Lesson 6

Analysis of financial statements

"Nobody wants to read a boring financial statement.
Can you add some sex and violence?"

Structure

1. Introduction
2. Analysis techniques
3. Balance sheet analysis
4. Income statement analysis
5. Return analysis

1. Introduction

- Analysis of financial statements or financial analysis
- Goals:
  - to assess the current profitability and operational efficiency of the firm as a whole as well as its different departments so as to judge the financial health of the firm.
    • to ascertain the relative importance of different components of the financial position of the firm.
    • to identify the reasons for change in the profitability/financial position of the firm.
    • to judge the ability of the firm to repay its debt and assessing the short-term as well as the long-term liquidity position of the firm.

Introduccion II

It studies:

Financial structure:

- Finance sources
- Capacity to face debts at maturytiy

Economic structure

- Investments to carry out the company operation
- Non-current assets
- Minimum level of current assets

Introduction III

- It allows
  - measuring the result of the company decisions
  - adopting measures to improve in the future
- Limitations:
  - Base on historic data
  - Usually referred at the end of the year
  - Sensitive to accounting manipulations
  - It does not consider inflation effects

Structure

1. Introduction
2. Analysis techniques
3. Balance sheet analysis
4. Income statement analysis
5. Return analysis

2. Analysis techniques

- Horizontal analysis
- Vertical analysis
- Ratio analysis
- Intracompany
- Intercompany
- Dynamic
- Static
- Balance analysis
- Income statement analysis

Horizontal analysis

- Over multiple periods of time
- Percentage growth
- Easy to spot trends and growth patterns
- Also call trend analysis

Vertical analysis

- Relationships between numbers in a single reporting period (or one moment in time)

Ratio analysis

- Relative analysis
- Just a division but it is important to know the definition considered in both numerator and denominator

Intracompany and intercompany analysis

- Intracompany: Comparison within the company (past or forecasting)
- Intercompany: Comparison with other companies

Static and dynamic analysis

- Static: for a given time
- Dynamic: Throughout time comparing several years

Balance analysis

To assess:

- Liquidity and solvency
- Debt
- Asset management
- Financial balance

Income statement analysis

- To determine how the company creates profits and how to improve them
- It can be used with historical or previsional statements
- To evaluate sales, operation margin, financial expenses, fixed expenses
- To determine the break-even-point

Structure

1. Introduction
2. Analysis techniques
3. Balance sheet analysis
4. Income statement analysis
5. Return analysis

3. Balance analysis

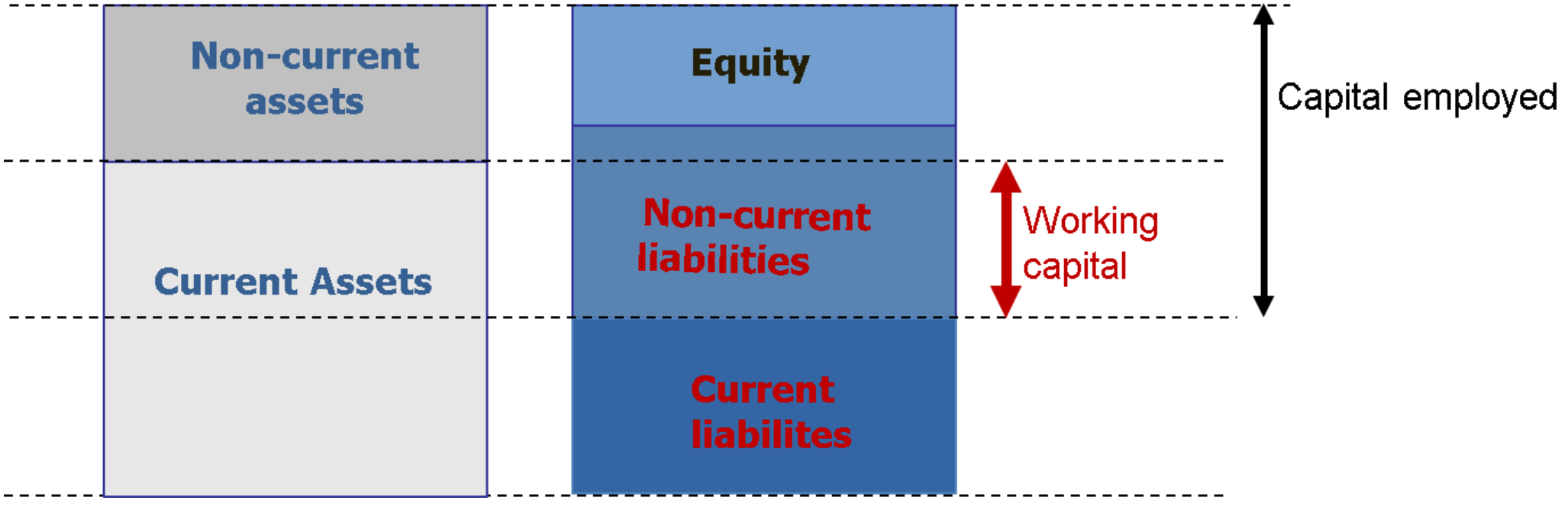
Equity and Liabilities:

