MENDEL UNIVERSITY BRNO

Faculty of Regional Development and International Studies

Business valuation - ČEPRO, a.s.

Diploma thesis

Michael Kremláček

Supervisor: Ing. Mojmír Sabolovič, Ph.D.

Brno 2015

DECLARATION

I declare I have elaborated this diploma thesis on Valuation of the company ČEPRO, a.s. individually with assistance of my supervisor and materials mentioned in the list of literature.

In Brno,   Signature:

ACKNOWLEDGEMENT

Abstract

Kremláček, M, Business valuation. Diploma thesis. Brno: FRRMS MENDELU v Brně, 2015

The goal of diploma thesis is the valuation of company ČEPRO a.s by applying income and market approaches.

In the first part are explained basic definitions, processes and all methods used in the following valuation. Second, the practical part, the strategic and financial analysis are done together with analysis of internal and external environment, as the base for further calculations. Thereafter valuation itself is proceed by discounted cash-flow method, explained in theoretical part. Valuation is calculated to the date 31.12. 2013.

Key words: Valuation, strategic analysis, financial analysis, discounted cash flow, value drivers, weighted average cost of capital

Abstrakt

Kremláček, M, Ocenění podniku. Diplomová práce. Brno: FRRMS MENDELU v Brně, 2015

Cílem diplomové práce je za pomocí zvolených výnosových metod stanovit hodnotu podniku Čepro, a.s.

V úvodní teoretické části jsou popsány základní definice, procesy a jednotlivé metody v oblasti ocenění podniku. V druhé, praktické části jsou provedeny strategická a finanční analýza společně s analízou vnějšího a vnitřního prostředí podniku, které poslouží dalším výpočtům. Poté je provedeno vlastní ocenění, pomocí DCF metody, vysvětlené v teoretické části. Ocenění je zhotoveno k datu 31.12. 2013.

Klíčová slova: Ocenění podniku, strategická analýza, finanční analýza, DCF, generátory hodnoty, průměrné vážené náklady na kapitál

Introduction and aim of the thesis

Business valuation is the process, which people get in touch on daily basis. The outcome is the determination of value of certain item. Due to this, is anyone able to establish and evaluate his own market preferences. But the valuation, we face every day, is only the subjective matter process. Something which has value for one person, does not have to express any value also for the anyone else. The basic thought of barter exchange remained for generation. Man express the value of any estate by the value of another asset. These days, money are used for this process, but naturally exists elements witch are very difficult to evaluate by any valuation process.

With the development of the business, further methods were established, which allow business valuation realisation with more sophisticated tools and instruments. The goal of the paper is to describe these principles and perform the business valuation on company ČEPRO, Inc.. The company mainly provides transportation, storage and sale of petroleum products in the Czech Republic. Its mission is the protection of the state strategic supplies. Čepro also operates its own network of gas stations under the brand name EuroOil.

Methodology

Paper is divided into 2 parts. The first theoretical part is consisted of a literature research, which is focused on provision of theoretical background for understanding whole valuation process, including reasons, types and approaches for valuation and as well all formulas and calculous procedures needed for final value achievement. Second part, consists the own valuation of Čepro Inc. All data are obtained from company's financial records and from theoretical and empirical sources.

Literature research

In this part of the paper are explain all terms and procedures, which are necessary for the proper valuation process. Before valuation itself, we have to understand what we valuate and which outcomes we should achieve. Firstly, we define the concept of the enterprise itself, what are levels at which is the enterprise evaluated and the basic approaches for the business valuation.

Definition of basic terms

Enterprise

The first step is the definition of the term enterprise. Enterprise is explained in the literature differently. According to some authors, *an enterprise can be defined as a unique, less liquid asset for which there are very few effective markets. This definition corresponds to the situation and has important implications for determining the value of a company.* (Mařík, 2007)

For the purpose of the business valuation has the most important significance the definition according to § 5 Commerce law, act No. 513/1991 Sb., which states:

1) *,,As enterprise for the purposes of this Act is understood, a set of tangible, personal and intangible components of business.To enterprise belong matters of law and other assets owned by an entrepreneur and used to operate a business due to their nature, serving this purpose"*

2) *,,The company is a collective thing. Its legal institutions are applied by the provisions in the legal sense. This does not affected by the scope of special laws relating to immovable things, the objects of industrial and other intellectual property, vehicles, etc., if they are part of an enterprise."*

According to Mlčoch, we can also understand the term enterprise from different perspectives:

• *an entity that allows suppliers to sell raw materials and customers to purchase goods or services,*

