

## Financial Statement Analysis

## 财务报表分析

Level I



## 王牌陈讲CFA

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**□ 学神级别的开挂人生**

- 中考、高考、研究生一路以第1名身份保送
- 本科阶段就读复旦大学财务金融系，GPA全系第一，获管理学学士学位和法学学士学位；研究生阶段就读复旦大学管理学院
- 以全优成绩通过CFA三个级别考试；一天时间以全优成绩同时通过FRM两个级别考试

**□ 财经讲师的王牌之路**

- 全职加入高顿财经前，就职于国有商业银行总行和华尔街投行，同时以兼职身份承担高顿CFA/FRM教学工作
- 逾12年教龄，CFA/FRM培训界的教父级人物，学员遍布全球



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小红书



抖音 陈一磊讲CFA



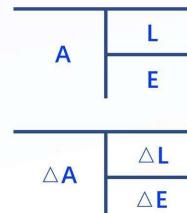
## — 财务报表分析基础

## 0.1 资产负债表

- **Balance sheet** presents a company's **current financial position** by disclosing the resources the company controls and its obligations to lenders or other creditors at a **specific point in time**
  - **Assets** are the resources controlled by the firm
  - **Liabilities** are amounts owed to creditors
  - **Owner's equity** is the residual interest in the **net assets** of an entity

## 0.2 会计恒等式

- ◆ **Assets = Liabilities + Owners' Equity**
- ◆  $\Delta A = \Delta L + \Delta E$



4

## 0.3 利润表

- **Income statement** presents information on the financial results of a company's business activities **over a period of time**
- **Accrual basis**

## 0.4 现金流量表

- **Cash flow statement** reports the sources and uses of cash **over a period of time**
  - Cash flows from operating / investing / financing activities (CFO / CFI / CFF)
- **Cash basis**

## 0.5 报表间的勾稽关系

- **Balance sheet** is the core statement
  - Application of **BASE Rule**
- ◆  $\text{Retained Earnings}_{\text{end}} = \text{Retained Earnings}_{\text{begin}} + \text{Net Income} - \text{Dividend}$
- ◆  $\text{Cash}_{\text{end}} = \text{Cash}_{\text{begin}} + \text{Cash Inflow} - \text{Cash Outflow}$

5

## 1.1 财务报告与财务报告分析

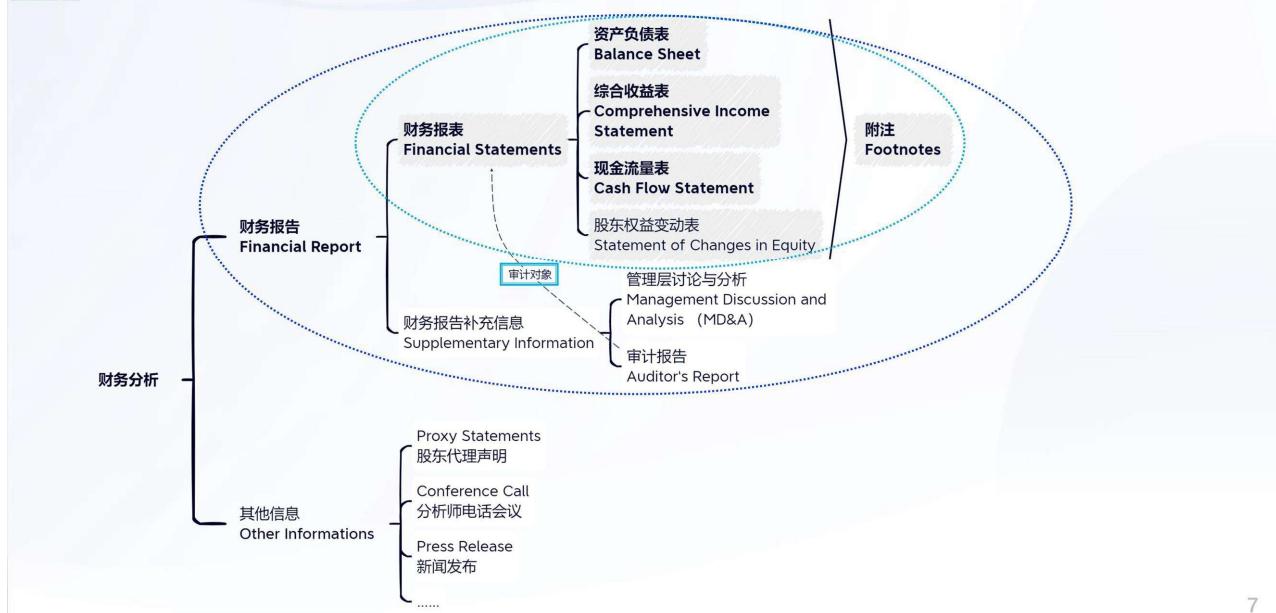
- **Definition of financial reporting:** the way companies provide information to wide range of interested parties about **1) financial position, 2) financial performance, 3) changes in financial position**
- **The role of financial reporting analysis:** use financial reports and other information to **evaluate company's performance and financial position** for the purpose of **making economic decisions**

## 1.2 财务报表分析基本框架和步骤

1. Articulate the purpose and context of the analysis
2. Collect data
3. Process data
4. Analyze / interpret the data
5. Develop and communicate conclusions and recommendations
6. Follow-up, and producing updated reports and recommendation

6

## 2.1 财务分析的信息来源



7

## 2.2 财务报表附注

- **Footnotes (notes)** are a necessary **part of financial statements** and must be **audited**
  - The notes disclose the **basis of preparation** for the financial statements
  - The notes also disclose information about the **accounting policies, methods, and estimates** used to prepare the financial statements

## 2.3 分部报告

- A company must disclose **separate information** about any operating segment that meets certain quantitative criteria — namely, the segment constitutes **10% or more** of the combined operating segments' **revenue, total assets, or operating profits**
- If any **single customer** represents **10% or more** of the company's **total revenues**, the company must disclose that fact, though not the identity of that customer

8

## 2.4 审计报告与审计意见

- **Audit report** is an **independent review** of an entity's financial statements
  - Reasonably assure the statements are **fairly presented, free from misstatement** and **in accordance with accounting principle**
  - Must provide opinion on company's **internal controls** for US listed companies
- **Auditor's opinion**
  - Unqualified opinion (clean opinion)**: free from material omissions and errors, fairly presented
  - Qualified opinion**: if statements make some **exceptions** to the accounting principles
  - Adverse opinion**: if statements materially depart from accounting standards and are not presented fairly
  - Disclaimer of opinion**: unable to express an opinion due to **scope limitation**

9

## 2.5 管理层分析与讨论

- Management's Discussion and Analysis (MD&A, typically **unaudited**) is decision-useful management commentary
  - Nature of business
  - Company's significant resources, risks, and relationships
  - Results of operations
  - Management's objectives and strategies
  - Critical performance measures

## 2.6 其他相关信息来源

- Issuer sources
- Public third-party sources
- Proprietary third-party sources
- Proprietary primary research

