeable future. The following information is provided by Argo about a customer list:

Item description	\$ (thousands)
Carrying value amount	930,000
Undiscounted expected future cash flows	960,000
Present value of expected future cash flows	886,000
Fair value if sold	890,000
Costs to sell	7,000

Which of the following statements is most accurate? As an intangible asset with indefinite life, the customer list is impaired:

- A. IFRS only.
- B. U.S. GAAP only.
- C. both IFRS and U.S. GAAP.

Q-79. MARU S.A. de CAT., a Mexican corporation that follows IFRS, has elected to use the revaluation model for its property, plant, and equipment. One of MARU's machines was purchased for 2,500,000 Mexican pesos (MXN) at the beginning of the fiscal year ended 31 March 2010. As of 31 March 2010, the machine has a fair value of MXN 3,000,000. Should MARU show a profit for the revaluation of the machine?

- A. Yes.
- B. No, because this revaluation is recorded directly in equity.
- C. No, because value increases resulting from revaluation can never be recognized as a profit.

Q-80. An analyst is studying the impairment of the manufacturing equipment of WLP Corp. a U.K.-based corporation that follows IFRS. He gathers the following information about the equipment:

	C\$
Carrying value of equipment (net book value)	£19,100,000
Undiscounted expected future cash flows	£18,700,000
Present value of expected future cash flows	£14,500,000
Fair value	£16,800,000
Costs to sell	£800,000

The amount of the impairment loss on WLP Corp.'s income statement related to its manufacturing equipment is *closest* to:

- A. £2,300,000.
- B. £3,100,000.
- C. £1,600,000.

4.25. Investment Property

4.25.1. 重要知识点

4.25.1.1. Investment property (注意 IFRS 和 GAAP 下的区别 , 重点掌握)

- **Under IFRS**, as property that is owned (or, in some cases, leased under a finance lease) for the purpose of earning rentals or capital appreciation or both.
 - **Cost model**
 - ◆ The cost model is identical to the cost model used for property, plant, and equipment.
 - **Fair value model**
 - ◆ The **fair value model** differs from the revaluation model used for property, plant, and equipment.
 - ◇ Under the revaluation model, whether an asset revaluation affects net income depends on whether the revaluation initially increases or decreases the carrying amount of the asset (surplus in owner's equity);
 - ◇ Under investment property, all changes in the fair value of the asset affect net income (gain on income statement).
 - A company must apply one model (cost or fair value) to all of its investment property.
- **U.S. GAAP** classified investment property as normal long-lived assets.

4.25.2. 基础题

Q-81. An asset recorded at the fair value at purchase at 50 million. During year 2015, the value of the asset increased to 52 million, and the company wrote up the asset to the new market value. In 2016, the asset suffers an impairment and its fair value reduced to 51 million and the company recorded this 1 million loss in the income statement directly. Which of the following model is most likely to be used by the company to record the value of the asset?

- A. Fair value model.
- B. Revaluation model.
- C. Historical cost model.

Q-82. Under IFRS, Segeo owns several investment properties and these properties are valued under fair value model, based on prevailing rental market. The table shows a summary for the valuation of investment properties:

Initial cost (acquired in 2014)	\$80 million
Value of property revalued at 31 Dec. 2015	\$80.25 million
Value of property revalued at 31 Dec. 2016	\$85.75 million
Value of property revalued at 31 Dec. 2017	\$78.25 million

Which of the following most accurately describes the accounting treatment for the investment property owned by Segeo in 2017?

- A. 5.25 million charged to OCI, and 1.75 million charged to net income.
- B. 7.5 million charged to OCI
- C. 7.5 million charged to net income.

4.26. Income Taxes: DTA/ DTL

4.26.1. 重要知识点

4.26.1.1. Tax return terminology

- Taxable income;
- Taxes payable;
- Tax base
- Income tax paid;
- Tax loss carry forward.

4.26.1.2. Financial reporting terminology

- Accounting profit

- Income tax expense.
 - **Income tax expense = taxes payable + Δ DTL - Δ DTA**
- Carrying value
- Deferred tax liabilities and deferred tax assets.
- Valuation allowance

4.26.1.3. Temporal difference and permanent difference

- **Temporary difference**
 - Difference will reverse
- **Permanent difference**
 - Difference will not reverse, thus no deferred tax issues.

4.26.1.4. Income approach

Deferred tax assets	Deferred tax liabilities
<u>B/S amounts</u> that result from an excess of tax payable over income tax expense are expected to be recovered from future operations.	<u>B/S amounts</u> that result from an excess of income tax expense over taxes payable are expected to result in future cash outflows.
Taxes payable > income tax expense	Taxes payable < income tax expense

4.26.1.5. Balance sheet approach

- **Two steps for Deferred tax**
 - Step 1: identify DTL and DTA through a B/S approach;
 - Step 2: calculate deferred tax expense.
- **B/S approach**
 - Identify Accounting base and tax base for every asset and liability item on B/S.
 - Calculate the difference between two bases
 - ◆ For assets =
accounting base-tax base
 - ◆ For liabilities =
(-accounting base)-(-tax base)

Positive figure * tax rate = DTL
Negative figure * tax rate = DTA

4.26.1.6. U.S. GAAP vs. IFRS (相对重要的几个部分)

	IFRS	U.S.GAAP
Tax payable	将所得资产和所得税负债与其他资产和负债分开列报；	FAS109 要求，Tax payable 在 B/S 中确认为流动负债

Classification of DTA or DTL	Always non-current (<u>net</u>)	non-current /current
Tax rate to measure DTL or DTA	Use enacted or substantively enacted tax rate.	Use enacted tax rate
Recognition of deferred tax assets	Recognize the probable portion.	Recognize in full and then reduce by a valuation allowance, for the non-probable portion.
DTA valuation	Reverse is allowed	Reverse is prohibited

4.26.2. 基础题

Q-83. A company reported the following information of its tax related events.

('000)	2017	2016
Deferred tax assets	400	320
Deferred tax liabilities	900	720
Earnings before taxes	8,000	7,600
Income taxes at the statutory rate	2,400	2,280
Current income tax expense	2,000	1,800

The company's income tax expense during 2017 is *closest* to:

- A. \$2,000.
- B. \$2,100.
- C. \$2,500.

Q-84. Using the straight-line method of depreciation for reporting purposes and accelerated depreciation for tax purposes would *most likely* result in a:

- A. valuation allowance.
- B. deferred tax asset.
- C. temporary difference.

Q-85. The following information is about a company equipment, which was purchased on 1 January 2007:

	Accounting Purposes	Tax Purposes
2007 Acquisition cost	\$100,000	\$100,000
Depreciation method	Straight-line	Double-declining balance method
Useful life	10 years	8 years
Salvage value	\$20,000	\$0

Tax rate	30%	30%
----------	-----	-----

At the end of 2007, the balance sheet should occur:

- A. \$3,600 deferred tax liability.
- B. \$5,100 deferred tax asset.
- C. \$5,100 deferred tax liability.

Q-86. At the beginning of the year, a company purchased a fixed asset for \$1,000,000 with no expected residual value. The company depreciates similar assets on a straight line basis over 10 years, whereas the tax authorities allow declining balance depreciation at the rate of 14% per year. In both cases, the company takes a full year's depreciation in the first year and the tax rate is 30%. Which of the following statements concerning this asset at the end of the year is most accurate?

- A. The deferred tax asset is \$10,000.
- B. The temporary difference is \$40,000.
- C. The tax base is \$1,000,000.

Q-87. When certain expenditures result in tax credits that directly reduce taxes, the company will most likely record:

- A. a deferred tax asset.
- B. a deferred tax liability.
- C. no deferred tax asset or liability.

4.27. Deferred Tax: Measurement

4.27.1. 重要知识点

4.27.1.1. 计算由于税率改变引起的 income tax expense 变化

- $$\text{New DTA or DTL} = \frac{\text{old DTA or DTL}}{\text{old tax rate}} \times \text{new tax rate}$$
- $$\text{Income tax expense} = \text{tax payable} + \Delta \text{DTL} - \Delta \text{DTA}$$
- Tax rate ↑ DTL ↑ DTA ↑
- Tax rate ↓ DTL ↓ DTA ↓

4.27.1.2. Valuation allowance for DTA

- 当由于企业经营状况恶化，从而可能导致 DTA 未来无法回转时，要确认 Valuation allowance;
- Increasing the valuation allowance can decrease DTA, increase income tax expense

and decrease net income. The net DTA can be reversed by decreasing valuation allowance, resulting in higher earnings.

4.27.1.3. 在分析时，当分析师认为 DTL 不会回转时，DTL 全额视为 equity；会反转时，现值作为负债，剩余部分计入到 Equity，再计算 D/E。

4.27.1.4. Effective tax rates

$$\text{Effective tax rate} = \frac{\text{Income tax expense}}{\text{Pre-tax income (EBT)}}$$

4.27.1.5. Reversal of temporary difference

➤ Treatment of DTL

- If unlikely to be reversed → treated as equity
- If to be reversed → treated as true liability
- If non-reversal/ reversal is uncertain → Ignored

➤ Treatment of DTA

- If <50% probability to be reversed → valuation allowance is created

$$\text{DTA} = \text{DTA} - \left(\begin{array}{c} \text{Valuation} \\ \text{Allowance} \end{array} \right)$$

- Asset ↓ & Income ↓

4.27.2. 基础题

Q-88. Deferred tax liabilities should be treated as equity when:

- A. they are not expected to reverse.
- B. the timing of tax payments is uncertain.
- C. the amount of tax payments is uncertain.

Q-89. Zimt AG presents its financial statements in accordance with US GAAP. In 2007, Zimt discloses a valuation allowance of \$1,101 against total deferred tax assets of \$19,201. In 2006, Zimt disclosed a valuation allowance of \$1,325 against total deferred tax assets of \$17,325. The change in the valuation allowance *most likely* indicates that Zimt's:

- A. deferred tax liabilities were reduced in 2007.
- B. expectations of future earning power has increased.
- C. expectations of future earning power has decreased.

Q-90. Assume U.S. GAAP applies unless otherwise noted. Fred Company has a deferred tax liability balance of \$1,200,000 at the end of 2015. Tax rates increased from 30 percent

57-106

to 40 percent in 2015. Fred Company should increase its tax liability account and also increase its:

- A. 2015 income tax expense by \$120,000.
- B. 2015 income tax expense by \$400,000.
- C. income taxes payable by \$400,000.

Q-91. When the tax authorities decided to reduce the tax rate, what will be the effect on a company's deferred tax asset and deferred tax liability respectively?

