

# 2023 CFA一级 知识点背诵手册

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**Exam Express**

# Financial Statement Analysis

高顿教育CFA研究院

## SESSION 2

**M3. Understanding the I/S**

**M4. Understanding the B/S**

**M5. Understanding the C/F**

**M6. Financial Analysis Techniques**

# Income Statement - Format

| Income Statement  |
|---|
| Net Revenue<br>- Cost of Good Sold (COGS)   |
| <b>Gross Profit</b><br>- SG&A   |
| <b>Operating Income</b><br>+Other income or gain<br>(-Other expense or loss)<br>+/- Unusual or Infrequent Items |
| <b>Earning Before Interest &amp; Tax</b><br>- Interest Expense  |
| <b>Earning Before Tax</b>   |

| Income Statement (continued)  |
|---|
| <b>Earning Before Tax</b><br>- Tax Expense  |
| <b>Net Income</b><br>from Continuing Operations<br>+ Income from Discontinued<br>Operation (Net of Tax) |
| <b>Net Income</b>   |



# Income Statement - Component

## Non-recurring items

|            | Unusual or infrequent items  | Discontinued operations   |
|------------|--|---|
| Disclosure | Continuing operations  | Discontinued operation  |
|            | Pretax basis<br>(Above the line)   | Net of tax basis<br>(Below the line)  |
| Component  | <ul style="list-style-type: none"> <li>✓ G/L from the sale of assets or part of a business</li> <li>✓ Restructuring costs</li> </ul> | <ul style="list-style-type: none"> <li>✓ Dispose of or establish a plan to dispose a component operation with no further involvement</li> </ul> |

# Income Statement

## Change in accounting policies

| Change in accounting policies   | Change in accounting estimate   | Correction of an error   |
|---|---|--|
| <ul style="list-style-type: none"> <li>✓ Change revenue recognition policy</li> <li>✓ From LIFO to FIFO</li> <li>✓ From amortized cost to fair value</li> </ul> | <ul style="list-style-type: none"> <li>✓ Change Dep. or Amort. method</li> <li>✓ Change useful life or salvage value of depreciable assets</li> </ul> | <ul style="list-style-type: none"> <li>✓ Error in the prior period financial statements</li> </ul> |
| Retrospective   | Prospective   | Restatement  |
| All disclosed in footnotes  |   |  |

## Practice 1

A company, with a tax rate of 40%, sold a fixed asset with a net book value of \$500,000 for \$570,000 during the year. Which of the following amounts (in \$) will most likely be reported on its income statement for the year related to the asset sale?

- A. 42,000
- B. 70,000
- C. 570,000

## Practice 1

Answer: B

Gains and losses reports on the income statement before tax.

Gain on disposal of an asset = cash proceeds – net book value of  
disposed assets = \$570,000 – 500,000 = \$70,000



# Revenue Recognition – Accounting Standards

## Five steps in recognizing revenue

- Identify the **contract(s)** with a customer.
- Identify the **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.

## Complex Contracts

### Example

- John's Construction (JC) Co. 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. Project costs incurred in the first year are \$420,000. How much revenue should be recognized for the first year?
- $\text{Costs incurred} = \$420,000 / \$700,000 = 60\%$
- $\text{Revenue recognized} = 60\% \times \$1 \text{ million} - 0 = \$600,000$

## Complex Contracts

### Example(Cont.)

- The contract specifies consideration of \$1 million plus a bonus of \$200,000 if the ship is completed in 2 years. The company has only little experience and knows that many factors might cause delay. JC Co.'s expected total costs are \$700,000. They incurs \$420,000 in costs in the first year. How much revenue should JC Co. recognize for the first year?

## Complex Contracts

### Example(Cont.)

- In the beginning of year 2, JC Co. and customer agree to modify the contract. As a result the consideration will increase by \$150,000, and allowable time for bonus is extended by 6 months. Expects costs will increase by \$120,000. Also, given additional 6 months, JC Co. concludes that it now meets the criteria for including the \$200,000 bonus in revenue. They incurs \$250,000 in cost in second year. How much revenue should be recognized in second year?