10

## 3. 会计准则制定主体和监管主体

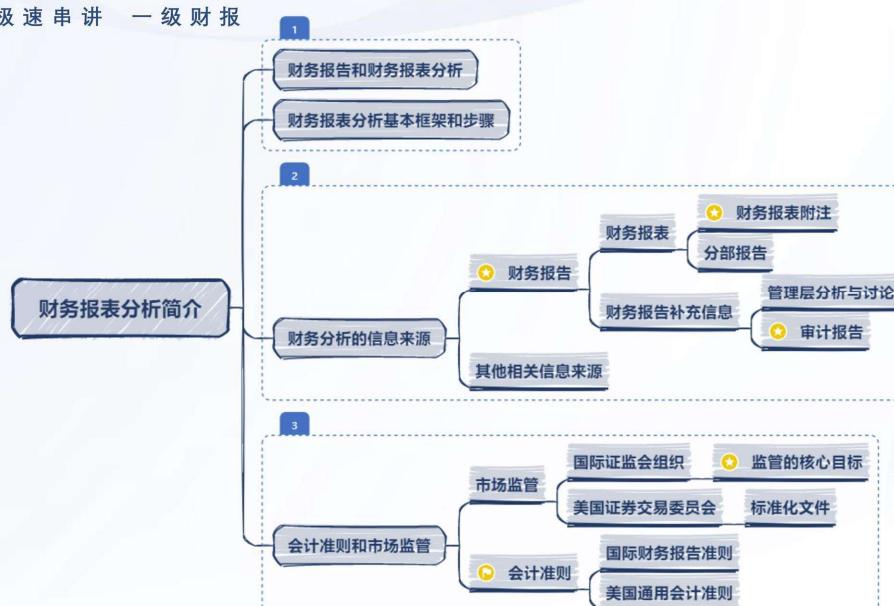
- Standard-setting bodies
  - I. Financial Accounting Standards Board (FASB) sets **U.S. GAAP**
  - II. International Accounting Standards Board (IASB) sets **IFRS**
- Government agencies have the **enforcement power** (IASB and FASB don't have)
  - The **Securities and Exchange Commission (SEC)** in the US
  - **International Organization of Securities Commissions (IOSCO)**
    - 1. Protect investors
    - 2. Ensure that markets are fair, efficient, and transparent
    - 3. Reduce systemic risk
- SEC filings
  - Form **S-1**: registration statement filed for issuing new securities
  - Form **DEF-14A**: proxy statement
  - Form **8-K**: eg. **acquisitions or disposals of major assets / changes in management**
  - Form **144**: notice of the proposed sale of restricted securities
  - Form **10-K**: **annual financial statements (audited)**
  - Form **10-Q**: quarterly statements (**not necessarily audited**)

11

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极速串讲 一级财报

### 一. 财务报表分析基础 [0-3]





## 二

## 利润表

## 4. 收入确认的基本原则

- A fundamental principle of **accrual accounting** is that **revenue** is recognized when it is **earned**, so the company's financial records reflect **revenue** when it is able to satisfy the performance obligation by **transferring control** of the good or service to the customer
  - Accrual accounting *does not* necessarily coincide with the receipt of cash

## 5. 1 五步法确认收入

1. Identify the **contract(s)** with a customer
2. Identify the **separate or distinct performance obligations** in the contract
3. Determine the **transaction price**
4. **Allocate** the transaction price to the performance obligations in the contract
5. **Recognize revenue** when (or as) the entity satisfies a performance obligation
  - Long-term contract revenue is recognized over the contract term as the work progresses

## 5.2 确定履约进度：投入法

- BM has a long-term contract to build a ship for \$1 million and a reliable estimate of the contract's total cost is \$700,000. The contract specifies consideration of a bonus of \$200,000 if the ship is completed in 2 years. BM has only little experience. Project costs incurred in the first year are \$420,000. How much revenue should be recognized for the first year?
  - Costs incurred =  $\$420,000 / \$700,000 = 60\%$
  - Revenue recognized =  $60\% \times \$1 \text{ million} = \$600,000$
- In the beginning of year 2, BM and customer agree to modify the contract: the consideration will increase by \$150,000. BM expects costs will increase by \$120,000, and BM concludes that it now meets the criteria for including the \$200,000 bonus in revenue. They incur \$250,000 in cost in second year. How much revenue should be recognized in second year?
  - BM's total revenue on the transaction =  $\$1 \text{ million} + \$150,000 + \$200,000 = \$1.35 \text{ million}$
  - BM's progress toward completion is now =  $\$670,000 / \$820,000 = 81.71\%$
  - The amount of revenue in year 2 =  $81.71\% \times \$1.35 \text{ million} - \$600,000 = \$503,049$

16

## 6.1 主要责任人和代理人



- **Principal:** controls the product before the goods are transferred to the customer
  - Revenue is the **total amount received** for transfer of product
- **Agent:** arranges for the transfer of a product **controlled by a third-party seller**
  - Revenue is the **fee or commission**

## 6.2 授予知识产权许可

- Provides a license to use software: if a company provides a license to use software, the company will report revenue either **over the term of the license** or **at the time of the transfer of the license**

## 6.3 售后代管安排

- **Bill and hold arrangements:** company recognizes revenue **when the customer obtains control of the product**, although it still holds the product as requested by the customer

17

## 7. 费用确认



- **Accrual basis and matching principle**
  - Eg. Sale of inventory: **costs of goods sold (COGS)**, **warranty expense**
  - **Period costs** that less directly match revenues, are generally **expensed** as incurred
- A policy that results in recognition of expenses later rather than sooner is considered **less conservative (more aggressive)**

	Capitalizing	Expensing
Total Asset	Higher	Lower
Total Equity	Higher	Lower
NI <sub>first year</sub>	Higher	Lower
NI <sub>later year</sub>	Lower	Higher
Total NI	Same	Same
σ <sub>NI</sub>	Lower	Higher
ROA, ROE <sub>first year</sub>	Higher	Lower
ROA, ROE <sub>later year</sub>	Lower	Higher
CFO	Higher	Lower
CFI	Lower	Higher
Total Cash Flow	Same	Same

## 8.1 资本化与费用化

- Depending on the nature of the expenditure, an expenditure can be:
  1. Recognized as an **expenses** in the I/S (**CFO out**)
  2. Capitalized as an **asset** on the B/S (**CFI out**)
    - The asset capitalized will **be expensed in the future**

18

## 8.2 利息费用资本化

- Companies generally must **capitalize interest costs** associated with acquiring or constructing an asset that requires a long period of time to get ready for its intended use
- Analyst's view of capitalization of interest costs
  - For **interest coverage ratio** analysis, we should include both the **capitalized interest portion** and the **expensed portion**
  - *Analysts may make adjustments to the financial information, based on their "subjective judgment"*

## 8.3 内部开发支出的资本化

- **Research** should be **expensed** as incurred
- **Development** costs are **expensed** as incurred, **except for** certain criteria are met, including: **technical feasibility**, ability to use or sell the resulting asset, ability to complete the project

19

## 9.1 需要在利润表单独披露的事项

- **IFRS** require that items of income or expense that are **material** or **relevant to the understanding** of the entity's financial performance should be **disclosed separately**
  - Discontinued operation
  - Unusual items
  - Infrequent items
  - Effects due to accounting changes
  - Changes in scope
  - Changes in exchange rates

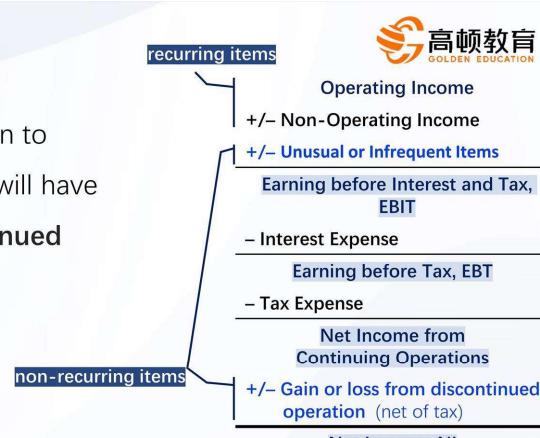
## 9.2 异常或非常见事项

- **Unusual items**
  - Gains or losses from the sale of assets or part of a business
- **Infrequent items**
  - Impairment (write-off, write-down) of long-term assets
  - Gains or losses arising when a company sells an asset or part of a business
  - Restructuring charges

20

## 9.3 非持续经营事项

- 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, **discontinued operations** are presented on a **net of tax basis**



## 9.4 会计变更

- **Change in accounting principle** requires **retrospective** application and restates financial statements for prior periods shown in a report
- **Change in accounting estimate** should be applied **prospectively**
- **Correction of an error** requires **restating** financial statements for prior periods presented in the current financial statements

21

## 10.1 基本每股收益

- ◆ **Basic EPS =  $(NI - Div_{preferred\ stock}) / \text{weighted average number of common shares outstanding}$** 
  - New issue / repurchase is weighted by time
  - If the number of shares of common stock increases as a result of a stock split,  
the EPS calculation reflects the change retroactively to the beginning of the period

- For this year, JinSan had net income of \$9,000, and paid \$200 in dividends to common shareholders
- The company also had the common stock share information shown in the following Exhibit:
- What is JinSan's basic earnings per share for this year?

