# Course title: Selected economic and financial risks

**Topic 5: Capital risks** 

# T5 processors:

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**Aim:** The aim of the topic is to acquaint students with the management of selected financial and economic risks in the company

# Tasks for work:

Answer the following questions

1. What forms of capital do we know from the point of view of various economic theories?

2. What are the production factors of a company according to Wöhe's theory?

- 3. What is included in tangible fixed assets ?
- 4. How can we characterize fixed and variable costs in relation to the company's activities?
- 5. What is a species classification of costs and what is it based on?
- 6. How does the turning point relate to profit and loss?
- 7. What are the main characteristics of Baumol's model?
- 8. What are the main characteristics of Orr's and Miller's model?

# **Content:**

- Capital
- Introduction to business theory
- Costs and their management
- Production factors and their classification
- Combination of production factors
- Consumption of production factors

• The concept of costs in accounting

oType classification of costs

oPurposeful classification of costs

• Calculation breakdown of costs

°Costs depending on changes in production volume

°Costs according to functions can be divided into: acquisition, storage,

production, administration, sales

°Costs by origin of consumed inputs

- H conomic result and Monitoring
- Business result revenues and profit / loss
  - $\circ$  Profit distribution
  - oLoss settlement
- Breakeven point analysis
- The essence of financial analysis
  - oProfitability indicators
  - oLiquidity ratios
  - $\circ$  Debt ratios
  - Activity indicators
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- Cash management model
  - And Baumol's model
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  - oIII Cash pooling

#### Capital

Capital in economics can be understood in various forms, such as [2]:

• capital goods (physical capital), which are goods that are not consumed in production (or are consumed gradually - they wear out);

- financial capital, ie money and so-called financial assets;
- human capital is perceived as a store of knowledge and skills embodied in the labor force of the economy.

A common feature of these forms of capital is that in the future they bring some additional income or benefit to the economic entity (individual, firm or state) that has expended certain resources to obtain it. [3]

The decision-making of an entity entering the capital market is significantly affected by the movement of the price level. Each entity entering the capital market will have to address at least two issues[4] :

- how much of the income it uses to buy goods for its consumption, ie deciding on consumption over time;
- how much money they spend to buy capital, ie, investing.

In consumer decision-making, an entity may spend the funds obtained on the purchase of goods that it normally consumes, so-called current consumption. Savings are the part of the income that I do not use to buy goods. The consumer 's income therefore consists of[5] :

• consumer spending;

• savings - if economic operators temporarily reduce their consumption, they expect to use the savings realized in the future and thus increase their future consumption (temporarily or permanently).

Consumer decisions therefore consist of determining how much money is spent on consumption and how much on savings, with these decisions being influenced, for example, by interest rates and inflation. [6]

#### **INTRODUCTION TO BUSINESS THEORY**

The current philosophy respects, the economic sciences are completely distinct, today has been completely equivalent sciences, natural and social. Business economics as a part of economic sciences is an independent scientific field, which has its exclusive and irreplaceable place in today's system of sciences; we rank it among the theoretical and practical sciences. The fundamental problem of economic science is solving a permanent contradiction between unlimited needs and limited resources Business economics = a scientific discipline focused on one of the subjects of a market economy - enterprise. The company operates in a certain environment, satisfies certain needs and makes a profit. Business economics = a scientific discipline focused on one of the subjects of a market economy - enterprise. Business has 4 main components: the basic motive of the effort to achieve a profit; the profit is achieved by satisfying the needs of customers; the entrepreneur satisfies the needs of customers with his products and services through the market  $\rightarrow$  risk; at the beginning, the entrepreneur invests capital in the company [7]

# **Types of markets:**

- Perfect competition
- Monopoly
- Oligopoly
- Monopolistic competition

# **COSTS AND THEIR MANAGEMENT** [8]

# **Production factors and their classification** [9]

- VF from the national economic theory of work, land, capital
- VF from a business point of view

economic theory - to realize production the need to combine three factors of production (land, labor and capital), the original factors of production - land and labor, the derived factor - capital (in this sense, economic theory means capital not physical capital, ie machinery tools, buildings, material apos .

