

Basics for the financial analysis

Lecture for Corporate Finance



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SCHOOL OF BUSINESS
ADMINISTRATION IN KARVINA

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Content of the presentation



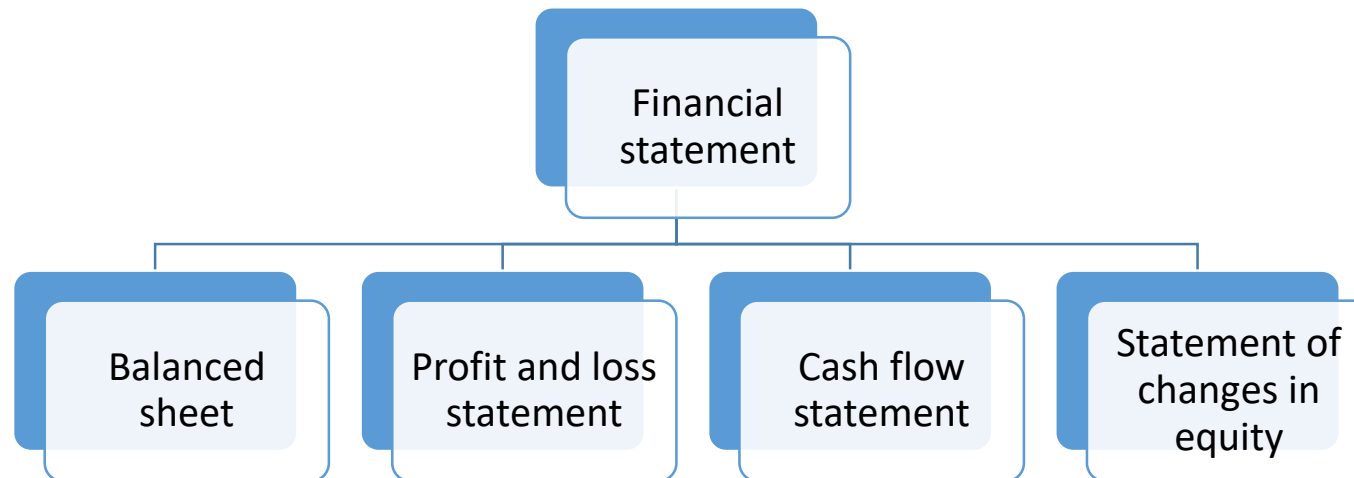
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Introduction



Financial Statements represent a formal record of the financial activities of an entity. These are written reports that quantify the financial strength, performance and liquidity of a company. Financial Statements reflect the financial effects of business transactions and events on the entity.



The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions.

Balance Sheet

Statement of Financial Position, also known as the Balance Sheet, presents the financial position of an entity at a given date.

It is comprised of the following three elements:

- **Assets:** Something a business owns or controls.
- **Liabilities:** Something a business owes to someone.
- **Equity:** What the business owes to its owners.

Information resulting from the balance sheet

About the property situation

About financial sources

About the financial situation



Balance Sheet – ASSETS



An asset is something that an entity owns or controls in order to derive economic benefits from its use.

Assets must be classified in the balance sheet as current or non-current depending on the duration over which the reporting entity expects to derive economic benefit from its use.

Assets are also classified in the statement of financial position on the basis of their nature:

- *Tangible & intangible*: Non-current assets with physical substance are classified as property, plant and equipment whereas assets without any physical substance are classified as intangible assets. Goodwill is a type of an intangible asset.
- *Inventories balance* includes goods that are held for sale in the ordinary course of the business. Inventories may include raw materials, finished goods and works in progress. Trade receivables include the amounts that are recoverable from customers upon credit sales.
- *Trade receivables* are presented in the statement of financial position after the deduction of allowance for bad debts.
- *Cash and cash equivalents* include cash in hand along with any short term investments that are readily convertible into known amounts of cash.