- A. not be affected.
- B. increase.
- C. decrease.

Q-92. Carnation Corporation had a deferred tax liability of \$30,000 on January 1, 20X2 that is expected to reverse in 20X4. In 20X2, Carnation generated pretax financial income of \$300,000 and taxable income of \$150,000 due to a difference in depreciation. The tax rate for 20X2 is 30% but Carnation enacted a reduction in tax rates on January 1, 20X3 to 25%, Carnation's income tax expense for 20X2 is closest to:

- A. \$75,000.
- B. \$77,500.
- C. \$82,500.

4.28. Valuation of Debt Security

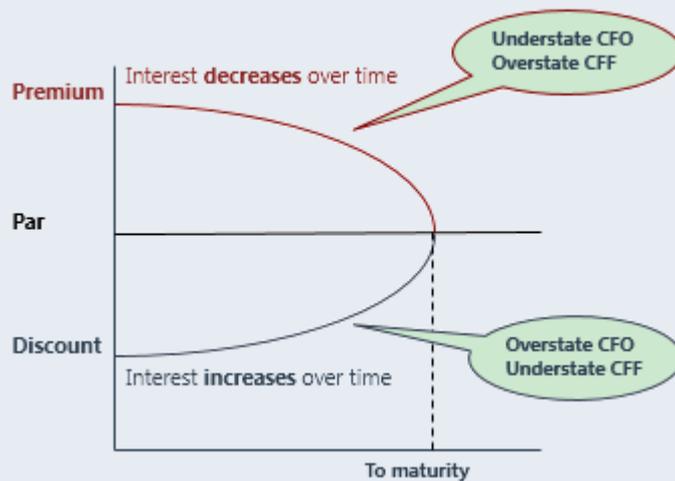
4.28.1. 重要知识点

4.28.1.1. 报表记录：对于 discount bond, premium bond 的报表记录，特别掌握如何用实际

利率法计算 int. exp (用 mkt. rate at issuance date)。

- Step 1: 计算 bond 的 PV
- Step 2: 计算 bond 第一期真正的 int. exp ,then 计算第一期结束的 carrying value
- Step 3: 根据第一期结束的 carrying value, 计算 bond 第二期真正的 int. exp.
- 如此推导下去

4.28.1.2. Carrying value of bond on balance sheet



4.28.1.3. Amortization 对 CFO 间接法的影响

- **For premium bonds**
 - the total portion of coupon is treated as CFO in accounting basis.
 - For analytical purpose, CFO have to be the real interest expense, CFF have to be the coupon payment minus the interest expense.
 - Interest expense=coupon paid-premium amortization
- **For discount bond**
 - the total portion of coupon is treated as CFO in accounting basis.
 - For analytical purpose, CFO have to be the real interest expense, CFF have to be the difference between coupon payment and interest expense, but here **CFF treated as an inflow instead.**
 - Interest expense=coupon paid +discount amortization

4.28.1.4. 该表格需要重点掌握，考到的几率很大

Par bonds	Premium bonds	Discount bonds
Market rate=coupon rate Cash paid=CR. \times Par	Market rate<coupon rate Interest expense = cash paid - amortization of premium	Market rate>coupon rate Interest expense = cash paid + amortization of discount
Interest expense is constant	Interest decreases over time	Interest increases over time
	CFO 低估 ; CFF 高估	CFO 高估 ; CFF 低估

4.28.2. 基础题

Q-93. Fairmont Golf issued fixed rate debt when interest rates were 6 percent. Rates have since risen to 7 percent. Using only the carrying amount (based on historical cost) reported on the balance sheet to analyze the company's financial position would *most likely* cause an analyst to:

- A. overestimate fairmont's economic liabilities.
- B. underestimate fairmont's economic liabilities.
- C. underestimate fairmont's interest coverage ratio.

Q-94. Consolidated Enterprises issues €10 million face value, five-year bonds with a coupon rate of 6.5 percent. At the time of issuance, the market interest rate is 6.0 percent. Using the effective interest rate method of amortisation, the carrying value after one year will be closest to:

- A. €10.17 million.
- B. €10.21 million.
- C. €10.28 million.

Q-95. On 1 January 2010 the market rate of interest on a company's bonds is 5 percent and it issues a bond with the following characteristics:

Face value	€50 million
Coupon rate, paid annually	4%
Maturity date	December 31,2019 (10 years)
Issue price	92.28

If the company uses IFRS, its interest expense (in millions) in 2010 is *closest* to:

- A. €1.846.
- B. €2.307.
- C. €2.500.

Q-96. A company issued a \$50,000 seven- year bond for \$47,565. The bonds pay 9% per annum, and the yield to maturity at issue was 10%. The company uses the effective interest rate method to amortize any discounts or premiums on bonds. After the first year, the yield to maturity on bonds equivalent in risk and maturity to these bonds is 9%. The amount of the bond discount amortization recorded in the first year is closest to:

- A. \$257.

- B. \$0.
- C. \$348.

4.29. Other issues in Debt

4.29.1. 重要知识点

4.29.1.1. Early repayment of bond

- **Gain or loss on the extinguishment of debt (I/S):** The difference between the cash required to redeem the bonds and the carrying amount of the bonds.

4.29.1.2. Issuance cost

- **U.S. GAAP**
 - Capitalized in deferred charge (asset);
 - Amortized on a straight-line basis to the relevant expense (e.g., legal fees) over the life of the bonds.
- **IFRS**
 - Subtracted as an unamortized discount from measurement of the liability, bonds payable.
- Under IFRS and US GAAP, cash outflows related to bond issuance costs are included in the financing section of the statement of cash flows (usually netted against bond proceeds).
- **G/L on the extinguishment of debt should be eliminated from day-to-day income for analytical purpose.**
- CFS adjustments
 - CFO: + loss /- gain
 - CFF: cash paid to redeem the bond (cash outflows of financing activities)

4.29.1.3. Derecognition of debt

- **A firm may choose to redeem bonds before maturity**
 - Possible reasons
 - ◆ Interest rates reduction
 - ◆ Firm has generated surplus cash through operation
 - ◆ Funds from the issuance on the equity market is available
 - A gain or loss is recognized in I/S
 - ◆ $G/L (I/S) = \text{book value of bond} - \text{redemption price}$; In CFS, it is reported as CFF.

4.29.1.4. Debt covenants

- **Borrowing agreements (the bond indenture) often include restrictions called covenants that protect creditors by restricting activities of the borrower;**

➤ **Two types of restrictions**

- Affirmative covenants: commit to do so from borrowers.
 - ◆ Timely payments of principal and interest;
 - ◆ Target financial ratios (such as the current, debt-to-equity, and interest coverage ratios) unchanged;
 - ◆ Use collateral in working order.
- Negative covenants: commit not to do so from borrowers.
 - ◆ Not to pay higher dividends or repurchase more shares;
 - ◆ Not to borrow more;
 - ◆ Not to engage in mergers and acquisitions.

4.29.1.5. For analytical purpose

- Stock price > conversion price, the convertible bond should be treated as equity;
- Stock price < conversion price, convertible bond should be treated as liability.

4.29.2. 基础题

Q-97. Oil Exploration LLC paid \$45,000 in printing, legal fees, commissions, and other costs associated with its recent bond issue. It is *most likely* to record these costs on its financial statements as:

- A. an asset under U.S. GAAP and reduction of the carrying value of the debt under IFRS.
- B. a liability under U.S. GAAP and reduction of the carrying value of the debt under IFRS.
- C. a cash outflow from investing activities under both U.S. GAAP and IFRS.

Q-98. On 1 January 2011, a company that prepares its financial statements according to International Financial Reporting Standards (IFRS) issued bonds with the following features:

- Face value: £20,000,000
- Term: Five years
- Coupon rate: 6% paid annually on 31 December
- Market rate at issue: 4%

The company carries all its bonds at cost. In December 2013, the market rate on similar bonds had increased to 5%, and the company decided to buy back (retire) the bonds after the coupon payment on 31 December. As a result, the gain on retirement reported on the 2013 income statement income is closest to:

- A. £340,410.
- B. £371,882.
- C. £382,556.

4.30. Financial Lease and Operating Lease: Lessee

4.30.1. 重要知识点

关于承租人和出租人的 lease

4.30.1.1. Capital lease 的条件 under US GAAP with specific conditions:

- Ownership of the leased asset transfers to the lessee at the end of the lease;
- The lease contains an option for the lessee to purchase the leased asset cheaply (bargain purchase option);
- The lease term is **75 percent** or more of the useful life of the leased asset;
- The present value of lease payments is **90 percent** or more of the fair value of the leased asset.
- **A specialized nature.**

4.30.1.2. Accounting treatment for lease: lessee

	B/S	I/S	CFS
All IFRS lease and finance lease under US GAAP	Recognize "right-of-use" (ROU) asset and lease liability	Report depreciation expense on ROU asset	Reduction of lease liability -----CFF
		Report interest expense on lease liability	Interest payment----CFO or CFF (IFRS)
Operating lease (US GAAP)	Recognize "right-of-use" (ROU) asset and lease liability	Reporting single lease expense (a straight line allocation of lease cost)	Entire cash payment is CFO
Exceptions: short-term leases and leases where leased asset is low value (IFRS)	No effect	Report rent expense	Rent payment-----CFO

4.30.1.3. 融资租赁和经营租赁对比

- **B/S :**

- 期初 $A=L=3170$ (未来租金折现求和的现值 PV)
 - 融资租赁：资产按折旧递减，负债端按 BASE 法则计
 - 经营租赁：资产与负债是相同数字，按 BASE 法则计，同融资租赁的负债数计算
- I/S :
- 融资租赁：
 - ◆ 资产端：直线折旧法摊销，确认每年折旧费用= $3170/4=792.5$
 - ◆ 负债端：BASE 法则摊销，确认利息费用 (A 列)
 - 经营租赁：
 - ◆ 全额确认租赁费用 (S 列)
- CFS : **确认真实租金-1000**
- 经营租赁：
 - ◆ $CFO=-1000$ (S 列) ;
 - 融资租赁：
 - ◆ $CFO=-317$ (A 列) ,
 - ◆ $CFF=-683$ ($1000-317$)

4.30.2. 基础题

Q-99. Assume U.S. GAAP applies unless otherwise noted. At the beginning of the year, a lessee company enters into a new lease agreement that is correctly classified as a finance lease, with the following terms:

Annual lease payments due at the end of the year	\$100,000
Lease term	5 years
Appropriate discount rate	12%
Depreciation method	straight-line basis
Estimated salvage value	\$0

With respect to the effect of the lease on the company's financial statements in the first year of the lease, which of the following is most accurate? The reduction in the company's:

- A. pretax income is \$72,096.
- B. cash flow from financing is \$56,742.
- C. cash flow from operations is \$72,096.