JinSan's Common Stock Shares	
Jan. 1	1,000 outstanding
Mar. 1	+ 600 (new issue)
May. 1	3-for-2 split
Jul. 1	- 400 (repurchase)
Oct. 1	10% stock dividend

22

## 10.2 稀释每股收益

- Financial instruments that are **potentially** convertible into common stock could, as a result of conversion or exercise, **potentially dilute** (i.e., decrease) EPS
  - The EPS that would result **if all dilutive financial instruments were converted** is called **diluted EPS**

1. Has convertible preferred stock outstanding

$$\text{◆ Diluted EPS} = \frac{NI - Div_{preferred} + Div_{convertible\ preferred}}{\text{weighted average number of common shares outstanding} + \text{new common shares that would have been issued at conversion}}$$

- BM's net income was \$7,600 with 2,000 common shares outstanding
- BM had 50 shares of 10%, \$1,000 par value non-convertible preferred stock outstanding, also had 10 shares of 8%, \$1,000 par value convertible preferred stock outstanding
- Each preferred share was convertible into 20 shares of common stock

23

## 10.2 稀释每股收益

2. Has convertible debt outstanding

$$\text{◆ Diluted EPS} = \frac{NI - Div_{preferred} + \text{after-tax interest on convertible debt}}{\text{weighted average number of common shares outstanding} + \text{new common shares that would have been issued at conversion}}$$

- BY had net income \$1,250, and pays preferred stock dividend \$120
- BY had a weighted average of 500 common shares outstanding during the year
- There was \$1,000 of 8% convertible bonds outstanding, convertible into a total of 60 shares
- Assuming the tax rate is 30%

24

## 10.2 稀释每股收益

### 3. Has options (warrants) outstanding

$$\text{◆ Diluted EPS} = \frac{\text{NI} - \text{Div}_{\text{preferred}}}{\text{weighted average number of common shares outstanding} + [\text{new shares that would have been issued at option exercise} - \text{shares that could have been purchased with cash received upon exercise}] \times (\text{proportion of year during which the financial instruments were outstanding})}$$

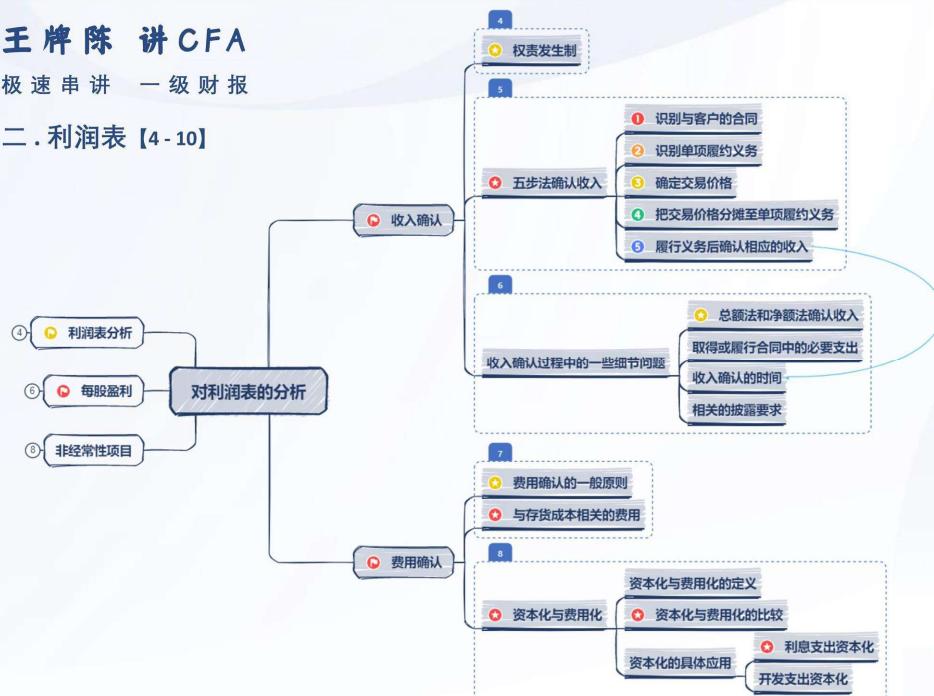
- The following relates to a BS's common equity over the course of the year:
  - Outstanding shares at start of the year = 2,000
  - Shares issued on April 1 = 300, Shares repurchased on July 1 = 200
- Stock options outstanding on March 1 = 100, Exercise price is \$5
- Average market price of common shares is \$20
- BS's net income for the year is \$5,000

25

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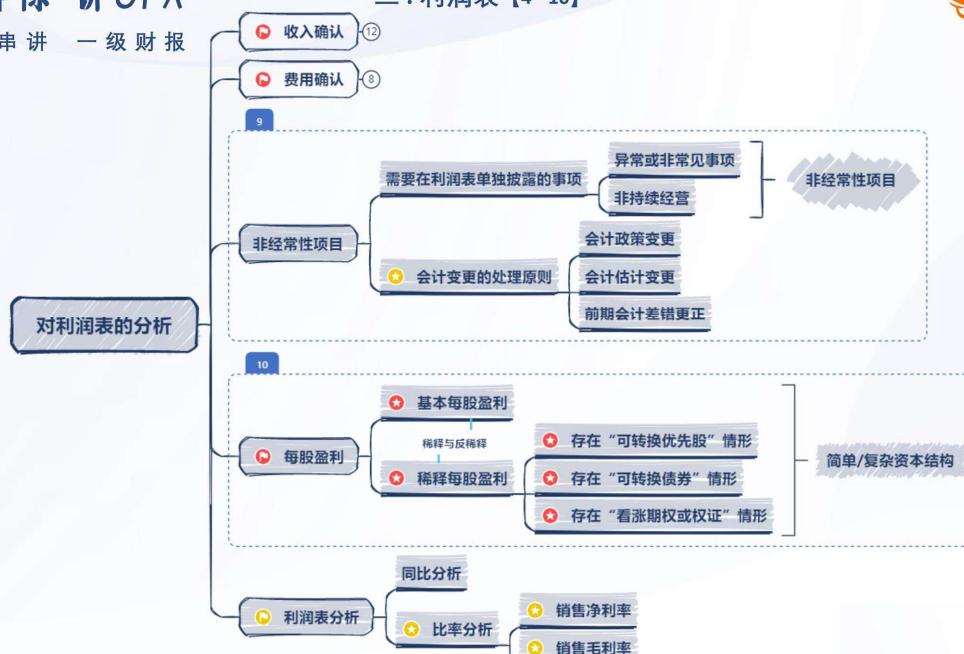
### 二. 利润表【4-10】



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极速串讲 一级财报

### 二. 利润表【4-10】



### 三

# 资产负债表



## 11.1 无形资产的初始确认

- Intangible assets refer to identifiable non-monetary assets without physical substance
  - Examples include patents, licenses, and trade-marks
- For internally generated intangible assets, IFRS require:
  - Costs incurred during the research phase must be expensed
  - Costs incurred in the development stage can be capitalized as intangible assets if certain criteria are met, including technological feasibility

