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ÚSTAV EKONOMIKY

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INSTITUT OF ECONOMICS

SOURCES OF INFORMATION USED FOR CALCULATING SELECTED INDICATORS OF FINANCIAL ANALYSIS AND THEIR RELEVANCE

PROBLEMATIKA A RELEVANCE ZDROJŮ INFORMACÍ POUŽÍVANÝCH PRO VÝPOČTY VYBRANÝCH UKAZATELŮ FINANČNÍ ANALÝZY

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AUTOR PRÁCE   Ing. MILAN ANTOŠ
AUTHOR

VEDOUCÍ PRÁCE   Ing. HELENA HANUŠOVÁ, CSc.
SUPERVISOR

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Antoš Milan, Ing.

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L.S.

_____   _____
doc. Ing. Tomáš Meluzín, Ph.D.   doc. RNDr. Anna Putnová, Ph.D., MBA
Ředitel ústavu   Děkan fakulty

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Abstract

The aim of this master thesis is the implementation of theoretical knowledge in order to verify the relevance of the sources of information used to ratios calculations of financial analysis. In the first part is discussed theoretical background of financial analysis focused on production and services companies. Following part is focused on detailed examination of proportional ratios. The theoretical framework is concluded with specifics of financial analysis for insurance companies. This thesis results in practical verification of data and ratios of financial analysis for specific insurance industry from the point of view of time and influencing factors.

Abstrakt

Předmětem diplomové práce je implementace teoretických poznatků s cílem ověřit relevantnost zdrojů informací sloužících pro výpočty ukazatelů finanční analýzy. První část je zaměřena ne teoretické poznatky finanční analýzy zejména u výrobních podniků a služeb. V této části je věnována velká pozornost poměrovým ukazatelům a jejich výpočtům. Teoretická část je zakončena specifiky finanční analýzy pro komernčí pojišťovnu. Výstupem práce je pak ověření relevance dat a poměrových ukazatelů finanční analýzy pro specifické odvětví pojišťoven z hledsika vývoje v čase a faktorů ovlivňujích jejich vývoj.

Key words

Financial analysis, financial ratios, proportional ratios, relevance, insurance industry, financial ratios calculations

Klíčová slova

Finanční analýza, finanční ukazatele, poměrové ukazatele, relevance, pojišťovnictví, výpočty finančních ukazatelů

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Declaration

I hereby declare that submitted master's thesis is authentic and worked up independently. I also declare that citations are complete and copyrights are not violated (pursuant to Act. No.121/2000 Coll., on copyright and on laws related to copyright Act.)

Brno, 31th August 2012   …………………………………

                                                                signature

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CONTENT

Introduction

As a topic for my thesis I chose relevancy issue of data and indicators used for financial analysis. When we talk about financial analysis the majority imagine some kind of business analysis linked with development and management of financial resources. Financial analysis is mainly known for manufacturing companies, while financial analysis of insurance companies is not sought, nor used very often. But still, I think that financial analysis of insurance companies should to be used the same extent as for businesses. Financial analysis refers to financial situation of examined subject. Extension of this analysis into insurance industry intrigued me so much that I chose this field to examine data and ratios to find out relevant outputs.

The aim of this thesis is to show the possible importance of utilization of financial analysis in insurance business on examining the explanatory power and relevance of data and following financial ratios. My work focuses on finding the relevant information from financial analysis of insurance company. I chose this industry because of lack financial analysis were conducted on this topic opposite the production or service companies. I will look for relevant ratios as well as for relevant data with sufficient explanatory power for groups interested in insurance business.

. In the first part of this work I will discuss financial analysis. At first I will examine the general financial analysis, such as origin of the analysis, sources of information, the users of financial analysis and other information. I analyzed this part using the description method. Description can also be expressed as a characterization of given issue. This part of my thesis also handles with methods of financial analysis. For processing the data of financial analysis can be used large number of methods. For analysis of relevant explanatory power I chose horizontal and proportional ratios analysis. At the beginning of this chapter I present different possibilities of methods, and then place emphasis on proportional ratios.

In the next part I present the specifics of insurance business from different views. I use again the description method and supplementary comparison method.

In the last chapter I focus on exploring the relevancy of data and ratios for chosen insurance companies with demonstration on their financial analysis. For this purpose I selected Česká pojišťovna, a.s. the largest insurance company in the Czech Republic and Kooperativa, a.s. I do the work on data from the period of 2006 – 2011. In this chapter I use the comparison method as well as the analysis method. Because of the

nature of the insurance business I will head towards the comparison with production companies due to find relevant outputs of indicators and data suitable for insurers. The relevance of the results is set in the light of financial crisis that occurred during the examined period and I think it is interesting to find out how it is influencing this. At the end of the thesis I will also present used literature, internet sources, list of tables, graphs and images.

1   Financial analysis theoretical framework

Financial analysis is closely linked to accounting and financial management of the company. Accounting provides data and information for financial decision-making through basic financial statements.

Accounting itself is not able to comprehensively evaluate the financial and economic situation of the company and to immediately provide sufficient basis for making financial and other business decision even with strict compliance with all accounting principles. Presents an accurate value of the financial data of an enterprise and its activities, but this data refer only to a specific moment in time and are highly variable and more or less isolated sort of information. The objectives of accounting are: (3)

- **Collect and record information**
- **Identify the economic results**

"The financial analysis comes as a formalized method that compares obtained data between each other and extends their explanatory power to reach a certain conclusions about overall management, property, and financial situation. It creates strong basis to adopt strategic management decisions"(1)

The objective of financial analysis is to identify the financial health of the company, to identify weaknesses that could lead to problems and determine strengths. The evaluation process focuses the past, present and recommends appropriate solutions to anticipated future.

"**The financial health** reflects the degree of resistance to external and internal operational risks in the current financial situation" Term **"financial health"** is used for expression of the satisfactory financial situation. For financially healthy company is considered to be one, that is able to achieve long term capital appreciation required by investors due to the level of the risk taken. Financial health therefore depends on the performance with regard to risk. Good financial health of the company creates conditions for obtaining external funding for further development of the company, while the company must be able to secure an efficient development from internal resources as well.(3)

Across the interests of individual users of financial analysis can be allocated some basic characteristics of economic and financial situation, which are more or less in the aim of interest for most of them:

- solvency (liquidity and solvency) - the firm's ability to settle its financial obligations when due,
- profitability (return) - the firm's ability to ensure a reasonable profit on capital,
- economic and financial stability - the company's ability to provide long-term financial commitments and to achieve adequate long-term profitability. (7)

The basic requirement on the complexity of the analysis is considering all the interrelated features of economic processes. Already in the main business goals, which is the effort to maximize capital appreciation and growth of market value, are hiding various contradictory tendencies. Financial analysis should lead to the synthesis of all aspects of the quality of corporate finance.

Another requirement is the systematic implementation of financial analysis. It should become a normal part of management of each company. If we want to affect the development of company management during the year we should build a minimum of monthly financial statements.(10)

The historical roots of financial analysis are in the U.S., where it dealt with not only theoretical work, but found its application in practice. Originally focused on a simple representation of the absolute changes in financial indicators, and later served as proof of identification and credit of businesses. After the global economic crisis at 30 the 20th century, the expanding interest aims to liquidity and survive ability of the company. Later the attention turned to issues of profitability and efficiency.(4)

1.1 Users of financial analysis

Financial analysis helps various parties, interested in a company's activities, to obtain financial information required to them. The main purpose of financial analysis is to estimate current financial conditions and define actions necessary to conduct work on improvement or preserving of these conditions. Financial analysis also summarizes a firm's business activities in the past, at present and in the near future. Its main function is to identify financial performance of a company, reveal weaknesses, potential sources of problem occurrence in its further plans and to find out strengths on which the firm can rely. Financial performance of a company, being one of the major business characteristics, defines competitiveness, potential of the business, economic interests of the company's management and reliability of present or future contractors. Therefore, the secondary goal of analysis is to reveal financial condition of the company to external users.

With particular reference to business organizations, parties interested in financial statement analysis are divided into two categories, namely: internal users and external users.

The internal users include management and employees of an organization, while external include shareholders, investors, creditors, debenture/bond holders, financial analysis, etc.(1)

Investors and creditors

Investors are among the first users of information contained in financial statements. These are persons who provide business capital. They use financial information about the business from two perspectives - the investment and control. The investment aspect uses obtained information for decisions on future investments. The interest of shareholders is mainly concentrated on the level of risk and rate of return on their invested capital. The second aspect is focused on company managers. Checked subjects are the stability, liquidity, business, disposable income (for which in most cases, the amount of dividends depends) and also whether the business plans of managers providing business sustainability and development. Generally there is a conflict between the interests of managers and shareholders, therefore shareholders demand interim reports on the financial condition of the company.(3)

Management

Managers use information obtained from financial accounting primarily for financial management of the company. Knowledge gained from the context of accounting allows managers to exercise the right decisions in raising funds, while ensuring optimal ownership structure, in the allocation of available funds, etc. Revealing strengths and weaknesses of the company enables managers to take appropriate measures for the future. Its activities also use information about the financial situation of other companies, especially competitors. Financial statement analysis helps management and employees to know the operating results, financial position and future potentials of a business.(3)

Business partners

Business partners are divided on suppliers and customers. Commercial vendors focus primarily on the company's ability to pay debts, its solvency and liquidity. For long-term suppliers their focus extends on long-term stability in order to provide permanent sales. Customers are interested in a supplier's financial situation, especially in long-term business relationship. Any failure of the supplier may cause problems to the customer.

Employees

Employees have the natural interest of the financial stability in the company. They are motivated by economic results, interested in job security, wages and social perspective.

Banks and other lenders

Banks and other lenders require the prospective borrower as much information of the financial situation as possible. This information is very important in deciding whether, what size and under what conditions will the loan be assigned.

Competitors

Competitors are interested in financial information of similar companies in order to compare their financial results.

The state and its institutions

The state and its institutions are interested in accounting data for many reasons. In most cases this is control of tax compliance, control of state enterprises partly or fully owned, an overview of the financial situation of enterprises with the state contract, allocation of financial help.

Financial analysts

Financial statement analysis enables financial analysts to offer professional advice to their clients on investments.(3)

1.2 Financial analysis input data sources

The success of financial analysis depends on good sources of information. These resources are usually divided into several basic categories, as shown in diagram below.(1)

Table 1 Financial analysis segmentation (1)

Matter of aspect	Information
Origin	Internal
	External
Type	Financial
	Non-financial
Practice	Accounting
	Other

The data for financial analysis by origin can be divided into internal and external. Internal information concerning the business, they arise with business activities and are recorded in the company as:

- Accounting data of the company from:
  - Closing financial statement with appendixes
  - Internal accounting, controlling

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- o Annual statements, incoming orders data, report on company strategy, market exploration statement, budgets etc.
- Other relevant data of the company
  - o Statistics (demand, production, wages)
  - o Internal directives, future outlooks and leading workers reports
  - o Auditor reports (7)

External information comes from the outside economic environment of the business. They touch not only the surroundings of the company, but also the company itself. It may also be divided in more detail by type or type of information or by source. The basic external data include:

- Data from national statistics, ministry offices and other national organizations
- Data from the specialized journals, stock market news, reports on the development of interest rates
- Comments from managers, analytical estimates from different authorities
- Independent ratings and prognosis from individual professionals, agencies and companies

Depending on type we can distinguish:
- Financial information - are expressed in monetary units and come from accounting, which provides a comprehensive set of information about the entity, and specifically as follows:
  - o Assets and liabilities
  - o Assets and liabilities structure
  - o Costs and revenues
  - o Earnings after tax
- Non-financial information – they are recorded out of the accounting and can be expressed in non-monetary units or only in verbal form:
  - o Number of employees
  - o Volume of products and stocks
  - o Labor productivity information
  - o Position on the market

o Management quality and others(10)

In terms of practice, it is important to know where we can pick the input data for financial analysis. The basic source of information for financial analysis, as mentioned, is divided into two groups:

- Financial accounting sources
    o Financial accounting statements
    o Statements settled for tax purposes
    o Statements settled for internal needs
    o Annual reports
    o Auditory reports
- Other sources connected with the company and its vicinity
    o Company statistics
    o Documentation data of work and wages
    o Internal directives
    o Capital market
    o Banking sector information
    o Information from advisory, auditory or rating agencies

Selection of specific resources for obtaining information is subject to the purpose for which financial analysis is prepared.(3)

1.3 Financial statements

The basic sources of information for financial analysis of the company are financial statements. In all countries are set principles and requirements that an entity should follow when preparing and presenting financial statements. This concerns not only the structure but also the valuation principles, accounting procedures, etc. The rate of regulation is different in different countries, starting with the recommendations of the competent authorities to mandatory statutory statements. In the Czech Republic accounting controls:

- Act No. 563/1991 Coll. On Accounting, as amended - provides a detailed presentation to the accounting documents, records and books,

- Commercial Code No. 513/1991 Coll., As amended - requires each business to prepare closing financial statement (statement summarizing the results of operations for the reporting period)
- Duties from the Ministry of Finance - provide specific accounting practices of entrepreneurs.(2)

As of 1st January 2004 were made changes in accounting acts, implementing regulations figures and setting only Czech accounting standards that are designed to harmonize the procedures in this area with the EU. Within the EU are pursued two main objectives:

- Formal and content harmonization of financial reporting ensuring users are comparable
- achieving a new quality of financial reporting with priority for external users and criteria for a true and fair view

From the perspective of the financial statements importance are for the most important considered:

- Balance Sheet,
- Profit and Loss statement
- Statement of Cash Flows (cash flow statement).

Data from the statements should be further modified for use in analyzes. With their explanatory power are in fact some of the problems associated

- They refer to the past, so they capture the state that may not be relevant to present. In this context it is necessary to conduct further formulated estimates and assumptions about the changes that occurred after the date of published data.
- For the comparison are required the data from at least two different time periods. It is also necessary to verify whether there were any major changes in the company during the period.

- The financial statements do not include items that have an intrinsic monetary value. These include human resources, their experience and qualifications, equity participation and status of the entity in the business-chain, etc.

- The impact of inflation, which means that account values are different from the real values (14)

1.3.1 Balance Sheet

"The balance sheet is an accounting statement that reflects the assets, liabilities and equity at a certain date." Data obtained from the balance sheet shows single items of assets and liabilities.