Business economics (according to Wöhe): business economics modified and more specified in the HF division, business production factors according to Wohe are:

- 1. dispositive work (business management)
- 2. executive work
- 3. tangible fixed assets (land, buildings, machines, tools)
- 4. materials (raw materials, auxiliary and operating substances)

# Even a dispositive factor [10]

Dispositional work (management), executive work (human work, wage, salary, other personnel costs, gross wage (sum of basic wage, ie task, time, premium; overtime, ie night

allowances, holidays,... bonuses for work in difficult conditions) and ancillary wage costs here wages fall into unit costs or overhead costs, associated with the concept of labor productivity (the amount of output per employee

Management provides a number of activities from planning, creating an organization, division of tasks, routine decision-making, coordination to control the fulfillment of objectives and sub-tasks, including supervision (this includes controlling and internal audit)

#### **II** elementary production factors [11]

#### A work

human energy and mental abilities expended by man's labor force in the production of goods, the ability of the labor force to perform activities depends on physical condition, talent, age, natural talents, level of education and vocational training, practical experience. The price of labor is wages (for management we usually talk about wages and other personnel or personnel costs. Wage costs are formed by gross wages, ie the sum of basic wages) time, task, premium) + overtime wages (sometimes part of secondary wage costs) and secondary wage costs. From the point of view of calculations = calculation of costs per unit of calculation, ie from the point of view of whether the relevant cost entering the relevant unit of output or not is the cost of labor costs unit. The efficiency of human labor is measurable as labor productivity, ie the amount of power output per individual

# B tangible fixed assets (land, buildings, etc.)

In DHM, which was previously referred to as Capital Assets, we include a set of FIXED ASSETS that are not consumed in one production cycle (such as in the case of materials) but have been suffering for the company for a long time. At DHM, we distinguish between technological and economic life.

**Economic** - given the ability to ensure the necessary economy, ie the ability to produce goods at competitive costs. Over time, these funds lose their useful and market value, not only through use but also through technical progress. DEPRECIATION is an expression of the gradual decrease in the value of these funds. They are a cost and are part of the price of the products produced by these means. By selling the products produced, some of the letters are returned to the company and thus have not only a cost function, but also a storage function.

**Technological** - given the ability to fulfill a technical (production) purpose. Tax depreciation and depreciation methods are stipulated by law, other costs associated with DIM associated calculation interest on equity, insurance, property taxes, etc. production tangible

assets associated with the concept of production capacity - potential capacity of the production unit = workshop machine, line enterprise, etc. to produce goods.

C materials (raw materials, auxiliary and operating substances, etc.)

Materials - working items from which the final product is created, raw materials (natural substances in the original state-iron ore), basic material (partially processed and forms the basic substance of the product (sheets, steel pipes), auxiliary materials (help to create, but not basic metabolism of substances = color adhesive) and operating materials, packaging, the definition of packaging and packaging functions, the concept of working media (do not enter into the product, but help create it (lubricants, fuels) with materials associated principle of economy (max best results with the least lowest cost)

Opinions and divisions differ, Thomson and Formby state as HF or otherwise production inputs (soil, raw materials - materials, technological knowledge - know how , work, capital, entrepreneurial = managerial skills. Economist Peter Drucker considers the decisive input factor and production factor of today knowledge , as the main source of product value creation, subsequently considers productivity and innovation, which are the application of working knowledge.

## Combination of production factors[12]

Who provides VF connections and combinations? The dispositive factor of work is management, which effectively (what is efficiency) connects and combines HF into an effectively functioning unit. Important proportionality of the use of HF, which is given by natural and technical factors, the price of HF and the costs associated with their operation in production. The purpose of connecting and combining production factors into an effectively functioning unit is the task of the dispositive factor, the proportionality of production factors - given by natural and technical factors, the price of individual production factors and the costs associated with their operation in production factors into an effectively function in production factors.