Balance Sheet – LIABILITIES



The company's financial structure is the corporate capital structure from which the company's assets are financed. It is captured in balance sheet liabilities. **Liabilities** include:

- *equity* - equity, capital funds, profits/loss, past performance and current period economic results,
- *debt capital* - reserves, long-term and short-term liabilities and bank loans and debt
- *other liabilities* - in which accruals and deferred income, exchange rate differences, passive

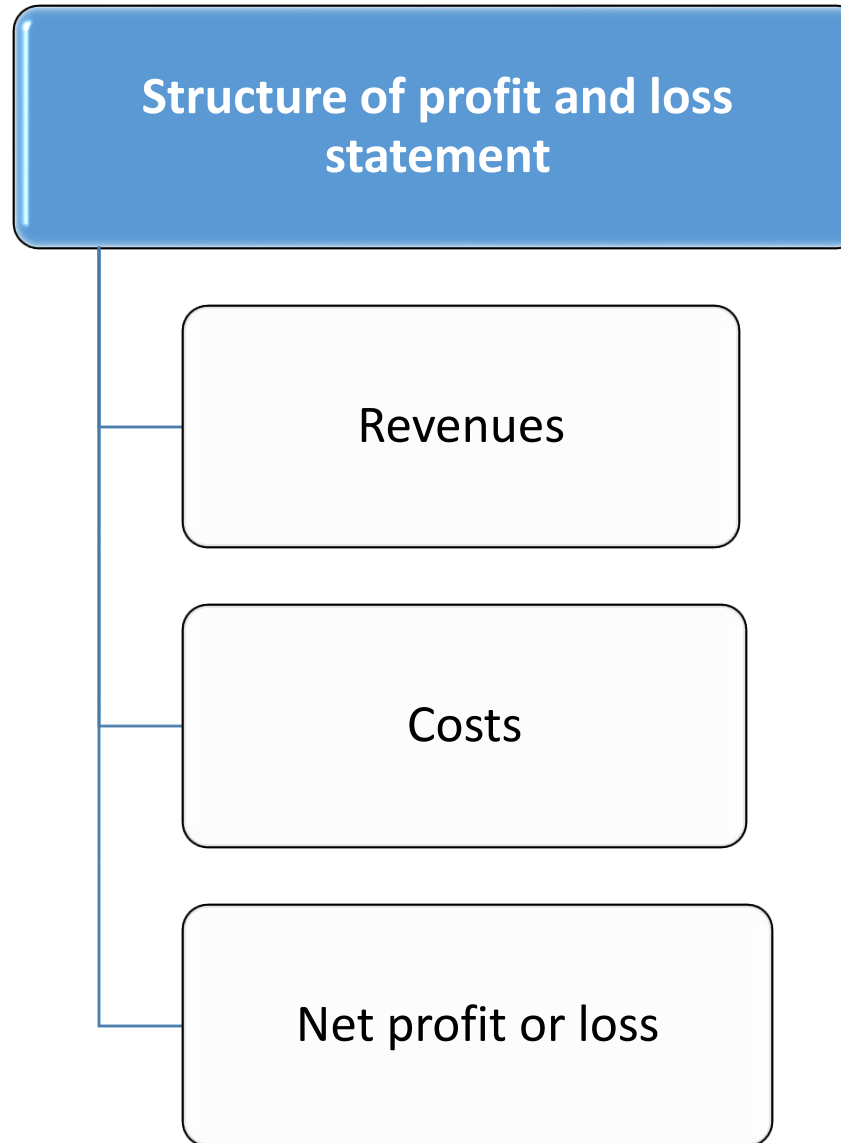
The financial structure shows the structure of the increase in corporate capital from which the increase in assets is funded.

In addition to the term financial structure, there is also the concept of a capital structure - it captures the structure of corporate capital, from which fixed assets and a permanent part of the current assets are financed. It is therefore a structure of long-term capital. Within the financial structure, it is necessary to analyze especially the relationship between own and debt capital.

For an **optimal financial structure**, it considers a capital distribution that is linked to the minimization of all the costs of its acquisition and is in line with the expected revenue and profits and property structure of the enterprise.