In terms of financial statement analysis it has several weaknesses. Describes the state based on historical prices. This results in difficulties for the presentation of the data sheet:

- Displays the absolute values for the parameters, contained in it, to certain point and that is why it cannot give information about the dynamics of the company.

- Does not affect the current value of assets and liabilities, depreciation is only an artificial and inaccurate estimate of the actual process of aging assets.

- To determine the realistic value of certain items must be used an estimate. For example, claims estimated and adjusted in terms of return on stocks value should be based on sales.(8)

We distinguish the fixed assets, current and other assets. They capture specific forms of property, which the company uses for its activities.

Fixed assets consist of long-term nature of property, at which time of the utilization exceeds more than one year. These include tangible assets, intangible assets and long-term financial assets.

The second part of assets is short-term nature, which is shown in the balance sheet as **current assets**. Opposite from fixed assets generating operating capacity they fulfil different role. It is designed for temporary use, consumption or sale. Time

utilization is within one year. Its role is to ensure the continuity of the reproduction process.

Other assets include accruals and estimated active accounts. From an analytical perspective, however, represent such a small share of total assets that their changes are usually not reflected. Therefore, they are not paid so much attention.

Liabilities represent sources of funding. They can be distinguished by origin of capital on equity and liabilities and further by the duration of use for the short and long term.

Equity represents own resources that were put into the business or were created by the economic activities of businesses. It is part of a long-term capital. They are divided into registered capital, retained earnings, earnings from previous years and current year earnings. Capital funds are deposits of shareholders beyond the equity, share premium, gifts and grants. Retained earnings are divided into the statutory reserve fund, the amount is fixed by law, as well as statutory and other funds generated by its own rules of business.

Liabilities are divided into reserves, long-term and short-term liabilities and bank loans and financial help. The company acquired them from other legal or natural persons. It was borrowed for a specified period at a fixed price - the interest expense that is incurred in connection with the use of capital. For a creditor is the interest a capital income.

Reserves are divided into legal and accounting. They serve to cover the costs of long-term risks of existing and future liabilities.

Liabilities as a category of financial analysis liabilities are net of reserves. Bank loans and overdrafts represent liabilities to banks. They can also be long-term and short term.

Other liabilities are divided into accruals and estimated liabilities accounts. Estimated liabilities are recorded debts that can be reported as current liabilities even if they are related with the current period. (9)

1.3.2 Profit and Loss statement

"The profit and loss is a financial statement, which outlines the costs and profits on operating, financial and extraordinary activities during the reporting period."

Profit and loss statement comprises the facts that:
- enable monitoring the profit development process,
- provide an overview of costs and profits of individual activities
- are used to assess the ability of the company to appreciate invested capital

For the purposes of financial analysis is examined the structure or dynamics of single items. Furthermore, we find out how these items affected profit and loss. Information from the profit and loss statement is therefore an important basis for corporate profitability evaluation.

¨In the structure of the profit and loss statement can be found several stages of the economical results. It differs from each other by the input costs and revenues entering the calculations. We can distinguish this statement according to the diagram bellow.(4)
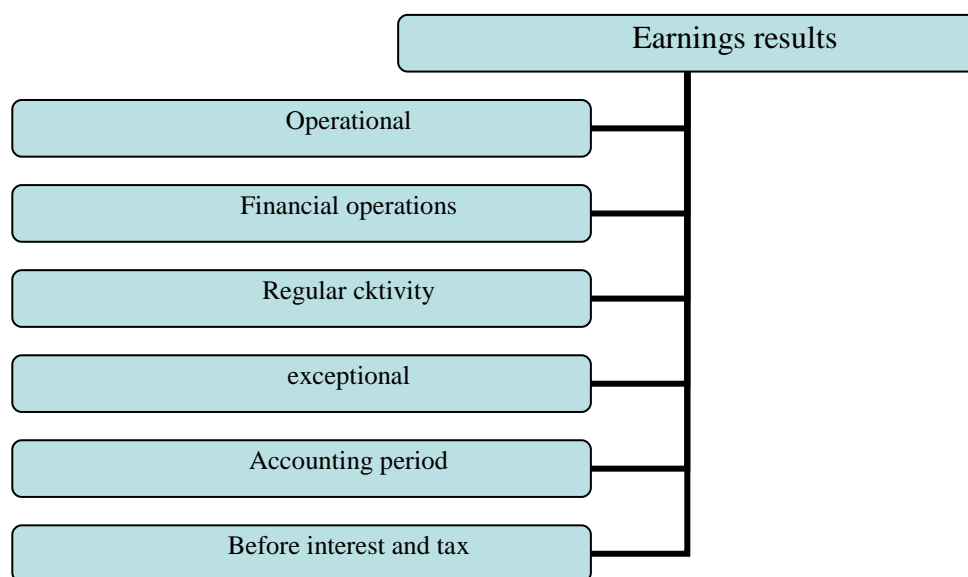
Picture 1 Earnings results classification (4)

The most important item is the result from operating activities, which reflects the ability of the company to generate positive results from their core activities. Operating profit is composed of several sub-parts:

- results from sales of goods
- results from investments property and material sales
- results from other operational activities

The basic difference between the balance sheet and profit and loss statement is that while the balance sheet records the assets and liabilities to a point in time, profit and loss is always related to a specific time interval. It is the summary of operations for this period of time. Includes flows figures that are based on a cumulative basis and their changes may not be uniform in time. "Profit and loss account is compiled on the accrual basis, which means that transactions are recorded and reported in the period in which the time and material concern, not according to whether they occurred in the period to cash income or expense.(1)

1.3.3 Cash-flow statement

"The cash flow statement is an accounting statement that summarizes the incomes and outcomes of funds for operating, investing and financing activities during the reporting period." Cash flows can be distinguished down to:

- Operating activities
- Investment activities
- Financial activities

Operating activities are the fundamental business purpose. Cash flows from operating activities are the difference between revenues and costs associated with normal operations. It is derived by transforming the earnings before interest and tax from ordinary activities tax adjusted for non-cash transactions, changes in working capital, interest received and paid and net of taxes paid on ordinary income.

Investing activities are the acquisition and disposals of fixed assets for sale purposes, or activities related to the provision of credit, loans and borrowings, which are not considered for operational activities. These cash flows include mainly expenses related to acquisition of fixed assets, income from the sale of fixed assets, loans and loans to related parties.

Financial activity leads to changes in the amount and structure of equity and long-term liabilities. Cash flows from financing activities include acquisitions and disposals of long-term capital.

Cash and cash equivalents at the end of the period are equal to the sum of cash at the beginning of the period and cash flows of the above activities. The report is very useful in assessing the liquidity and solvency because profit and losses statement based on the current accounting does not indicate whether real cash income and expenses arise.(5)

1.4 Financial analysis methods

Every used method must have a feedback on the target and also control mechanisms should be arranged to find out if the method is used in the most appropriate way to attain a certain goal. The better method used the better results and lower risk and the higher possibility of success. When determining the method examining the business it is important to realize for who the financial analysis is designated.

Financial analysis uses two methods – elementary method and higher method that is not universal method and is therefore less used.

Every method of financial analysis should be chosen with regard to its´ further use, according to the specific objectives of the business plan and the needs of users of financial analysis. The choice of method should be made with regard to:

- usefulness - must correspond to the previously set goals. Not for every company fits the same set of indicators or one method. Interpretation must be done with sensitivity to the possible risks that could result from the misuse of the analysis;
- expensiveness - costs incurred in carrying out the analysis should be adequate to the return, depth and scope must correspond to the expected valuation of the risks associated with the decision;
- Reliability – can´t be increased by number of surveyed enterprises, but with more quality use of the available data. The more reliable the default information, the more reliable the outputs of the analysis. (3)

The basis of various methods of financial analysis is financial indicators system. It is usually defined as formalized view of economic processes. In the direct takeover from the financial statements are expressed in monetary units, but mathematical operations can be transferred to the results in other units such as the units of time, in percent.

In economics, there are two approaches to evaluate economic processes. Fundamental analysis is based on analyzes of extensive knowledge of the interrelationship between economic and non-economic phenomena. It is based on a large amount of information, processes data and derives a qualitative conclusions usually without algorithmic procedures.

Conversely technical analysis uses mathematical, mathematical-statistical and other algorithmic methods for quantitative data processing and their subsequent assessment from an economic point of view.(1)

Only suitable combination of the two approaches can achieve good results of the evaluation and to obtain more accurate data for business decision-making. It is clear that to process results from technical analysis would be very difficult without knowledge of the context of economic processes identified from the fundamental analysis.

Financial analysis can therefore be sorted into group of technical analysis because it uses mathematical procedures that lead to the calculated values, which are subject to a definitive interpretation. Depending on the degree of simplicity or complexity of the mathematical procedures, methods of financial analysis are divided into two large groups:

- basic (elementary) methods - using simple and percentages based math,
- advanced methods - are based on complex mathematical procedures.(3)

1.4.1 Elementary methods of financial analysis

Table 2 Elementary methods (8)

Financial analysis elementary methods			
State ratios analysis	Differential and flow ratios analysis	Intensive ratios direct analysis	Complex system ratios analysis
Horizontal analysis	Fund analysis	Profitability ratios	Pyramid decomposition
Vertical analysis	Cash-flow analysis	Liquidity ratios	Du Pont decomposition
	Sales analysis	Activity analysis	
	Costs analysis	Debt ratios	
	Profit analysis	Capital market ratios	
		Cash-flow ratios	

Analysis of state (absolute) indicators includes mainly horizontal and vertical analysis. **Horizontal analysis** is concerned with temporal changes of absolute indicators. It is necessary to create sufficient long time series because of consistent recording that means less inaccuracy in the final interpretation.

The vertical analysis deals with the internal structure of absolute indicators. It is mainly by measuring the individual financial statement items to the total sum of assets and liabilities. This method allows us to compare reports from different years and enterprises of the one industry field. It is examined both the structure of assets and liabilities. Assets structure aims to inform the company about the placement of investments and to what extent the investment process was taken into account regarding the profitability. Long-term assets items are often being more profitable than short-term items.

The liabilities structure shows the sources the assets were acquired from. Generally it is cheaper to take foreign financing and short term. An enterprise should properly distribute its´ financial resources to limit the financial risk arising from the use of financial resources. (8)

Analysis of differential and flow indicators deals with the analysis of financial statements, which involve flow items. In particular it is the profit and loss statement, cash flow statement and balance sheet also does not stay away. **The analysis of financial funds** uses differential indicators. It focuses on net working capital, which is used to determine the optimal amount of each item of current assets and determining their overall reasonable level. **Cash flow analysis** expresses and measures the intrinsic financial strength of the company. It is the ability to create surpluses from its own economic activity to pay obligations and to fund investments.

Every financial analysis ratio index reflects only a certain view of business activity. The efforts to complex and brief representation of the financial situation of the company led to the development of various systems of selected ratios. The system has three basic functions:

- explain the impact of changes to one or more indicators to the entire results of the company,

- facilitate and streamline the analysis of existing business development,
- provide a basis for decisions in terms of corporate and external goals(1)

Du Pont ROE decomposition is based on deriving profit margin and total assets turnover. **The pyramid decomposition** is usually at the top the profitability as one of the most important business goals. The other layers are the means to achieve it. Links between indicators in the lower layers allow us to recognize the influence on the higher layers of the indicators or on the top indicator.

In the complex systems of ratios occur methods of purposefully selected indicators. Their task is to assign one final evaluation factor, which facilitates decision making touching stability or instability of the financial health of the company. These include:

- bonity models - based on theoretical grounds, and allows companies to compare with greater set of business entities, the advantage is the ability to determine the position in the field,
- bankruptcy models - are supposed to inform of the potential bankruptcy and are based on the assumption that in the company occur bad fluctuations for certain time.(4)

1.4.2 Advanced methods of financial analysis

Advanced methods are not commonly used. Assumptions for their successful use are deeper knowledge of general and mathematical statistics as well as a deeper theoretical and practical economic knowledge. Their application needs quality software. In normal business practice are not commonly used, in fact mostly specialized firms are interested in conduction of these analysis. We can distinguish them as follows:
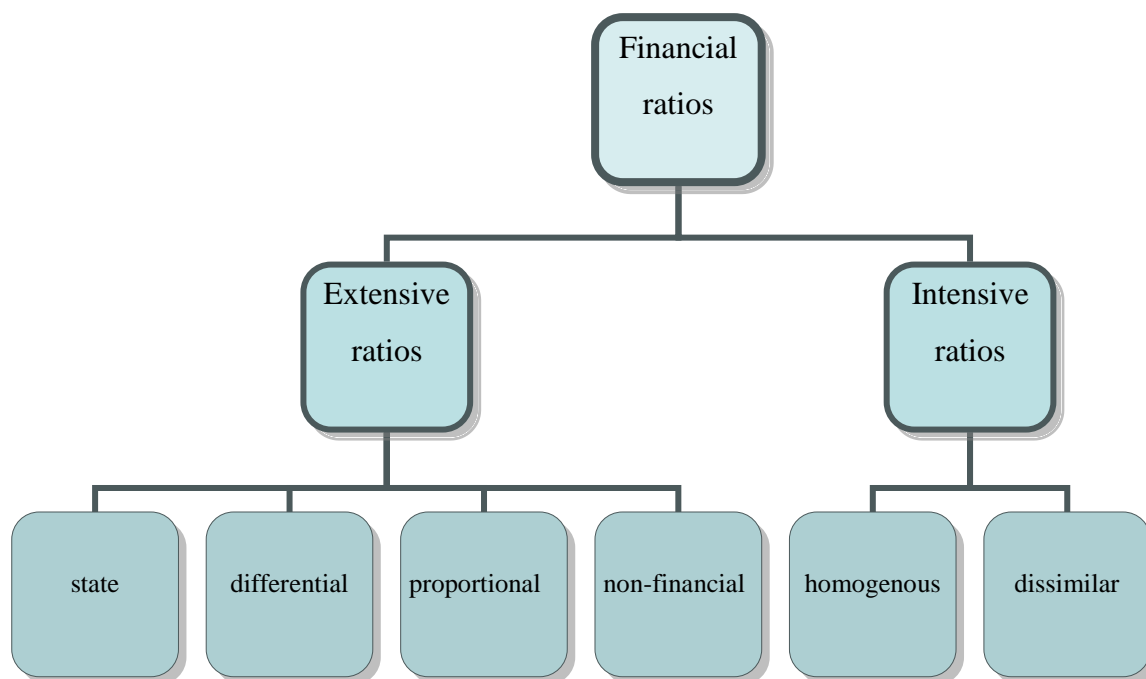- mathematical-statistical methods, which include:
  - the point estimates - determine the amount of standard indicators for the group of companies
  - statistical tests on remote data - verify whether the remote data belongs to the examined group,

- the empirical distribution functions - estimate probability of occurrence of certain indicators
- the correlation coefficients, regression modeling, autoregressive modeling, analysis of variance, factor analysis,
- robust mathematical and statistical procedures - suppress the influence of pre-given assumptions on the results of statistical methods
- non-statistical methods
  - methods based on the matt theory of sets,
  - methods based on the alternative theory of sets,
  - formal methods of mathematical logic,
  - expert systems,
  - methods of fractal geometry,
  - neutron network
  - methods based on the gnostic theory of uncertain data. (8)

1.4.3 Financial ratios

It is necessary to realize that the most important thing is to create time lines giving us clear overview over the company situation – whether the financial results have descending or ascending figures. The longer time series the better comparison we obtain.