- differentiation of enterprises according to the predominant factor of production
  - investment (capital) demanding
  - labor intensive
  - materially demanding

According to the predominant HF, we distinguish between production (companies) investment-intensive (capital = mining, high share of depreciation), labor-intensive (glass,

porcelain, optics, labor costs significant share), material-intensive (food, chemical, material consumption costs dominate) or energy demanding (high share of energy costs) = an aspect important for management and its cost orientation to ensure efficiency, because the predominant are resources for cost reduction)

#### Consumption of production factors [13]

When we have resources, we consume them = cost, What is cost = Monetary consumption of HF, ie purposefully and purposefully spent resources. **Expenses** (costs) can be defined as *targeted and effective* expenditure of resources and labor. **Costs** - monetary consumption of HF purposefully spent on revenue generation (the concept of costs in financial accounting).

It is important to determine their optimal structure and amount before the start of the activity, because during its implementation, the consumption of resources is irreversible. Financial concept of costs / Economic concept of costs - accountants calculate only the actual amount of money spent (spent) on HF used to produce a given product of a given quantity. When a producer uses its capital for this production, the accountant does not include interest costs because they have not been paid.

The economist, on the other hand, takes into account the sacrifice made by the producer by using equity and includes in the economic concept of costs interest equal to the amount of interest that the producer would have received if he had lent his capital. (Dictionary of Business 1989) Economic costs are used to calculate economic profit.

The company's costs are always related to the company's revenues, a certain period, which ensures the so-called accrual of costs and revenues. In this context, we have the concepts of costs of the next period (expenditures on products that will be produced in the next period) and expenditures of the next period (products produced in the current but will incur costs only in the following period).

The importance of costs - one of the key categories, affects pricing. Correct determination of the amount of costs is a prerequisite for effective business.

Dumping - the price of the product is lower than the costs, where the so-called "social" dumping - the percentage of the included labor costs is significantly lower than in other countries. so-called "ecological" dumping - raw material costs are often disproportionately low, often not all ecological costs are taken into account (elimination of ecological accidents, preventive measures to protect the environment, ...)

#### The concept of costs in accounting [14]

Associated with the concept of accrual of costs and revenues

- prepaid expenses expenses are incurred for products that will be produced in prepaid periods
- prepaid expenses products made in the current period, but also incur costs in future periods

F inancial accounting - i nformation for the whole enterprise are designed primarily for external users : tax org., The bank is regulated by the Act on accounting , there is also the harmonization of financial accounting with the EU and the US. Accounting records assets , own assets , debts , income , costs and economic result Outputs : Balance sheet , statement of profit and loss . N ákladové accounts - may not be double , connected with calculations , aimed either at the Center , performances or processes - ABC. It can grow into managerial accounting . M anažerské accounting - for the management of the company and its resorts , uses data other accounts , including statistics , etc . Sometimes it grows into controlling.

# **Type classification of costs = Z / Z statement, income statements** [15]

The income statement combines a double classification of costs - by activity - operating, financial and extraordinary costs and by cost types (material consumption, personnel costs, depreciation of tangible and intangible fixed assets, financial costs)

- is based on production factors
- Areas of activity: operational, financial, extraordinary
- basic cost types : consumption of materials, energy and external services , personnel costs , depreciation of tangible and intangible fixed assets , financial costs
- is recorded in financial accounting
- calculation cost types for managerial purposes, as the above items are items of financial accounting, but for managerial purposes (for compiling calculations, for evaluating products for decision-making), other cost types can be used - such as business wages, interest on equity and other so-called opportunity costs and these costs are calculation cost types.

# **Purposeful classification of costs = by department or performance** [16]

It is a classification of costs according to the purpose of their use according to the performance provided by them.