Q-100. If a lease is recognized as an operating lease instead of finance lease, the company will recognize higher:

- A. Right of use asset
- B. Lease liability
- C. Rent expense

Q-101. Under US GAAP, which of the following would require the lessee to classify a lease as a capital lease?

- A. The term is 60% of the useful life of the asset.
- B. The lease contains an option to purchase the asset at fair value.
- C. The present value of the lease payments is 95% of the fair value.

Q-102. A lessee that enters into a finance lease will report the:

- A. lease payable on its balance sheet.
- B. full lease payment on its income statement.
- C. full lease payment as an operating cash flow.

4.31. Financial Lease and Operating Lease: Lessor

4.31.1. 重要知识点

4.31.1.1. 出租人(lessor) : 只要能区分 direct financing & sales type under US GAAP

- 判断是什么类型的 lease : 对于出租人 , lease 也分为两类—operating lease 和 capital lease.
- 对于 lessor, 判断 capital lease 的判断条件
 - Firstly, 满足对于 lessee 是 capital lease;
 - Lessor must be reasonably assured of cash collection
 - Performed substantially under the lease
- US GAAP 下 , lessor 的 capital lease 又分为两种 : sales-type (PV> fair value of leased asset)和 direct-financing.
 - 记账区别
 - ◆ Sales-type 在期初会确认一笔毛利 gross profit= PV of MLP – (Cost of

assets – PV of salvage) ;

- ◆ Direct-financing 不确认毛利，而是把 PV of MLP 当做一笔借款借给承租人，将来收利息。

- 期初现金流区别

- ◆ Sales-type 在期初有现金流；
- ◆ Direct-financing 没有现金流。

- 期中现金流区别

- ◆ Sales-type 和 direct-financing 有 CFO inflow，都是 int. revenue.

4.31.2. 基础题

Q-103. Under U.S. GAAP, a lessor's reported revenues at lease inception will be highest if the lease is classified as a(n):

- A. sales-type lease.
- B. operating lease.
- C. direct financing lease.

Q-104. A manufacturer of jets also enters purchase and leaseback arrangements of used aircraft. The buy and leaseback arrangements are classified as operating leases, with the lease payments due in advance at the beginning of each period. The company depreciates these used aircraft on a straight-line basis over the life of the lease. The *most likely* effect on the manufacturer's financial statements of entering into one of these purchase and leaseback arrangements is an increase in its:

- A. lease receivables.
- B. EBIT by an amount equal to the lease payments.
- C. capital assets.

4.32. Pension Plan

4.32.1. 重要知识点

4.32.1.1. Pension plans

- A pension is a form of deferred benefits paid to retired employees as a compensation of their services.
- **Defined contribution plan:** a company contributes an agreed-upon (defined) amount into the plan.
 - Contribution can be based on: employment years, age of the worker, wages, profit of the company, or a proportion of the work's contribution.
- **Defined benefit plan:** a company makes promises of future benefits to be paid to the employee during retirement.
 - Benefit can be based on the employee's service years and wages at, or near, retirement.

IFRS & U.S.GAAP			
B/S	\$	I/S	\$
PV of obligation	(X)	Interest cost	(X)
FV of plan asset	X	Current service cost	(X)
Overfunding/ (Underfunding)	X/(X)	Expected return	X
		Actuarial gain / (Loss)	X/(X)
		Total	X/(X)

Alternative treatment under IFRS			
B/S	\$	I/S	\$
PV of obligation	(X)	Interest cost	(X)
FV of plan asset	(X)	Current service cost	(X)
Overfunding/(Underfunding)	X/(X)	Expected return	X
Unrecognized actuarial (gain) / Loss	(X)/X	Total	X/(X)
Net asset /(Liability)	X/(X)		

4.32.1.2. 养老金对比

- **Defined contribution plan:** the employee assumes all the investment risk.
- **Defined benefit plan:** the employer assumes all the investment risk.

4.32.2. 基础题

Q-105. Penben Corporation has a defined benefit pension plan. At 31 December, its pension obligation is €10 million and pension assets are €9 million. Under either IFRS or US GAAP, the reporting on the balance sheet would be *closest* to which of the following?

- A. €10 million is shown as a liability, and €9 million appears as an asset.

- B. €1 million is shown as a net pension obligation.
- C. Pension assets and obligations are not required to be shown on the balance sheet but only disclosed in footnotes.

Q-106. The following information is available from a company's current financial data, prepared according to US GAAP: (协会模拟试题)

	\$ Thousan
Defined Contribution Plan:	
Contributions to defined contribution plan	1,000
Defined Benefit Plan:	
Contributions to defined benefit plan	1,500
Employees' service cost for the period	1,400
Interest expense accrued on the beginning pension obligation	200
Expected return on plan assets	400
Actuarial gains for the period	100

The pension expense (in \$ thousands) reported in the current year is closest to:

- A. 2,200.
- B. 2,500.
- C. 2,400.

4.33. Financial Reporting Quality

4.33.1. 重要知识点

4.33.1.1. Financial reporting quality

- A good financial reporting quality means the financial reports are under GAAP, decision-useful, sustainable, and adequate returns

4.33.1.2. Aggressive and conservative accounting

- **Conservative accounting:** it would delay reporting profits until the following period (so-called "hidden reserves");
- **Aggressive accounting:** it would increase the company's reported performance and financial position in the current period.

	Aggressive	Conservative
Current period cost	Capitalizing	Expensing
Useful life for depreciable assets	Longer time	Shorter time

Salvage values	Higher	Lower
Depreciation method	Straight line	Accelerated
Recognition of impairments	Delay recognition	Early recognition
Accrual of reserves for bad debt	Less	More
Valuation allowances for DTA	Smaller	Larger

4.33.1.3. Three conditions for issuing low quality reports

- Opportunity
 - Internal conditions can be
 - ◆ Poor internal controls;
 - ◆ Ineffective board of directors.
 - External conditions can be
 - ◆ Accounting standards that provide scope for divergent choices;
 - ◆ Minimal consequences for an inappropriate choice.
- Motivation
 - To meet or beat market expectations as reflected in analysts' forecasts and/or management's own forecasts;
 - Increase management compensation that is linked to increases in stock price or to reported earnings;
 - Career concerns and incentive compensation may motivate accounting choices;
 - Avoiding debt covenant violations can motivate managers to inflate earnings.
- Rationalization.
 - Rationalization is important because if an individual is concerned about a choice, he or she needs to be able to justify it to him- or herself.

4.33.1.4. Firms are motivated to manage

- **Earnings / Net income**
 - **Overstate net income**
 - ◆ Meet earnings expectation;
 - ◆ Remain in compliance with debt covenants;
 - ◆ Receive higher incentive compensation.
 - **Understate net income**
 - ◆ Obtain trade relief;
 - ◆ Negotiate favorable repayment term from creditors;
 - ◆ Negotiate favorable labor union contracts.
- **Balance sheet**

- Overstating assets or understating liabilities to appear more solvent.
 - ◆ E.G. lower D/E ratio
- Understating assets or overstating liabilities to enhance its performance ratios.
 - ◆ E.G. higher ROA, ROE, asset turnover ratio

4.33.1.5. The effects of different accounting methods

- Increase performance in the current period
 - Recognize revenue prematurely;
 - Use nonrecurring transactions to increase profits;
 - Defer expenses to later periods;
 - Measure and report assets at higher values;
 - Measure and report liabilities at lower values.
- Increase performance in a later period
 - Defer current income to a later period (save income for a “rainy day”);
 - Recognize future expenses in a current period, setting the table for improving future performance.

4.33.1.6. 掌握几种财务警示信号及如何发现它们

- Aggressive revenue recognition
- Different growth rates of CFO and earnings
- Abnormal sales growth as compared to the economy, industry, or peers
- Abnormal inventory growth as compared to sales grow
- Boosting revenue with non-operating income and nonrecurring gains
- Delaying expense recognition
- Abnormal use of operating leases by lessees
- Hiding expenses by classifying them as extraordinary or nonrecurring

4.33.2. 基础题

Q-107. Assume U.S. GAAP applies unless otherwise noted. In 2008, a company reported net income of \$200 million and cash flow from operations of \$120 million. All else equal, the *most likely* explanation for the difference between net income and cash flow from operations in 2008 is that the company:

- A. tightened credit policies and increased collection efforts during the year.
- B. sold a long-term investment for an amount equal to book value at the end of the year.
- C. increased raw materials inventory in anticipation of increased sales at the end of the year.

Q-108. A high-quality financial report may reflect:

- A. earnings smoothing.
- B. low earnings quality.
- C. understatement of asset impairment.

4.34. 进阶题

Q-1. During the process of securitization of accounts receivables, a nonfinancial company receives proceeds less than the book value. The transaction is *most likely* to increase:

- A. net income.
- B. cash from financing activities.
- C. cash from operations.

Q-2. Which of the following statements is most accurate regarding cash flow statements prepared under IFRS and U.S. GAAP?

- A. Under U.S. GAAP, bank overdrafts should be classified as a financing cash flow.
- B. Under IFRS, interest paid can be reported either as an operating or an investing cash flow.
- C. Both the direct and indirect formats of cash flow statements are allowed under IFRS and U.S. GAAP, but indirect is encouraged under IFRS only.

Q-3. Which of the following transactions is *least likely* to increase reported operating cash flow for the period?

- A. Financing of payables.
- B. Securitization of receivables.
- C. Exercise of employee stock options.

Q-4. Wally Ltd purchased a patent and the company has capitalised this expense. If tax is ignored, compared to expensing the cost, Wally will *most likely* to report:

- A. Lower EPS in that period.
- B. Lower CFI in that period.
- C. Lower CFO in that period.

Q-5. Using the following information, a Mexican corporation is computing the depreciation expense for a piece of manufacturing equipment that it purchased at the start of the current year. The company takes a full year's depreciation in the year of acquisition.

Cost of equipment	MXN4,000,000
Estimated residual value	MXN400,000
Expected useful life	10 years
Total productive capacity	5,000,000 units
Production during year	800,000 units

The depreciation expense (in MXN) will *most likely* be higher by:

- A. 224,000, using the double-declining method compared with the units-of-production

method.

- B. 280,000, using the units-of-production method compared with the straight-line method.
- C. 360,000, using the double-declining balance method compared with the straight-line method.