The basic set of financial ratios consists of absolute, differential and proportional ratios. Absolute ratios are obtained from financial statements where represent single entries of these statements. Differential ratios are calculated as the difference between assets and liabilities parts of the balance sheet. The last sort of the ratios is proportional ratios, among which we also count percentage indicators that come from absolute indicators. Single entries are then calculated as a percentage of total assets, liabilities or income. Proportional ratios are broadest and most used sort of the ratios. They can be defined as the proportion of two items (items from the balance sheet, profit and loss statement or cash flow statement) (14)

```
                          ┌─────────────┐
                          │  Financial  │
                          │   ratios    │
                          └──────┬──────┘
              ┌──────────────────┴──────────────────┐
       ┌──────┴──────┐                        ┌──────┴──────┐
       │  Extensive  │                        │  Intensive  │
       │   ratios    │                        │   ratios    │
       └──────┬──────┘                        └──────┬──────┘
    ┌─────┬───┴───┬──────────┐              ┌────────┴────────┐
┌───┴──┐┌─┴────┐┌─┴────┐┌────┴─────┐   ┌────┴─────┐   ┌──────┴──────┐
│state ││differ││propor││non-      │   │homogenous│   │ dissimilar  │
│      ││ential││tional││financial │   │          │   │             │
└──────┘└──────┘└──────┘└──────────┘   └──────────┘   └─────────────┘
```

Picture 2 Financial ratios classification (9)

Extensive ratios show the scope and volume of single items that are subjects of the analysis. State ratios reflect the figures of the assets and its cover sources to certain date. The items from the balance sheet prevail.

Differential ratios represent the difference between assets and liabilities items in a certain point. The most common ratio from this sort is a working capital ratio. These ratios can be captured in the period in which we examining the change of the extensive indicators.

And the last group of extensive ratios is non-financial ratios. These are inseparable part of the analysis but are not based on any accounting statement. They are based on company data like stock levels, products, various registers and other similar information.

Intensive indicators show the extent to which extensive indicators are used by the company. They also reflect the progressivity at which the extensive ratios change. As mentioned above we can divide them for homogenous and dissimilar.

Homogenous indicators compare extensive ratios in the same currency or in any equal unit.

Dissimilar indicators reflect the ratio of extensive indicators expressed in different currencies or different units.(14)
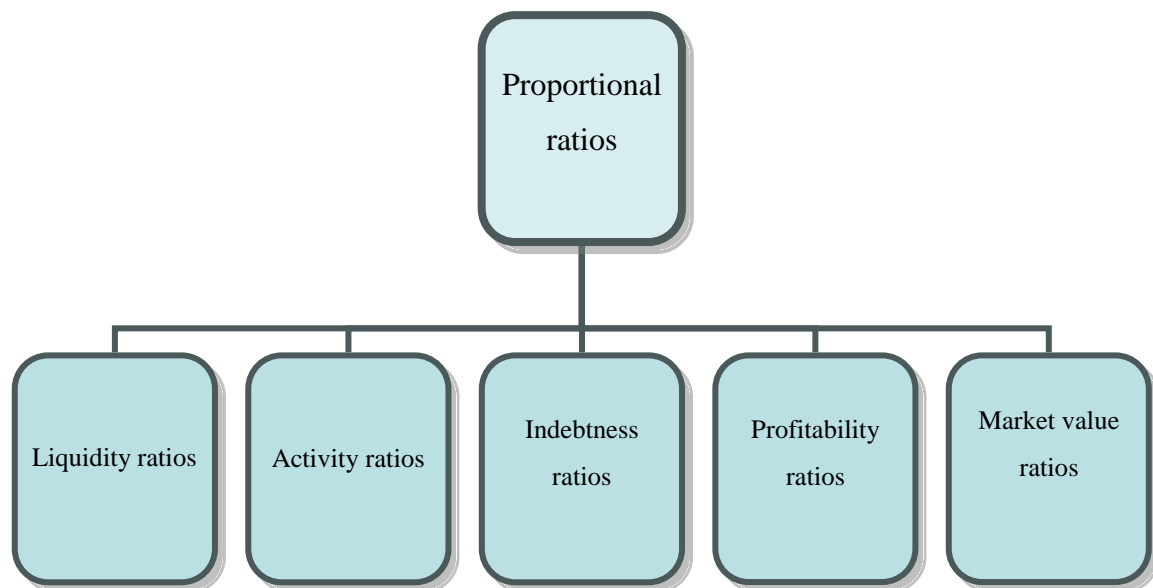
1.5 Selected proportional ratios classifications and calculations

Financial ratio analysis examines the structure of corporate assets, quality and intensity of their use, method of financing, business profitability, its solvency, liquidity, and other features of its financial life on the basis of financial ratios

Proportional ratios analysis is one of the most widely used methods of financial analysis. The basic tool of this ratio analysis are calculations and interpretations of financial proportions, which can be obtained by dividing any item or set of items from the balance sheet, profit and loss account and cash flow statement with another item.

Ratio analysis allows evaluation of past, present and anticipated future of financial performance of the company. The main objective is to identify the company's financial health, identify weaknesses that could lead to further problems, and identify strengths on which the company could build. Through financial ratio analysis can be compared the results of several periods and on this basis can be assessed the trend of the company.

Weaknesses of ratio analysis mainly spring out from incorrect application, which may result from the fact that any attributed can be suited greater importance than it really has. Gathering from one indicator that firm liquidity is satisfactory or unsatisfactory, the capital structure is healthy or unhealthy would be very inaccurate. One indicator may indicate a potential problem, but for the experts' conclusion it must be analyzed from several perspectives. Another weakness is also a seasonal factor, but can be avoided by using monthly or annual averages, etc. Another distortion also causes inflation. Inflation has an impact on the design of the balance sheet, so that the accounting values are often different from real ones. (4)

Picture 3 Proportional ratios classification (4)

1.5.1 Liquidity ratios

Liquidity means the ability to convert the assets into cash. For the smooth run the company must be able to settle its short-term liabilities. Liquidity insufficiency, sometimes called cash insolvency, leads to an inability to settle short term liabilities. The company doesn't know how to effectively use profit situations and this often leads to loans and debts. If the debt situation gets worse it can lead to serious financial problems or even to bankrupt.

Liquidity is very important issue in the company´s financial stability, because only well managed liquidity gives the solvency. On the other hand too big liquidity is unfavorable for the stakeholders. Capital is tied into assets, which is useless for further increasing of the company value. That is the reason why the balanced liquidity is a key point.

Liquidity ratio is a part of the annual statement. The liquidity formulas are in general form. This is means it is proportion of what is possible to pay with to what should be paid. In practice there are three kinds of liquidity – quick, current and common liquidity.

Every group of the liquidity ratios has its own recommended values. It must be mentioned that different companies in different sectors can slightly differ from this values. For the real view of the situation must be the longer data timeline closely watched. The development of this trend should be stable without significant deviations.

Liquidity ratios have the general form of the proportion of what is possible to pay with to what is to be paid.(9)

Cash Ratio

$$Cash\ Ratio= \frac{Ready\ mean\ payments}{Current\ liabilities\ (payable\ immediately)}$$

Cash ratio is often signed as 1st grade liquidity. It is the narrowest specification of the liquidity. Ready mean payments are mainly represented by money on bank account and cash. The other forms are free trade securities and checks. All above mentioned is called financial assets.

The part of the short term debts are also bank loans and short term financial help. International liquidity mark oscillates between 0,9 to 1,1. For Czech republic the interval is widened to down to 0,6 or sometimes even to 0,2.

Quick ratio

$$Quick\ Ratio= \frac{(Current\ assets\ -\ Inventories)}{Current\ liabilities}$$

In the literature often mentioned as 2nd grade liquidity. For this case rules that the proportion of numerator and denominator should be 1:1 or 1,5:1. It is obvious, that the company is able to pay out its liabilities without settlement its stocks. Too much assets drawn in liquid assets brings pointless or negative interest.

Current ratio

$$Current\ Ratio= \frac{Current\ assets}{Current\ liabilities}$$

Current ratio known as 3rd grade liquidity shows how many times the current assets cover short term debt. It also represents how many units of current assets cover one unit of short term debt.

Higher the value of this indicator is the more obvious is the payment ability. The numerator in relation with denominator moves within 1,5 to 2,5.

Working capital

Working capital = Current assets – Current liabilities

Working capital ratio isn´t from the group of differential ratios but is closely linked to liquidity that it is often put into this group. More accurate is it similar to common liquidity. It represents the difference between current assets and short term liabilities. Common liquidity comes from the same data but in proportional meaning. This ratio shows what part of financial assets remains from current assets to payout liabilities after separating free part that is further to use in the company. We can easily distinguish cash flows supposed to payout short term debts. In Czech Republic it is often mentioned as an operating capital.

In practice long term assets aren't enough. It is necessary to have certain amount of long-term current assets to be used in a short time. Financial stability asks to cover both long-term and current assets with long term sources. (3)

1.5.2 Profitability ratios

Profitability is often mentioned as a return on capital. It proves the ability to create new sources and to get additional profit with them. For the company are desirable higher values of this ratio. It is very closely watched indicator, because the profitability of the company is the key issue in the matter of activity and future progress. Shareholders and potential investors watch very closely this indicator. For calculations are used data from profit and loss statement. Profitability is an indicator from sort of proportional indicators. In numerator are often used earnings after tax and in nominator are used various forms of capital or sales. In terms of time the development of this indicator should be growing nature.

The important characteristic of financial health is just the profitability. In financial analysis it represents one of the elementary concepts and financial health indicator. Other indicators of financial health are also paying solvency, liquidity, financial stability or debt ratio which should also be in harmony with profitability.

For the financial analysis calculation purposes the profit is used in two forms. EBIT represents profit before interest and taxes and can be used for comparison among companies in the same field. EAT is an acronym for earnings after taxes or so called net profit which is further divided on undivided and divided profit. The last one is EBT – earnings before taxes so called operating profit reduced or raised with exceptional profits or loss. It is useful to compare companies with different tax duties.

For profitability calculations is usually used the profitability of all assets, profitability on equity, profitability on sales.(9)

Return on assets ROA shows the efficiency, profitability and production force.

$$ROA = \frac{EBIT}{Total\ assets}$$

It reflects the total return on invested capital, regardless of what resources were it funded from. Invested capital is understood as the sum of equity and debt, i.e. total assets. According to the profit which enters the formula, we interpret the result. In case of using EBIT we can compare companies with different tax environment as well as different interest rate load. Using net profit EAT, but before payment of dividends, we get the classical interpretation of profitability. It is an indicator that is independent of the nature of funding sources.

Profitability indicator of total capital employed ROCE is the amount of appreciation of all the assets financed by equity and long-term debt. Comprehensively reflects the effectiveness of the company.

$$ROCE = \frac{EBIT}{Total\ assets - Current\ liabilities}$$

Return on equity (ROE) expresses profitability of the capital invested by shareholders or owners.

$$ROE = \frac{EAT}{Shareholder\acute{}s\ eyuity}$$

Using this indicator, investors are proving that their capital is reproduced with appropriate intensity corresponding to the risk of investment. Profit here is understood as EAT. If the value is consistently lower than return on securities guaranteed by the State, the investment in such company is doubtful. Generally, value of this indicator should be higher than the interest rate of risk-free securities.

The return on equity is related with leverage (leverage-factor). Its essence is to determine to what extent the return on equity changes, when we change the capital structure. Leverage factor says that the return on equity and return on total capital is influenced by leverage effect, which means that if the interest rate of debt is lower than the total return on equity, return on equity increases with additional foreign capital - a positive leverage effect. If the return on capital is lower than the interest rate of debt, return on equity deteriorates with increasing debt - negative leverage effect.

The return on sales (ROS) indicator reflects the overall pricing strategy of the company. The numerator includes the results of its operations in various forms. In the denominator are sales in the form according to the purpose of analysis.

$$ROS = \frac{EBIT}{Sales}$$

The sales item most commonly includes sales revenue, which consists of operating profit, but can include any sales, especially if we use operating profit instead of net profit.(3)

1.5.3 Activity ratios

Analysis of the activity explores the intensity of using resources. It measures the fixation of single components in different types of capital assets and liabilities. Mostly express the turnover of single components of resources or assets. Fastening the turnover is considered to be a positive sign and therefore the key for analysis of activities is the data comparing in consecutive accounting periods. (3)

Turnover of total assets is also known as fixation of the total invested capital. It is expressed as the ratio of sales to total capital invested.

$$Assets\ turnover = \frac{Sales}{Assets}$$

Turnover time of fixed assets informs about the use of fixed assets in order to achieve sales. It is a measure of overall production efficiency. The more this indicator is lower, the better, because it means that the company expands, without having to increase financial resources.

$$Fixed\ assets\ turnover = \frac{Fixed\ Assets}{Net\ Sales}$$

Indicator of inventory turnover indicates how long the current assets are bounded in the form of stock. At first glance, increasing the speed of inventory turnover and reducing the inventory time turnover can mean more efficient use of inventory, but on the other hand, it may be a sign of undercapitalised company.

$$Inventory\ turnover = \frac{Average\ stock}{Daily\ Use}$$

Receivables turnover indicates how long the property is bound in the form of company assets, or for how long the average claims are paid. The ideal value is the normal period due invoices. If the receivables turnover time is longer, it means harmful behavior from trading partners. Some companies' reports will only show sales - this can affect the ratio depending on the size of cash sales.

$$Receivable\ turnover = \frac{Credit\ sales}{Average\ Receivable} \qquad (1.9)$$

Liabilities turnover reflects how quickly the company obligations are paid. This period should generally be longer than the turnover of receivables not to disturb the financial equilibrium in the company. (5)

$$Payables\ turnover = \frac{Total\ Purchases}{Average\ Accounts\ Payable} \qquad (1.10)$$

1.5.4 Indebtness ratios

Indebtedness means that the company uses to finance its assets liabilities i.e. debt. The use of only sole equity brings reducing the total return on capital employed. Conversely financing exclusively from foreign sources is almost impossible. The right mix of financing is one of the major tasks of financial management. Debt analysis is concerned with finding an optimal relation between equity and foreign capital. Generally, equity should be higher than foreign capital. Low ratio of equity to foreign capital is considered to be a weakness of the company and threat to stability. In this case, there is also difficulty to obtain a loan or is allowed under much worse conditions. The basic indicator is an indicator of creditor debt risk (debt ratio).

$$Debt\ Ratio = \frac{Total\ Debt}{Total\ Assets}$$

The higher the value of the indicator, the higher the indebtness is and the higher is also a financial risk. It must always be considered in relation to the total return that the company achieves from total invested capital in connection with the structure of foreign capital.

