

Master in Management FINANCIAL AND ESG REPORTING Class 6

Fall, 2026



**Lisbon School
of Economics
& Management**
Universidade de Lisboa

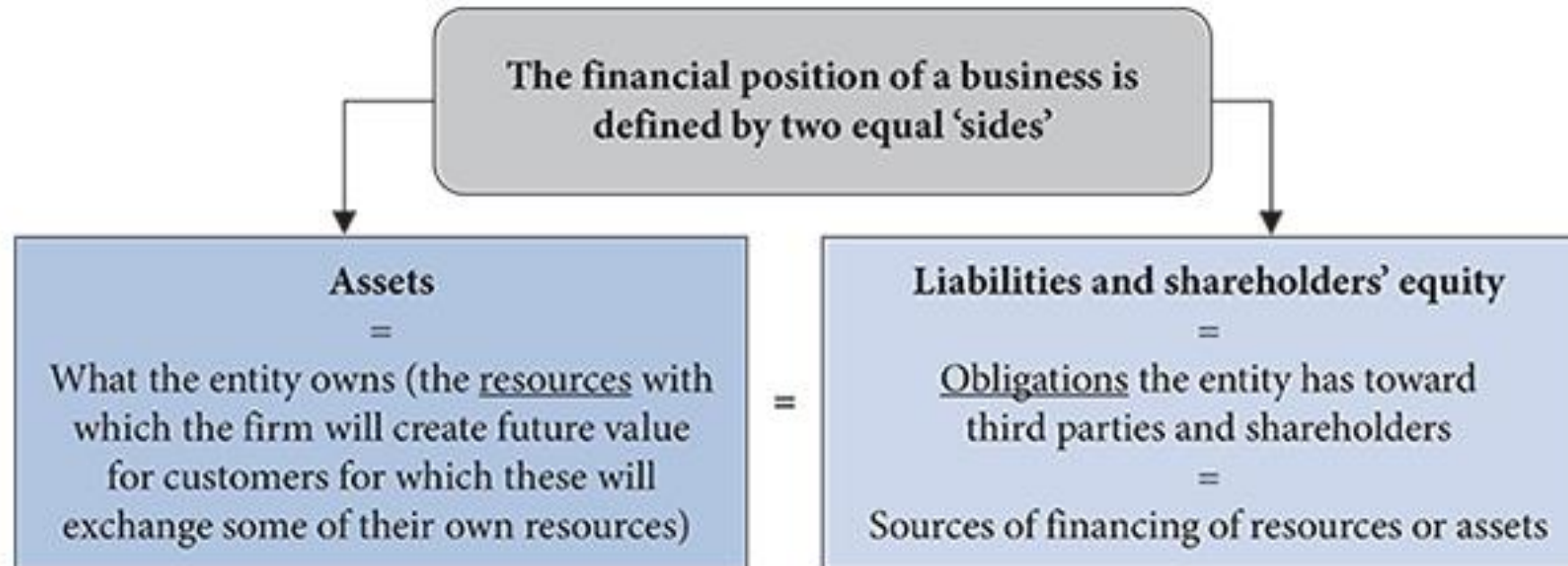
Objective of this class:

1. Financial statements
2. Managerial balance sheet
3. Ratio analysis
4. Exercise- Pontoon plc
5. Individual written exam

Financial statements

- Statement of financial position (balance sheet)
 - Statement of profit and loss (P&L) and other comprehensive income
 - Statement of changes in equity
 - Statement of cash flows
 - Notes
-
- Financial statements are prepared according to accounting standards (accounting principles). There are two prevailing systems of accounting standards:
 - Generally Accepted Accounting Principles (GAAP)
 - International Financial Reporting Standards (IFRS)

Statement of financial position/balance sheet



Source: Hervé Stolowy, Yuan Ding, Luc Paugam, *Financial Accounting and Reporting*, 7th Edition.