Q-6. In early January 2015, an analyst sees a news release that a company he follows (which reports under US GAAP) will be forced to reduce output from one of its major product lines at its highly specialized ceramics plant in response to a new technology introduced by its major competitor. The table summarizes information and estimates that the analyst has gathered from various sources about the plant and its future prospects.

Selected Information Related to the Ceramics Production Plant End of 2014 (\$ thousands)	
Carrying amount of plant	3,208
Undiscounted expected future net cash flows	2,700
Present value of expected future net cash flows	2,100
Fair value of plant	2,450
Revised estimate of useful life	4 years
Depreciation method	Straight line
Revised estimate of residual value	\$400

If the above information and estimates prove accurate, the depreciation expense that should be reported for 2015 related to the plant will be closest to:

- A. \$426 thousand.
- B. \$612 thousand.
- C. \$512.5 thousand.

Q-7. A company prepares its financial statements according to U.S. GAAP and leased a piece of equipment on 1 January 2012. Information relevant to the transaction is as follows:

1. Five annual lease payments of \$25,000, with the first payment due 1 January 2012.
2. Interest rate on similar company debt is currently 8%.
3. The fair value of the equipment is \$115,000.
4. Useful life of the equipment is seven years.
5. The company depreciates other equipment in the same asset class on a straight-line basis.

The total expense related to the lease on the company's 2012 income statement will be *closest to*:

- A. \$22,024.
- B. \$25,000.
- C. \$28,185.

Q-8. Assume U.S. GAAP applies unless otherwise noted. Madison Inc. is planning a bond issue. They are considering issuing either a straight coupon bond or a coupon bond with warrants attached. The proceeds from either Issue would be the same. What will be the effect on their interest expense and balance sheet liability if they issue the bonds with warrants as compared to the straight bonds? For the bonds with warrants

	<u>The interest expense will be</u>	<u>The balance sheet liability will be</u>
A.	lower	lower
B.	lower	higher
C.	higher	lower

Q-9. Assume U.S. GAAP applies unless otherwise noted. Charles McKinmon, CFA is analyzing the financial statements of Computers On Credit, Inc. (COC). COC has sold \$60 million of accounts receivable for proceeds of \$50 million, and McKinmon wishes to treat the transaction as collateralized borrowing. McKinmon’s financial statement adjustments will *most likely* include adding:

- A. \$50 million to accounts receivable.
- B. \$50 million to cash flows from financing activity.
- C. \$50 million to cash flows from operating activity.

Q-10. Lazlo Ltd, a European-based telecommunications provider, follows IFRS and capitalizes new product development costs. During 2007 they spent €25 million on new product development and reported an amortization expense related to a prior year’s new product development of €10 million. Other Information related to 2007 is as follows:

	in € millions
Net income	225
Average assets	1,875
Cash flow from operations	290

An analyst would like to compare Lazlo with a U.S.-based telecommunications provider and has decided to adjust their financial statements to U.S. GAAP. Under U.S. GAAP, and ignoring tax effects, the return on assets (ROA) and cash flow from operations (CFO) for Lazlo would be *closest* to (millions):

	<u>ROA</u>	<u>CFO</u>
A.	10.7%	€265
B.	10.7%	€275
C.	11.2%	€265

Q-11. When analyzing a company that prepares its financial statements according to U.S. GAAP, calculating the price/tangible book value ratio instead of the price/book value ratio is most appropriate if it:

- A. grows primarily through acquisitions.
- B. develops its patents and processes internally.
- C. invests a substantial amount in new capital assets.

Q-12. On 1 January 2010, Elegant Fragrances Company issues £1,000,000 face value, five-year bonds with annual interest payments of £55,000 to be paid each 31 December. The market interest rate is 6.0 percent. Using the effective interest rate method of amortization, Elegant Fragrances is *most likely* to record:

- A. an interest expense of £55,000 on its 2010 income statement.
- B. a liability of 982,674 on the 31 December 2010 balance sheet.
- C. a £58,736 cash outflow from operating activity on the 2010 statement of cash flows.

Q-13. The following data are available for a company and its industry:

Company Common-Size Balance Sheet As at 31 December 2010	
Assets	(%)
Cash & Short-Term Investments	42.1
Accounts Receivable	9.5
Inventory	0.8
Total Current Assets	52.4
Net Property, Plant, and Equipment	4.0
Goodwill	40.8
Other Long-Term Assets	2.8
Total Assets	100.0

Liabilities and Shareholders' Equity	
Short-Term Debt	1.5

Accrued Liabilities and Accounts Payable	18.0
Total Current Liabilities	19.5
Long-Term Debt	20.0
Other Long-Term Liabilities	7.5
Total Liabilities	47.0
Total Stockholders' Equity	53.0
Total Liabilities & Shareholders' Equity	100.0

Data for comparison	Industry
Current ratio	3.2
Debt-to-equity	55.0%
Long-term debt-to-equity	42.0%

Which of the following statements about the company is most appropriate? The company:

- A. operates in the manufacturing industry.
- B. has made significant acquisitions in the past.
- C. has higher financial leverage than the industry.

Q-14. A company reports that to maintain good relations with its suppliers, it has entered into a financing arrangement with a bank whereby it will periodically have the bank pay its suppliers the amounts owed and it will then repay the bank in the following period. The motivation for the company's behavior is *most likely* to:

- A. improve its current ratio.
- B. improve its relations with its suppliers.
- C. manage the timing of operating cash flows.

Q-15. Under IFRS, Company A capitalized €2 million of development costs for accounting purpose, while the tax authority required the amount to be expensed immediately. On the company's financial statements, the capitalized cost would be depreciated over two years. The company is expected to continue earning positive profits. For analytical purpose, a financial analyst should incorporate the difference due to tax treatment in the balance sheet as:

- A. liabilities when calculating the company's current ratio.
- B. liabilities when calculating the company's debt-to-equity ratio.
- C. equity when calculating the company's return on equity ratio.

- Q-16.** Given the following financial statement data, calculate the net operating cycle for this company.

	In Millions (\$)
Credit sales	40,000
Cost of goods sold	30,000
Accounts receivable	3,000
Inventory—Beginning balance	1,500
Inventory—Ending balance	2,000
Accounts payable	4,000

The net operating cycle of this company is *closest* to:

- A. 0.8 days.
- B. 24.3 days.
- C. 51.7 days.

- Q-17.** Strongsville Fabricators Inc. uses the FIFO method for inventory valuation. Assuming a rising costs environment and other factors held constant, Strongsville's price-to-earning and price-to-book multiples relative to those for another company that uses the LIFO method for inventory valuation would be:

	<u>Price-to-earnings Multiple</u>	<u>Price-to-book Multiple</u>
A.	overstated	overstated
B.	overstated	understated
C.	understated	understated

- Q-18.** A company whose objective is to maximize income had spent \$2,000,000 for a machine with two significant components as indicated below. The machine is expected to have an overall useful life of 10 years and the company uses the straight line method of depreciation.

Component	Cost	Useful Life
A	\$1,000,000	10 years
B	\$1,000,000	5 years

The depreciation expense for the first year computed under IFRS compared with under U.S. GAAP will *most likely* be:

- A. the same.
- B. \$100,000 lower.
- C. \$100,000 higher.

- Q-19.** A company has recently revalued one of its depreciable properties and estimates that its remaining useful life will be another 10 years. The applicable tax rate for all years is 40%, and the revaluation of the property is not recognized for tax purposes. Details related to this asset are provided in the following table:

(millions)	Accounting Purposes	Tax Purposes
Original Values and Estimates		
Acquisition cost in 2014	£4,000	£4,000
Depreciation, straight line	10 years	5 years
Accumulated depreciation, end of 2016	£1,200	£2,400
Net balance, end of 2016	£2,800	£1,600
Re-estimated Values and Estimates, Start of 2017		
Revaluation balance, start of 2017	£5,000	Not applicable
New estimated life	10 years	

The deferred tax liability related to this asset (in millions) as at the end of 2017 is closest to:

- A. £600.
- B. £1,620.
- C. £930.

- Q-20.** An analyst is forecasting gross profit of the three following companies. He uses the five-year average gross margins and forecasts sales using an internal model.

- Company 1's products currently enjoy healthy margins because of its technological edge. New technologies typically replace old ones every two years in this industry.
- Company 2 has been offering the same products throughout the period, and the demand and cost structures for its products have not experienced any significant changes.
- Company 3 has recently restructured its product offerings focusing on high margin products only.

For which of the three companies will the forecast of gross profit be most reliable?
Company:

- A. 1.
- B. 2.
- C. 3.

Q-21. The following financial information is available at the end of the year.

Security	Authorized	Issued and Outstanding	Other Features
Common stock	1,000,000	500,000	Currently pays a dividend of \$2 per share.
Preferred stock, Series A	100,000	24,000	Nonconvertible, cumulative; pays a dividend of \$8 per share.
Preferred stock, Series B	100,000	60,000	Convertible; pays a dividend of \$15 per share. Each share is convertible into 5 common shares.
Additional information:			
Reported income for the year		\$2,000,000	

The diluted EPS (earnings per share) is closest to:

- A. \$2.26.
- B. \$2.08.
- C. \$1.82.

Solutions

4. Financial Reporting and Analysis

4.1. 基础题

Q-1. Solution: B.

The role of financial reporting by companies is to provide information about a company's performance, financial position, and changes in financial position that is useful to a wide range of users in making economic decisions.

The role of financial statement analysis is to use financial reports prepared by companies, combined with other information, to evaluate the past, current, and potential performance and financial position of a company for the purpose of making investment, credit, and other economic decisions.

Q-2. Solution: C.

This is a component of management's discussion and analysis.

Q-3. Solution: B.

Proxy statements are prepared and distributed to shareholders on matters that are to be put to a vote at shareholder meetings.

Q-4. Solution: C.

Audits provide reasonable assurance that the financial statements are fairly presented, meaning that there is a high degree of probability that they are free of material error, fraud or illegal acts.

Q-5. Solution: B.

A qualified opinion is one in which there is some scope limitation or exception to accounting standards that is described in additional explanatory paragraphs.

Q-6. Solution: C.

Net income is not an element of the financial statements, but the net result of revenues less expenses. The elements are: assets, liabilities, owners' equity, revenue and expenses.

Q-7. Solution: C.

Start-of-year capital contributed by owners		\$10,000
Additional shares issued		\$2,000
Initial retained earnings		\$6,000
Net income	\$4,000	
Less dividends paid	(600)	

Increase in retained earnings	\$3,400	<u>\$3,400</u>
Ending owners' equity		\$21,400

Q-8. Solution: A.