## Complex Contracts

### Example

- JC's total revenue on the transaction (transaction price) is now \$1.35 million. JC Co.'s progress toward completion is now 81.7%. Based on the changes in the contract, the amount of revenue in second year to be recognized is \$502,950, calculated as  $(81.7\% \times \$1.35 \text{ million})$  minus the \$600,000 already recognized.

## Complex Contracts

### Agent's revenue amount

- If the company is an agent, it should report only the amount of commission as its revenue.

# Complex Contracts

## Cost of obtaining a contract

- Under the converged accounting standards, the costs of obtaining a contract must be capitalized.

# Earning Per Share

## Basic EPS

$$\text{Basic EPS} = \frac{\text{NI} - \text{Div}_{\text{preferred stock}}}{\text{Weighted average number of common shares outstanding}}$$

### ➤ **Weighted average number of common share outstanding**

- ✓ New issue, repurchase is weighted by time
- ✓ Stock dividend/split is not weighted by time, instead it should adjust the number of common share which exist before the stock dividend or split .



# Earning Per Share

## Example:

- Golden Investment Co. had 1,000,000 shares outstanding at the beginning of last year, during the year, Golden has following equity related activities:

| Date                 | Common stock (in '000 shares) |
|----------------------|-------------------------------|
| Jan. 1 <sup>st</sup> | 1,000 outstanding             |
| Mar. 1 <sup>st</sup> | + 600 (new issue)             |
| May. 1 <sup>st</sup> | 2-for-1 split                 |
| Jul. 1 <sup>st</sup> | – 400 (repurchase)            |
| Oct. 1 <sup>st</sup> | 10% stock dividend            |

# Earning Per Share

## Basic EPS

| Date  | Common Stock       | Adjustments                        | Subtotal |
|---|--------------------|------------------------------------|----------|
| Jan. 1 <sup>st</sup>                                | 1,000 outstanding  | $\times 12/12 \times 2 \times 1.1$ | =2,200   |
| Mar. 1 <sup>st</sup>                                | +600 new issue     | $\times 10/12 \times 2 \times 1.1$ | +1,100   |
| May. 1 <sup>st</sup>                                | 2-for-1 split      |                                    |          |
| Jul. 1 <sup>st</sup>                                | -400 repurchase    | $\times 6/12 \times 1.1$           | - 220    |
| Oct. 1 <sup>st</sup>                                | 10% stock dividend |                                    |          |
| Weighted average number of common stock outstanding |                    |                                    | =3,080   |

# Earning Per Share

## Diluted EPS

- Dilutive securities **decrease EPS** if exercised or converted to new common stock
- **Diluted EPS can not be higher than Basic EPS**
  - ✓ Stock options/warrants---Treasury stock method
  - ✓ Convertible debt---Add back related **after-tax** interest
  - ✓ Convertible preferred stock---Add back related dividends

# Earning Per Share

## Diluted EPS

Basic EPS



$$\frac{\left( \begin{array}{c} \text{NI} \\ - \text{preferred} \\ \text{dividends} \end{array} \right)}{\left( \begin{array}{c} \text{Weighted} \\ \text{average} \\ \text{CS.} \end{array} \right)} + \left( \begin{array}{c} \text{Conv.} \\ \text{preferred} \\ \text{dividends} \end{array} \right) + \left( \begin{array}{c} \text{Conv.} \\ \text{debt} \\ \text{interests} \end{array} \right) (1 - t)$$


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$$\left( \begin{array}{c} \text{CS.} \\ \text{from} \\ \text{Conv. PS} \end{array} \right) + \left( \begin{array}{c} \text{CS.} \\ \text{from} \\ \text{Conv. debt} \end{array} \right) + \left( \begin{array}{c} \text{Net CS.} \\ \text{from} \\ \text{options/warrants} \end{array} \right)$$

Include only if security  
is dilutive

# Earning Per Share

## Diluted EPS

➤ If anti-diluted financial instruments?

| Financial instruments       | Decision making criteria   |
|-----------------------------|--|
| Convertible preferred stock | $\text{dividends/new shares} > \text{basic EPS}$                 |
| Convertible debt            | $\text{interest} (1 - t) / \text{new shares} > \text{basic EPS}$ |
| Options and warrants        | $\text{avg. market price} < \text{exercise price}$               |

➤ If yes, the security is anti-dilutive.