Statement of financial position/balance sheet

Assets

- Current assets*

Cash ¹	\$ 6.0	\$ 12.0	\$ 8.0
Accounts receivable	44.0	48.0	56.0
Inventories	52.0	57.0	72.0
Prepaid expenses ²	<u>2.0</u>	<u>2.0</u>	<u>1.0</u>
Total current assets	104.0	119.0	137.0

- Noncurrent assets*

Financial assets and intangibles	0.0	0.0	0.0
Property, plant, and equipment			
Gross value ³	\$90.0	\$90.0	\$93.0
Less: Accumulated depreciation	(34.0)	(39.0)	(40.0)
Total noncurrent assets	<u>56.0</u>	<u>51.0</u>	<u>53.0</u>
Total assets	<u><u>\$160.0</u></u>	<u><u>\$170.0</u></u>	<u><u>\$190.0</u></u>

Statement of financial position

Liabilities and owners' equity

- Current liabilities*

Short-term debt	\$ 15.0	\$ 22.0	\$ 23.0
Owed to banks	\$ 7.0	\$14.0	\$15.0
Current portion of long-term debt	8.0	8.0	8.0
Accounts payable	37.0	40.0	48.0
Accrued expenses ⁴	<u>2.0</u>	<u>4.0</u>	<u>4.0</u>
Total current liabilities	54.0	66.0	75.0

- Noncurrent liabilities*

Long-term debt ⁵	<u>42.0</u>	<u>34.0</u>	<u>38.0</u>
Total noncurrent liabilities	42.0	34.0	38.0

- Owners' equity⁶*

	<u>64.0</u>	<u>70.0</u>	<u>77.0</u>
Total liabilities and owners' equity	<u><u>\$160.0</u></u>	<u><u>\$170.0</u></u>	<u><u>\$190.0</u></u>

Statement of financial position

- The fundamental balance sheet equation:

$$\text{Owners' equity} = \text{Assets} - \text{Liabilities} \quad (2.1)$$

$$\text{Assets} = \text{Liabilities} + \text{Owners' equity} \quad (2.2)$$

- List of resources and obligations may be presented either in increasing or decreasing order of liquidity and maturity.
- The ordering preference must apply homogenously to both assets, on the one hand, and liabilities and shareholders' equity, on the other.

Statement of financial position

Current Assets:

Assets expected to be realised, sold, or consumed within 12 months or the normal operating cycle.

- **CASH AND CASH EQUIVALENTS**

- cash
- marketable securities

- **ACCOUNTS RECEIVABLE**

- also called **trade receivables** or **trade debtors**

- **INVENTORIES**

- raw material, work-in-process and finished good inventory

- **PREPAID EXPENSES**

Statement of financial position

Noncurrent Assets:

Assets not classified as current assets, usually held for long-term use.

- Property, plant and equipment (PPE)/fixed tangible assets
- Intangible assets
- Other non-current assets (e.g., Long-term investments)

Statement of financial position

Noncurrent Assets

- **FIXED TANGIBLE ASSETS AND NET BOOK VALUE**
- They are reported at their net book value, the difference between their gross value (acquisition value) less accumulated depreciation and impairment losses

Statement of financial position

Noncurrent Assets

FIXED TANGIBLE ASSETS AND NET BOOK VALUE

FIGURES IN MILLIONS

	Straight-Line Method			Accelerated Method		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Gross value (acquisition cost)	\$300	\$300	\$300	\$300	\$300	\$300
Annual depreciation charge	(\$100)	(\$100)	(\$100)	(\$150)	(\$100)	(\$ 50)
Accumulated depreciation	<u>(100)</u>	<u>(200)</u>	<u>(300)</u>	<u>(150)</u>	<u>(250)</u>	<u>(300)</u>
Net book value	<u><u>\$200</u></u>	<u><u>\$100</u></u>	<u><u>\$ 0</u></u>	<u><u>\$150</u></u>	<u><u>\$ 50</u></u>	<u><u>\$ 0</u></u>

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life.

Statement of financial position

- **Current Liabilities:** Short-term liabilities with a maturity shorter than 12 months
 - Short-Term debt (notes payable, overdrafts)
 - Accounts Payable (or trade payables)
 - Accrued Expenses

Statement of financial position

- **Noncurrent Liabilities:** Long-term liabilities have a maturity longer than a year
 - Long-term debt
 - Lease liabilities (due after 12 months)
 - Deferred taxes liability

Statement of financial position

- **Owners' equity:**
 - *increases (decreases)* when the firm shows a profit (loss)
 - *decreases* when the firm declares a **cash dividend**
 -
- **Retained earnings = EAT – Dividends**
- **Owners' equity also:**
 - *increases* when the firm issues new shares
 - *decreases* when the firm repurchases its own shares
 -

Equity

#1 Book Value

= Assets – Liabilities

OR

= Share Capital
+ Retained Earnings

#2 Market Value

= Share Price x # Shares

OR

= Estimated Value
via DCF Analysis

Statement of financial position

- The owners' equity account represents the accumulated changes in owner's equity since the firm's inception.