	2018 (\$)	2019 (\$)
Total assets (given)	120,000	112,000
Total debt (50% in 2011, no change in 2012)	60,000	60,000
Total equity (Total assets – Total debt)	60,000	52,000
Equity Components		
Contributed capital (50% of equity in 2018, no change in 2019)	30,000	30,000
Retained earnings (solved for): Total equity – Contributed capital	30,000	22,000
Retained earnings = Opening retained earnings + Net income – Dividends		
2019 Retained earnings = 22,000 = 30,000 – 4,000 – Dividends		
Dividends = 4,000		

Q-9. Solution: A.

The process has recognized as a liability, with cash has been received, but the transaction haven't occurred. So this should be recognized as an unearned revenue.

Q-10. Solution A.

Timeliness is not a characteristic of a coherent financial reporting framework. Consistency, transparency, and comprehensiveness are characteristics of a coherent financial reporting framework.

Q-11. Solution: B.

B is correct. There is no statement of changes in income. Under IAS No. 1, a complete set of financial statements includes a statement of financial position, a statement of comprehensive income, a statement of changes in equity, a statement of cash flows, and notes comprising a summary of significant accounting policies and other explanatory information.

Q-12. Solution: B.

Under the IASB's Conceptual Framework, verifiability means that different knowledgeable and independent users would agree that the information presented faithfully represents the economic events that it is intended to represent.

Q-13. Solution: B.

B is correct. Revenue is recognized by the cooperative when the art gallery fulfills related obligations because that is the point at which the risks and rewards transfer from the cooperative to a third party and the amount of revenue is measurable.

A and C are incorrect. These would be appropriate only if there was a significant collectability concern.

Q-14. Solution: C.

Cost of goods sold is a classification by function. The other two expenses represent classifications by nature.

Q-15. Solution: C.

Bad debt expense is an operating expense. Alternatively, it cannot be classified as non-operating items for a manufacturing firm.

Q-16. Solution: B.

Preferred stock dividends of \$140,000 ($0.07 \times 2,000,000$) should be deducted from net income to derive amount available for common shareholders: $\$1,360,000 = (1,500,000 - 140,000)$.

Basic EPS = $\$1,360,000 / 1,000,000$ or \$1.36 per share.

Dilutive EPS would consider the convertible bonds if they were dilutive. Interest on the bonds would be \$400,000 and the after-tax add back to net income would be \$400,000 (0.7) or \$280,000. Dilutive EPS would be $\$1,640,000 / 1,300,000$ shares assuming conversion = \$1.26 per share.

Q-17. Solution: C.

With stock options, the treasury stock method must be used. Under that method, the company would receive \$144,000 ($12,000 \times \12) and would repurchase 7,200 shares ($\$144,000 / \20). The shares for the denominator would be:

Shares outstanding	800,000
Options exercises	12,000
Treasury shares purchased	(7,200)
Denominator	804,800

Q-18. Solution: B.

Preferred stock dividends of \$70,000 ($0.07 \times 1,000,000$)

$$\begin{aligned} \text{BEPS} &= \frac{\text{Net income} - \text{preferred dividends}}{\text{Weighted average number of common shares outstanding}} \\ &= \frac{1,250,000 - 70,000}{1,000,000} = 1.18 \end{aligned}$$

$$\begin{aligned} \text{DEPS} &= \frac{\text{Net income} - D_{ps} + \text{converted preferred dividends}}{\text{WACSO} + \text{number of shares converted}} \\ &= \frac{1,250,000 - 70,000 + 49,000}{1,000,000 + 700 \times 25} = 1.2079 \end{aligned}$$

Because DEPS for the company is 1.21, which is larger than its BEPS, which is 1.18, so the preferred stock is an anti-dilutive stock, DEPS for the company is 1.18.

Q-19. Solution: C.

$$\begin{aligned} \text{Diluted EPS} &= \frac{\text{adjusted income available for common shares}}{\text{weighted avg. common \& potential common shares out}} \\ &= \frac{[\text{NI} - \text{div}_{\text{preferred}}] + [\text{div}_{\text{convertible preferred}}] + [\text{interest}_{\text{convertible debt}}] (1-t)}{\text{WACSO} + [\text{shares}_{\text{conversion of conv. pfd. shares}}] + [\text{shares}_{\text{conversion of conv. debt}}] + [\text{shares}_{\text{issuable from stock opt.}}]} \end{aligned}$$

Based on the formula shown above, to calculate DEPS, both convertible debt and convertible preferred stocks will influence both the numerator and denominators

Treasury stock method is used for stock options, and only denominator is influenced to calculate DEPS

Q-20. Solution: C.

Foreign currency translation adjustment on a foreign subsidiary;

Unrealized G/L on derivatives contracts accounted for as cash flow hedges;

Unrealized G/L on available for sale securities;

Certain costs of a company's defined benefit post-retirement plans that are not recognized in the current period.

Q-21. Solution: B

Metric	£ thousands
Ending retained earnings	985,000
Less: opening retained earnings	(643,000)
Add back: dividends declared	80,000
Net income	422,000
Comprehensive income	345,000
OCI = Comprehensive income – net income	-77,000

Q-22. Solution: B.

Assets are resources controlled by a company as a result of past events.

Q-23. Solution: C.

Treasury stock is non-voting and does not receive dividends.

Q-24. Solution: C.

For financial assets classified as available for sales, unrealized gains and losses are not recorded on the income statement but do appear on the balance sheet. Shareholders' equity is adjusted through a separate line item for valuation gains and losses termed "other comprehensive income.

Q-25. Solution: C.

The allowance for doubtful accounts increases by the bad debt expense recognized for the year and decreases by the amounts written off during the year.

Beginning balance allowance	£56 million
Plus bad debt expense	?
Less write-offs	(£84 million)
Ending balance allowance	£92 million
Solve for bad debt expense = 120	

Q-26. Solution: C

Non-cash transactions, if significant, are reported as supplementary information, not in the investing or financing sections of the cash flow statement.

Q-27. Solution: B.

Purchasing other companies' long-term bond generally should be classified as investing activities, which should be classified as operating activities for financial institutions.

Q-28. Solution: B.

US GAAP requires that interest paid be classified as an operating cash flow; IFRS allows interest paid to be classified as either an operating or financing activity.

A is incorrect. US GAAP requires that interest paid be classified as an operating cash flow; IFRS allows interest paid to be classified as either an operating or financing activity.

C is incorrect. US GAAP requires that interest paid be classified as an operating cash flow; IFRS allows interest paid to be classified as either an operating or financing activity.

Q-29. Solution: A.

Cash received from customers = Sales - increase in accounts receivable = $284.6 - (105.5 - 102.3) = 281.4$. Cash paid to suppliers = Cost of goods sold + Increase in inventory + decrease in accounts payable = $148.3 + (64.8 - 56.3) + (25.5 - 24.1) = 158.2$.

Q-30. Solution: C.

CFO = Net income + depreciation + delta current liabilities - delta current asset + loss – gains = 240 + 40 + 50 – 20 – 10 + 30 – 4. Note that the increase in PP&E cannot be classified as cash flows from operating activities.

Q-31. Solution: C.

The direct method of cash flow statement presentation shows the specific cash inflows and outflows that result in reported cash flow from operating activities (e.g., cash from customers and cash to suppliers). Companies using IFRS can decide to report interest and dividend receipts as either an investing or operating activity, whereas under US GAAP, they must report such income as an operating activity. The listed operating and investment activities indicate that the company reports under IFRS using the direct method.

Q-32. Solution: B.

If the interest payable decreases during the year, then the interest expense on an accrual basis will be lower than the amount of cash interest payments. The cash paid would be the full amount of the expense plus the amounts paid to reduce the interest payable.

Q-33. Solution: A.

Ending year net book value is \$59 million (=105 –46), and the beginning year net book value is \$60 million (=100 –40).

$NBV_{ending} = NBV_{beginning} + purchase - depreciation.$

Cash received from equipment sale = $NBV_{beginning} + purchase - depreciation - NBV_{ending} - loss = 60 + 10 - 8 - 59 - 2 = 1$ million

Q-34. Solution: B.

CFI consist of the inflows and outflows of cash resulting from the acquisition or disposal of long-term assets and certain investments.

Q-35. Solution: C.

CFI = -purchased of new machine = -150,000

CFF = -dividends paid – principal paid = -42,000 – 34,000 = -76,000

Convertible preferred stock – non-cash

Dividends received – operating cash flows

Q-36. Solution: C.

CFO = net income + depreciation + loss on sale of equipment + decrease in accounts receivable - increase in inventories + increase in accounts payable.

It would have been deducted in the calculation of net income but the loss is not the cash impact

of the transaction (the proceeds received, if any, would be the cash effect) and cash flows related to equipment transactions are investing activities, not operating activities.

$CFO = 91.6 + 36.4 + 3.2 + 8.4 - 10.8 + 9 = \137.8 million; so $FCFE = 137.8 - 14.6 = \$123.2$ million.

Q-37. Solution: C.

Free cash flow = CFO + interest paid (1 - tax rate) – investment in fixed asset
 $= 500 + 30 \times 0.7 - 60 = 461.$

Q-38. Solution: B.

Free cash flow to the firm can be computed as operating cash flows plus after-tax interest expense less capital expenditures.

Q-39. Solution: A.

The FCFF [Cash flow from operations (CFO) + Interest \times (1 - t) – Capital expenditures] would be the same. CFO and capital expenditures would both increase by the same amount (ignoring taxes). Therefore, net effect on FCFF would be zero

Q-40. Solution: A.

This is the interest coverage ratio using operating cash flow rather than earnings before interest, tax, depreciation, and amortization (EBITDA).

Q-41. Solution: B.

Cash conversion cycle = collection period + inventory period - payables period.

An increase in receivables turnover will decrease the collection period and shorten the cash conversion cycle. An increase in the payables period will also shorten the cash conversion cycle.

Q-42. Solution: C.

Accounts receivable turnover is equal to $365/19$ (collection period in days) = 19.2 for 2003 and needs to equal $365/15 = 24.3$ in 2004 for Galambos to meet its goal. Sales/turnover equals the accounts receivable balance. For 2003, $\$300,000,000/19.2 = \$15,625,000$, and for 2004, $\$400,000,000/24.3 = \$16,460,905$. The difference of $\$835,905$ is the increase in receivables needed for Galambos to achieve its goal.

Q-43. Solution: C.

Assuming no changes in other variables, an increase in average assets (an increase in the denominator) would decrease ROA. A decrease in either the effective tax rate or interest expense, assuming no changes in other variables, would increase ROA.

Q-44. Solution: B.