The coefficient of self-financing (equity ratio) is an additional indicator of the previous indicator. It is the proportion of equity to total assets. Their sum is equal to 1, respectively 100%.

$$Equity\ ratio = \frac{Equity}{Total\ Assets}$$

It expresses the proportion in which the assets of a company are financed by shareholders' money. It is considered to be one of the most important indicators for evaluating the overall financial situation of the company. This is the reason why it is so widely used by various groups of analysts. (1)

2   Financial analysis specifics for an insurance company

2.1 Insurance companies specifics

The financial analysis of insurance companies can use the same basic indicators analysis as any other company. The unique nature of insurance operations requires some specific modifications. In the focus is primarily the fact that most companies outside the insurance industry can estimate their costs accurately before setting the final sale price. The insurance company must set prices, even though it does not know the exact costs associated with the offered services. (13)

Determination of the premium is the result of past insured events. The premium in the real economic environment may differ from the average during the relatively long period.

For the specifics of the financial analysis of insurance company we can say that its´ fundamentally different from the analysis of other companies or manufacturing firms in priorities to complete tasks and achieve goals. The primary objective of any insurance company should be to reduce or eliminate adverse effects caused by random events. In terms of economic it means for the insurance company to make reserves from applicants contributions that are further used to cover the needs or damages to the insured when the incidents occur. A certain portion of available funds may be realized in the insurance company investments. From these differences outcomes that for the financial analysis of insurance company can basically only be used modified ratios.(10)

Aim of the financial analysis in the insurance company is to identify any weakness in the financial health, which could lead to future financial problems, and identify strengths that can capitalize on that business in the future. Based on the financial analysis insurers can avoid errors when operating and placing the committed funds.

To evaluate the financial health of insurers exist legislation under which insurance companies must report a state of solvency to the supervisory authorities. Financial analysis isn't a replacement for these procedures. In this case, it should be considered as a supplement to assess financial health.

The actual set of financial indicators and their calculations can´t be considered sufficient. These are to be compared in a longer time series and other insurance companies. At the same time it is necessary to exploit the possibilities of statistical methods and monitor the progress of profits, assets, premiums, etc.

Relevant practical financial analysis on selected insurance companies requires presentation of certain indicators or their entire release for lack of information obtained from insurance companies. Theoretical indicators are relevant for classical production company and application on the insurance company is not appropriate.(6)

2.2 Commercial insurers statements

Insurance companies prepare financial statements in accordance with the accounting act and ordinance No. 502/2002 Coll. and consists of:

- Balance sheet
- Profit and Loss
- Annex

All insurance companies must have their financial statements audited and selected data are required for public access. Since the main focus of the insurers´ activity is to provide insurance, remediation of damages and prevention from them, it is clear that these specifics also influence the financial statements. The most important and most detailed described items in the closing statements are received premiums, paid claims and technical reserves for such claims.(2)

Balance sheet is the first financial statement to the insurance company when preparing final accounts. The task is generally to capture a snapshot of the assets and liabilities.

Table 3 Balance sheet of insurance company (13)

Assets	Liabilities
1. Receivables for subscribed capital	1. Equity
2. Intangible assets	2. Subordinated liabilities
3. Financial placements (investments)	3. Technical reserves
4. Financial placement of life insurance, where the policyholder bears the investment risk	4. Technical reserve of life insurance, where the policyholder bears the investment risk

5. Debtors	5. Reserves
6. Other assets	6. Deposits received from reinsurers
7. Temporary accounts of assets	7. Creditors
	8. Temporary accounts of liabilities
Total assets	**Total liabilities**

The balance sheet is divided into assets and liabilities items in the prior year period, gross values, correction and the net values.

Brief characteristics of asset items

- Receivables for subscribed capital - resulting from the obligations to repay the deposit,
- Intangible assets - founding costs, goodwill, intangible results of research and development, computer programs, etc.
- Financial placements (investments) - land and buildings, investments in subsidiaries and associates, other investments and deposits with active arrangements,
- Financial position of life insurance, where the policyholder bears the investment risk - investments which funding source is a technical reserve of liabilities as mentioned in the technical reserve for life insurance
- Debtors - receivables from direct insurance, reinsurance receivables, other receivables,
- Other assets - tangible assets, inventories, costs related to the acquisition of property, valuables, shares, other assets,
- Temporary accounts of assets – next period incomes, next period expenses, speculative active items. (13)

A brief description of liabilities items

- Equity – registered capital, share premium, other capital funds, reserves, retained earnings, retained earnings / losses from previous periods, the profit / loss for the financial period
- Subordinated liabilities - liabilities, which were contractually decided that in the event of liquidation or bankruptcy will be paid last in the order

- Technical reserves - reserve for unearned premiums, reserve for claims filling, reserve for bonuses and rebates, a buffer reserve, non-life insurance reserve, life insurance reserve, the reserve of life insurance, where the policyholder bears the investment risk, the reserve for liabilities arising from technical interest rate, other reserves,

- Technical reserves for life insurance, where the policyholder bears the investment risk - a reserve that relates to the asset item entitled investments life insurance bear the investment risk

- Reserves - reserves for pensions and similar obligations, the reserve for income tax, profit/loss reserve and reserve for restructuring

- Deposits received from reinsurers - liabilities from guarantee deposits obtained from insurers or reinsurer taken from him under the contract of reinsurance,

- Creditors - liabilities from direct insurance operations, debenture loans, other liabilities,

- Temporary accounts of liabilities – next period expenses, next period revenues, speculative liabilities items. (13)

Profit and loss statement of the insurance company

It is a written statement of revenues, expenses and primarily income results. So there are captured incomes and expenses that affect results for a certain period. Income results are distinguished:

- Operational income result
- Financial operations income result
- Extraordinary income result

Profit and loss statement is also compiled on a year or a shorter basis, as well as balance sheet. Statement of insurers has the designation UC POJ 2-01. This designation differs from the sheet designation only in number 2 that marks 2nd position in the importance. It is also called Income statement. (2)

Profit and loss statement is submitted to state supervision for the insurance sector, to the tax office and to the central authority of state statistics. Equally as the balance sheet is this financial statement form regulated by the Ministry of Finance.

It is still necessary to emphasize the fundamental difference between the balance sheet and the profit and loss: while the balance sheet shows assets and liabilities at a certain moment of time.

Income at insurance companies is divided into 3 parts:
- Technical account non-life insurance
  - Deserved premium net of reinsurance
  - Transferred incomes from financial placement of non-technical account
  - Other technical income net of reinsurance
  - The cost of claims net of reinsurance
  - Change in other technical reserves, net of reinsurance
  - Premiums and discounts net of reinsurance
  - Net operating expenses
  - Other technical expenses, net of reinsurance
  - Change in the buffer reserve
  - Result of technical account of non-life insurance

- Technical account life insurance
    - Deserved premiums net of reinsurance
    - Incomes from financial placement
    - Other technical incomes net of reinsurance
    - Cost of claims fills net of reinsurance
    - Change in other technical reserves
    - Premiums and discounts net of reinsurance
    - Net operating expenses
    - Costs of financial placements
    - Losses on financial placements
    - Other technical expenses, net of reinsurance
    - Transfer of investment income on the non-technical account
    - Result of technical account for life-insurance
- Non-technical account
    - Balance on the technical account for non-life insurance
    - Balance on the technical account for life insurance
    - Financial placement incomes transferred from technical account for life insurance
    - Financial placement incomes transferred on technical account for non-life insurance
    - Other revenues
    - Other costs
    - Tax on income from ordinary activities
    - Gain or loss from ordinary activities after tax
    - Extraordinary revenues
    - Extraordinary expenses
    - Extraordinary profit or loss
    - Other taxes and fees
    - Profit or loss for the accounting period (6)

Cash flow statement

Cash flow statement is relatively young matters. It was built on the basis of the insufficient explanatory value of two previous statements for the analysis of enterprise. The composition of the cash-flow reveals financial options and business liquidity. Respectively shows the ability to meet obligations. Therefore serves to assess the valid financial situation, but this statement is mostly used in manufacturing companies, not insurance companies. Insurers in most cases do not even conduct cash-flow statement. (10)

2.3 Commercial insurer

Commercial insurer is a legal entity that is authorized to carry on insurance or reinsurance. Services are provided in accordance with the law. Primary purpose is to eliminate or at least mitigate the adverse consequences of insure incidents. We can distinguish between:

- **specialized insurance companies** - insurance companies which carry on insurance business focused solely on specific insurance sectors, respectively. products
- **universal insurance** - insurance companies that do not specialize only in certain sectors of insurance, but provide clients with insurance protection in both life and non-life insurance and thus complexly satisfy their requirements.

Each insurance company must overcome various difficulties, but the main objective for all of them is to become and stay profitable. They pursue the goal to have the highest economic results. Long-term loss of the insurance company has a bad influence and in long leads to threat of the existence or even bankruptcy. For healthy insurance company is considered one that can in time handle repayment of its obligations to other subjects, such as tax authorities, banks, employees, clients, etc. Equally significant part of the financial health is liquidity (long-term liquidity). This means the ability to smoothly pay back insurance liabilities in the future.

Individuality of insurers companies must be taken into account. Each company in this field is specific and the financial analysis is unique in every case. We can meet insurance companies that are profitable, but have liquidity problems (in CZ), or one that have insurance loss, while their liquidity is not a threat.

The objective of the insurance business is the insurance and reinsurance activity and other related activities. Insurance companies in their activities perform three basic tasks according to scheme. (13)

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                    ┌─────────────────┐
                    │  Insurer tasks  │
                    └─────────────────┘
          ┌──────────────────┼──────────────────┐
  ┌───────────────┐  ┌───────────────┐  ┌───────────────┐
  │   Technical   │  │   Preventive  │  │Conduct business│
  └───────────────┘  └───────────────┘  └───────────────┘
          │                  │                  │
  ┌───────────────┐  ┌───────────────┐  ┌───────────────┐
  │Compensations  │  │Preventive     │  │Financial      │
  │in the form    │  │measures to    │  │business       │
  │claim fills    │  │reduce the risk│  │conducted by   │
  │               │  │of damage      │  │insurers       │
  └───────────────┘  └───────────────┘  └───────────────┘
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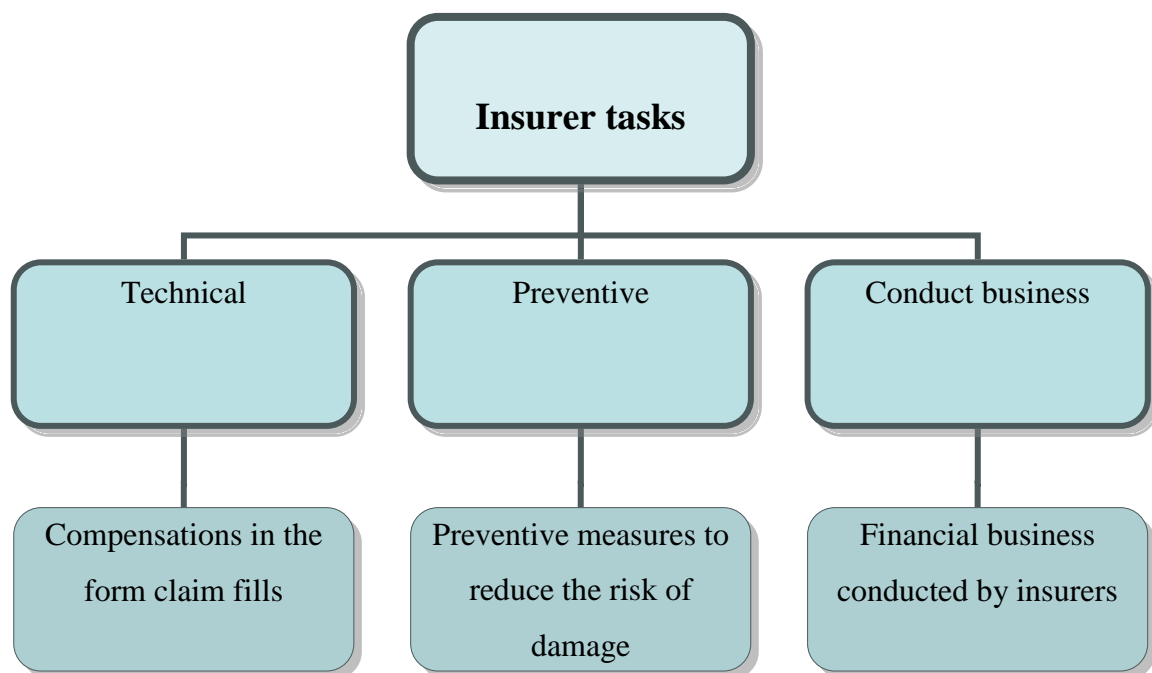
Picture 4 Commercial insurer tasks (13)

The most important aspect of commercial insurance companies is that they provide insurance protection and pays for damages arising out of incidents, which acts as a stabilizer of enterprises and economic level of living of the population. Commercial insurance companies are focused on investing their funds temporarily available to the profiling industry

The objective of the financial business or investment activity is capital appreciation, which commercial insurance company owns or manages.