## 11.2 无形资产的后续计量

- An intangible asset with a finite useful life is amortized on a systematic basis over the best estimate of its useful life, with the amortization method and useful life estimate reviewed at least annually
  - Intangibles are subject to impairment as well
- An intangible asset with an indefinite useful life is not amortized,
  - It is tested for impairment at least annually

29

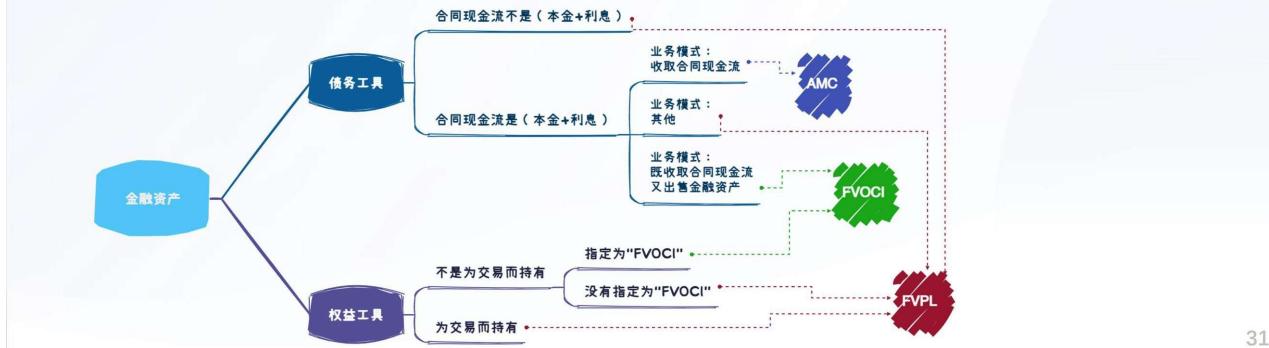
## 12. 商誉

- If the purchase price is greater than the fair value of the identifiable assets and liabilities acquired, the excess amount is recognized as an asset, goodwill
    - Goodwill is the intangible asset that is not a separately identifiable
- BJ 出资1000万元，收购 EJ 80%的股份
  - EJ 总资产的账面价值为2100万元（其中包括商誉300万元）  
除商誉以外其他资产的合计公允价值比账面价值高100万元
  - EJ 资产负债表显示其总负债为800万元（公允价值与账面价值相同）
  - EJ 资产负债表的附注表明，未计入资产负债表的或有负债 contingent liabilities 公允价值为100万元
    - EJ 可辨认总资产的公允价值 =  $(2100 - 300) + 100 = 1900$ 万元
    - EJ 可辨认净资产的公允价值 =  $1900 - (800 + 100) = 1000$ 万元
    - Goodwill =  $1000 - 1000 \times 80\% = 200$ 万元
- Goodwill is not amortized; instead it is tested for impairment at least annually

30

## 13.1 金融资产三分类

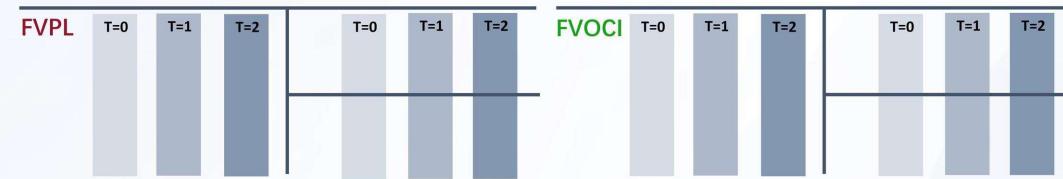
- Financial instruments are contracts that give rise to both a financial asset of one entity and a financial liability or equity instrument of another entity
- Financial assets are measured in two ways
  1. Amortized cost **AMC** 【B/S: amortized costs    realized g/I  $\Rightarrow$  I/S】
  2. Fair value    ① **FVPL** 【B/S: fair value    realized g/I  $\Rightarrow$  I/S    unrealized g/I  $\Rightarrow$  I/S】  
② **FVOCI** 【B/S: fair value    realized g/I  $\Rightarrow$  I/S    unrealized g/I  $\Rightarrow$  OCI】



31

## 13.2 权益类金融资产的后续计量

- T=0, buy 10 shares stocks at \$10
- T=1, each stock pay cash dividend \$1, and price of the stock is still at \$10
- T=2, stock's price is at \$12, and sell 4 shares



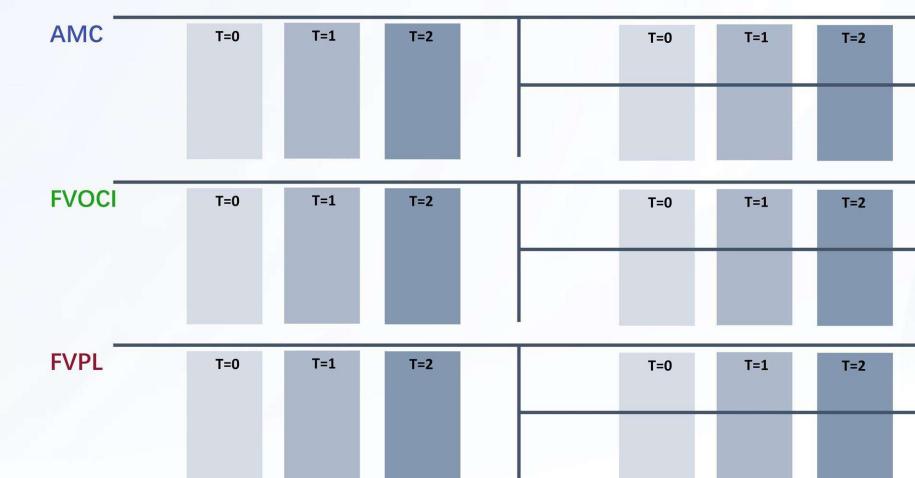
## 14. 负债类报表项目

- Common long-term liabilities include loans (i.e., borrowings from banks), notes or bonds payable (i.e., fixed-income securities issued to investors), leases, and post-employment liabilities
- Financial liabilities are usually reported at amortized cost or fair value on the balance sheet

32

## 13.3 债务类金融资产的后续计量

- T=0, buy a two-year bond with coupon rate = 10%, par value = \$1000, market price = \$1035.67
- T=1 market price equals to \$1030, T=2 market price equals to \$1000



33



## 四

## 现金流量表

## 15. 现金流的分类

- Cash flow from operating activities (CFO) includes company's day-to-day activities
- Cash flow from investing activities (CFI) exclude any securities considered cash equivalents and securities held for dealing or trading purposes
- Cash flow from financing activities (CFF) includes financing activities of obtaining or repaying capital

Items	GAAP	IFRS
Interest received	CFO	CFO or CFI
Interest paid	CFO	CFO or CFF
Dividends received	CFO	CFO or CFI
Dividends paid	CFF	CFO or CFF

## 16. 现金与利润

- For a mature company, because net income includes non-cash expenses (depreciation and amortization), it is expected and desirable that operating cash flow exceeds net income
- If a company has large net income but poor operating cash flow, it may be a sign of poor earnings quality: the company may be making aggressive accounting choices to increase net income but may not be generating cash for its business

## 17.1 经营现金流的计算：直接法

+ Cash received from customers	$A/R_{begin} + \text{Revenue} - \text{Cash Received} = A/R_{end}$
- Cash paid to suppliers	$A/P_{begin} + \text{Purchase} - \text{Cash Paid} = A/P_{end}$ $\text{Inventory}_{begin} + \text{Purchase} - \text{COGS} = \text{Inventory}_{end}$
- Interest paid	$\text{Interest Payable}_{begin} + \text{Interest Expense} - \text{Cash Paid} = \text{Interest Payable}_{end}$
- Taxes paid	$\text{Tax Payable}_{begin} + \text{Taxable Income} \times \text{Tax Rate} - \text{Cash Paid} = \text{Tax Payable}_{end}$
= CFO	

- Purple Fleur S.A., a retailer of floral products, reported cost of goods sold for the year of USD 75 million.
- Total assets increased by USD 55 million, but inventory declined by USD 6 million.
- Total liabilities increased by USD 45 million, and accounts payable increased by USD 2 million.
- What is the cash paid by the company to its suppliers?