Internal departments = centers

Centers = locally defined parts of the enterprise (cost centers)

- Costs by departments and outputs
  - Monitoring of costs by centers and from this point of view I am dividing the purposeful concept of costs for unit costs and overhead costs.
  - Can be directly added to a specific ns . = unit (direct) costs = unit costs of the center

= easily or economically detectable, = calculated directly on the calculation unit.

 Cannot be added directly, but must be divided according to a certain key = overhead (indirect) costs (material, administrative, sales) = are determined using the selected schedule base, must be calculated on the calculation unit using the calculation schedule base, = overhead costs of the center ( resort)

## cost breakdown = direct and indirect[17]

#### **Costs depending on changes in production volume = fixed and variable**[18]

Variable costs vary with changes in production volume. Eg. Direct labor, direct materials, varies proportionally nadproporciálně or disproportionately

Fixed costs remain at the same level, they will change by a jump when changing production capacity

the relationship between cost and production volume can be captured by cost functions

$$N = F + (bxq)$$

N - total costs in CZKq - volume of production in kindb - variable costs per unit

F - fixed costs

average (unit) costs

#### Nj = F/q + b

Cost degression - with increasing production volume unit costs decrease Degression costs = unit costs decrease as they break down into an ever-increasing volume of products (fixed cost degression) Determining the variability and fixability of costs. - that is, how to determine the course of the cost function

omethod of logical classification of costs - sorting of total costs into fixed and variable part according to their specific behavior

 $\circ regression$  and correlation analysis - the need for a number of input data

 two-period method - consists in solving two linear functions compiled from data of two periods

Drawing VN (disproportionately high, under-proportional, proportional) and FN (expansion of production in the context of unchanging fixed costs to reduce unit cost = form efficiency, rationalization of production decreasing MV = austerity economy Form)

Variable and fixed costs The criterion of difference is the dependence on changes in the volume of production . Part of the total costs is changing , we call it variable costs - we distinguish according to the intensity of the change :

- proportional costs
- disproportionate costs
- disproportionate costs

To variable include : the so-called . Direct - individuals' cDNA , part of overhead costs

Costs according to functions can be divided into: acquisition, storage, production, administration, sales

# Costs by origin of consumed inputs

Consumed inputs can come from the surroundings of the company (consumed material), we refer to these as primary costs, or external costs. Secondary or internal costs are costs arising from the consumption of in-house services (production of tools for own use), these costs are of a complex nature. This breakdown is essential for the settlement of costs between centers and is based on cost accounting and management accounting.

Other cost categories [21]

incremental costs - caused by the increase in the volume of production in a special form
of incremental are marginal, but in the economy, incremental costs are taken as those
that change with the decision of managers.

• marginal costs - marginal cost increase in costs caused by an increase in production, form of incremental - increase caused by an increase in production by one unit

The maximum profit can be achieved with the volume of production, where marginal sales equal marginal costs.

• sunk costs - costs independent of the decision

Sunk costs (sunk cost) does not use part FIXED costs, which is not affected by managerial decisions. (fixed - buildings, technology - due to non - use - non - use, fixed costs - holidays, weekends - have a certain value, I can rent buildings to someone else)

- Relevant costs / irrelevant
- dependent / independent costs
- opportunistic (alternative) costs the value that must be sacrificed when resources are not used for the best possible alternative
- explicit / implicit

Explicit costs are a form of cash expenditures, are documented primary documents (invoices, UCE. Papers, ...) Implicit costs are not a form of cash expenditures, difficult to quantify, to measure the use Opportunity cost, for example. It walked wage businesses, interest on the deposit, etc.