FIGURES IN MILLIONS

Common stock	\$10
10,000,000 shares at par value of \$1	
Paid-in capital in excess of par	20
Accumulated retained earnings	47
Owners' equity	\$77

Statement of P&L (income statement)

• Net sales	\$390.0	100.0%	\$420.0	100.0%	\$480.0	100.0%
Cost of goods sold	328.0		353.0		400.0	
• Gross profit	62.0	15.9%	67.0	16.0%	80.0	16.7%
Selling, general, and administrative expenses	39.8		43.7		48.0	
Depreciation expenses	5.0		5.0		8.0	
• Operating profit	17.2	4.4%	18.3	4.4%	24.0	5.0%
Extraordinary items	0.0		0.0		0.0	
• Earnings before interest and tax (EBIT)	17.2	4.4%	18.3	4.4%	24.0	5.0%
Net interest expenses ¹	5.5		5.0		7.0	
• Earnings before tax (EBT)	11.7	3.0%	13.3	3.2%	17.0	3.5%
Income tax expenses	4.7		5.3		6.8	
• Earnings after tax (EAT)	<u>\$ 7.0</u>	1.8%	<u>\$8.0</u>	0.9%	<u>\$ 10.2</u>	2.1%
Dividends	\$ 2.0		\$ 2.0		\$ 3.2	
• Addition to retained earnings	\$ 5.0		\$ 6.0		\$ 7.0	

Statement of P&L

- Records transactions that change owners' equity during the accounting period
- **Revenues** (IFRS 15): An entity should recognise revenue when a performance obligation is satisfied by transferring a promised good or service to a customer. Revenues increase owners' equity. **Judgement!!**
- **Expenses** must be classified according to their nature or function. Expenses are transactions decreasing owners' equity.
- The fundamental income statement equation:
-

$$\text{Earnings after tax} = \text{Revenues} - \text{Expenses} \quad (2.5)$$

Statement of P&L

- **Net sales** are recorded net of any discounts and allowances for defective merchandise
- **Cost of goods sold (COGS)** or **Cost of sales** is the cost of goods the firm has sold during the accounting period
- For a distribution company COGS is the cost of items sold from inventory plus other direct costs.
- **Gross profit = Net sales – COGS**

Statement of P&L

- **Selling, general, and administrative expenses (SG&A)** are expenses that relate to the sale of products and running of operations
- **Depreciation expense** represent the cost of fixed assets that is allocated to the accounting period
- **EBIT/Operating profit = Gross profit**
 - **SG&A expenses**
 - **Depreciation expense**

Statement of P&L

- **Net interest expense** is the difference between the interest expense incurred by the firm from borrowing and any interest income it earns from financial investments during the accounting period
- **Earnings before tax (EBT):**

$$\text{EBT} = \text{EBIT} - \text{Net interest expense}$$

Statement of P&L

- **The income tax expense** account is a tax provision. It can differ from the actual tax that the firm must pay. The difference is accounted for in the deferred tax account in the balance sheet.

- **Earnings after tax (EAT) or net profit or net income**

$$\text{EAT} = \text{EBT} - \text{Income tax expense}$$

- EAT measures the net change in owners' equity resulting from the transactions recorded in the income statement during the accounting period

Statement of P&L – accounting principles

Two basic principles of **accrual accounting**:

- **Realization principle**: a revenue is recorded when the transaction takes place, not when the cash is received
- **Matching principle**: an expense associated with a revenue is recognized along with the revenue, not when paid

Statement of cash-flows

• Cash flows from operating activities			
(+) Earnings after tax	\$8.0	\$10.2	
(+) Depreciation expense	5.0	8.0	
(-) Change in working capital requirement	(4.0)	(14.0)	
A. Net cash flow provided by operating activities	\$9.0	\$4.2	
• Cash flows from investing activities			
(+) Sale of fixed assets	0.0	2.0	
(-) Capital expenditures and acquisitions	0.0	(12.0)	
B. Net cash flow from investing activities	\$0.0	(\$10.0)	
• Cash flows from financing activities			
(+) Increase in long-term borrowings	0.0	12.0	
(+) Increase in short-term borrowings	7.0	1.0	
(-) Long-term debt repaid	(8.0)	(8.0)	
(-) Dividend payments	(2.0)	(3.2)	
C. Net cash flow from financing activities	(\$3.0)	\$1.8	
D. Total net cash flow (A + B + C)	\$6.0	(\$4.0)	
E. Opening cash	\$6.0	\$12.0	
F. Closing cash (E + D)	\$12.0	\$8.0	