As a part of commercial insurance company activities it takes considerable risks covered by its activities. At the same time it is trying to maximize its capacities. To increase the flexibility and capacity of the insurer serve reinsurance, or insurance of the company itself. Insurance companies perform passive security, when they move part of the risks to reinsurers and thus increase its capacity.(6)

3 Relevancy of data and indicators on selected insurance companies

I received the information used in my diploma thesis from financial statements of insurance companies, which are the Česká pojišťovna, a.s., and Kooperativa pojišťovna, a.s.

Statements are freely downloadable on the internet public registers. The financial statements are included in the closing account statements that are processed by insurance companies every year, always at 31 December.

To process these data I acquired knowledge gained during the study of specialized publications. I mention all the resources at the end of this work in the literature list.

In practice, it is possible for insurance companies to use proportional ratios and indicators. For this purpose I chose ratios of profitability, liquidity, activity, and indebtness. It is their calculation I deal with in this chapter. Among the ratios is also calculated cash flow, but insurance companies mostly don´t compile it. The only insurance company that compiles this report is Česká pojišťovna, but in this calculation I don´t have any insurer for the comparison. Therefore, I will only deal with already mentioned indicators and horizontal analysis at first.

Ratios are calculated for both insurance companies. Financial statements used to conduct this report are from 2006 to 2011. At the end of this chapter is an analysis of financial results of insurers, which is linked with calculations of the single indicators. Here is also drawn up a chart and comparison between them.

3.1 Česká pojišťovna

It is a universal insurance company with more than 180-year rich tradition of providing life and non-life insurance. Since a competitive environment was reintroduced in 1991 It has remained the biggest insurance company on the Czech insurance market.

It provides individual life and non-life insurance as well as insurance for small medium and large clients in industrial, business risks and agriculture. About 3900 employees and 5600 sales representatives ensure the maximum satisfaction of clients at more than 3000 sales points. Insurance premiums under the Czech Insurance

Association methodology totalled 38.4 billion in 2010. Česká pojišťovna (Czech Insurance Company) manages almost nine million insurance agreemnets and its market share on the home insurance market exceeds 25 percent.

Česká pojišťovna is the biggest insurance company under the Generali PPF Holding, which forms one of the biggest insurance groups in Central and Eastern Europe. Since 2008 Generali PPF Holding has been a joint venture of Assicurazioni Generali and the PPF Group in which both parties have invested their insurance assets in our region. Generali, one of the biggest global insurance companies, holds a 51-percent share and the PPF group 49 percent in the joint venture.

Generali PPF Holding operates in 14 countries – Belarus, Bulgaria, Croatia, Czech Republic, Hungary, Kazakhstan, Serbia and Montenegro, Poland, Romania, Russia, Slovenia, Slovakia and Ukraine. It services more than 13 million clients, manages assets worth almost 15 billion euros and premiums within the group exceeded 3.3 billion euros in 2010.

In The Czech Republic the business is regulated by the law of insurance business No. 277/2009 Sb. on insurance, as amended. In addition, the reinsurance and activities related to insurance activities, such as mediation which is the activity undertaken in relation to insurance and reinsurance, consulting services for natural or legal persons, investigation of claims based on settled contracts, procurement of financial services such as deposit-taking intermediation and other repayable funds, procurement of loans, leases, etc. (16)

Table 4 Assets - Česká pojišťovna (Source: own processing based on insurers´ statements)

Česká pojišťovna, a.s.						
Assets (thousands CZK)						
Assets						
	2006	2007	2008	2009	2010	2011
Intangible assets	1 435 984	1 376 854	1 277 416	1 350 000	1 445 000	1 432 000
Investments	87 045 889	101 211 242	104 337 838	105 632 000	101 883 000	100 343 000
Cover shares on technical reserves	8 266 126	8 077 597	8 550 102	9 239 000	10 248 000	9 837 000
Receivables	22 343 072	9 194 507	12 222 866	8 327 000	11 216 000	10 233 000

Postponed tax receivable	0	0	0	33 000	50 000	19 000
Other assets	55 794	1 986 377	1 418 696	1 396 000	1 383 000	1 324 000
Cash	1 170 980	330 106	292 355	154 000	221 000	169 000
Long-term assets for sale purposes	214 846	48 412	276 232	291 000	0	0
Active time differentials	751 808	0	0	0	0	0
Total Assets	121 285 325	122 225 803	128 376 213	126 422 000	126 446 000	123 357 000

Table 5 Liabilities - Česká pojišťovna (Source: own processing based on insurers´ statements)

Česká pojišťovna, a.s.						
Liabilities (thousands CZK)						
	2006	2007	2008	2009	2010	2011
Legal capital	4 100 000	4 100 000	4 100 000	4 100 000	4 100 000	4 100 000
Retained profit and funds	13 076 564	13 487 695	14 409 786	17 745 000	20 634 000	19 865 000
Total equity	17 176 564	17 587 695	18 509 786	21 845 000	24 734 000	23 965 000
Insurance liabilities	88 268 982	90 172 676	92 622 350	88 946 000	89 935 000	85 529 000
Reserves	2 292 966	2 391 626	2 312 105	2 031 000	1 852 000	1 908 000
Financial liabilities	1 977 963	865 774	4 437 411	1 924 000	1 196 000	2 098 000
Payables	9 297 454	8 705 755	8 559 234	9 718 000	6 886 000	7 868 000
Postponed tax	711 541	468 814	60 799	0	0	0
Other liabilities	47 089	2 033 463	1 874 528	1 958 000	1 843 000	1 989 000
Time differentiation	1 512 766	0	0	0	0	0
Foreign capital total	104 108 761	104 638 108	109 866 427	104 577 000	101 712 000	99 392 000
Liabilities total	121 285 325	122 225 803	128 376 213	126 422 000	126 446 000	123 357 000

Table 6 Income statement - Česká pojišťovna (Source: own processing based on insurers´ statements)

Česká pojišťovna						
Income statement (thousands CZK)						
	2006	2007	2008	2009	2010	2011
Sales	37 528 687	35 893 141	38 023 928	38 072 000	42 172 000	41 287 000
Deserved inusrance less reinsurers share	26 779 835	27 830 573	28 558 176	27 408 000	26 350 000	26 087 000
Costs	27 175 843	27 525 333	32 041 007	29 265 000	29 782 000	30 781 000
EBIT	10 352 844	8 367 808	5 982 921	8 807 000	12 390 000	10 506 000
Tax	2 049 800	1 427 699	103 998	1 402 000	1 187 000	1 032 000
EAT	8 303 044	6 940 109	5 878 923	7 405 000	11 203 000	9 474 000

3.2 Kooperativa pojišťovna

Kooperativa is the second largest insurance company on the domestic market. It was established in 1991 as the first commercial insurance company on the territory of former Czechoslovakia. Our share of the compulsory insurance in the Czech Republic is 23%. We are a universal insurance company offering full range of services and all standard types of insurance for individuals as well as company clients from small businesses to large industrial companies.

Kooperativa, Ceska podnikatelska pojistovna, and Pojistovna Ceske sporitelny are parts of the Vienna Insurance Group, one of the leading insurance groups in the Middle and Eastern European countries with their shares being traded on the stock exchange markets in Vienna and Prague. (17)

Table 7 Assets - Kooperativa (Source: own processing based on insurers´ statements)

Kooperativa pojišťovna, a.s.						
Assets (thousands CZK)						
	2006	2007	2008	2009	2010	2011
Intangible assets	1 383 324	723 767	106 722	34 021	59 890	70 987
Investments	33 136 746	39 559 646	45 726 586	51 596 962	53 793 320	52 989 787
Financial placement life-insurance	294 011	945 676	827 888	1 355 809	1 948 001	2 223 632
Receivables	2 641 999	2 705 989	2 293 008	2 045 899	1 898 233	1 787 665
Other assets	499 787	605 709	523 881	446 883	386 009	443 766
Cash	151 845	151 076	119 786	114 675	105 610	102 989
Temporary assets account	186 908	2 584 676	2 990 008	2 462 901	3 480 100	325 456
Total Assets	39 526 099	47 849 230	52 574 815	57 976 496	61 625 443	57 912 280

Table 8 Liabilities - Kooperativa (Source: own processing based on insurers´ statements)

Kooperativa pojišťovna, a.s.						
Liabilities (thousands CZK)						
	2006	2007	2008	2009	2010	2011
Total equity	7 825 878	8 156 334	10 152 874	12 127 090	13 532 881	13 876 567
Legal capital	2 900 000	3 100 000	3 100 000	3 100 000	3 100 000	3 100 000
Retained earnings	965 987	1 085 699	1 179 098	2 416 089	3 476 001	3 298 787
Subordinated liabilities		257 987	253 007	239 879	55 856	23 098
Technical reserves	28 950 337	35 988 155	38 618 258	41 933 683	42 721 703	38 986 091
Technical reserves life-insurance	293 543	949 776	828 800	1 354 777	1 948 657	2 098 788
Reserves	111 008	208 989	336 977	182 003	118 327	121 973
Insured deposits	0	0	0	0	976 987	565 987
Payables	2 345 333	2 287 989	2 384 899	2 139 064	2 271 032	2 239 776
Liabilities total	39 526 099	47 849 230	52 574 815	57 976 496	61 625 443	57 912 280

Table 9 Income statement - Kooperativa (Source: own processing based on insurers´ statements)

Kooperativa pojišťovna, a.s.						
Income statement (thousands CZK)						
	2006	2007	2008	2009	2010	2011
Sales	21 431 285	23 452 829	25 192 007	27 518 614	26 707 251	26 587 678
EBIT	1 133 906	1 464 218	1 614 221	3 024 965	4 075 401	3 718 876
Tax	169 453	376 564	434 565	608 978	598 089	529 089
EAT	964 453	1 087 654	1 179 656	2 415 987	3 477 312	3 189 787

3.3 Horizontal analysis

At first I will focus on the gross earned premium. The Gross earned premium is the final amount of premiums and discounts for surcharges to be paid by the client to the insurance company. The insurer premiums represent the sum of payments from clients for a prescribed period. This item determines the position of the insurance company on the market. In this first step I will focus on earned premiums as a whole. Afterwards it will be distinguished on non-life and life insurance.

Table 10 Gross earned premium (Source: own processing based on insurers´ statements)

	Unit	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Česká pojišťovna	mil. CZK	36 667	37 990	38 594	38 641	37 108	33 586
Kooperativa	mil. CZK	27 427	29 011	30 730	30 991	31 894	30 120

In the above chart are values of gross earned premiums of both largest insurers on the Czech market. I will look at these figures in the macroeconomic context. I chose the GDP indicator for comparison conduction to examine the relevancy of trends of both companies in gross earned premiums.

Table 11 GDP y/y change Czech Republic (Source: Czech statistical office)

GDP y/y % change in the Czech republic						
	2006	**2007**	**2008**	**2009**	**2010**	**2011**
% change	7,0	5,7	3,1	-4,7	2,7	1,7

Graph 1 Gross earned premium in millions CZK (Source: own processing)
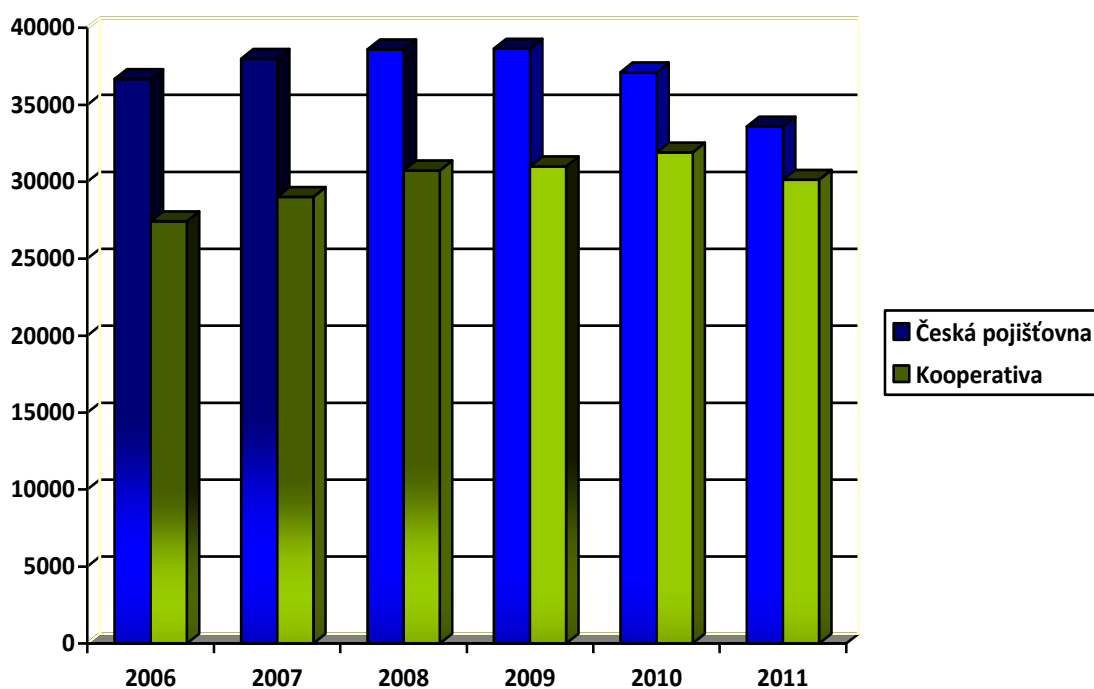
Graph 2 GDP % change CZ (Source: Czech Statistical Office)
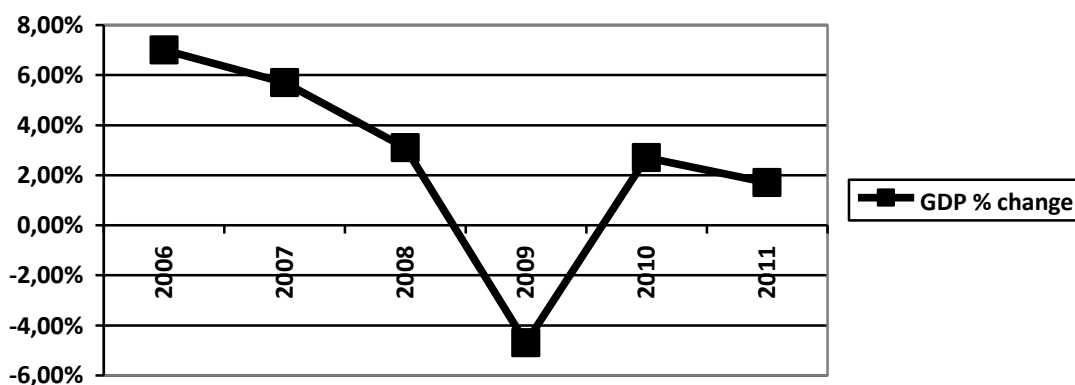
Gross earned premium in the short term only hardly reacts on GDP and inflation changes. The annual decline in gross domestic product, economic recession, rising unemployment surely affects both insurers. But it seems these are very durable companies in comparison to economic downturn that affected most of the business fields. But to interpret observed data relevantly we have to consider the nature of this business. Most of the insurance companies do not suffer from the financial crisis. This type of business is of noncyclical kind. Their clients do not usually quit their insurance

agreements with the coming crisis. If there is any impact of the crisis on the insurance market, it is mostly aftermath of the crisis and the hit comes to insurers with delay and in mild matter. Conversely, some media say, the financial crisis forces people to settle new insurance agreements, such as life-insurance, insurance of companies, business interruption insurance, etc.