➤ Don't include such security in the computation of dilutive EPS.

## Practice 1

Golden Finance had following information at the end of the year:

| Security                  | Authorized | Issued and Outstanding | Other info.   |
|---------------------------|------------|------------------------|---|
| Common stock              | 500,000    | 250,000                | Currently pays a dividend of \$1/share.   |
| Preferred stock, Series A | 50,000     | 12,000                 | Nonconvertible, cumulative; pays a dividend of \$4 per share.                                       |
| Preferred stock, Series B | 50,000     | 30,000                 | Convertible; pays a dividend of \$7.50 per share. Each share is convertible into 2.5 common shares. |
| Additional information:   |            |                        |   |
| Net income                |            | \$1 million            |   |



## Practice 1

The diluted EPS is closest to:

- A. \$3.08.
- B. \$2.93.
- C. \$2.91.

Answer: C

# Comprehensive Income

## Other comprehensive income

- Foreign currency **translation** gains and losses
- Certain costs of defined benefit post-retirement plans that are not recognized in the current period (**DB plan**)
- **Unrealized** G/L on **derivatives** accounted for as hedges
- **Unrealized** G/L on **available-for-sale** securities
- Valuation surplus for long-lived asset (**IFRS only**)

## Practice 1

The following is a company's accounting records (in € millions) :

|   |       |
|---|-------|
| Net income for the year   | 2,500 |
| Unrealized gains from available-for-sale securities                         | 1,475 |
| Unrealized loss from trading security                                       | 600   |
| Loss on foreign currency translation adjustments<br>on a foreign subsidiary | 325   |
| Dividends paid  | 500   |

## Practice 1

The company's total comprehensive income (in € millions) is :

- A. 2,550.
- B. 3,050.
- C. 3,650.

**Answer: C**

$$CI = NI + OCI = 2,500 + (1,475 - 325) = 3,650$$

## SESSION 2

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# Balance sheet

## XXXX Inc. balance sheet as at 31 December 20x2

| <b>Assets</b>              | <b>\$'000</b> | <b>Liabilities</b>                    | <b>\$'000</b> |
|----------------------------|---------------|---------------------------------------|---------------|
| <b>Current assets</b>      | X             | Current liabilities                   | X             |
| Cash and cash equivalents  | X             | Accounts payable                      | X             |
| Accounts receivables       | X             | Unearned revenue                      | X             |
| Inventory                  | X             | Long term liabilities                 | X             |
| Financial assets           | X             | <b>Total liabilities</b>              | X             |
| Prepaid expense            | X             | <b>Equity</b>                         | <b>\$'000</b> |
| <b>Non-current assets</b>  | X             | Paid-in capital                       | X             |
| Property plant & equipment | X             | Retained earnings                     | X             |
| Investments in affiliates  | X             | Accumulated OCI                       | X             |
| Intangible assets          | X             | <b>Total equity</b>                   | X             |
| <b>Total assets</b>        | X             | <b>Total liabilities &amp; equity</b> | X             |



# Financial Assets

## Accounting for financial assets

| Items                   | Held-to-maturity<br>Amortized cost | Trading security<br>FVPL | Available-for-sale<br>FVOCI |
|-------------------------|------------------------------------|--------------------------|-----------------------------|
| Measurement             | Amortized Cost                     | Fair Value               | Fair Value                  |
| Unrealized<br>Gain/Loss | Ignore                             | I/S                      | OCI                         |
| Realized<br>Gain/Loss   | I/S                                | I/S                      | I/S                         |

## Practice 1

Assume a company has the following portfolio of marketable securities which was acquired at the end of 2018:

| Category           | Original Cost as at the year end 2018 (\$) | Fair Market Value as at the year end 2019 (\$) |
|--------------------|--|--|
| Held-to-maturity   | 20,000,000                                 | 19,000,000                                     |
| Trading-security   | 12,000,000                                 | 12,500,000                                     |
| Available-for-sale | 17,000,000                                 | 16,000,000                                     |

## Practice 1

What's the gain or loss will be reported in income statement at the end of 2019?

- A. \$1,500,000 loss
- B. \$500,000 gain
- C. \$500,000 loss

**Answer: B**

Only unrealized gain or loss from trading security should recognized in income statement.