Statement of cash-flows

- **Net Operating Cash-Flow (NOCF)** = Cash inflow from operations – Cash outflows from operations
- Represents the cash generated or used by a company's core operating activities
- Direct method
- Indirect method

Statement of cash-flows

- **Net cash flow from investing activities**
 - Net fixed assets acquisitions and disposals

- **Net cash flow from financing activities**
 - increase in long-term and short-term borrowings
 - long-term debt repaid
 - interest and dividend payments

Sources of cash inflow



\$472 \$2 \$13



\$460.8 \$18.2

Sources of cash outflow



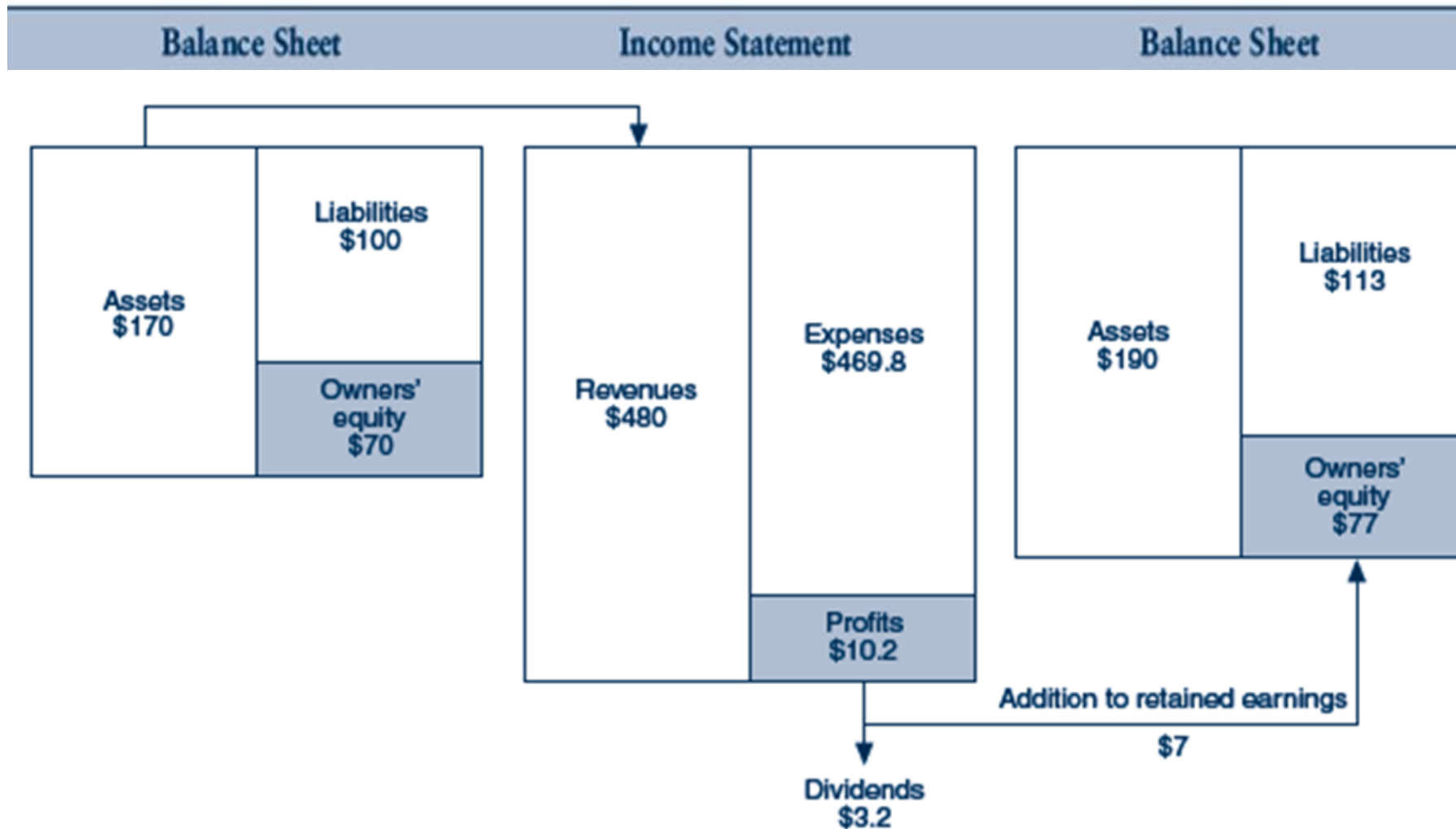
\$12

Net cash flow from operating activities
\$11.2

Net cash flow from investing activities
(\$10)

Net cash flow from financing activities
(\$5.2)

Reconciling financial statements



IFRS 18 (from 2027)

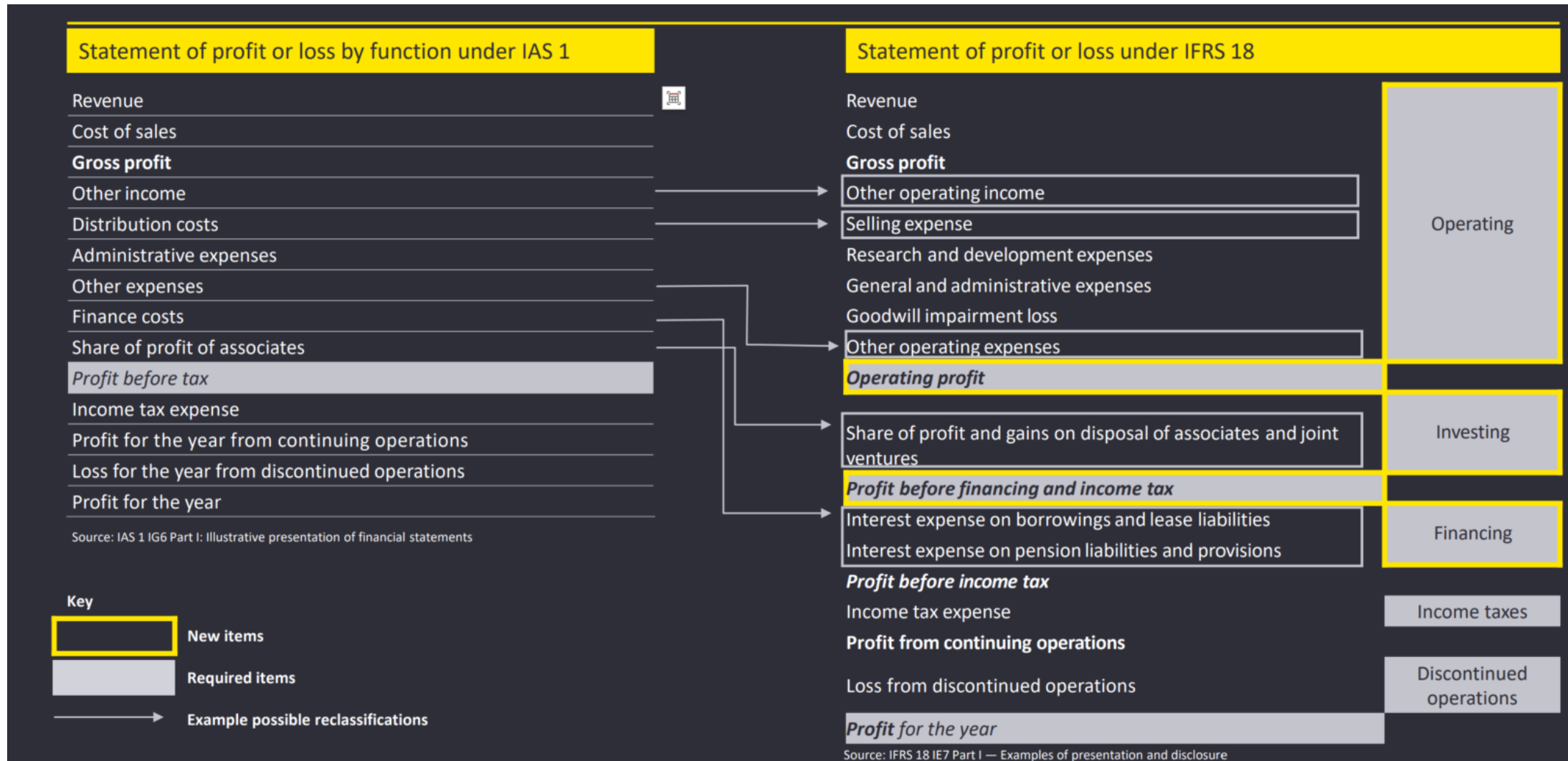
- The new standard on presentation and disclosure in financial statements
- Replaces IAS 1
- Effective for reporting periods beginning on or after 01 January 2027