37

## 17.2 经营现金流的计算：间接法

Net income	Income Statement Items
+ Non Cash Charge (eg: depreciation, amortization)	
+/- Non operating items (eg: gain from selling the old machine)	Balance Sheet Items
- Increase in current asset accounts (eg: A/R, inventory)	
+ Increase in current liability accounts (eg: A/P, tax payable)	
= CFO	

- JinSan's retained earnings increased by ¥ 100 during the last year, and the annual dividend was ¥ 30
- JinSan set aside depreciation expense of ¥ 10 and gain on disposal of assets of ¥ 15 during the year
- The beginning inventory of was ¥ 38, and the ending inventory was ¥ 58
- The ending accounts receivable is ¥ 5 less than that at the beginning of the year, and the employee compensation payable at the end of the period was ¥ 10 less than that at the beginning of the year
- What is the operating cash flow for last year?

38

## 18. 投资性现金流的计算

- BM sold a machine, and pay \$10 million for new machine
  - Income statement shows \$0.5 million gain from selling machine and \$4 million depreciation cost
  - The balance sheet shows
- | Items  | Last Year End | This Year End |
|--|---------------|---------------|
| Property, Plant & Equipment <sub>gross</sub> | \$12          | \$19          |
| Accumulated Depreciation                     | (\$5)         | (\$7)         |
| Property, Plant & Equipment <sub>net</sub>   | \$7           | \$12          |
- What is the cash flow from investing activities ?

## 19. 融资性现金流的计算

- BY achieved a net profit of \$1,000 for the year
- Retained earnings was \$500 at the beginning of the period, and changed to \$800 at the end of the year; also, dividends payable decreased by \$100 for the year
- What is the cash flow from financing activities ?

39

## 20. 自由现金流

□ Free cash flows are the cash flows available for distribution

- I. Fulfilling all obligations (operating expenses and taxes)
- II. Without impacting on the future growth plans of the company  
(working capital and fixed capital)

◆ Free cash flow to firm (FCFF) =  $NI + Int \times (1 - t) + NCC - WCInv - FCInv$

◆  $FCFF = CFO + Int \times (1 - t) - FCInv$

◆ Free cash flow to equity (FCFE) =  $FCFF - Int \times (1 - t) + Net Borrowing$

◆  $FCFE = CFO - FCInv + Net Borrowing$

40

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极速串讲 一级财报

### 四. 现金流量表 [15-20]



## 王牌陈讲CFA

极速串讲 一级财报

五

# 财务分析技术



## 21. 同比分析

- Common-size income statement analysis: income statement account / revenue
- Common-size balance sheet analysis: balance sheet account / total asset
- Common-size cash flow statement analysis
  - 1. cash flow statement account / revenue      2. cash outflow / total cash outflow
  - cash inflow / total cash inflow

## 22. 比率分析的局限性

- Ratio analysis has limitations, and factors to consider include the following:
  - The heterogeneity or homogeneity of a company's operating activities
  - The need to determine whether the results of the ratio analysis are consistent
  - The need to use judgment
  - The use of alternative accounting methods

43

## 23. 活动比率

- Activity ratios reflect the efficiency in using assets to generate revenue
  1. Total Asset Turnover = revenue / average total assets
  2. Fixed Asset Turnover = revenue / average net fixed assets
  3. Working Capital Turnover = revenue / average working capital
    - working capital = current assets – current liabilities
  4. Inventory Turnover = COGS / average inventory
  7. Days of Inventory on Hand (DOH) = 365 / Inventory Turnover
  5. Receivable Turnover = revenue / average accounts receivable
  8. Days of Sales Outstanding (DSO) = 365 / Receivable Turnover
  6. Payable Turnover = purchase / average accounts payable
  9. Number of Days of Payable = 365 / Payable Turnover
  10. Operating Cycle = DOH + DSO
  11. Cash Conversion Cycle = DOH + DSO – Number of Days of Payables

44

## 24. 流动性比率

- Liquidity ratios reflect a firm's ability to meet short-term obligations
  1. Current Ratio = current assets / current liabilities
  2. Quick Ratio = (cash + short term marketable security + receivable) / current liabilities
  3. Cash Ratio = (cash + short term marketable security) / current liabilities
  4. Defensive Interval = (cash + short term marketable security + receivable) / daily cash expenditures

## 25. 偿付比率

- Solvency ratios reflects a firm's ability to pay long-term debt
  1. Debt-to-Equity Ratio = total debt / total shareholder's equity
    - Total debt is the sum of interest-bearing short-term & long-term debt
  2. Debt-to-Capital Ratio = total debt / (total debt + total shareholder's equity)
  3. Financial Leverage Ratio = average total assets / average total equity
  4. Interest Coverage Ratio = EBIT / interest payments
  5. Fixed Charge Coverage = (EBIT + lease payments) / (interest payments + lease payments)

45

## 26.1 盈利比率

□ Profitability ratios reflect company's ability to generate profits

1. Gross Profit Margin = gross profit / revenue
2. Operating Profit Margin = operating profits / revenue
3. Pretax Margin = EBT / revenue
4. Net Profit Margin = net income / revenue
5. Return on Asset (ROA) = NI / average total assets
6.  $ROA' = [NI + interest \times (1 - tax rate)] / average total assets$
7. Return on Equity (ROE) = NI / average total equity
8. Return on capital = EBIT / average capital

46

## 26.2 杜邦分析

□ DuPont two-part approach

$$\text{■ ROE} = \frac{\text{net income}}{\text{average total assets}} \times \frac{\text{average total assets}}{\text{average shareholder equity}} = \text{ROA} \times \text{Financial Leverage Ratio}$$

□ DuPont three-part approach

$$\text{■ ROE} = \frac{\text{net income}}{\text{revenue}} \times \frac{\text{revenue}}{\text{average total assets}} \times \frac{\text{average total assets}}{\text{average shareholder equity}}$$

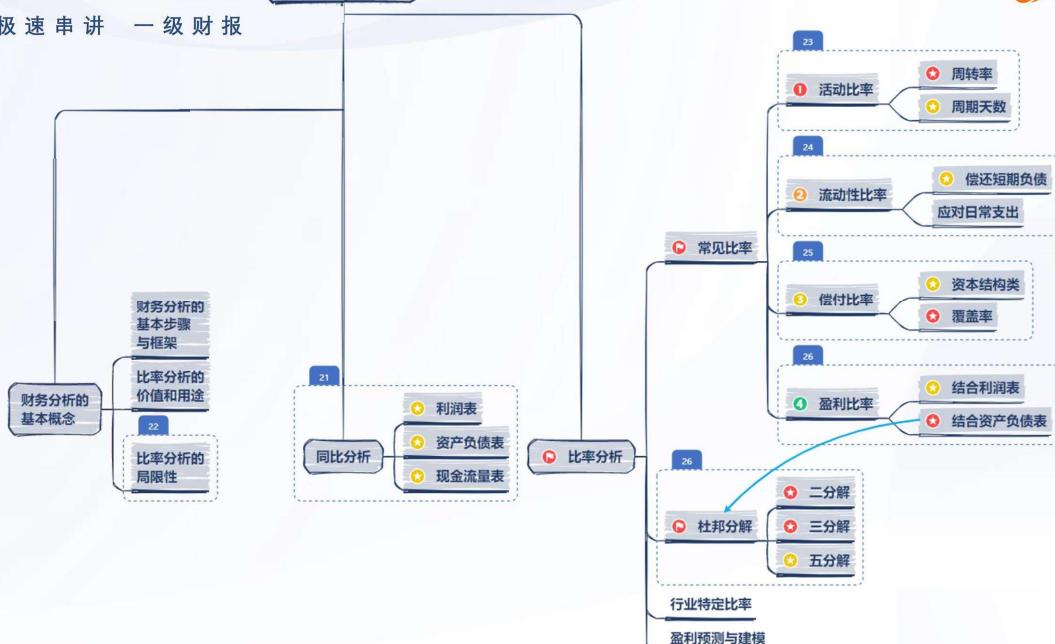
= Net Profit Margin  $\times$  Total Asset Turnover  $\times$  Financial Leverage Ratio