- Capital employed: resources not required in the short term
- Capital employed = Equity + Non-current liabilities
- Assets = Equity + Liabilites
- Assets = Capital employed + Current Liabilities

Assets:

- Non-current assets
- Current assets: Inventory + Receivables + Cash and cash equivalents

Working capital



Working capital:

- Working capital is the difference between a company's current assets and its current liabilities, such as accounts payable and debts
- Commonly used measurement to gauge the short-term health of an organization

Working capital II

- Negative working capital: current assets < current liabilities
- Positive working capital: current assets > current liabilities
- It indicates whether the pool of money a company has, or expects to receive, over the next year is sufficient to meet the short term obligations it also expects to meet during that time

2 min video

Vertical analysis of the balance sheet

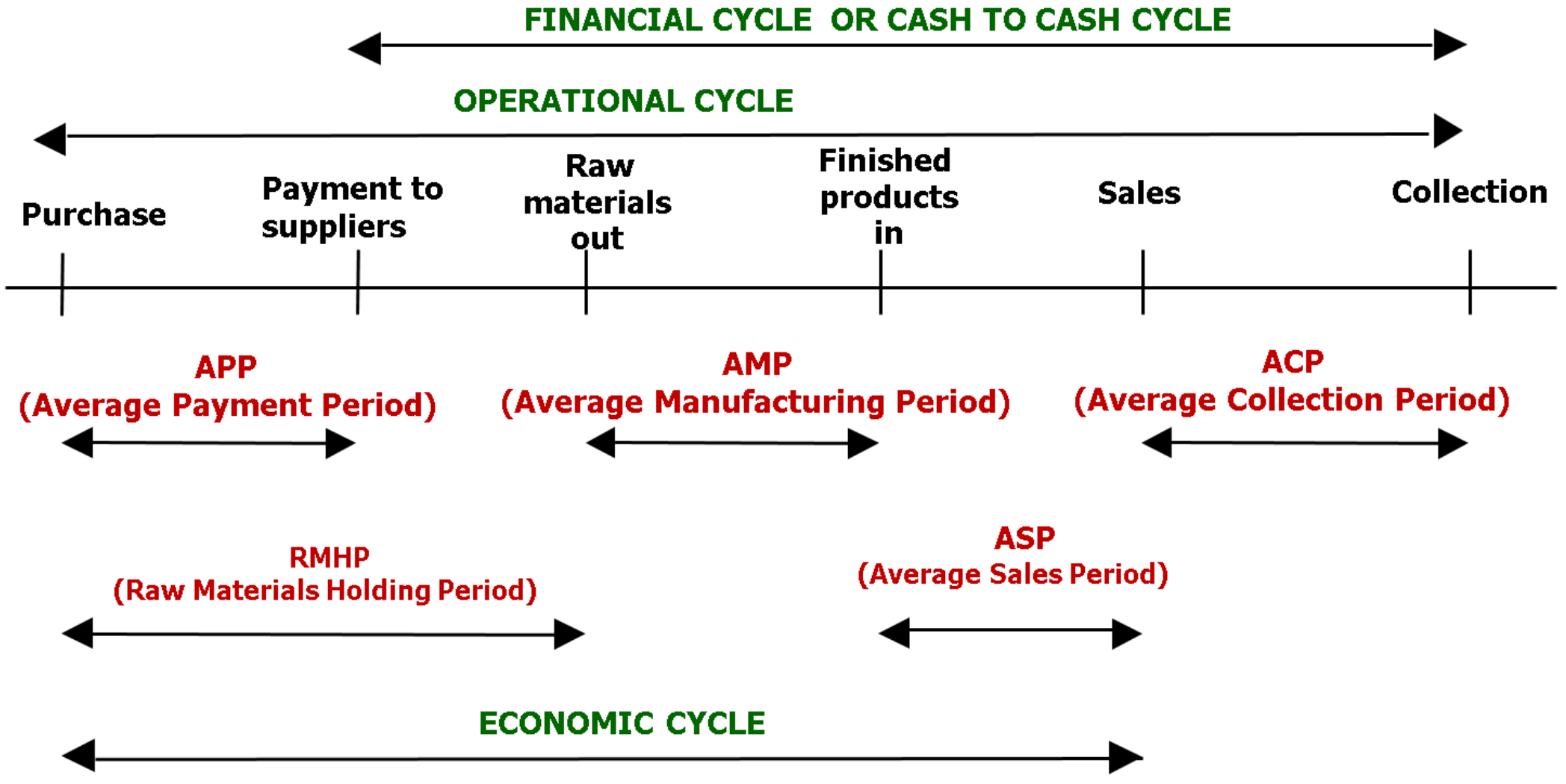
- Working out the percentage of each mass in the balance
- Easy to plot
- Balance sheet item / Total assets