Profit & Loss statement

- Income Statement, also known as the *Profit and Loss Statement*, reports the company's financial performance in terms of net profit or loss over a specified period.
- The **income statement** is one of the major financial statements used by accountants and business owners.
- The profit and loss statement is important because it shows the profitability of a company during the time interval specified in its heading.



Profit & Loss statement – REVENUES



Revenues from primary activities are often referred to as operating revenues. The primary activities of a retailer are purchasing merchandise and selling the merchandise. The primary activities of a manufacturer are producing the products and selling them. For retailers, manufacturers, wholesalers, and distributors the revenues resulting from their primary activities are referred to as sales revenues or sales. The primary activities of a company that provides services involve acquiring expertise and selling that expertise to clients.

It's critical that you don't confuse revenues with receipts. Under the accrual basis of accounting, service revenues and sales revenues are shown at the top of the income statement in the period they are earned or delivered, not in the period when the cash is collected. Put simply, **revenues** occur when money is earned, receipts occur when cash is received in form of **income**.

Revenues from secondary activities are often referred to as non-operating revenues. These are the amounts a business earns outside of purchasing and selling goods and services. For example, when a retail business earns interest on some of its idle cash, or earns rent from some vacant space, these revenues result from an activity outside of buying and selling merchandise. As a result the revenues are reported on the income statement separate from its primary activity of sales or service revenues.

Profit & Loss statement – COSTS (maybe Expenses)



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Costs involved in primary activities should be expenses that are incurred in order to earn normal operating revenues. Under the accrual basis of accounting sales commissions expense should appear on the income statement in the same period that the related sales are reported, regardless of when the commission is actually paid. In the same way, the cost of goods sold is matched with the related sales on the income statement, regardless of when the supplier of the merchandise is paid.

The income statements or profit and loss statements of merchandisers and manufacturers will use a separate line for the cost of goods sold. The other costs involved in their primary activities will either be grouped together as operating costs or subdivided into the categories "selling" and "administrative".

Costs from secondary activities should be referred to those non-operating expenses. For example, interest expense is a non-operating expense because it involves the finance function of the business, rather than the primary activities of buying/producing and selling.

Types of costs (expenses)



Fixed costs

- Costs independent of the quantity produced

Variable costs

- Costs dependent on the quantity produced

Indirect costs

- Costs that can not be assigned directly to a particular performance
- It is necessary to budget them in a certain way