□ DuPont five-part approach

$$\text{■ ROE} = \frac{\text{net income}}{\text{EBT}} \times \frac{\text{EBT}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{revenue}} \times \frac{\text{revenue}}{\text{average total assets}} \times \frac{\text{average total assets}}{\text{average shareholder equity}}$$

- Tax burden ratio = NI / EBT = 1 – tax rate
- Interest burden ratio = EBT / EBIT

47



## 六

## 存货 长期资产



## 27.1 发出存货的计量

- |  |  |
|--|--|
| 1. Specific identification (IFRS / US. GAAP) | 3. First-in, first-out, FIFO (IFRS / US. GAAP) |
| 2. Weighted average cost (IFRS / US. GAAP)   | 4. Last-in, first-out, LIFO (US. GAAP only)    |

## 27.2 物价变动对财务报表的影响

Rising Prices	LIFO	FIFO
Income Statement	Higher COGS	Lower COGS
	Lower operating income	Higher operating income
	Lower tax expense	Higher tax expense
Balance Sheet	Lower net income	Higher net income
	Lower inventory balance	Higher inventory balance
Cash Flow Statement	Lower working capital	Higher working capital
Profitability Ratios	Higher CFO	Lower CFO
Liquidity Ratios	Lower gross and net margins	Higher gross and net margins
Solvency Ratios	Higher current ratio	Higher current ratio
Activity Ratios	Higher D/A and D/E	Lower D/A and D/E
	Higher inventory turnover	Lower inventory turnover

RGB uses the FIFO inventory accounting method, and HBP uses the LIFO method. During periods of rising prices, the cost of goods sold reported by:

- A. HBP is too low
- B. RGB is too low
- C. HBP is too high

50

## 28.1 存货减值的会计处理

- IFRS: inventory should be measured at the lower of the cost or net realizable value (NRV)
  - If cost > NRV, inventory is written down to NRV on B/S, and a loss is recognized in I/S
    - **NRV** = estimated selling price – estimated selling cost
  - Inventory can be written up but limited to the amount of the original write-down
- GAAP: inventory should be measured at the lower of the cost or “market”
  - If cost > “market”, inventory is written down to “market” on B/S, and a loss is recognized in I/S
    - I. FIFO / weighted average costs / specific identification: “**market**” is same as in IFRS
    - II. LIFO / retail inventory methods:
      - If replacement cost > NRV, “**market**” = NRV
      - If replacement cost < NRV – normal profit, “**market**” = NRV – normal profit
      - If NRV – normal profit margin < replacement cost < NRV, “**market**” = replacement cost
  - No matter how inventory is measured, **no subsequent reversal** is allowed under US GAAP

51

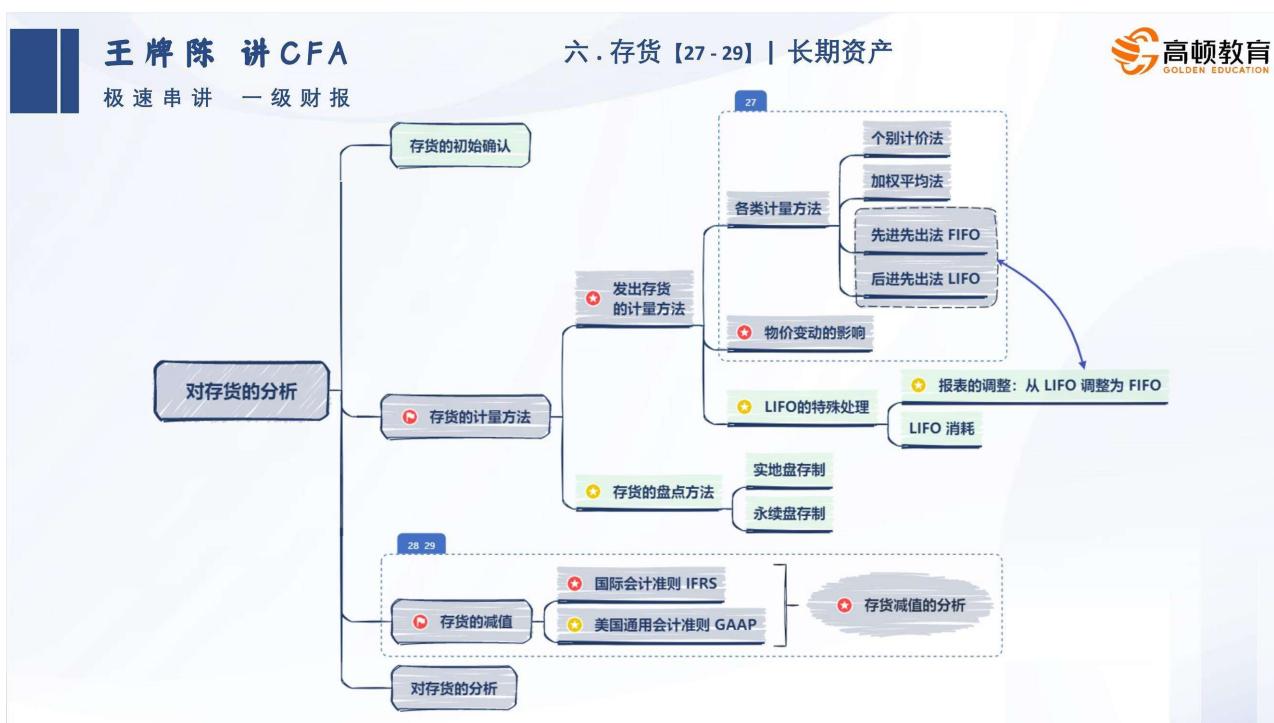
## 28.2 存货减值的影响

- Inventory write-down reduces both profit and the carrying value of inventory
- Inventory write-down has negative effect on some profitability, liquidity, and solvency ratios
- Inventory write-down has positive effect on some activity ratios
  - High inventory turnover and low days of inventory on hand may indicate:
    - High inventory management efficiency
    - Inventory shortages along with a low sale growth rate
    - Poor inventory management due to inventory write-down

## 29. 特殊存货价值的调整

- If an active market exists, the inventories of producers of agricultural and forest products and minerals and mineral products may be measured at net realizable value
  - Any gain or losses resulting from changes in value should be recognized in I/S

52



## 11. 无形资产

1. Intangible assets purchased in situations other than business combinations
2. Intangible assets developed internally
  - Research stage: must be expensed
  - Development stage:
    - IFRS: can be capitalized as intangible asset, if technical feasibility is established
    - GAAP: only software development can be capitalized as intangible asset when:
      - Technical feasibility is established, if the software is for sale
      - The project will be completed and it will be used as intended, if it is for internal use
3. Intangible assets acquired in a business combination