Under the opinion of some insurance business professionals, insurance market is only affected by crisis in non-life segment. Non-life insurance segment stagnates during the crisis, while life insurance may recognize even a slight growth. To prove this I will move further in the data examination distinguished on non-life and life insurance.

3.3.1 Non-life insurance

In the time of economical slump people usually tend to quit or diminish their non-life insurance contracts. As I mentioned before, the reaction of the insurance market is a bit behind macroeconomic situation. We can recognize this with a delay as stated below on the non-life gross earned premium.

Table 12 Non-life earned premium (Source: own processing)

	Unit	2006	2007	2008	2009	2010	2011
Česká pojišťovna	mil. CZK	23 420	24 530	24 632	25 056	21 452	20 381
Kooperativa	mil. CZK	18878	19 978	20 212	20 378	17 898	18 007

Graph 3 Non-life gross earned premiums in millions CZK (Source: own processing)
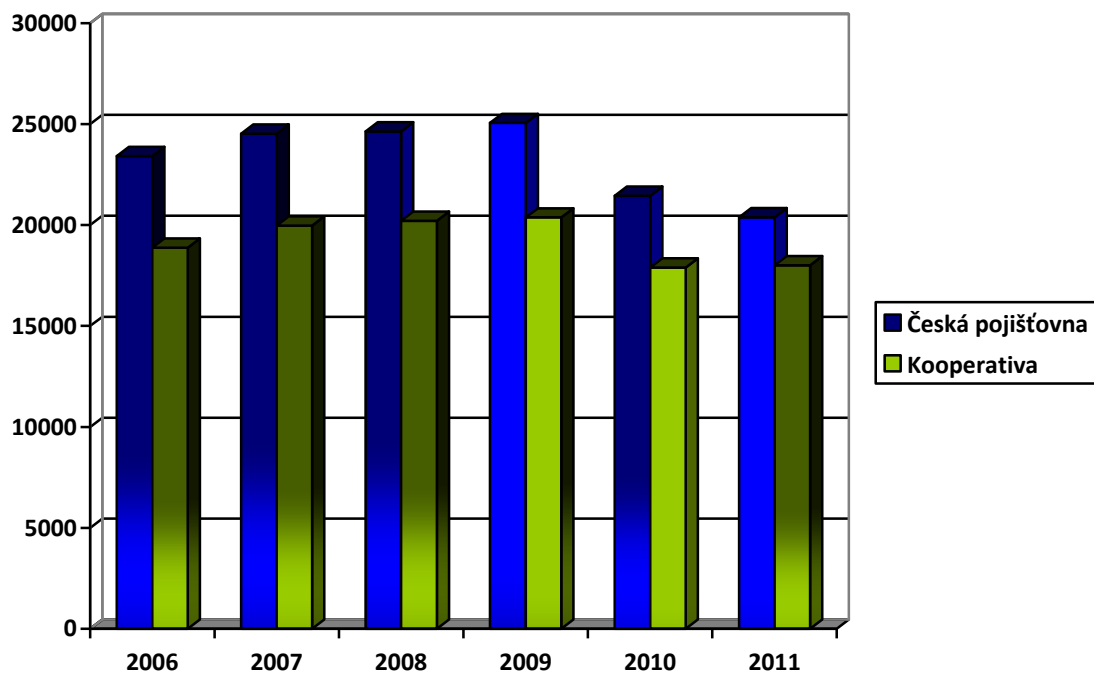
In 2010 significant downturn in non-life gross earned premium is obvious. Diminishing occurred approximately 2 years after the crisis was considered to begin. From the manager´s perspective if we were only submitted the data till 2009 it could seem that financial crisis doesn't affect the company very much in non-life sector. But as stated above, the insurance business reacts with delay on such events as clearly apparent in 2010 and 2011. Slow-down could have several drivers:

- Exiting companies across in all business fields as a result of economic downturn
- Weaker demand for new cars (car insurance represents over 50% share of the market) mostly related just with the first reason. Impact of the crisis hits more insurance of new cars, which - if aren't sold – can´t even be insured.
- For households and buildings aren´t these effects so apparent. Because only a few people build or buy a new house without insurance. It is too risky.

Car insurance

While car insurance represents over 50% of the non-life insurance market I´d focus on factors, except the macro-economical change, influencing it.

The aim of the insurer is to have highest possible volume of insurance contracts for highest price with lowest damage fills. The legislation rules order that every car must have insurance against possible damages caused by vehicle usage. The second largest to the volume is optional car insurance against damage or theft of insured car.

If we look at the statistics of car material damages fills (graph below), that represent the approximate costs for insurers we could see huge decline in 2009. So we should observe rising **gross profit margins** on car insurance.

- Gross profit margin is the difference between sales and the cost of goods sold divided by revenue. It expresses the relation between gross profit (sales - cost of goods sold) and sales revenue. More specifically, gross profit margin represents the percentage of each dollar of a company's revenue that is available to cover fixed costs after paying for the goods or services that were sold. For insurance companies it is collected premium on position of sales and paid out insure events representing costs.

Graph 4 Estimated car material damages in mil. CZK (Source: Police statistics of The Czech Republic)
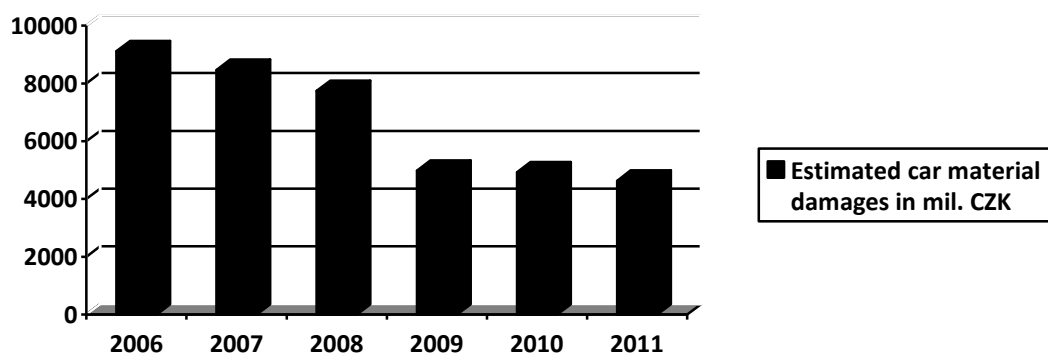
Graph 5 Gross profit margin car insurance % (Source: own processing)
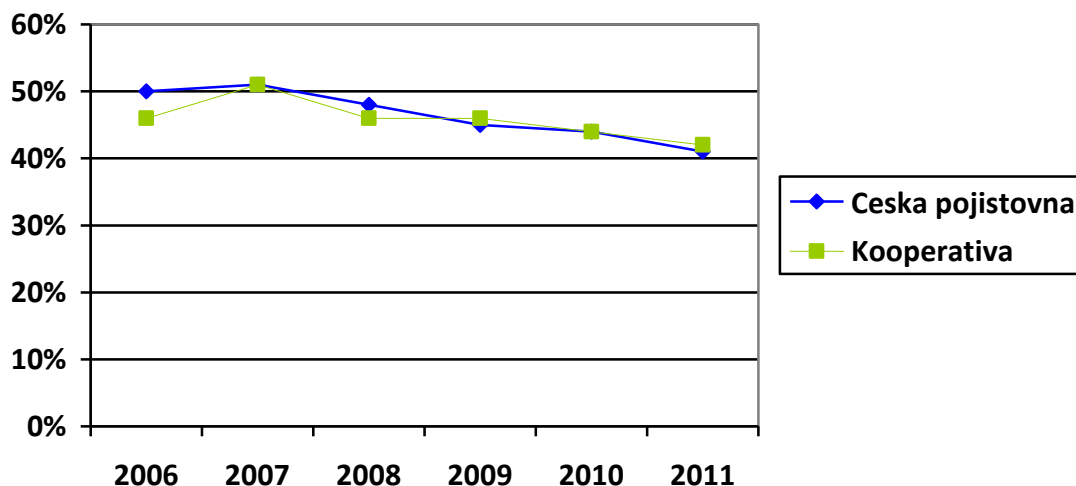
But opposite the expectations the gross **profit margin at both insurers shrinks from 2006 to 2011**. We could look for relevant reasons inside the company but our efforts would be useless. We have to dig in the legislation. The accident statistic gives clear data at the first sight. But to be the comparable tool for proving data relevancy of the company there must be additional information used. I mean information that causes the distortion of this statistic. Distortion caused by approved laws rearranging the duties for reporting the accidents. In the 2009 were the limits for announcing the car accidents raised to 100 000 CZK from 50 000 CZK. So the police statistics do not cover all the damages during the year. That is the reason of distortion in above graphs.

This could be potentially tricky information for new coming insurers on the Czech market without **deeper knowledge of exploratory value of the statistic** in setting product prices and so on. Even established companies could be confused from misunderstanding the opposite trend of mentioned figures.

Not forget to mention the decline in gross profit margin on car insurance may be additionally caused by two contradictory factors with negative impact on performance in car damage insurance. During the examined period occurred falling car prices, on the one hand, and stagnating or even growing prices for spare parts and repairs. This trend is supposed to continue in the future so the **gross profit margin in sector should be deteriorating** same as total collected premiums because of declining demand for new cars and declining reinsurance value of aging cars.

3.3.2 Life insurance

Table 13 Gross premium earned - life insurance (Source: own processing)

	Unit	2006	2007	2008	2009	2010	2011
Česká pojišťovna	mil. CZK	13 213	13 460	13 962	13 585	15 656	13 205
Kooperativa	mil. CZK	6272	6901	7412	7696	8357	7412

Table 14 Gross premium earned - life insurance in millions CZK (Source: own processing)
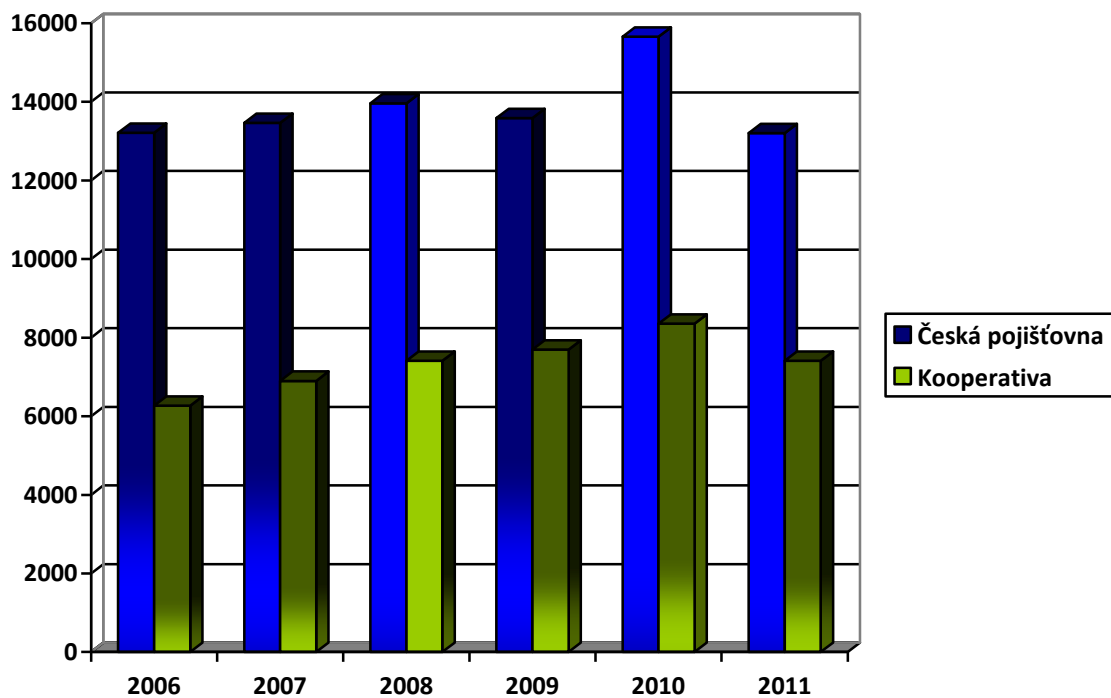
Life insurance gross earned premium at both companies is stable in examined period. This confirms **well-known experience that in times of economic crisis, more people think of the insurance and looking for financial security**. In 2010 the significant raise was caused by Czech National Bank announcement reporting good future economic views which made people to deposit money to savings-insurance related products provided by insurers.

If we look to the future expectations, opposite to car insurance mentioned on previous pages, gross earned premium is supposed to rise because of legislation change. One of the drivers is pension reform. But this work is not about pension reform so I will only present the result relevant for insurance companies. From 1.1.2013 it will be possible to take 3% (currently duty payment to state owned fund) from gross wage and

place it for private pension insurance. So state creates new supply for private life insurance. Insurance company should be aware of this and set the goal to allocate these private investors.

3.4 Profitability ratios

The basic indicator for profitability, as mentioned in theoretical framework of this work, is Return on Equity. It expresses the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Profitability analysis is based on three ratios - return on equity (ROE), return on assets (ROA) and return on capital employed (ROCE). The indicators have the same expression as for production or service businesses, they did not need to be edited and have been taken from the general theory.