Main changes:

- New categories and subtotals in the statement of profit or loss
- Management-defined performance measures (MPMs)
- Aggregation and disaggregation

IFRS 18 (from 2027)

- New categories and subtotals in the statement of profit or loss



Managerial balance sheet

The Managerial Balance Sheet

Invested Capital	Capital Employed
Cash	Short-term debt
Working capital requirement (WCR) <i>Operating assets less Operating liabilities</i>	Long-term financing <i>Long-term debt plus Owners' equity</i>
Net fixed assets	

The Standard Balance Sheet

Assets	Liabilities and Owners' Equity
Cash	Short-term debt
Operating assets <i>Accounts receivable plus Inventories plus Prepaid expenses</i>	Operating liabilities <i>Accounts payable plus Accrued expenses</i>
Net fixed assets	Long-term financing <i>Long-term debt plus Owners' equity</i>

THE MANAGERIAL BALANCE SHEET

WORKING CAPITAL REQUIREMENTS

Invested capital = Cash + Working capital requirement + Net fixed assets

Capital employed = Short-term debt + Long-term debt + Owners' equity

$$\begin{aligned} &\text{Working capital requirement (WCR)} \\ &= \\ &[\text{Operating assets}] - [\text{Operating liabilities}] \\ &= \\ &[\text{Accounts receivable} + \text{Inventories} + \text{Prepaid expenses}] \\ &\quad - [\text{Accounts payable} + \text{Accrued expenses}] \end{aligned}$$

THE MANAGERIAL BALANCE SHEET

WORKING CAPITAL REQUIREMENTS

Invested capital

• Cash	\$ 6.0	5%	\$ 12.0	10%	\$ 8.0	6%
• Working capital requirement (WCR) ¹	59.0	49%	63.0	50%	77.0	56%
• Net fixed assets	<u>56.0</u>	46%	<u>51.0</u>	40%	<u>53.0</u>	38%
Total invested capital	<u>\$121.0</u>	100%	<u>\$126.0</u>	100%	<u>\$138.0</u>	100%

Capital employed

• Short-term debt	\$ 15.0	12%	\$ 22.0	17%	\$ 23.0	17%
• Long-term financing						
Long-term debt	\$42.0		\$34.0		\$38.0	
Owners' equity	64.0	<u>106.0</u>	88%	70.0	<u>104.0</u>	83%
Total capital employed	<u>\$121.0</u>	100%	<u>\$126.0</u>	100%	<u>\$138.0</u>	100%

Ratio analysis

Ratio analysis

- A ratio is an expression of the relationship between figures in the financial statements.
- Ratio analysis enables users of financial statements to evaluate the financial performance and financial position of the reporting entity for the purpose of investment, lending, trading and other decisions.
- Ratios need to have a point of reference which may be through
 - comparison with the ratios of other entities (inter-firm), and/or (**horizontal**)
 - historical comparisons over time (**vertical**)

Ratio analysis

- Profitability
- Operational efficiency
- Liquidity
- Capital structure
- Investor ratios
- Value creation

MEASURING PROFITABILITY

- **Gross profit margin**

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Sales}}$$

- **Return on sales (ROS)**

$$\text{ROS} = \frac{\text{Operating profit (or operating income or EBIT)}}{\text{Sales}}$$

- **Return on assets (ROA)**

$$\text{ROA} = \frac{\text{Earnings after tax (or net income or net profit)}}{\text{Total assets}}$$

MEASURING PROFITABILITY

■ Return on equity (ROE)

$$\text{ROE} = \frac{\text{Earnings after tax (or net income or net profit)}}{\text{owners' equity}}$$