	2017	2016	Result
Cash ratio = (Cash + Marketable securities) ÷ Current liabilities	$(196 + 778.4) \div 354.6 = 2.75$	2.26	Increase
Quick ratio = (Cash + Marketable securities + Receivables) ÷ Current liabilities	$(196 + 778.4 + 24) \div 354.6 = 2.82$	2.96	Decrease
Current ratio = Current assets ÷ Current liabilities	$1238.6 \div 354.6 = 3.49$	3.26	Increase

Q-45. Solution: C.

Common-sized analysis of the income statements shows that Company A has a lower percentage cost of goods sold and hence a higher gross margin than the industry.

	Co A	Co B	Industry	Co A	Co B
Sales	\$21,000	\$ 16,500	100.0%	100%	100%
Cost of goods sold	12,706	10,478	<u>63.8%</u>	<u>60.5%</u>	<u>63.5%</u>
Gross margin			36.2%	39.5%	36.5%
Company A earns a higher gross margin than both Company B and the industry					
Pretax earnings	1,364	908	4.4%	6.5%	5.5%
Taxes	410	290	1.6%	2.0%	1.8%
Tax rate = Taxes ÷ Pretax earnings			36%	30%	32%

The tax rates for the companies are not higher than the industry.

The interest rate is not a function of sales and cannot be analyzed on a common-sized income statement. Tax rates are determined based on taxes ÷ pretax earnings, not as a percentage of sales (as shown in common-sized analysis).

Q-46. Solution: B.

Sustainable growth rate = retention ratio (b) × ROE.

b = 1- Dividend payout ratio	$1 - 0.471 = 0.529$
ROE = ROA x Financial leverage	$0.038 \times 1.65 = 0.0627$
Sustainable growth rate = b x ROE	$0.529 \times 0.0627 = 3.32\%$

Q-47. Solution: B.

Net operating cycle = days sales outstanding + days of inventory on hand- accounts payables days

	Accounts receivable days in sales	Inventory days on hand	Accounts payables days in payables
--	-----------------------------------	------------------------	------------------------------------

Turnover	Sales ÷ A/R	COGS ÷ inventory	Purchases ÷ payables
	9,600 ÷ 1,250	5,760 ÷ 1,420	5,880 ÷ 290
	= 7.68 times	= 4.06 times	= 20.3 times
In days	365 ÷ 7.68	365 ÷ 4.06	365 ÷ 20.3
	= 48 days	= 90 days	= 18 days

Net operating cycle = days sales outstanding + days of inventory on hand - accounts payables days = 48 + 90 - 18 = 120 days

Q-48. Solution: B.

Solvency ratios measure the firm's ability to satisfy its long-term obligations. Solvency ratios include the long-term debt-to-equity ratio, the total debt-to-equity ratio, the debt ratio, and the financial leverage ratio.

Q-49. Solution: C.

The debt- to- capital ratio is

$$\frac{\text{Total debt}}{\text{Total debt} + \text{Total shareholders' equity}} = \frac{5,590}{5,590 + 1,200 + 1,810} = 0.65$$

Where total debt includes only interest- bearing debt.

A is incorrect. It includes current liabilities and other long- term liabilities as a part of total debt:

$$[(3,800 + 5,590 + 800)/(3,800 + 5,590 + 800 + 1,200 + 1,810)] = 0.7719.$$

B is incorrect. It calculates long- term debt to equity: $[5,590/(1,200 + 1,810)] = 1.86$.

Q-50. Solution: C.

The gross profit margin increased the most in the current year.

	Current Year (%)	Prior Year (%)	Increase
Revenues	100		
Cost of goods sold	37.6		
Gross profit margin	62.4	61.5	+0.9
Research expenses	4.3		
Selling and general expenses	31.9		
Operating margin	26.2	25.8	+0.4
Interest expense	3.0		
Earnings before tax	23.2		
Minus income tax expense	20% × 23.2 = 4.64		
Net profit margin	18.56	17.8	+0.76

Q-51. Solution: B.

The appropriate base for a common-size income statement is revenue. As such, the value used for research & development expenses is $\$24\text{million} \div \$564\text{ million} \times 100 = 4.3\%$.

Q-52. Solution: B.

The total capitalized costs include fixed production costs, the direct conversion costs of material and labor, storage costs required as part of production, normal waste cost but not abnormal waste costs. $\$450,000 + \$225,000 + \$135,000 + \$25,000 + \$7,500 = \$842,500$.

Q-53. Solution: A

Zimt uses the FIFO method, so its cost of sales represents units purchased at a (no longer available) lower price. Nutmeg uses the LIFO method, so its cost of sales is approximately equal to the current replacement cost of inventory.

Q-54. Solution: C.

Under FIFO, the oldest units are sold first, thus for the six units sold FIFO, cost of sales is \$3,850, as follows: 1 unit at \$600 + 5 units at 650 = \$3,850.

A is incorrect. It is the cost of goods available for sale not the cost of goods sold: 1 unit at \$600 + 5 units at 650 + 3 units at 680 = \$5,890.

B is incorrect. It used the \$680 most recent cost for all 6,000 units sold: $6 \times \$680 = \$4,080$.

Q-55. Solution: B.

In a rising price environment, inventory balances will be higher for the company using the FIFO method. Accounts payable are based on amounts due to suppliers, not the amounts accrued based on inventory accounting.

Q-56. Solution: A.

During the periods of rising prices, compared to FIFO method, weighted average cost method results in a lower inventory value and a higher COGS, so that the net income under weighted average cost method would have a lower net income. The lower net income lead to a lower return on sales, as well as a lower retained earnings, so the debt-to-equity ratio under weighted average method would be higher. The combination of lower inventory and higher COGS would show a higher inventory turnover (COGS/inventory).

Q-57. Solution: C.

C is correct. Specific identification best matches the physical flow of the inventory items because it tracks the actual units that are sold.

A is incorrect. LIFO is based on cost flow assumptions but does not necessarily match the actual physical movement of the goods.

B is incorrect. FIFO is based on cost flow assumptions but does not necessarily match the actual physical movement of the goods.

Q-58. Solution: C.

Inventories are carried at historical cost, unless the current replacement cost of the inventory is less.

Q-59. Solution: B.

Under IFRS, the inventory would be written down to its net realizable value (\$4.1 million); under US GAAP, market value is defined as current replacement cost and thus would be written down to its current replacement cost (\$3.8 million). The smaller write-down under IFRS will reduce the amount charged to the cost of goods sold compared with US GAAP and result in a lower cost of goods sold of \$0.3 million.

A is incorrect. The write-down is larger under US GAAP, so IFRS gross profit would be higher, not lower.

C is incorrect. IFRS and US GAAP define market differently. As current replacement cost (US GAAP definition is lower than NRV) the effect is not the same.

Q-60. Solution: A

IFRS require the reversal of inventory write-downs if net realisable values increase; US GAAP do not permit the reversal of write-downs.

Q-61. Solution: C.

The write-down reduced the value of inventory and increased cost of sales in 2007. The higher numerator and lower denominator mean that the inventory turnover ratio as reported was too high. Gross margin and the current ratio were both too low.

Q-62. Solution: A.

$\text{COGS(FIFO)} = \text{COGS(LIFO)} - (\text{ending LIFO reserve} - \text{beginning LIFO reserve}) = 1200 - (800 - 820) = 1220.$

Q-63. Solution: A.

Adding the ending balance in the LIFO reserve to the LIFO inventory would equal the ending balance for inventory on FIFO basis.

Q-64. Solution: A.

Inventory turnover is cost of goods sold divided by average inventory. As reported, this was $\$3,654 / \$1,115 = 3.28$. Under FIFO, cost of goods sold would have been \$3,641 and inventory would have been \$1,232.6 and \$1,237.6 (average \$1,235.1). Adjusted inventory turnover would thus be 2.95.

Q-65. Solution: B.

The most appropriate way to identify a LIFO liquidation is by reviewing the inventory footnotes for a decrease in the LIFO reserve. Although a LIFO liquidation may result in an increase in gross margin or changes in inventory out of line with changes in sales there are other factors that could explain those changes.

Q-66. Solution: B

Companies that capitalize R&D costs report those expenditures in CFI; companies that expense R&D costs report those expenditures in CFO. Companies that expensed will report a higher expense, lower NI, and then a lower equity, therefore, it would incur a worse financial leverage.

Q-67. Solution: A.

Borrowing costs can be capitalized under IFRS until the tangible asset is ready for use. Also, under IFRS, income earned on temporarily investing the borrowed monies decreases the amount of borrowing costs eligible for capitalization. Therefore, Total capitalized interest = (500 million × 14% × 2 years) - 10 million = 130 million.

Q-68. Solution: C.

Costs incurred to develop software for sale are expensed as incurred until the product earns technological feasibility, after which costs are capitalized under both IFRS and U.S. GAAP.

Q-69. Solution: B.

Only costs necessary for the machine to be ready to use can be capitalized. Therefore, Total capitalized costs = 12,980 + 1,200 + 700 + 100 = \$14,980.

Q-70. Solution: B.

A product patent with a defined expiration date is an intangible asset with a finite useful life. A copyright with no expiration date is an intangible asset with an indefinite useful life. Goodwill is no longer considered an intangible asset under IFRS and is considered to have an indefinite useful life.

Q-71. Solution: B.

Gain or loss on the sale = Sale proceeds – Carrying amount
= 85,000 - [100,000 - 1((100,000 - 10,000)/9 years) × 3 years] = 15,000.

Q-72. Solution: B.

A longer useful life and higher salvage value are consistent with lower depreciation expense,

which results in a higher net asset value. Asset turnover (Sales/Total assets) would decrease because sales would be constant while assets would be higher due to smaller depreciation charges.

Q-73. Solution: C

Under IFRS: the company must use the component method of depreciation expense :	
$(500,000 \div 10) + (500,000 \div 5)$	= \$150,000 per year for the first five years.
Under U.S. GAAP, the company would not use component depreciation because it would prefer to minimize depreciation expense in order maximize income.	
$1,000,000 \div 10$	= \$100,000 per year.
Under IFRS, depreciation in first year is:	\$50,000 higher

Q-74. Solution: B.

The expected remaining useful life of a company's overall asset base	= Net PPE ÷ Depreciation expense.
Depreciation expense equals the change in accumulated depreciation *	$750 - 500 = 250$
The expected remaining useful life	$4,250 \div 250 = 17$ years
*This is true when there are no asset dispositions or acquisitions, as appears to be the case here because the gross PPE does not change.	

Q-75. Solution: B.

Under the double declining balance method, the depreciation rate is $2 \times$ Straight line rate. The straight line rate is 33.3% (i.e., 1/3 years), so the double declining rate is 66.6%, or two-thirds depreciation rate per year. But the asset should not be depreciated below its assumed residual value in any year.