Table 15 Profitability ratios calculations Česká pojišťovna (Source: own processing)

	2006	**2007**	**2008**	**2009**	**2010**	**2011**
ROE	0,4834	0,3946	0,3176	0,3390	0,4529	0,3953
ROA	0,0685	0,0568	0,0458	0,0586	0,0886	0,0768
ROCE	0,4834	0,3946	0,3176	0,3390	0,4529	0,3953

Table 16 Profitability ratios calculations Kooperativa (Source: own processing)

	2006	**2007**	**2008**	**2009**	**2010**	**2011**
ROE	0,123	0,133	0,116	0,199	0,257	0,230
ROA	0,0244	0,0227	0,0224	0,0417	0,0564	0,0551

Graph 6 Profitability ratios Česká pojišťovna (Source: own processing)
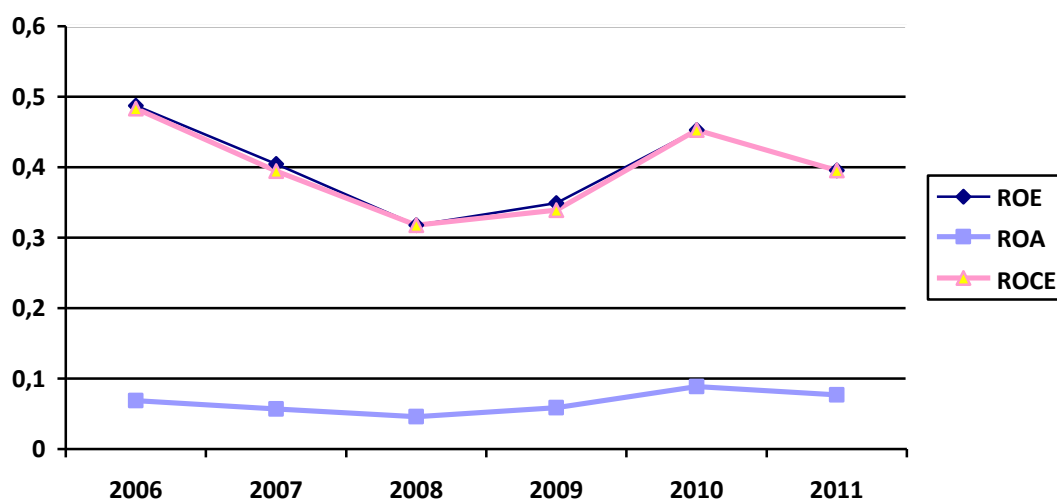
Above stated chart shows three basic profitability indicators:

- The ROE indicator is particularly interesting for investors to put their available cash resources in the company and hope to increase the profitability of their funds according to investment risk.
- ROA expresses return on total capital, thus total assets resp. total liabilities.
- ROCE is ratio that indicates the efficiency and profitability of a company's capital investments.

It is obvious from the graph that **ROE and ROCE indicators have practically the same values**. To better understand this, we have to look at the denominator of ROCE especially long-term debt. At the production company it would be an important item in size of the balance sheet. But for the insurance company is often equal to zero. It was confirmed by examining balance sheets of other insurance companies on the market. Despite insurers use a lot of foreign capital it doesn´t come from long-term debts. According to this fact the data and either the **ROCE indicator isn't relevant for evaluating the insurance company** while it is enough to watch ROE reaching similar values.

Graph 7 ROA comparison of Česká pojišťovna and Kooperativa (Source: own processing)
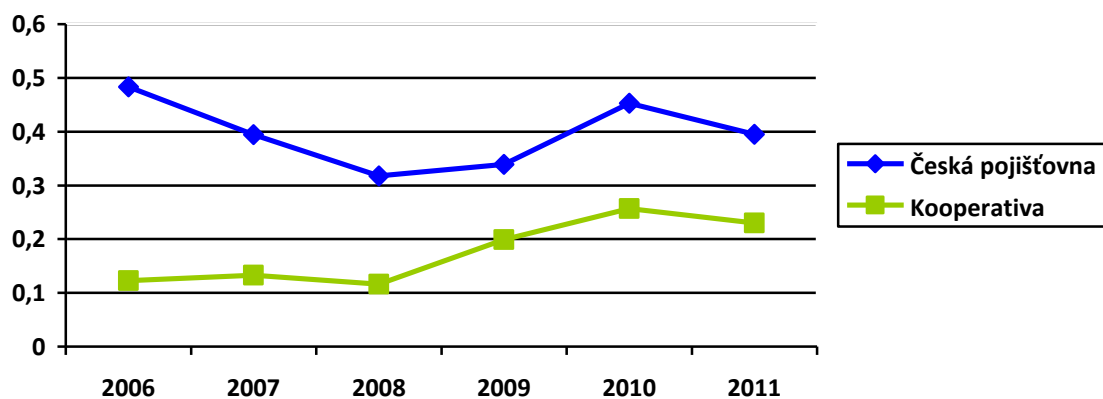
Graph 8 ROE comparison of Česká pojišťovna and Kooperativa (Source: own processing)
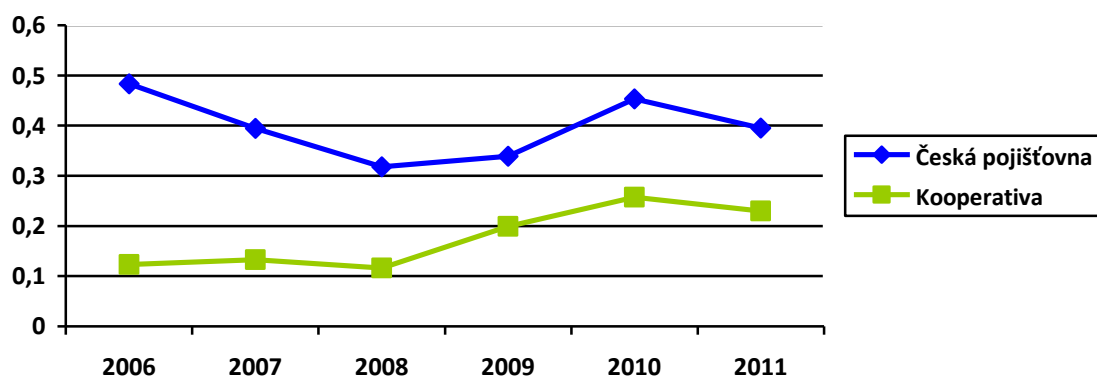
ROE and ROA

ROE trend in time is almost comparable to the trend of ROA, but the numbers are in other levels. While we could see ROA in values from 0.0244 to 0.0886, ROE ranges from 0.116 to 0.4834. Equity is not of staggering amount of total liabilities. The most immense liabilities´ item is technical reserves.

In the nominator of profitability ratios we use EAT, for companies with different tax and interest rates is it replaced by EBIT for ROA. If we look closer what are main generators of profits we find it in collected premiums and investments.

It is visible from the graph that the financial results of the companies **don't follow the negative macroeconomic change started in 2008**. If we examine most of production or trading companies we could in most cases see that financial results go down in time of recession. If we could see results like these above it would be a good sign for shareholders. But we have to have on mind that we examine insurance companies. The relevance of these figures must be reflected in the nature of the business.

In 2010 the results were significantly positive. It was caused mainly by financial market revivals. Insurance companies must place their financial investments under specific rules. The rules are set in regulation document (nr. 434/2009 Sb).issued by regulatory body for insurance market. Investment composition is mainly based on low risk state guaranteed bonds. These assets are called technical reserves and are settled as investments under regulations. Technical reserves serve as the cover for payout of insured events.

Investments placed under the law rules are mainly state bonds, treasury bills etc. It means low-risk investments with low appreciation. Based on expressions of single

insurers no cohesive opinion on easing or tightening this policy was agreed. **Easing the policy and enable insurers take more risky investment could mean higher profits but on the other hand could lead to fatal collapse of the insurer in case of bad investment decision.**

3.5 Liquidity ratios

For the purposes of the financial analysis are usually used three types of liquidity, but for the insurance company can be only calculated, according to the formulas, only two relevant liquidity ratios, namely the current and cash ratio. Insurance companies opposite to production ones don´t have any inventory. If they still have some it is in a negligible amount and in the balance sheet is mainly included in other temporal assets account. Each insurer has different approach therefore it is possible that each involves it differently in the balance sheet.

Therefore only countable and relevant ratios I deal with are current ratio and cash ratio

Table 17 Liquidity ratios calculations Česká pojišťovna (Source: own processing)

	2006	2007	2008	2009	2010	2011
Current ratio	0,1357	0,1105	0,1293	0,0975	0,1265	0,1182
Cash ratio	0,0012	0,0032	0,0027	0,0015	0,0022	0,0017

Table 18 Liquidity ratios calculations Kooperativa (Source: own processing)

	2006	2007	2008	2009	2010	2011
Current ratio	0,1098	0,1524	0,1397	0,1106	0,1221	0,1004
Cash ratio	0,0048	0,0038	0,0028	0,0025	0,0022	0,0023

Graph 9 Quick ratio comparison of both companies (Source: own processing)
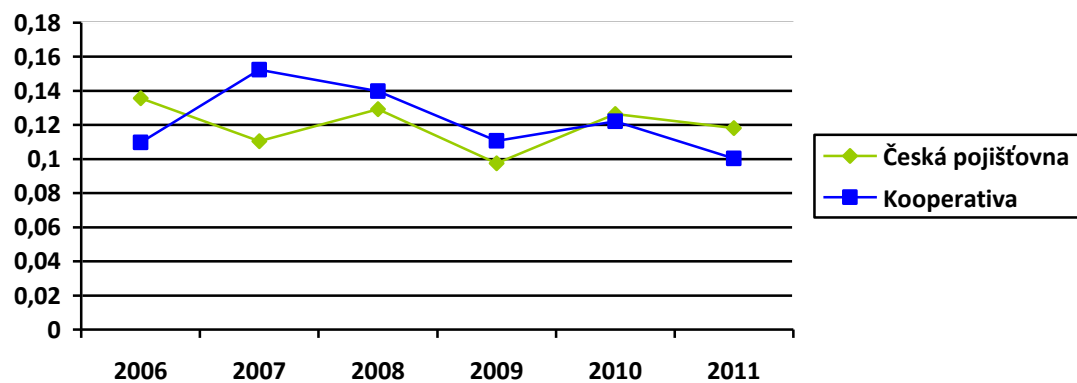
Graph 10 Cash ratio comparison of both companies (Source: Own processing)
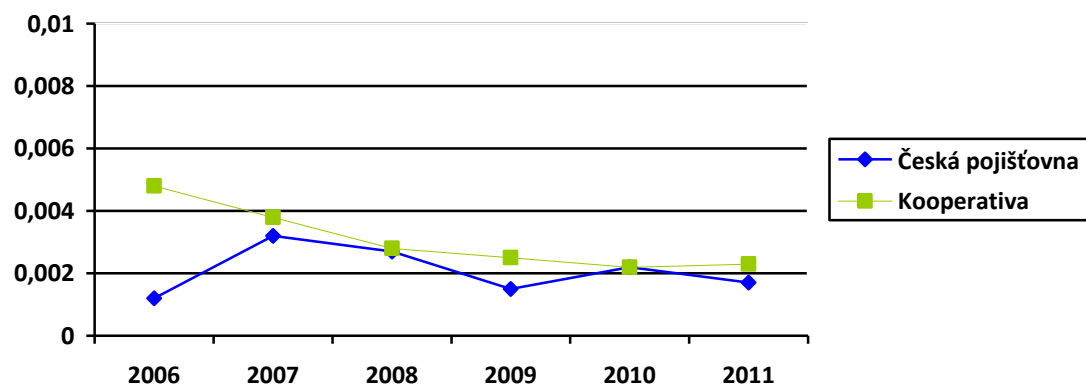
The optimum proportion of quick ratio is considered to be 1:1. According to theoretical framework could seem the values very alarming. **In case of insurers quick ratio is deformed because of high level of current liabilities**. The explanatory value of this indicator is the trend in time. Absolute ratio of quick liquidity of both insurers is at very low level but it is quite stable in time and points to a good condition.

As obvious, the levels of both companies are very similar and refer to their similar market position**. Real test of well set liquidity comes in the times of massive natural disasters.** Such exceptional situations put high requirements on liquidity while higher count of insurance events must be solved. To cover exceptional demands insurer is forced to liquidate long term investments which could be disadvantageous.

3.6 Activity ratios

For the activity indicators are suitable high asset turnover values. Activity may be associated with other indicators. Low activity may substantially influence liquidity and other indicators. The calculation shows how the company operates with assets.

For indicators of activity were created following graphs of total assets turnover, debts turnover and liabilities turnover. On these graphs are clearly visible developing trends in period of 2006-2011.

Graph 11 Assets turnover comparison of both companies (Source: own processing)
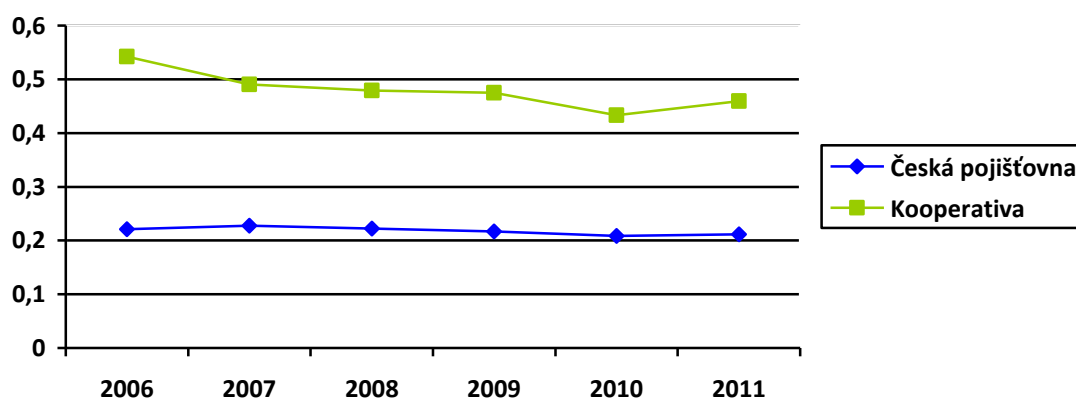
For data used in calculations it is necessary to realize that insurance companies don't have any sales, because they don't trade with any goods. They only provide insurance coverage for the premium paid. Their "sales" are thus essentially collected premiums from life and non-life insurance. For relevant calculations fits collected premiums as a whole. It means non-life and life insurance taken together as a one item.

The optimal result is not firmly set, because the relevant optimum chooses each company on itself based on experience. The basic rule is higher values of this indicator mean better position for the company. It tells us how many times the total assets turnover in one year period.

Česká pojišťovna, a.s. has an asset turnover constant for examined period. Ratio calculated for Kooperativa has slightly declining tendency. Comparing these two insurers is the better choice Česká pojišťovna because of the stagnating trend without declining tendency.