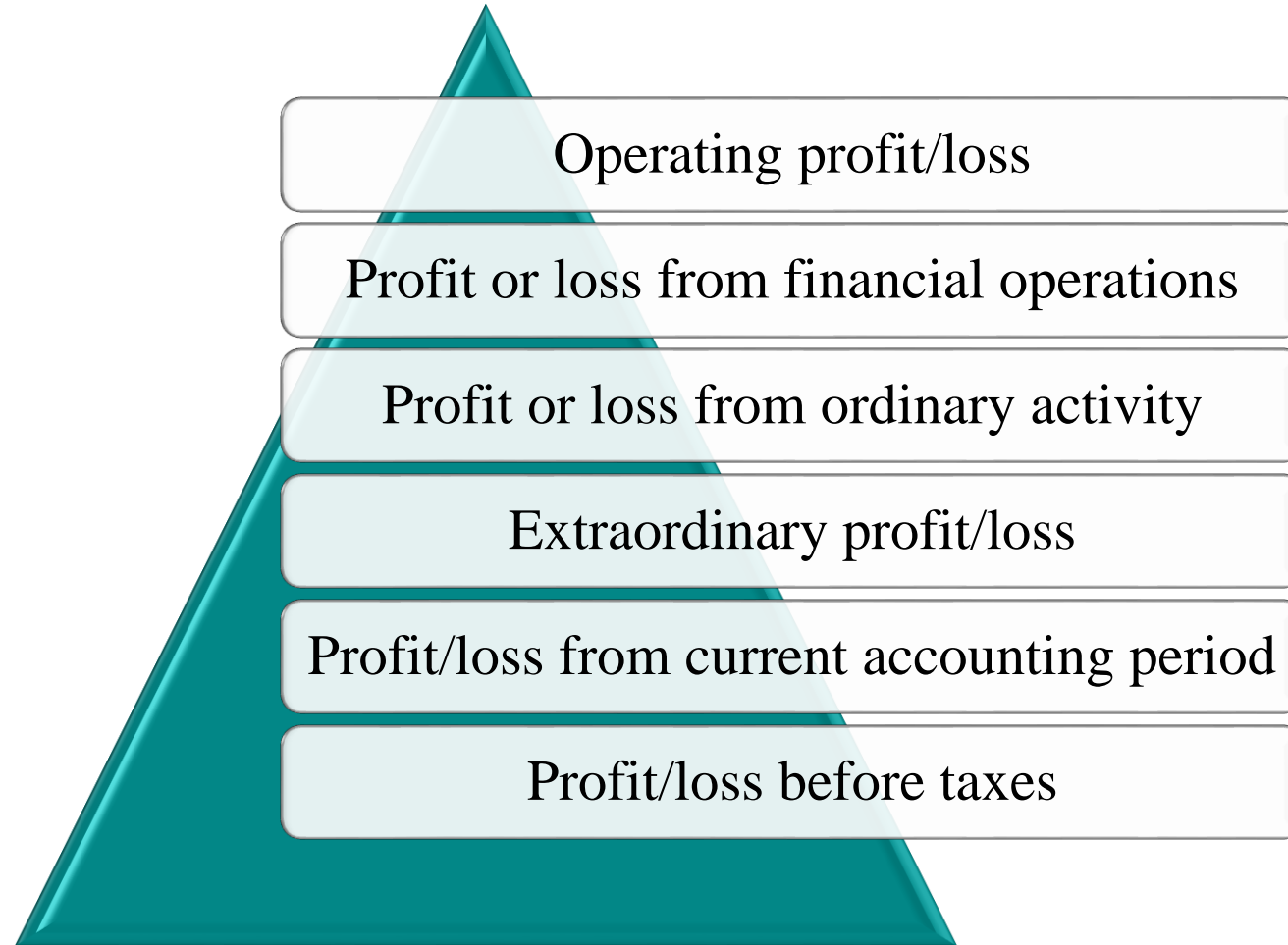
Marginal costs

- The cost of the last produced unit
- An increase in the total cost of producing one extra product