Double Declining Balance Method of Depreciation			
Year	Net Book Value at Start of Year	Depreciation	Net Book Value at End of Year
1	€100,000	€66,667	€33,333
2	33,333	22,222	11,111
3	11,111*	1,111**	10,000
*	Alternative calculation for start of Year 3 net book value: $€10,000 \times (1 - 0.667) \times (1 - 0.667) = €1,111$.		
**	Depreciation cannot be $2/3 \times €11,111 = €7,407$ because that would reduce book value to less than the estimated €10,000.		

Q-76. Solution: A.

The difference between the double-declining balance method and the units-of-production method (in MXN) is $400,000 - 288,000 = 112,000$.

	Straight Line	Units of Production	Declining Balance
Rate	1/10	5,000,000 units	$1/10 \times 2 = 20\%$
Annual expense	$(2,000,000 - 200,000)/10$	$(2,000,000 - 200,000) \times (800,000/5,000,000)$	$0.20 \times 2,000,000$
	= 180,000	= 288,000	= 400,000

Q-77. Solution: A.

The carrying value of the stamping machine is its cost less accumulated depreciation. Depreciation taken through 2004 was $((\$22,000,000 - \$4,000,000) / 12 \times 7 =)$ \$10,500,000 so carrying value is $(\$22,000,000 - \$10,500,000 =)$ \$11,500,000. Because the \$11,500,000 carrying value is more than expected future cash flows of $((5 \times \$1,500,000) + \$1,000,000 =)$ \$8,500,000, the stamping machine is impaired.

Q-78. Solution: A.

Under IFRS, the recoverable amount for customer list is the higher of:

- Value in use, which is the present value of the future cash flows: \$886,000.
- Fair value less costs to sell: $\$890,000 - 7,000 = \$883,000$.

The recoverable amount (\$886,000) is lower than the carrying value (\$930,000).

Therefore, the asset is impaired and should be written down to that amount.

Under U.S. GAAP, the carrying value of the customer list is lower than undiscounted future cash flow, so the customer list is not impaired under US GAAP.

Q-79. Solution: B.

In this case, the value increase brought about by the revaluation should be recorded directly in equity. The reason is that under IFRS, an increase in value brought about by a revaluation can only be recognized as a profit to the extent that it reverses a revaluation decrease of the same asset previously recognized in the income statement.

Q-80. Solution: B.

The impairment loss equals £3,100,000.

$$\begin{aligned} \text{Impairment} &= \max(\text{Recoverable amount; Value in use}) - \text{Net carrying amount} \\ &= \max(16,800,000 - 800,000; 14,500,000) - 19,100,000 = -3,100,000. \end{aligned}$$

Q-81. Solution: A.

Under IFRS, an asset can be written up under FV and revaluation model. With the 1 million loss

recorded in income statement, the asset was recorded under fair value model.

Under IFRS, other comprehensive income includes certain changes in the value of long-lived assets that are measured using the revaluation model rather than the cost model.

Q-82. Solution: C.

For investment properties, the fair value model requires the company to recognize its revaluation gains or losses directed to net income, so Segeo should recognize $85.75 - 78.25 = 7.5$ million directly to net income.

Q-83. Solution: B.

Income tax expense = taxes payable (current income tax expense) + Δ DTL - Δ DTA = $2000 + (900-720) - (400-320) = 2100$.

Q-84. Solution: C.

Because the differences between tax and financial accounting will correct over time, the resulting deferred tax liability, for which the expense was charged to the income statement but the tax authority has not yet been paid, will be a temporary difference. A valuation allowance would only arise if there was doubt over the company's ability to earn sufficient income in the future to require paying the tax.

Q-85. Solution: C.

Straight line depreciation expense = $(100,000 - 20,000) / 10 = 8,000$

DDB depreciation expense = $(2/8) \times 100,000 = 25,000$

DTL = $30\% \times (25,000 - 8,000) = 5,100$

Q-86. Solution: B.

The temporary difference is the difference between the net book value (NBV) of the asset for accounting purposes and the NBV for taxes

NBV accounting	$[1,000,000 - (1,000,000/10)]$	\$900,000
NBV taxes	$[1,000,000 - 0.14 \times (1,000,000)]$	\$860,000
Temporary difference		\$40,000

Q-87. Solution: C.

Tax credits that directly reduce taxes are a permanent difference, and permanent differences do not give rise to deferred tax.

Q-88. Solution: A.

If the liability will not reverse, there will be no required tax payment in the Future and the "liability" should be treated as equity.

Q-89. Solution: B.

The valuation allowance is taken against deferred tax assets to represent uncertainty that future taxable income will be sufficient to fully utilize the assets. By decreasing the allowance, Zimt is signaling greater likelihood that future earnings will be offset by the deferred tax asset.

Q-90. Solution: B.

The change in Fred's rates causes its deferred tax liability account to increase $((40 - 30) / 30) \times \$1,200,000 = \$400,000$. The corresponding increase is to current income tax expense.

Q-91. Solution: C.

A decrease in the tax rate will result in a decrease in the previously reported amounts of deferred tax assets.

Q-92. Solution: B.

Current tax expense = Taxable income \times Current tax rate = $150,000 \times 30\% = 45,000$

20X2.1.1

DTL (old) = 30,000

Temporary difference (old) = $30,000 / 30\% = 100,000$

20X2.12.31

Additional temporary difference = $300,000 - 150,000 = 150,000$

Temporary difference (new) = $100,000 + 150,000 = 250,000$

DTL (new) = Temporary difference (new) \times tax rate (new) = $250,000 \times 25\% = 62,500$

Delta DTL = $62,500 - 30,000 = 32,500$

Income tax expense = tax payable + delta DTL = $45,000 + 32,500 = 77,500$

Q-93. Solution: A.

When interest rates rise, bonds decline in value. Thus, the carrying amount of the bonds being carried on the balance sheet is higher than the market value. The company could repurchase the bonds for less than the carrying amount, so the economic liabilities are overestimated. Because the bonds are issued at a fixed rate, there is no effect on interest coverage.

Q-94. Solution: A

The coupon rate on the bonds is higher than the market rate, which indicates that the bonds will be issued at a premium. Taking the present value of each payment indicates an issue date value of €10,210,618. The interest expense is determined by multiplying the carrying amount at the

beginning of the period (€10,210,618) by the market interest rate at the time of issue (6.0 percent) for an interest expense of €612,637. The value after one year will equal the beginning value less the amount of the premium amortised to date, which is the difference between the amount paid (€650,000) and the expense accrued (€612,637) or €37,363. €10,210,618 – €37,363 = €10,173,255 or €10.17 million.

Q-95. Solution: B.

IFRS recommends the effective interest method for the amortization of bond discounts/premiums. The bond is issued for $0.9228 \times 50 = 46.140$ million

Interest expense = $46.140 \times 5\% = 2.307$ million

Q-96. Solution: A.

Interest paid = Coupon rate at issue \times Issued amount of bonds = $9\% \times \$50,000 = 4,500$

Interest expense = Market rate at issue \times Carrying (book value) of bonds

Amortization of discount = Interest expense – Interest paid

B	A	S	E
47,565	4757	4500	47822

Amortization of discount = $4757 - 4500 = 257$

Q-97. Solution: A.

Under U.S. GAAP, expenses incurred when issuing bonds are generally recorded as an asset and amortized to the related expense (legal, etc.) over the life of the bonds. Under IFRS, they are included in the measurement of the liability. The related cash flows are financing activities.

Q-98. Solution: C.

Gain = Book value of debt – Market value = $\text{£}20,754,438 - \text{£}20,371,882 = \text{£}382,556$

Both at time of retirement, calculations below.

The market value of debt at retirement can be determined by discounting the future cash flows at the current market rate (5%) by using a financial calculator:

Face value (FV) = $\text{£}20,000,000$; $i = 5\%$; $\text{PMT} = \text{£}1,200,000$; $N = 2$; Compute present value (PV) = $\text{£}20,371,882$.

The book value after the third interest payment (two payments remaining) can be found by using either a financial calculator and the market rate at the time of issue (4%) or an amortization table (shown next).

$\text{FV} = \text{£}20,000,000$; $i = 4\%$; $\text{PMT} = \text{£}1,200,000$; $N = 2$; Compute PV = $\text{£}20,754,438$.

Q-99. Solution: B.

The present value of the lease is \$360,477.62. ($n = 5$, $I/Y = 12\%$, $PMT = \$100,000$) 12% of the original PV is \$43,257.31 and represents the interest component of the payment in the first year. The difference between the annual payment and the interest is the amortization of the lease obligation included in cash flow from financing. $\$100,000 - 43,257.31 = \$56,742.69$. Depreciation is $\$360,477.62/5$ or \$72,095.52 so the total reduction in pretax income would be interest plus depreciation or \$115,352.83. CFO would be reduced by the amount of the interest only because the depreciation would be added back to determine cash flow from operations.

Q-100. Solution: C.

For operating lease, the company needs to recognize ROU asset and lease liability on its balance sheet, and rent expense is recognized on its income statement. However, for finance lease, ROU asset and lease liability is recognized on balance sheet, but rent expense is not recognized on its income statement.

Q-101. Solution: C.

If the present value of the lease payments is greater than 90% of the fair value of the asset, the lease is considered a capital lease. A lease with a term that is 75% or more of the useful life of the asset is deemed to be a capital lease. The option to purchase the asset must be deemed to be cheap (bargain purchase option), not just include the option to purchase the asset.

Q-102. Solution: A.

A finance lease is similar to borrowing money and buying an asset; a company that enters into a finance lease as the lessee reports an asset (leased asset) and related debt (lease payable) on its balance sheet. A company that enters into a finance lease as the lessee will report interest expense and depreciation expense on its income statement. A company that enters into an operating lease will report the lease payment on its income statement. For a finance lease, only the portion of the lease payment relating to interest expense reduces operating cash flow; the portion of the lease payment that reduces the lease liability appears as a cash outflow in the financing section. A company that enters into an operating lease as the lessee will report the full lease payment as an operating cash outflow.

Q-103. Solution: A.

Sales-type lease treats the lease as a sale of the asset, and revenue is recorded at the time of sale equal to the present value of future lease payments. Under a direct financing lease, only interest income is reported as earned. Under an operating lease, revenue from rent is reported when collected.

Q-104. Solution: C.