• planned, standard, actual cost

## **ECONOMIC RESULT AND ITS MONITORING**

Economic and accounting profit

#### **Business result - revenues and profit / loss**[22]

products or services - the result of the company's activity

company revenues - monetary valuation of a set of realized products and services for a certain period

sales - the main revenues of the manufacturing company for the sale of products and services

 $\mathbf{T} = \boldsymbol{\Sigma} \mathbf{p} \mathbf{c} \cdot \mathbf{q}$ 

T - sales

q - volume of product sales

pc - prices of individual products

The supply and demand function is the relationship between supply, demand and prices. The economic result is the difference between the revenues and costs of the company. Profit is achieved by satisfying the needs of customers: the needs of customers are satisfied by the entrepreneur with his products and services through the market - risk; at the beginning, the entrepreneur invests capital in the company. Profit is the basic motive of business is the main criterion for decision making; is a source of self-financing. Profit is achieved when revenues exceed costs.

In general:

PROFIT = (revenues - costs) - taxation

#### LOSS = revenues lower than costs

Accounting profit (from VZZ and accounting) x tax profit (calculated by adjusting the accounting profit by the part resulting from tax laws) x economic profit (deduction of all costs, serves as a basis for business decisions and is part of the EVA indicator). Operating profit - the difference between operating income and operating costs.

$$\label{eq:constraint} \begin{split} Z &= T - N \\ T &= pq \qquad N = F + nq \\ Z &= pq - (F + nq ) \end{split}$$

#### **Profit distribution**[24]

Profit distribution items can be divided into four groups:

1) mandatory allocation to the reserve fund (statutory)

2) a share in the silent partner's profit from participation in the business paid on the basis of a silent partnership agreement. The final conclusion on behalf of the company requires the approval of the General Meeting as profit distribution within its scope and the conclusion of a community committed to the use of profit for the payment of profit sharing silent partner.

3) items specified in the company's articles of association, in particular preferential dividends, allocations to statutory funds, statutory allocation to the statutory reserve fund, employee shares in profit. The company may include other items in the articles of association, such as an increase in share capital from its own resources, etc.

4) other uses of profits, including:

- compensation for losses from previous years,
- payment of ordinary dividends,
- payment of royalties,
- other allocations to the statutory reserve fund,
- other allocations to statutory funds,
- allocations to other profit funds,
- increase of registered capital from the company 's own resources.

The **retained earnings of previous years** are increased by the amount of profit that was not used for distribution. Again, only the General Meeting of Shareholders may decide on its use within the profit distribution process.

# Loss settlement [25]

Settlement of the loss may take place:

- 1) payment from retained earnings of previous years,
- 2) payment from the reserve fund,
- 3) payment from the statutory fund from profit,
- 4) payment from the other profit fund,
- 5) transfer from capital funds,
- 6) by reducing the registered capital of the company,
- 7) by a loss regulation to the shareholders (only to shareholders who voluntarily agree to it),
- 8.) by increasing the unpaid loss from previous years.

# Statutory and other funds from profit [26]

Statutory funds are funds that are increased by the allocation from profit at least to the extent specified in the articles of association. The articles of association also determine the purposes for which the funds in these funds may be used. As a rule, it is, for example, a social fund intended for expenses connected with the care of employees, or a remuneration fund used for the payment of employees' share of profits. The company may also create other funds from profit, which differ from the statutory ones only in that a simple resolution of the General Meeting is sufficient to approve allocations to these funds and their use is decided by the company's management independently.

# Royalties and employee shares in profit [27]

**Royalties** = represent the shares of members of the Board of Directors and members of the Supervisory Board in the company's profit. The General Meeting may decide on the payment of these shares regardless of whether or not the payment of dividends will be approved. The maturity of royalties, unless otherwise provided by the Articles of Association or the decision of the General Meeting, is three months from the date of the decision of the General Meeting on the distribution of profits. The company may decide to pay profit shares to its employees.

# Increase of registered capital from the company 's own resources [28]

An increase in the share capital from the company 's own resources means a so-called share dividend consisting in the payment of a share in the profit in the form of new ordinary shares of the company.

Technically, we can increase the share capital from the company 's own resources (payment of the share dividend):

1) free distribution of shares among shareholders according to the ratio of the nominal values of their shares.