54

## 30.1 固定资产的减值处理

### Step 1: Indications of Asset Impairment

- At the end of each reporting period, a company **assesses whether there are indications of asset impairment**
  - Accounting standards do not require that the long-lived assets be tested annually for impairment, and **they are tested only when** significant events suggest the need to test

### Step 2: Impairment Test

- The impairment losses are recognized when the asset's carrying amount is not recoverable (i.e. the carrying amount is more than the **recoverable amount**)
  - **IFRS:** **recoverable amount** of an asset is defined as "the **higher** of its **fair value less costs to sell** and its **value in use**"
    - **Value in use** is based on the **present value** of expected future cash flows
  - **GAAP:** **recoverable amount** is defined as "**undiscounted expected future cash flows**"

55

## 30.1 固定资产的减值处理

### Step 3: Impairment Loss

- The amount of the impairment loss will reduce the carrying amount of the asset on the balance sheet and will reduce net income on the income statement
- The impairment loss is a non-cash item and will not affect cash from operations
  - **IFRS:** impairment loss is measured as the excess of carrying amount over the **recoverable amount** of the asset
  - **GAAP:** the impairment loss is the difference between the asset's carrying amount and **fair value**

## 30.2 无形资产的减值处理

- I. Impairment accounting for intangible assets with a finite life is the **same as** for tangible assets
- II. Intangibles with indefinite lives
  - They are **tested at least annually** for impairment
  - Impairment exists when the carrying amount exceeds its **fair value**

56

## 30.3 划转为持有待售资产的处理

- A long-lived asset is **reclassified as held for sale** rather than held for use when management's intent is to sell it and its sale is highly probable
- At the time of reclassification, assets previously held for use are **tested for impairment**
  - If the carrying amount at the time of reclassification exceeds the **fair value less costs to sell**, an impairment loss is recognized and the asset is written down to **fair value less costs to sell**
- Long-lived assets held for sale **cease to** be depreciated or amortized

## 30.4 长期资产减值损失的转回

- **IFRS** permit impairment losses to **be reversed** if the recoverable amount of an asset increases regardless of whether the asset is classified as held for use or held for sale
- Under **US GAAP**, once an impairment loss has been recognized for **assets held for use**, it **cannot be reversed**; for **assets held for sale**, if the fair value increases after an impairment loss, the loss **can be reversed**

57

## 28. 30. 资产减值

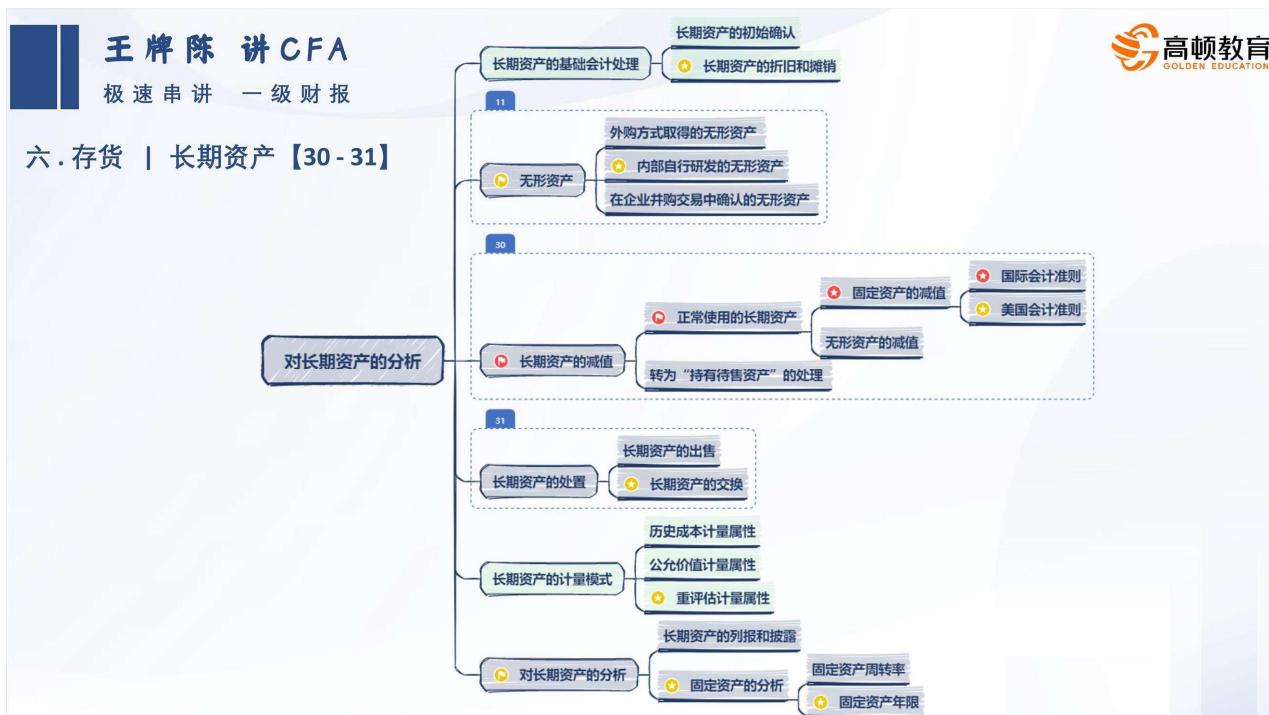


58

## 31. 长期资产的处置

- If a long-lived asset is **sold**, a gain or loss of disposal, the **difference between cash proceeds and book value of the assets sold** at the time of sale, should be reported in income statement
  - If a long-lived asset is **abandoned**, a loss, the **book value of disposed long-lived assets** at the time of abandoned, should be reported in income statement
- If a long-lived asset is **exchanged**
  - I. Removing the carrying amount of **the asset given up** (A)
  - II. Adding a fair value for **the asset acquired** (B), which is equal to:
    1. the **fair value of the asset given up**
    2. the **fair value of the asset acquired**
    3. the **carrying amount of the asset given up**
  - III. Reporting any difference between the carrying amount (A) and the fair value (B) as a **gain or loss**

59



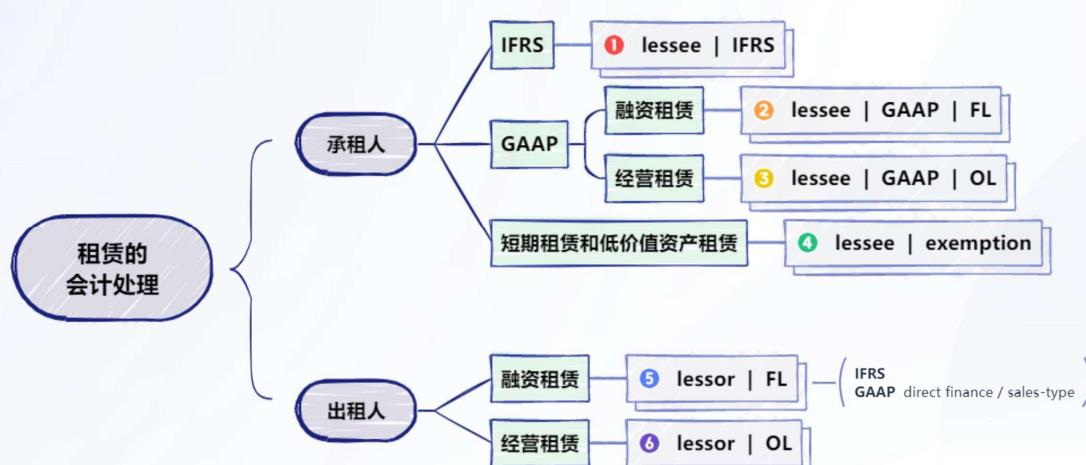


## 七 租赁 养老金计划 股份支付

### 32. 租赁的基本概念

- A lease is a contract that conveys the right to use an asset for some time in exchange for consideration
  - The party who uses the asset and pays the consideration is the lessee, and the party who owns the asset, grants the right to use the asset, and receives consideration is the lessor
- A lease that resembles a purchase is a finance lease if any of the following five criteria are met
  - If none of the criteria are met, the lease is an operating lease
    1. The lease transfers ownership of the underlying asset to the lessee
    2. The lessee has an option to purchase the underlying asset and is reasonably certain it will do so
    3. The lease term is for a major part of the asset's useful life
    4. The present value of the sum of lease payments equals or exceeds substantially fair value of asset
    5. The underlying asset has no alternative use to the lessor
- Advantages of leasing      ■ Lessee      • Cheaper financing      ■ Lessor
  - Less or no down payments
  - Less covenants restrictions
  - Earning interest income
  - Increasing market share<sub>62</sub>