Opportunity costs

- The cost of sacrificing opportunities

Types of economic results





Pitfalls of financial statements

Focusing on historical
accounts

Impact of **inflation**

Comparability of data
over time

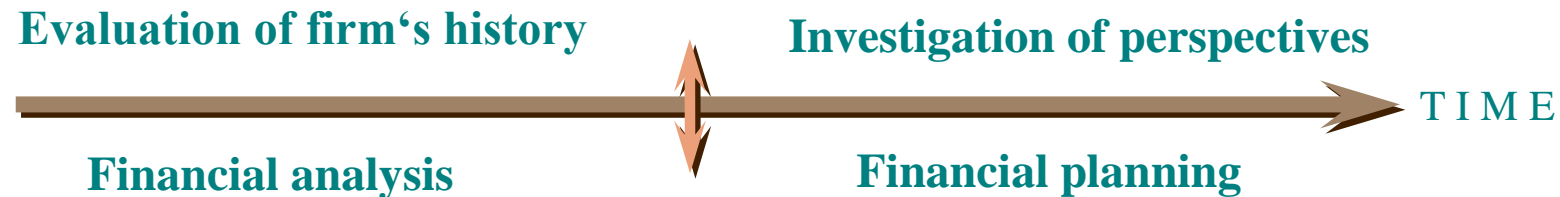
Comparability with other
companies

Influence of non-
monetary factors

Content of the presentation

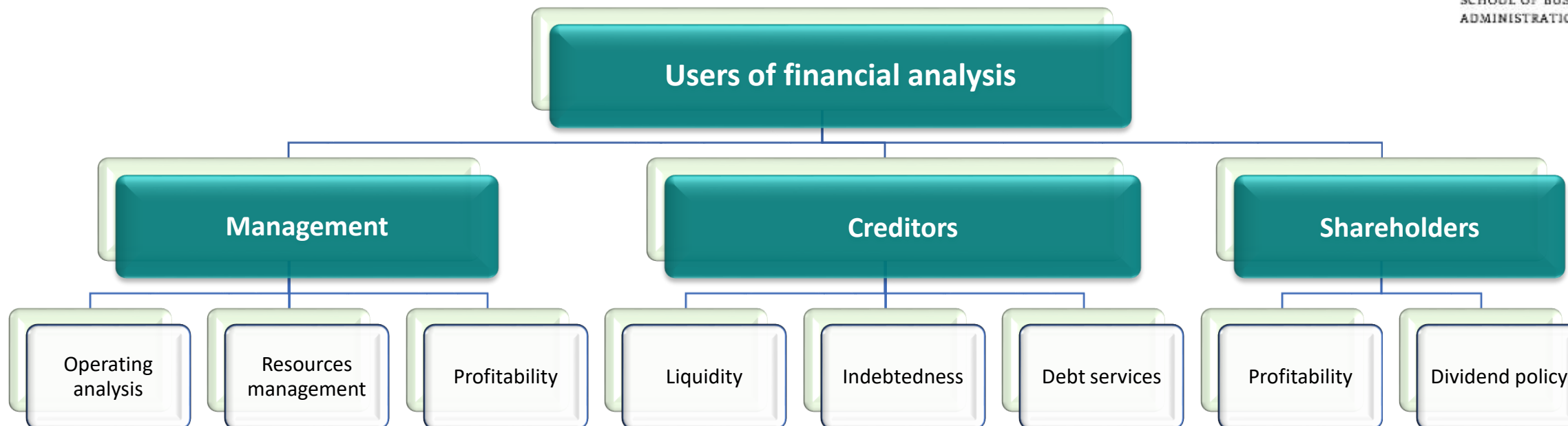


Financial analysis is a systematic analysis of the obtained data, which are contained mainly in the financial statements, their items, aggregated data and analyze relationships and trends. Financial analysis incorporate evaluation of corporate past, present and predicting the future financial conditions.



Objectively, it is to identify weaknesses in the company's financial health, which could in the future lead to problems and strengths related to possible future appreciation of the assets of the company.

Users of financial analysis and their interest

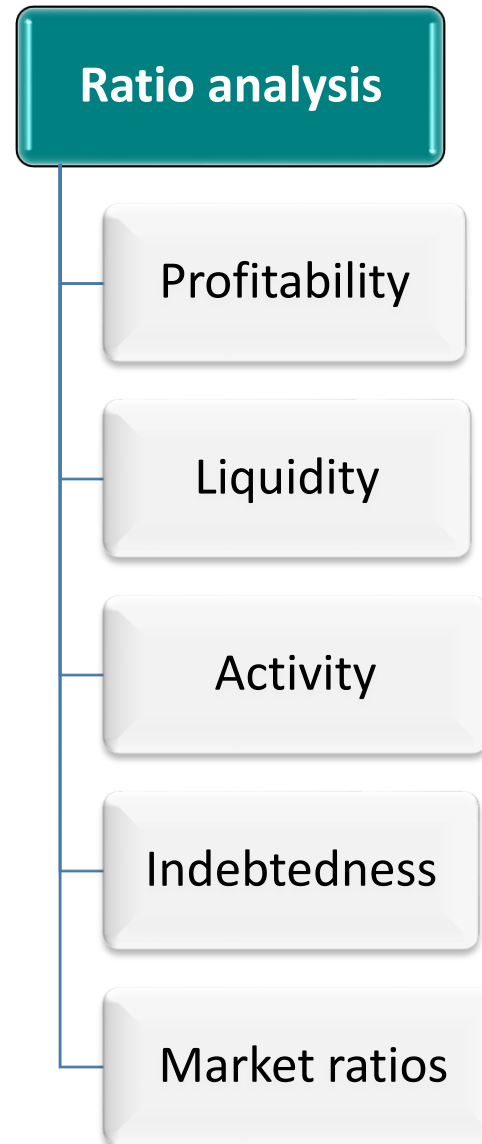


Ratio analysis

Ratios are widely used as a tool in the interpretation of financial statements. The ratios selected and the use of the resulting information depend on the needs of the person using the information.