ASSETS			EQUITY AND LIABILITIES		
	m.u	%		m.u.	%
Non-current assets	45	58	Equity	22	29
Inventory	18	23	Non-current liabilities	10	13
Receivables	8	11	Current liabilities	45	58
Cash	6	8			
TOTAL	77	100	TOTAL	77	100

Balance ratios

- Liquidity ratios: measure a company's ability to pay debt obligations and its margin of safety
- Debt and Structure ratios: company's leverage and company's long-term stability and structure. Debt/Assets
- Turnover ratios: sales divided by average asset amount. It shows the efficiency on assets utilization

Operation cycles



Liquidity ratios

$$\text{Liquidity Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Average Collection Period} = \frac{\text{Average of Trade Receivabl}}{Sales}$$

$$\text{Average Payment Period} = \frac{\text{Average of Payables}}{Sales} \cdot 365$$

Debt and structure ratios

- Capital structure is how a company funds its overall operations and growth
- Debt consists of borrowed money that is due back to the lender, commonly with interest expense
- Equity consists of ownership rights in the company, without the need to pay back any investment
- The debt-to-equity (D/E) ratio is useful in determining the riskiness of a company's borrowing practices

$$\text{Debt Ratio} = \frac{Liabilities}{Equity + Liabilities}$$

$$\text{Solvency Ratio} = \frac{Assets}{Liabilities}$$

$$\text{Debt to Equity Ratio} = \frac{Liabilities}{Equity}$$

Structure

1. Introduction
2. Analysis techniques
3. Balance sheet analysis
4. Income statement analysis
5. Return analysis

4. Income statement analysis

- Vertical and horizontal
- Intracompany and intercompany
- Main components (relative or absolute)
- Margins
- Trends (horizontal: same figure across two or more time frames)

Structure

1. Introduction
2. Analysis techniques
3. Balance sheet analysis
4. Income statement analysis
5. Return analysis

5. Return analysis

- Components from the balance sheet and income statement
- Relative measure
- Return on Assets ROA
  - Assets Turnover
  - Sales margin
- Return on Equity ROE
  - Leverage

Return On Assets

$$ROA = \frac{EBIT}{Assets} = \frac{EBIT}{Sales} \cdot \frac{Sales}{Assets} = \text{Sales Margin} \cdot \text{Asset turnover}$$

The return sources are:

- The margin obtained for every Euro in sales
- The Sales for every Euro invested

To increase returns companys:

- increase margin
- sell more

Also ROA = Net income / Assets

Return On Equity

- Company's net income / Shareholder's equity
- Profits / Equity
- Gauge of corporation's profitability
- The higher the ROE the better a company is converting equity into profits
- Usually expressed as a percentage

$$\text{ROE} = \frac{Sales}{Assets} \cdot \frac{EBIT}{Sales} \cdot \frac{Assets}{Equity} \cdot \frac{EBT}{EBIT} \cdot \frac{\text{Net income}}{EBT}$$

$$\text{ROE} = \text{Assets turnover} \cdot \text{Sales margin} \cdot \text{Financial Leverage} \cdot \text{Tax effect}$$