### 33.1 租赁会计处理的整体框架

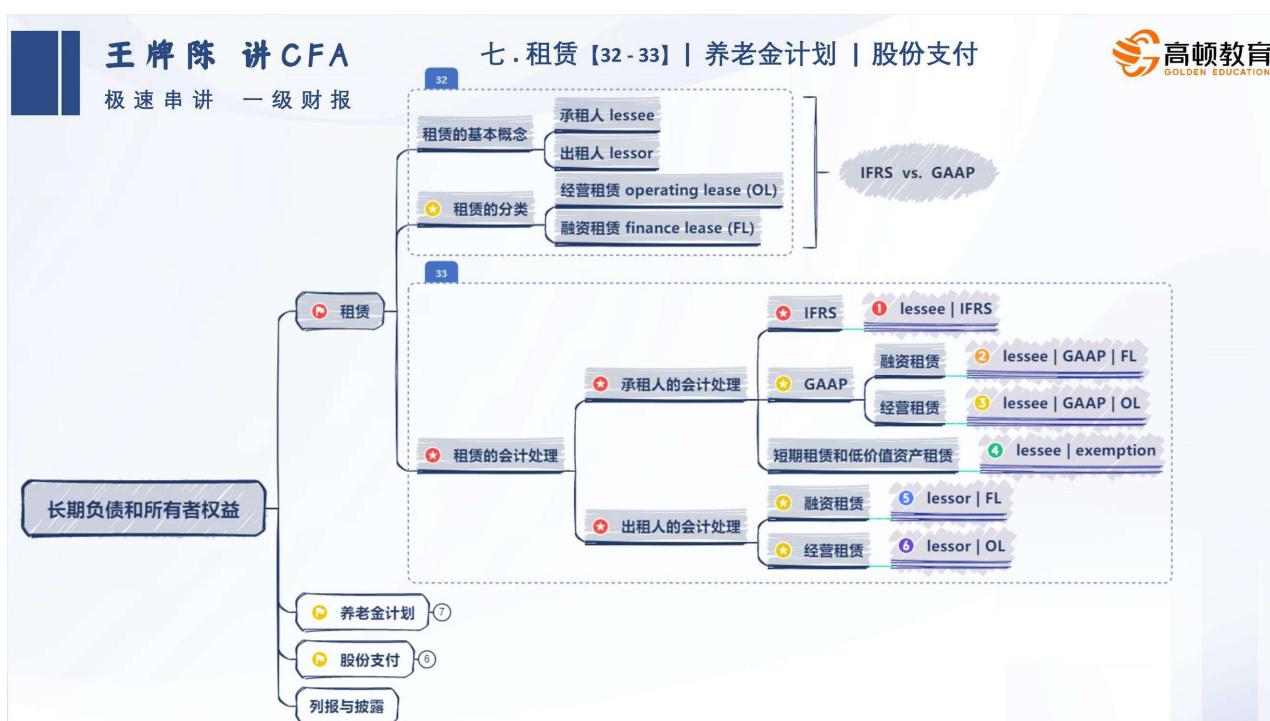


## 33.2 承租人的会计处理

	① lessee   IFRS	② Lessee   GAAP   FL	③ lessee   GAAP   OL	④ lessee   exemption
初始计量	+ ROU	+ 租赁负债	+ ROU	+ 租赁负债
	LP = Δcash = 利息 (CFO出) + 还本 (CFF出)	LP = Δcash (CFO出) = ΔRE	LP = Δcash (CFO出) = ΔRE	
I/S: ① 利息 = 期初租赁负债 × r ② 对 ROU 的摊销 amortization 直线法		I/S: rental expense = LP	I/S: rental expense = LP	
后续计量	<ul style="list-style-type: none"> <li>由两笔费用组成</li> <li>利息费用逐期降低</li> </ul> <ul style="list-style-type: none"> <li>ROU 通过摊销 amortization 直线法降低</li> <li>租赁负债通过摊销 amortization 实际利率法降低</li> </ul>	<ul style="list-style-type: none"> <li>由一笔费用组成</li> <li>费用每期保持不变</li> </ul> <ul style="list-style-type: none"> <li>ROU 通过摊销 amortization 实际利率法降低</li> <li>租赁负债通过摊销 amortization 实际利率法降低</li> </ul>	<ul style="list-style-type: none"> <li>由一笔费用组成</li> <li>费用每期保持不变</li> </ul>	
				64

## 33.3 出租人的会计处理

	⑤ lessor   FL	⑥ lessor   OL
初始计量	- 租赁资产 + 应收租赁款 RE +/-	None
	LR = Δcash (CFO入) = 利息收益 + 应收款项收回	LR = Δcash (CFO入) = 部分ΔRE
I/S: 利息收益 = 期初应收租赁款 × r		I/S: ① lease income = LR ② 租赁资产的折旧费用
后续计量	<ul style="list-style-type: none"> <li>由一笔收益组成</li> <li>利息收益逐期降低</li> </ul> <ul style="list-style-type: none"> <li>应收租赁款通过实际利率法逐期收回</li> </ul>	<ul style="list-style-type: none"> <li>由一笔收益和一笔费用组成</li> <li>收益和费用每期保持不变</li> </ul> <ul style="list-style-type: none"> <li>租赁资产计提折旧</li> </ul>
		65



## 34. 养老金计划的分类

□ Pensions and other postemployment benefit plans are a common type of **deferred compensation**

### 1. Defined contribution (DC) pension plans

- The company (employer) contributes an agreed-upon amount into the plan, and the **company contribution is the pension expense** and is reported as an operating cash outflow
- **Employee** owns the plan and **bears all risk and return** consequences of investment

### 2. Defined benefit (DB) pension plans

- To measure the employer's liability (**projected benefit obligation, PBO**), the employer should make some **financial assumptions** and **actuarial assumptions**
  - The discount rate used is the **yield on a high-quality corporate bond**
- **Employer bears** the **actuarial risk** and **investment risk**
- DB plans are funded through **pension plan assets** held in a separate legal entity
- If the **fair value of the plan's assets** is **higher (lower)** than the **present value of the estimated pension obligation**, the plan's **funded status** is **positive (negative)** or **surplus (deficit)**, and the company will report a **net pension asset (liability)** on its balance sheet

67

## 35. 对设定收益计划的会计处理

Accounting for  
DB plans  
under IFRS



Accounting for  
DB plans  
under GAAP



68

## 王牌陈讲CFA

极速串讲 一级财报

## 七. 租赁 | 养老金计划 [34-35] | 股份支付

长期负债和  
所有者权益

① 租赁

③4

④ 养老金计划

⑤ 股份支付

⑥ 列报与披露

34

35

35

35

35

基本概念

比较

I/S  
vs.  
OCI