In monitoring performance the expert analysts and fund managers will use ratios rather than absolute amounts.

Ratios show changes in relationships of figures which start to create a story and start to generate questions. They do not provide answers.



Ratio analysis – PROFITABILITY



Profitability is a measure of the ability of an enterprise to generate new resources, to make a profit using the capital invested. Profit ratios with other variables to assess success in achieving business goals. It is actually a form of expression of profit, which is the main criterion for the allocation of capital.

Basic questions related to profitability evaluation:

- *Does the company use its assets effectively?*
The return on assets (ROA) responds to this question and the higher its value, the more effective the total use of assets is.
- *Do the company achieve adequate margins?*
The answer is hidden in return on sales (ROS) and the higher the value, the stronger the company is in terms of gaining one crown of revenue.
- *What is the return on investment for shareholders?*
We find the answer in return on equity (ROE) and once again the growth of the indicator will mean greater efficiency for the shareholders.
- *Is there sufficient control over operating costs?*
Cost-effectiveness and high values indicate capital wastage and require a detailed cost analysis.
- *How did the company manage to implement dividend policy?*
We look for a response in earnings per share and the growth of this indicator signals a growth in earnings per share.

Basic PROFITABILITY ratios



- **Return on assets** - it reflects the overall efficiency of the company, its earnings capacity, and also the strength of production, regardless of the sources were business financed.

$$\text{ROA} = \text{profit} / \text{assets}$$

- **Return on equity** - an indicator by which investors can determine whether their capital is reproduced at the appropriate rate consistent with the investment risk.

$$\text{ROE} = \text{net profit} / \text{equity}$$

- **Return on sales** - it expresses the ability of an enterprise to achieve profit at a given revenue level, as it can produce an effect of \$ 1 in revenue.

$$\text{ROS} = \text{profit} / \text{revenues from sales}$$

- **Return on costs** - evaluate the return on the cost invested in the business.

$$\text{ROC} = \text{profit} / \text{costs}$$

Ratio analysis – LIQUIDITY (liquid or illiquid company?)



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LIQUIDITY reveals the ability of an enterprise to repay short-term liabilities as persistent, pay-ability is one of the basic conditions for successful business existence.

Liquidity management means specific solutions that allow the concentration and management of financial resources that are particularly suited to economically linked groups of companies.

The concept of liquidity is used in the following terms:

- *the liquidity of certain components of assets* - as an expression of the properties of the components of the assets as quickly and without much loss of value can be converted into cash
- *the liquidity of the company* - as an expression of the ability of the company to pay its payment obligations on time.

Liquidity ratios have a general form of share of what can be paid for what needs to be paid.

- **Cash ratio (L1)** - only the most liquid items in the balance sheet enter into cash ratio. Ability to satisfy current liabilities using only cash and cash equivalents. In addition, in the case of cash ratio, non-compliance with the prescribed values does not necessarily mean financial problems for the company at all costs, because even in corporate conditions there is relatively frequent use of spreadsheets, overdrafts or cash pooling, which may not be apparent from the balance sheet data.

$$\text{Cash ratio (L1)} = \frac{\text{Cash} + \text{Short-term investments}}{\text{Current liabilities}}$$

Recommended value L1 ... from 0,2 to 1

- **Acid test (or quick test (L2))** - ability to satisfy current liabilities using the most liquid of current assets. The acid test takes a closer look at the liquid assets of the current ratio, omitting the stocks (inventories). For many companies this ratio is less than 1:1 because it is unlikely that all creditors will require payment at the same time.

$$\text{Acid test (L2)} = \frac{\text{Cash} + \text{Short-term investments} + \text{Receivables}}{\text{Current liabilities}}$$

Recommended value L2 ... from 1 to 1,5



Current ratio (L3) - The current ratio indicates the extent to which short-term assets are available to meet short-term liabilities. A current ratio of 2:1 is regarded, broadly speaking, as being a reasonable order of magnitude. As with other ratios, there is no ‘best’ answer for any particular company and it is the trend in this ratio which is more important.

$$\text{Current ratio (L3)} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Recommended value L3 ... from 1,5 to 2

- **Net working capital** - is current assets section, which is financed by long-term financial resources and the company it may freely dispose of the implementation of their plans. The amount of net working capital has a significant impact on the company's solvency. NWC required amount depends largely on the length of the turnover cycle of money, but also to competition, market stability, fiscal and customs regulations etc.