2) by increasing the nominal value of existing shares.

3) by repaying part of the issue price (so-called combined increase in share capital). The company can opt for this variant if:

a) the shares are publicly traded and their price on the public market at the time of the General Meeting is below the nominal value

(b) in this way covers part of the nominal value of the employee shares which are not subject to redemption.

4) by issuing interim receipts for the ownership of a certain fraction of the share - once the shareholder has a sufficient number of these receipts, he can exchange them for the share.

All shares participate in the share capital increase from the company 's own resources according to their nominal values, including equity shares and shares owned by controlled entities.

# The procedure for calculating the mandatory allocation to the statutory reserve fund for a non-profit year can be divided into 6 steps:

1) we calculate the minimum balance of the reserve fund,

2) we calculate the amount remaining up to the minimum balance of the fund compared to the current situation,

3) we calculate the amount of the mandatory allocation to the statutory reserve fund for other than the first profit year, regardless of the amount of the minimum balance of the fund,

4) we set the amount of the minimum allocation to the statutory reserve fund,

5) we set a mandatory allocation to the statutory reserve fund,

6) we calculate the amount of the total mandatory allocation to the statutory reserve fund.

Breakeven point analysis, cost, volume and profit analysis turning point [29]

Use of cost functions by managers to make decisions:

- efficiency form of economy - by expanding production within fixed fixed costs, unit costs are reduced

- economy form of economy - rationalization of production reduces unit variable costs Breakeven point analysis (using the cost function to solve various managerial problems)

The function of the total costs CN is given by the sum of the total fixed costs and the total variable costs, ie unit variable costs multiplied by the number of units.

The turning point is graphically the intersection of the sales / revenue line and the cost line

$$q(BZ) = F / (jpc - jvn)$$

(p - b), where p ( jpc ) is the unit selling price and b ( jnv ) is the contribution to the payment of fixed costs and profit if the company is to make a profit, it must exceed the turning point

# Breakeven point with reasonable profit:

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q = FN (+ eventual profit) / (p - b)
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the calculation of the turning point can be solved for the following questions:

- how much I have to produce to make a profit,
- minimum selling price,
- max. variable costs per 1 piece,
- maximum fixed costs,
- utilization of production capacity,
- the effectiveness of rationalization measures.

## The essence of financial analysis and the work of a financial analyst

It represents the process of investigating and drawing conclusions from the financial results of a person's past or future periods, including identifying his or her strengths and weaknesses, testing individual financial parameters and verifying their true explanatory power. The main mission of financial analysis for the needs of the company's management is to create a system of warning signals about the existence or possible emergence of certain problems in a certain area, such as the cost or binding of current assets . [30]

# Work procedure of a financial analyst (internal × external analyst):[31]

1. determining the purpose of financial analysis and selecting the person under investigation, or persons

- 2. preparation of input data
- 3. basic investigation
- 4. specific investigation
- 5. determination of diagnosis and treatment process

The financial report of the financial analyst should include: a description of the diagnosis of the financial health of the analyzed company, determination of the strengths and weaknesses of management, a proposal for a treatment process to correct the identified deficiencies [32]

# **Profitability indicators** [33], [34]

Profitability ratios (English Profitability Ratios) are among the ratios, are referred to as indicators of return or profitability. This group of indicators measures profit against resources. The purpose of profitability indicators is to evaluate the success of achieving the goals of the organization, taking into account the invested funds. The indicators are based on the basic relationship:

Profitability = Profit / Invested capital .

In practice, the following indicators are most often used: [35]

- Return on assets (ROA Return on Assets )
- Return on capital employed (ROCE Return on Capital Employed )
- Return on Sales (ROS)
- Return on equity (ROE Return on Equity )

# Three basic types of profitability indicators: [36]

- 1) profitability, or rate of return
- 2) profitability, or profit rate
- 3) monetary profitability

DoPont's decomposition of financial indicators.