- The return on shareholders funds compares the attributable profit with the shareholders' funds only.
- Profitability is defined from the shareholders' point of view as relating to the profit available for distribution as dividends

■ Return on capital employed (ROCE)

Shareholders' funds+
non-current liabilities

$$\text{ROCE} = \frac{\text{EBIT (or operating income or operating profit)}}{\text{Capital employed}}$$

- The return on all the long-term capital invested in the business. This ratio compares profit before interest & tax with the sum of shareholders' funds and non-current liabilities

MEASURING OPERATIONAL EFFICIENCY

- **Inventory Turnover Period (Average Age of Inventory)**

$$\text{Inventory turnover period} = \frac{\text{Inventories}}{\text{Cost of goods sold}} \times 365 \text{ days}$$

- **Receivable Collection Period (Average Age of Trade Receivables)**

$$\text{Receivable collection period} = \frac{\text{Accounts receivable}}{\text{Sales}} \times 365 \text{ days}$$

- **Payable Payment Period**

$$\text{Payable payment period} = \frac{\text{Accounts payable}}{\text{Cost of goods sold}} \times 365 \text{ days}$$

MEASURING LIQUIDITY

■ The Current Ratio

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

■ The Acid Test or Quick Ratio

$$\text{Acid test or quick ratio} = \frac{\text{Cash} + \text{Accounts receivable}}{\text{Current liabilities}}$$

MEASURING LIQUIDITY

■ Interest Cover Ratio

$$\text{Interest cover ratio} = \frac{\text{Profit before interest and tax (or EBIT)}}{\text{Interest expense}} = X \text{ times}$$

- Number of times that a firm's interest expense is covered by operation earnings
- A measure of how easily the company can meet its interest payments, given the amount of operating profit available.

MEASURING CAPITAL STRUCTURE/LEVERAGE RATIO



■ Gearing

$$\text{Gearing} = \frac{\text{Non-current liabilities (NCLs)}}{\text{Shareholders' funds} + \text{NCLs}}$$

- Many variations on the definition abound: adopt one from a reliable source & apply it consistently.

MEASURING INVESTOR RATIOS

■ Earnings Per Share (EPS)

$$\text{Earnings per share (EPS)} = \frac{\text{Earnings after tax}}{\text{Number of shares outstanding}}$$

- Measure of share performance

■ The Price-to-earnings Ratio (P/E)

$$\text{Price-to-earnings ratio (P/E)} = \frac{\text{Share price (market price) per share}}{\text{Earnings per share}}$$

- Amount that investors are willing to pay for each CU of a firm's earnings (i.e., a market confidence in a firm and an indication of the market expectations of growth in the firm's earnings (and/or cash flows))

■ The Market-to-book Ratio

$$\text{Market-to-book ratio} = \frac{\text{Share price (market price) per share}}{\text{Book value per share}}$$

- Amount that investors are willing to pay for each CU of a firm's net assets (this premium is indicative of the market evaluation of the value of unrecorded intangible assets such as reputation, brand names, clientele, etc.)

MEASURING INVESTOR RATIOS

■ Dividend Cover

$$\text{Dividend cover} = \frac{\text{EPS}}{\text{Dividend per share}}$$

- Express as a number of times

■ Dividend Payout Ratio

$$\text{Dividend payout ratio} = \frac{\text{Dividend per share}}{\text{EPS}} \times 100\%$$

- Express as a percentage
- Proportion of earnings paid out in the form of dividends

VALUE CREATION: LINKING VALUE CREATION, OPERATING PROFITABILITY, COST OF CAPITAL, AND GROWTH OPPORTUNITIES

- Accounting profits are measures of performance derived from income statements that do not account for the amount of invested capital used to generate those profits
- Economic profits account for both: accounting profits and use of invested capital. The most frequently used economic profit is **economic value added (EVA)**

$$\text{EVA} = \text{NOPAT} - (\text{Invested Capital} \times \text{WACC})$$

*NOPAT: net operating profit after tax

*Weighted average cost of capital (WACC) = $K_d \times (1 - \text{Tax rate}) \times \% \text{ of debt} + K_e \times \% \text{ of equity}$

clearly shows that a positive return spread implies a positive EVA, which implies value creation

Exercise-Pontoon plc

Exam revision

Conclusion:

1. Financial statements
2. Managerial balance sheet
3. Ratio analysis
4. Exercise- Pontoon plc
5. Individual written exam