Receivables turnover

Graph 12 Receivables turnover comparison of both companies (Source: Own processing)
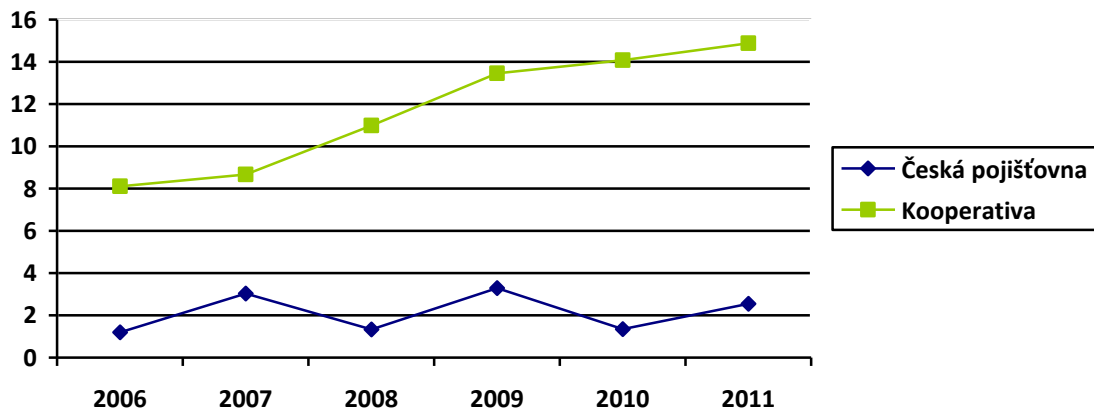
This graph shows receivables turnover. Same as for the previous indicator are better higher values. Exact value isn't fix set and the optimum must be adjusted for specific conditions of each company. However, also applies as to the previous indicators that the exact value is not defined anywhere. The optimal value sets every insurance company at different level that fits the most to its´ activities.

The indicator is relevant for the insurance company to find out how quickly their receivables will be paid. In the case of insurers the relevant data represent unpaid premiums, receivables from reinsurance claims and receivables from intermediaries. **Each insurer strives to get insurance premium as soon as possible in whole to have assets for further investment.** It is clear from the insurers´ policy when for example if a payment for whole year insurance is paid at the beginning in full extent, customer obtains benefits in form of sale and so on. For the insurer is it more advantageous than for example to receive premium quarterly.

The higher value of receivables turnover is the faster may additional financial assets be invested. The better trend has Kooperativa. It is permanently in growth for whole the examined period. Česká pojišťovna has considerable fluctuations in this indicator which points to quite frequent significant change in receivables value. To better understand why this indicator shows such results we have to dig deeper in data sources. If we look at the client portfolio we find out that the number of clients is really high. The portfolio includes wide variety of customers with very different value of prescribed premiums. So the rapid changes in this indicator are not to worry. It is obvious that Česká pojišťovna is the very large company and so these values are allowed.

Payables turnover

Graph 13 Payables turnover comparison of both companies (Source: Own processing)
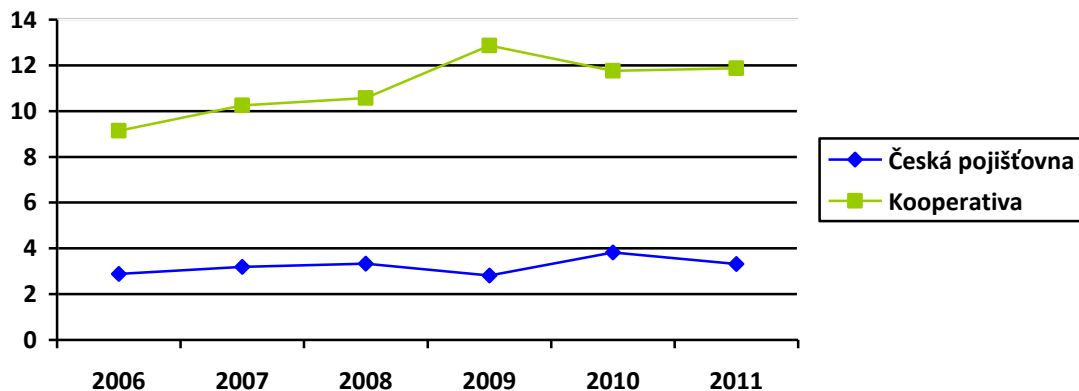
As with the previous two indicators of activity the indicator expresses how many times are the liabilities during the year converted into cash. The trend is captured in graph above. Optimal value isn't set and again is individual for each insurer. Each insurance company chooses optimal level of turnover. The result is proportion between revenues and payables, for insurance companies the relevant data are collected premiums and payables.

Both companies seems to be very stable while have different absolute levels. This indicator tells how much bargaining power has to its suppliers and hence the employees the company has. The lower value the stronger the position of the firm, not necessarily in negotiations with suppliers. Česká pojišťovna while have significantly lower values seems to have better position than Kooperative to its´ reinsurance partners. It also points out that Česká pojišťovna pays out damage fills later than Kooperativa which is worse for customers. Tradition and position of Česká pojišťovna on the Czech market is very strong while customers accept worse conditions than they could get at the competitor.

3.7 Indebtness ratios

Debt ratio

The insurance industry is not very convenient to use this indicator. According to this indicator the insurers could seem as overburdened with debt. The foreign capital significantly exceeds the equity. Standard should be exactly the opposite. But insurance companies use for their activities the capital coming from their clients who deposit it as a premium paid and insurance company gives in return a promise that, at the insured event they will pay harm compensation. Insurers actively work with collected premiums. They manage money from clients to get positive results on financial markets.

Table 19 Debt ratio calculations for both companies in % (Source: Own processing)

	2006	2007	2008	2009	2010	2011
Česká pojišťovna	85,84	85,61	85,58	82,72	80,44	80,57
Kooperativa	80,20	82,95	80,69	79,08	78,04	76,04

Graph 14 Debt ratio comparison of both companies (Source: Own processing)
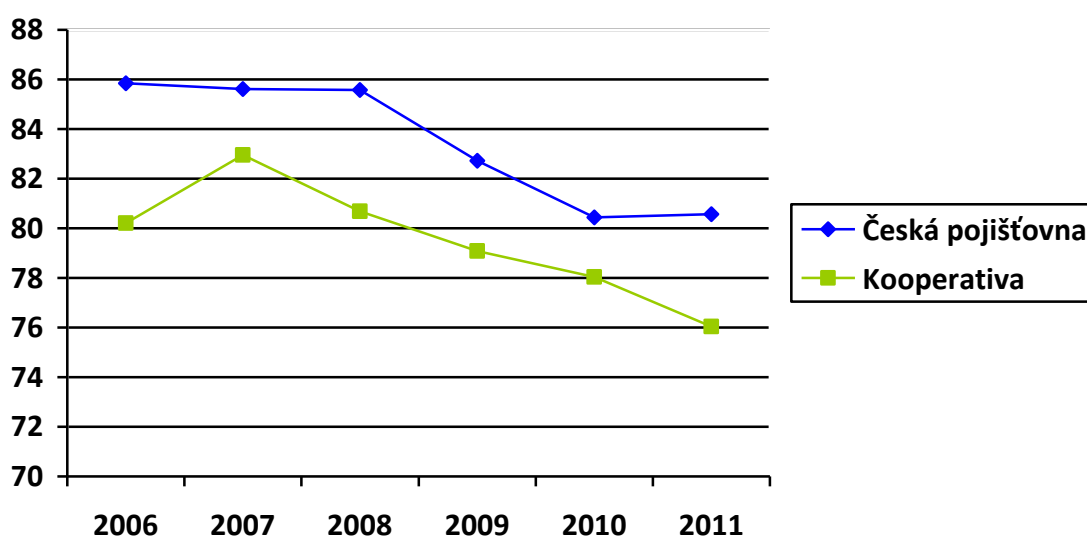
The graph shows the time progress of debt ratio indicator, which means the indebtedness of the company. The calculation is the proportion of foreign capital and total assets or indeed total liabilities. Česká pojišťovna is the biggest insurer at the Czech market and has the highest number of clients paying premiums. So this company

has the highest foreign capital among insurance companies. These figures would lead to bankruptcy at standard trading company but for insurers is this state allowed.

Equity ratio

Table 20 Equity ratio calculations in % (Source: Own processing)

	2006	2007	2008	2009	2010	2011
Česká pojišťovna	14,16	14,39	14,42	17,28	19,56	19,43
Kooperativa	19,80	17,05	19,31	20,92	21,96	23,96

Graph 15 Equity ratio comparison of both companies (Source: Own processing)
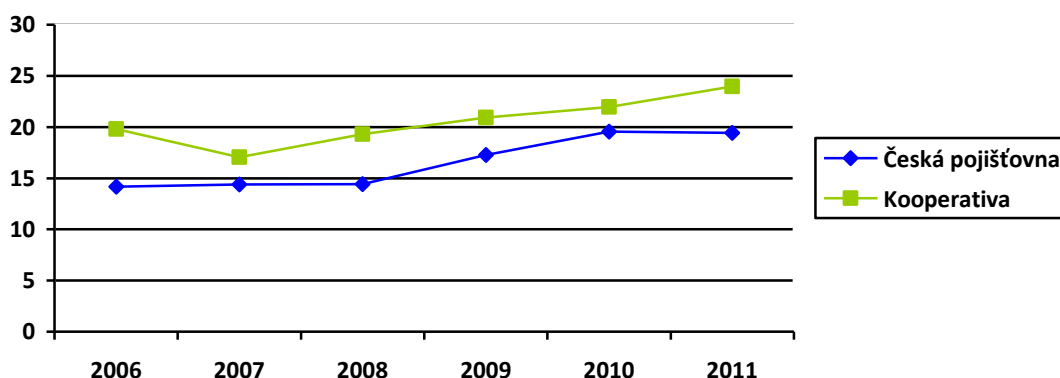
This indicator drawn in graph is also called an indicator of independence or self-financing. It is the opposite of debt ratio indicator. The value for insurers is very low because they have low equity. For enterprises this indicator should be much higher than debt ratio

Both companies noticed development to higher independency in examined period. This fact is very positive for them. But it is clear that that they have more debt, than to be fully independent and fund themselves.

4   Review and recommendations

Before I got to financial ratios I was interested how the insurance company results are influenced by financial crisis that we are going through. My aim was to compare the results of both discussed companies with economic slump which started in 2008. I was doing it to find relevant explanatory of the financial results. **Despite the crisis both companies noticed rising trends in total collected insurance premiums**. From managerial view it could seem that there is no influence from macroeconomic development. But further exploration revealed that **insurance companies usually react with delay and very mild on bad development of the economy**. So when examining such confusing results we have to always have on mind the nature of the business.

After the comparison of both insurers to economic development I focused on non-life and life insurance as a two parts of universal insurance business.

In non-life the major share represents car insurance. Again we could see delayed slump in 2010 but more interesting is to focus on comparison with police accident statistics. **According to statistics the total car damage value decreased almost to a half what means that we could expect rising profit margins in car insurance.** But the findings revealed exact opposite. When I was looking for the reason of this disharmony I revealed the legislative change which caused new limits for reporting the car damage value from 50 000 CZK to 100 000 CZK in 2009. So the statistics were distorted by these figures and couldn't provide relevant base for interpretation of the data. So it is necessary to always watch such a kind of changes influencing data sources.

In life-insurance we could observe rising trends for both companies during the whole period. To relevantly review positive trends I revealed the possible reasons. The best driver for rising trends in life insurance is surprisingly the financial crisis. For experts well known claim that **in the bad times people tend to think about backup and settle life insurance contracts**. But also other factors were found that will positively influence the future. I found out that legislative changes in pension system will bring additional money from people to insurers in the form of mandatory payment from salary determined to pension savings. It means newly created demand that insurers will surely strive for.

In the next chapters I finally got the ratios calculations. I started with profitability indicators (ROE, ROA and ROCE) and found out that from mostly used indicators only ROE and ROA is suitable for calculations while ROCE indicator is not

relevant for calculations because of very low level of long term debt in insurance company. The values would be practically the same as for ROE.

Liquidity ratios were the second examined field. I revealed that relevant indicators for insurers are only current ratio and cash ratio. The quick ratio that is counted with excluded inventories is irrelevant because of no or very low level of inventories.

In the activity indicators specifically with receivables and payables turnover were observed very different levels in insurers´ comparison. Česká pojišťovna has according to findings very strong bargaining position comparing to Kooperativa. These figures confirm very strong position of Česká pojišťovna but for the future development and raising competition it could be a harmful factor.

In comparison with preferred values of indicators for the production companies the insurers have very different levels of indicators. The main reason is in different composition of assets and liabilities. Because of low experiences and lack of material in setting the values for insurers it is up to insurers themselves to find relevant values of indicators for each of them. It must be adjusted to specific conditions coming from longer experience and best suits their needs.

In the last part of ratios I was examining indebtness. I have to say that this sort of ratios is not very relevant for evaluating the insurance company. The nature of the business asks to have high level of foreign capital and compared to classical rules of the reasonable debt of the production company it is useless to consider here.

5 Conclusion

In my master thesis I was dealing with the relevance issue of data and ratios for the financial analysis. I chose insurance business industry because of specifics linked to data and ratios application in the view of financial analysis. Financial analysis represents a large number of information but primarily it is about examining the subject in time. I monitored historical, present but the most the future development.

The aim of this work was to examine relevant sources for financial analysis of the specific companies. Into the examination were taken two major insurer companies Česká pojišťovna, a.s. and Kooperativa, a.s. At these subjects I was conducting research aimed to find relevant data and ratios and show the explanatory power of them.

The thesis is divided into three chapters. The first is called Financial Analysis. In this section I use description method, where I describe important phenomenon. In this chapter are also discussed financial analysis methods. The second chapter of this work is the analysis of specifics of insurers.

The last chapter is aimed to find the relevant issues for financial analysis based on the theoretical framework. I set the findings in the light of financial crisis and the influence on the examined data and ratios. Of course I discussed other relevant factors influencing both data and ratios current trends. And finally stated future expected development based on findings. This work should help to better understand financial analysis in specific field of insurance industry in the way of setting up relevant data and ratios for such an analysis. I believe the topic was discussed sufficiently to show the importance of relevant inputs for this specific kind of financial analysis. The main aim of the thesis was fulfilled.

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