## **Liquidity ratios**[37]

# I. Indicators of liquidity (Liquidity Ratios)

What are Liquidity Ratios ?

Liquidity ratios determine a company's liquidity. It determines the degree of the company's ability to pay its liabilities.

The ratio between the company's due liabilities (liabilities) and the amount of liquid assets is called the company's liquidity. It determines the degree of the company's ability to pay its liabilities.

The company's liquidity is expressed by **liquidity ratios** based on the balance sheet and profit and loss statement ( **income statement** ):

- Current Liquidity (CR Current Ratio)
- Quick ratio (QAR Quit Asset Ratio)
- Immediate liquidity (CPR Cash Position Ratio)

The disadvantage of the three liquidity indicators is the fact that they are derived from balance sheet data always compiled on a certain date and are therefore static in nature. Therefore it is often used indicator derived from the flows, the cash flow published as the ratio of the cash flow from operating activities for the average state **short-term liabilities**. For a financially sound company, the optimal ratio is 40% and higher.

The liquidity of the company is a prerequisite for the financial stability (balance) of the company. If the company permanently illiquid company is in insolvency ( insolvency ). On the other hand, too high liquidity reduces the company's profitability (free money does not bring revenue). Revenues are mainly increased by new machines, technologies and new materials. The company's management must therefore strive for optimal liquidity and at the same time the highest possible profitability .

# Debt ratios [38]

Debt indicators ( Debt Ratios ) are among the ratios , they are referred to as indicators of longterm financial stability . This group of indicators measures how a company uses external resources for financing and how it is able to pay its liabilities. They are influenced by four basic factors: risk, taxes, type of assets and the degree of financial freedom of the company.

Indebtedness indicators can be divided into two groups:

- Balance sheet indicators are compiled from balance sheet items
  - $\circ$  Creditors' risk indicator ( Total Debt to Total Assets )
  - o The ratio of equity to total assets
  - o Leverage
  - o The ratio of capital lenders and shareholders' equity ( Debt to Equity Ratio)
- Indicators of the degree of financial coverage are compiled from the items of the profit and loss statement
  - Times Interest Earned Ratio (TIE)
  - o Debt coverage ratio

# Activity indicators [39]

Activity indicators ( Activity Ratios ) follow the mGluR business use assets (ie assets ) - as the company uses different parts of the business that has a relatively large unused capacity, whether the company has enough productive assets. This is a combined indicators which measure items of the balance sheet (assets) and in ýkazu gains and losses ( revenue ).

Accelerating asset turnover is a positive trend, as it means higher sales for companies. The indicators measure the capital tied up in individual forms of assets by two types of relationship:

- how many times the asset is turned over in a given period: Turnover rate for the period
- = Revenues (costs) for the period / Status (average status) of the asset item
- how long the asset is tied up in a given form: Turnover time = Stock (average stock) of asset items / Daily sales (costs)

In practice, the following indicators are most often used:

- Inventory turnover ( Inventory Turnover )
- Maturity of short-term obligations (Creditors Payment Period)
- Maturity of receivables ( Average Collection Period)
- Trade deficit

- Asset Turnover (Total Assets Turnover Ratio)
- Turnover of fixed assets ( Fixed Assets Turnover )
- Inventory turnover (Inventory Turnover Ratio)

# Market value indicators [40]

Indicators of market value - indicators of capital market (Market Value Ratios) reflect how the market assesses the past activities of the company and the future outlook. They are especially important for current and future investors and shows them what return (through dividends or rising share prices) they can expect from invested funds. The indicators reflect various aspects of the company's management (profitability, liquidity, financial stability, activity). They are only calculated for companies with publicly traded securities. [41] In practice, the following indicators are most often used:

- Activation ratio (Plowback Ratio)
- Earnings Per Share (EPS)
- Dividend cover (Dividend Cover)
- Dividend yield (Dividend Yield )
- PEG Ratio (Price to Earnings to Growth Ratio)
- Price to Sales Ratio (P / S Price to Sales Ratio)
- The ratio of market share price and its book value (P / B Price Book Value , M / B Market to Book Ratio)
- The ratio of share price to earnings per share (P / E Price Earnings Ratio)
- Sustainable growth rate (Sustainable Growth Rate)
- Book Value of the Share (BV Book Value , Share )
- Payout ( Payout ratio)[42]

## Cash management model [43]

Cash management models are used to determine the optimal amount of cash. A common assumption of these models is the situation in which an enterprise holds non-interest-bearing cash and interest-bearing liquid assets (usually treasury bills). An enterprise needs cash to operate on a regular basis to settle its liabilities, but it generates either no or little income in the form of bank interest. Holding funds is therefore associated with a loss of revenue in the form of opportunity costs. Holding treasury bills yields higher returns, but if we wanted to sell them every day to secure funds to settle liabilities, the costs associated with selling them would be unbearably high. Cash management models solve the problem of how often and in what volume they are to be sold or purchased treasury bills or other similar assets.

#### And Baumol's model [44]

It is one of the oldest models of cash management, - based on optimization methods materials management, goal em model is to minimize the costs directly and indirectly dependent on the amount of cash. N epřímo dependent costs constitute transaction costs associated with the sale of treasury bills, and instead of the optimal amount of the one material delivery is considered an optimum amount of each sale treasury bills, in which the total cost associated with the purchase and holding money orders minimum.

The U sing Baumolova model is dependent on meeting the assumptions of this model. From a comparison with the assumptions of the material optimization model, several assumptions appear to be problematic. First, while linear consumption of material can be realistically expected, linear consumption of funds, or constant daily monetary expenditures for almost any enterprise, is highly unlikely, as not all expenditures are regularly recurring. The severity of the assumption of zero initial and final cash balances, as well as the assumption of the sale of treasury bills at the time of cash depletion, can be mitigated by introducing an insurance cash reserve.

Baumol's model is therefore completely unusable for ordinary business. In order to be able to apply this model in practice, we would have to imagine, for example, a foundation that will always receive funds for the whole year on one date and then use these funds to pay regular monthly annuities to war veterans, for example.

## **II Miller's and Orr's model** [45]

Miller's and Orr's model sets a lower limit, an upper limit, and a return point, with:

- if the amount of cash reaches the upper limit, then the company has too much cash, which brings it too low or no returns, and therefore will buy treasury bills (more profitable asset), in such an amount that the cash flow drops to a point return
- if the amount of cash reaches the lower limit, then the company needs to restore the cash position in order to pay its liabilities, and therefore will sell treasury bills in such an amount that the cash balance rises to the turning point.

#### **III Cash pooling** [47]

It is an financial instrument that combines funds from multiple accounts and works with them as a single account. One of the accounts is always defined as central (main) and the other accounts as other (secondary) accounts. All accounts can show both a positive balance and, if the bank agrees, a negative balance. The main account, ie. An account, through which it carries out settlement with the bank holding company has defined credit and debit interest rate to the bank, while other accounts to their credit and debit interest rate defined against the main account.

C ash pooling can take place either as fictitious or as real:

• In the case of fictitious cash pooling, the balances on the main account and other accounts do not change at the end of the day. At the end of the day, the Bank performs only a fictitious sum of these liabilities, which bears interest at the corresponding interest rate, and subsequently performs only a fictitious settlement against the main account. Only at the end of the set settlement period is the real settlement of interest between the bank and the main account and at the same time between the main account and other accounts.

• In the case of real cash pooling, at the end of the day the positive balance of other accounts is transferred to the main account and the negative balance of other accounts is settled by transfer from the main account.

• Pooling funds into one account within cash pooling makes it possible to better balance surpluses and shortfalls of funds, especially within the holding, and thus on the one hand to reduce interest costs or increase interest income. As a result, daily cash flows can be planned much better, and financial resources can be used more efficiently.

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