• *assembled group of people based on their professional experience ensure running of business for a certain reward,*

- *assembled configuration of machines, equipment and buildings, creating conditions for the business.* (Mlčoch, 2007)

Levels of business valuation

According to Mařík (2007), we can valuate the enterprise on two basic levels:

- **Brutto value** *- a value of the enterprise as a whole, as the business unit (entity). Including value for both owners and creditors.*

- **Netto value** *- this value is understood the valuation at level of its owners. Therefore, we valuate the equity.*

According to § 7 of Commerce law are the valuation levels defined as:

- **Brutto value** - par. 1): *,,Commercial property of an entrepreneur who is a physical person, for the purposes of this Act, the assets (property, receivables and other rights and other values appreciable money) that are in an entrepreneur's ownership or are used for business. Commercial property in ownership of a legal entity is understood as all its assets".*

- **Netto value** - par. 3): *,,Net business assets are business assets after discounted liabilities arose to businesses with business for a physical person, or all obligations and liabilities for the legal entity".*

Net business assets are most often used in the business valuation in the Czech Republic, therefore the net to valuation is applied. (Mařík, 2003)

Enterprise value

The enterprise value usually depends on the expected future revenues that should company generate, discounted to the present value. These revenues are moving at two levels - at the level of owners and at the level of investors. It is necessary to say that it can only be estimated, not predicted with absolute precision. (Mařík, 2007)

According Peemöllera (2004), it is common, *the applicants for valuation require a determination of the objective value. However, no such thing actually exists, since the value of the company is strictly subjective thing everyone understands it differently.*

Marik (2007) agrees with this statement and states that *due to the impossibility to clearly define "objective enterprise value", is determining the value of any particular enterprise an*

expression of faith in its future in monetary units. Such value is thus only an estimate dependent on the purpose and used method of valuator who sets it.

Value classification

In the case of business valuation can distinguish several basic value categories. According Mařík (1998) it is possible to identify the categories on the basis of several logical questions:

1. How much could the ordinary buyer pay for the company, ie. What is the market valuation?

2. What is the company's value for the specific buyer?

3. What value could be considered as indisputable?

According to these criteria, it is possible by Mařík (2007) to define four basic approaches to the business valuation. They are:

• Market value

• Subjective (investment) value

• Objectified value

• Complex approach based on Cologne school

Market value

International Valuation Standards Committe (IVSC) deals with definition of this term, which particularly emphasises on the fact, that the market value of the asset is rather an expression of recognised applicability by the market and not just a purely assets' physical condition. In international valuation standards, we can find a definition that explains market value as: *,,estimated amount for which the property should be exchanged at the date of valuation between a willing buyer and a willing seller in a transaction between independent and independent partners after proper marketing, in which the two parties negotiate an informed , reasonably and without coercion."* (Krpata, 2005)

Subjective (investment) value

In this case, *the individual opinion of participants of the transaction is the priority for this kind of valuation, for example buyer. Thus established value is the answer to the question: What value has the company for a particular buyer?* (Mařík, 1998)

The majority of enterprises, which has the goal of finding market value, in fact consist only the investment value. The basic characteristics of investment value are according Mařík (1998):

• *Future cash flows are estimated almost entirely according on the ideas of managers and they are slightly adjusted downwards the predictions.*

• *Discount rate is determined on the basis of alternative investments.*

Subjective approach is suitable in the situation when potential buyers or sellers needs to determine whether the transaction is beneficial for them. As further appropriate use of this approach, literature quotes the *case of decision between rehabilitation and liquidation of the company, when the current owner has an idea what else to do, and now he only evaluate if the company has more value while maintaining operation or whether the liquidation value is higher.* (Mařík, 2007)

The investment value according to IVSC (2003) defined as the *value of the property for a particular investor or class of investors for the setting of investment targets. This concept combines the certain assets to a certain investor or group of investors who have a specific investment objectives or criteria. The investment value of the property asset may be higher or lower than the market value of this asset.*

Objectified value

Objectified value is also sometimes called value of estimators. The first stage takes into account only universally recognised facts that are relevant to the valuation date. In the second, then takes account of the widely known facts that have impact on the valuation, even the concerning future and their impact may not be clear. In the third step, then can the valuation reflect a subjective point of view, what is used in the case of subjective values. (Mařík, 2003)

This value should be as far as possible based on generally accepted data for its calculation, and should be adhered to certain principles and requirements, such as *the requirement to maintain of the substance, determining the value on principle of net profit, division of assets into productive and non-productive (important in the valuation process), and others, taking into account the possibility of changes in the business, assuming continuance of current management and taking into account taxes.* (Mařík, 2003)