Net working capital = Current ratio – current liabilities

The ACTIVITY ratios (in/solvent vs. i/liquid)



- **Inventory holding period** - tells us how long the current assets are tied in the form of inventory. In general, a shorter inventory turnover time means the better situation. However, it is necessary to remember the optimum stock size.

$$\text{Inventory holding period} = \frac{\text{Average inventories (stock) held}}{\text{Cost of sales}} \times 365$$

- **Customer collection period** measures the average period of credit allowed to credit customers. An increase in this measure would indicate that a company is building up cash flow problems, although an attempt to decrease the period of credit allowed might deter customers and cause them to seek a competitor who gives a longer period of credit.

$$\text{Customer collection period} = \frac{\text{Trade receivables (trade debtors)}}{\text{Credit sales (revenue)}} \times 365$$

- **The suppliers' (trade creditors') payment period** measures the average period of credit taken from suppliers of goods and services. An increase in this measure could indicate that the supplier has allowed a longer period to pay.

$$\text{Suppliers payment period} = \frac{\text{Trade payables (trade creditors)}}{\text{Credit sales (revenue)}} \times 365$$

Ratio analysis – INDEBTEDNESS



- **Debt ratio** - In general, the higher the value of this indicator, the higher the risk of creditors. However, this indicator needs to be assessed in relation to the overall return of the company and also to the structure of the debt capital. The high value of this indicator may be favorable from the perspective of holders of ordinary shares if the enterprise is able to achieve a higher percentage of return than the percentage of interest paid from debt capital. Creditors generally prefer the low values of this indicator.

$$\text{Debt ratio} = \frac{\text{Debt}}{\text{Total assets}}$$

- **Equity ratio** - expresses the proportion in which the company's assets are funded by shareholders' money. It is considered to be one of the most important ratios of indebtedness for assessing the overall financial situation, but again its relevance to the profitability indicators is important.

$$\text{Equity ratio} = \frac{\text{Equity}}{\text{Total assets}}$$

- **Debt/equity ratio** It is the ratio of debt capital to the company's equity. A value above 1 means higher use of debt capital, a value lower than 1 higher utilization of equity.

$$\text{Debt/equity ratio} = \frac{\text{Debt}}{\text{Equity}}$$



Comments are conducted in 4 steps:

1. Comment change - growth or decline Items
2. Evaluation of the change - positive or negative in terms of corporate functioning
3. Justification of the assessment - answer to the question WHY?
4. Recommendations for further analysis or further functioning of the company

Presentation of results:

- Charts are important, but not dominant
- The graph is intended to facilitate the orientation of the problem
- Proper use of the chart type:
 - Horizontal Analysis and Ratio Analysis - Column or Linear
 - Vertical analysis - column stacked or pie



- Financial conditions rarely give answers but help to ask the right questions.
- There is no international standard for financial ratios. A little thinking and common sense have more value than blank formulas.
- Choose. Different ratios often say the same.
- To estimate the company's financial position, you need a reference point. It is useful to compare the company's financial ratios with these ratios in previous years and the relationships of other companies in the same field.

Check questions



1. What is liquidity and why it is important for the company to monitor it.
2. What kinds of liquidity are we differentiating within the ratios?
3. Explain the terms solvency and liquidity.
4. What factors can influence the company when deciding on the way of financing (e.g. when deciding between own and foreign sources of funding)?
5. Which activity indicators do you consider the most important in terms of business operation and why?





Thank you for
your attention!