The used aircraft that the manufacturer buys and leases back are classified as operating leases. For the lessor, these assets under operating leases would be classified in property, plant, and equipment in capital assets and thus would lead to an increase in capital assets. With payments in advance, there would be no lease receivable arising from the operating lease; long-term lease receivables arise from financing leases, not operating leases. Although revenues will increase by the lease payments, the leased assets are depreciated, and therefore EBIT will increase by the lease payment received minus depreciation expense.

Q-105. Solution: B.

The company will report a net pension obligation of €1 million equal to the pension obligation (€10 million) less the plan assets (€9 million).

Q-106. Solution: A.

Plan	Expense Components under US GAAP	\$ Thousands
Defined contribution plan	Contributions	1,000
Defined benefit plan	Employee service costs	1,400
	Interest expense accrued on beginning pension obligation	200
	Less expected ROA on plan assets	(400)
Total Expense		2,200

Q-107. Solution: C.

$NI = \$200$ million and $CFO = \$120$, so $NI > CFO$, and $CFO = NI + \text{dep. / amor.} - \text{gain} + \text{loss} - \text{changes in current assets} + \text{changes in current liabilities}$.

Tightened credit policies and increased collection efforts will increase CFO; and to sell a long-term investment for an amount equal to book value at the end of the year is an investment activity, so increased raw materials inventory in anticipation of increased sales at the end of the year will lead to CFO decreased, and less than NI.

Q-108. Solution: B.

High-quality financial reports offer useful information, meaning information that is relevant and faithfully represents actual performance. Although low earnings quality may not be desirable, if the reported earnings are representative of actual performance, they are consistent with high-quality financial reporting. Highest-quality financial reports reflect both high financial reporting quality and high earnings quality.

4.2. 进阶题

Q-1. Solution: C.

Proceeds received from selling A/R increase CFO.

Since the proceeds are less than the book value of A/Rs, a loss should be reported on the income statement.

Q-2. Solution: A.

Under U.S. GAAP, bank overdrafts are not considered part of cash and cash equivalents and are classified as financing cash flows.

Q-3. Solution: A.

Financing payables actually reduces operating cash flow as payables are reclassified as short-term debt. Companies may decrease operating cash flows reported under the indirect method by using this strategy. Securitization of receivables increases operating cash flows as the funds received are treated as an operating cash inflow. Exercise of employee stock options increases operating cash flows due to tax benefits associated with exercise.

Q-4. Solution: B.

If the expense is capitalized, Wally will recognize the patent as an asset, the company will recognize depreciation cost each year, and the cash flow related to the purchasing will be classified as an outflow of CFI. So during that period, the CFI for Wally is lower and CFO is higher.

Also, the net income for Wally will be higher in that period if the expense is capitalized, so that the EPS for Wally will be higher in that period.

Q-5. Solution: A.

The difference between the double-declining balance method and the units-of-production method (in MXN) is $800,000 - 576,000 = 224,000$.

	Straight Line	Units of Production	Declining Balance
Rate	1/10	5,000,000 units	$1/10 \times 2 = 20\%$
Annual expense	$(4,000,000 - 400,000)/10$	$(4,000,000 - 400,000) \times (800,000/5,000,000)$	$0.20 \times 4,000,000$
	= 360,000	= 576,000	= 800,000

Q-6. Solution: C.

At the end of 2014, a test of impairment is required because "events or changes in circumstances indicate that its carrying amount may not be recoverable." (All amounts \$ thousands)

US GAAP Impairment Test:	
Step 1: Assess recoverability: Compare carrying amount with undiscounted future net cash flows.	
Carrying amount = 3,208 > 2,700 (expected future net cash flows):	The recoverability test is not satisfied, so an impairment loss is required.
Step 2: Determine impairment loss:	Carrying amount - Fair value = 3,208 - 2,450 = 758 New carrying value: 2,450
Estimated depreciation in 2015	$\frac{\text{New carrying value} - \text{revised residual value}}{\text{revised useful life}}$ $= \frac{\$2,450 - \$400}{4 \text{ years}} = \512.5

Q-7. Solution: C.

The lease would qualify as a finance (capital) lease under U.S. GAAP because the present value of the lease payments is more than 90% of the fair value.

PV of lease payments: PMT = 25,000, i = 8%, N = 5, BGN Compute PV.

PV = \$107,803, 90% of the fair value: 0.90 x 115,000 = \$103,500.

Therefore, the lease is greater than 90% and would be capitalized at \$107,803. With the first payment made immediately, the outstanding balance in 2012 = 107,803 - 25,000 = 82,803.

Interest expense in 2012	0.08 x 82,803	6,624.24
Amortization expense for the year using the lease term as the useful life (no indication that the lease will be renewed beyond the initial term)	107,803 / 5	<u>21,560.60</u>
Total expense in 2012		28,184.84

Q-8. Solution: A.

The portion of the proceeds attributable to the warrants would be classified as equity, thus the portion classified as a liability would be smaller (lower). The lower balance sheet value would lead to a lower interest expense when it is calculated. The interest expense is based on the liability at the beginning of the period. Not the coupon payment.

Q-9. Solution: B.

McKinnon should add \$60 million to accounts receivable, reduce cash from operating activities by \$50 million, and increase cash from financing activities by \$50 million.

Q-10. Solution: C.

If all development costs had been expensed, net income would be reduced by the amount spent,

and increased by the amortization of the previously capitalized amounts: $225 - 25 + 10 = 210$ million. $ROA = 210 / 1,875 = 11.2\%$. (注意: 理论上来说, **average asset** 需要减去资产的增加部分). CFO would be lower by the amount spent on development $290 - 25 = 265$ million.

Note: The amortization of previous development costs is a non-cash expense so does not affect cash flow.

Q-11. Solution: A.

A company growing primarily through acquisition will usually record large amount of goodwill, which is intangible asset.

Q-12. Solution: B.

The bonds will be issued at a discount because the market interest rate is higher than the stated rate. Discounting the future payments to their present value indicates that at the time of issue, the company will record £978,938 as both a liability and a cash inflow from financing activities. Interest expense in 2010 is £58,736 (£978,938 times 6.0 percent). During the year, the company will pay cash of £55,000 related to the interest payment, but interest expense on the income statement will also reflect £3,736 related to amortisation of the initial discount (£58,736 interest expense less the £55,000 interest payment). Thus, the value of the liability at 31 December 2010 will reflect the initial value (£978,938) plus the amortised discount (£3,736), for a total of £982,674. The cash outflow of £55,000 may be presented as either an operating or financing activity under IFRS.

Q-13. Solution: B.

Goodwill makes up 40.8% of total assets; therefore, the company has made significant acquisitions at some point because goodwill is only recognized during acquisitions. Leverage is below the industry average for both the debt-to-equity ratio of 41% [$(20.0 + 1.5) \div 53$] versus the industry average of 55% and long-term debt-to-equity ratio of 38% [$20.0 \div 53$] versus the industry average of 42%. The low PP&E and inventory levels also indicate the company is not likely a manufacturer.

Q-14. Solution: C.

The company can choose when to enter into the short-term borrowing with the bank and reclassify its accounts payable into short-term financing. It will likely do so when cash flows are seasonally strong, thereby reducing operating cash flows but increasing financing cash flows. On repayment, the cash outflow is treated as a financing activity (loan repayment) instead of an operating cash flow. The result is that the company can manipulate the timing of reported cash flows since the timing and extent of vendor financing is at management's discretion.

Q-15. Solution: B.

The difference is a temporary difference and would create a deferred tax liability.

Deferred tax liabilities should be classified as debt if they are expected to reverse with subsequent tax payments.

Under IFRS all deferred tax liabilities are non-current.

Q-16. Solution: A.

Average inventory = $(2,000 + 1,500) / 2 = 1,750$

Number of days of inventory = $\$1,750 / (\$30,000 / 365) = 21.292$ days

Number of days of receivables = $\$3,000 / (\$40,000 / 365) = 27.375$ days

Operating cycle = $21.292 + 27.375$ days = 48.667 days

Purchases = $\$30,000 + \$2,000 - \$1,500 = \$30,500$

Number of days of payables = $\$4,000 / (\$30,500 / 365) = 47.869$ days

The net operating cycle is $48.667 - 47.869 = 0.798$ days

Q-17. Solution: C.

In a rising costs environment, FIFO would result in higher earnings, higher ending inventory, as well as higher book value of equity. Thus, both P/E and P/BV tend to be understated relative to a comparable firm that uses LIFO method.

Q-18. Solution: C.

Under IFRS: the company must use the component method of depreciation expense :	
$(1,000,000 \div 10) + (1,000,000 \div 5)$	= \$300,000 per year for the first five years.
Under U.S. GAAP, the company would not use component depreciation because it would prefer to minimize depreciation expense in order maximize income.	
$2,000,000 \div 10$	= \$200,000 per year.
Under IFRS, depreciation in first year is:	\$100,000 higher

Q-19. Solution: A.

Only the portion of the difference between the tax base and the carrying amount that is not the result of the revaluation is recognized as giving rise to a deferred tax liability. The portion arising from the revaluation surplus is used to reduce the revaluation surplus in equity.

(millions)	Accounting Purposes	Tax Purposes
Revaluation surplus	$(\text{€}5,000 - \text{€}2,800) = \text{€}2,200$	No revaluation allowed
Depreciation, straight line	10 years	2 years remaining
Start of year balance after	€5,000	€1,600

revaluation, 2016		
Depreciation, 2016	(£5,000/10 years) = £500	£800
Net balance, end of 2016	£4,500	£800
Minus revaluation surplus	- £2,200	_____
Carrying value for purposes of deferred taxes	£2,300	£800
Deferred tax liability = $0.40 \times (£2,300 - £800) = £600$		

Q-20. Solution: B.

Company 2 because it has been offering the same products and its demand and cost structures have been stable too. Therefore, the relationship between sales and gross profit (i.e., gross margin) should be stable and most reliable.

Q-21. Solution: C.

The convertible preferred shares are anti-dilutive, as shown in the following table. Therefore, the diluted EPS is the same as the basic EPS \$1.82.

	Basic EPS	Diluted EPS (using if-converted method)	
Net income	\$2,000,000	\$2,000,000	
Preferred stock, Series A	(192,000)	(192,000)	24,000 shares × \$8/share
Preferred stock, Series B	(900,000)	0	60,000 shares × \$15/share
Earnings available to common shareholders	\$908,000	\$1808,000	
Weighted Average Number of Common Shares Outstanding (WACSO)			
Shares outstanding	500,000	500,000	
If converted	_____	300,000	5 × 60,000 shares
WACSO	500,000	800,000	
EPS = Earnings available to common shareholders/WACSO	\$1.816	\$2.26*	
* Exceeds Basic EPS; Series B is anti-dilutive and is thus not included.			