Complex approach based on Cologne school

Cologne school believes that the valuation does not make sense to modify depending on individual complaints, but the general features that have awards for the user as a result. (Mařík, 2007)

Cologne School recognizes several basic valuation and with it the function valuator (Dluhošová, 2006):

- **Advisory** - *the result is information about the maximum price (for the buyer) or a minimum price (the seller)*

- **Arbitration** - *the point is to be find in the fair price from certain range during the valuation process*

- **Argumentation** - *preparation of documents for meetings with the other side*

- **Communication** - *used to preparation of documents and communication with public*

- **Tax function** - *aims to provide documentation for the tax purposes*

The most important function is often considered advisory, which determines the maximum and minimum price at which a seller or purchaser will not lose any value. Arbitration function is to determine the fair value. (Marik, 2007)

Regulations for business valuation

Currently there is in the Czech Republic no law or regulation that would be binding business valuation process in general. Valuators of companies in the Czech Republic is primarily lean on economic theory. Nevertheless, there are certain rules, that apply at least partially. (Marik, 2007)

1. Czech regulations

- Law on Property Valuation no. 151/1997 Coll. and the related Decree of the Ministry of Finance - this law is binding only in valuation within the law on bankruptcy, court fees, and inheritance.

- Methodical instruction ZNAL of the Czech National Bank - designed to award companies for expert reports, which are submitted to the ČNB.

2. International and European Standards

- The International Valuation Standards (IVS)

- European Valuation Standards (EVS)

    These standards primarily include definitions of value and then certain framework principles, which should be respected.

3. The National Standards of some countries

- American Valuation Standards (US PAP)

- The German standard (IDW S1) - designed specifically for businesses valuation

Reasons for business valuation

Valuation is a service which the customer either orders, or in some cases may be based on the Commercial Code. The valuation is needed when buying and selling a company, or during the entry or exit of company's partner. Valuation can be used for top and company management. And is also a necessity in mergers and transformations of businesses.

The Commercial Code strictly requires the expert opinion in the cases:

- Determining the amount of non-cash contribution.

- Determination of the settlement amount.

- Review of reports on relations between related parties.

- Valuation of assets.

- Review of the draft contract on a merger, division and transformation.

- A statement on the fairness of the public draft contract for the purchase of securities securities.

- Review of control agreements and profit transfer agreement.

- The value of the property at its transfer between related parties.

- Determining the amount of a monetary settlement with the other major shareholder. Shareholders in the company with the transfer of assets to shareholders, or squeeze out small shareholders.

- Determining the amount of the liquidation value (there is no need for appreciation, but according Commercial Code is applicable).

The recommended procedure for valuation

The valuation process has to be modified according to specific conditions, ie. mainly depending on the initiative of the valuation categories, examined values, chosen methods, available data etc. In general is recommend Mařík (2007) procedure:

1. Data collection

2. Data analysis

    1. Strategic analysis

    2. Financial analysis (for financial conditions of enterprise

    3. Division of assets onto operating and non-operating

    4. Analysis of value generators

3. Construction of financial plan

4. Valuation itself

    1. Proper method selection

    2. Valuation according selected methods

    3. Final valuation

Strategic analysis

Strategic Analysis identifies, analyses and evaluates all relevant factors that may be considered important when settings company's goals and business strategy. It is based on the estimates of future trends and events that may occur, which will affect the company or its stakeholders. To be able to predict future trends, it is essential to analyse past and present trends. It is also necessary to distinguish between long and short term run. (Buchta, Sedláčková, 2006)

According to Mařík (2007) is *strategic analysis necessary and essential to be parts of the valuation process, but is in practice often underestimated. Its task is to clearly define the total revenue potential of valuated enterprise.*

Macro analysis

Macro environment can be defined as the sum of all the circumstances and factors that affect the microenvironment of the company and the internal situation of the company itself, without influencing the company spontaneously. (Solomon, 2006)

The macro environment is consisted of:

• Economic situation,

• political situation and legislation,

• social environment,

• technological abilities and development.

The economic situation is given by the state of the economy in which the company operates. Economies go through cycles with periods of prosperity and recession. Prosperity is characterised by a low unemployment rate, high stable income and high demand for goods and services. In the case of a recession the situation is reversed. To identify the phase in which the economy is, is usually used GDP. (Solomon, 2006)

In the context of analysing the economic situation (besides GDP), is also taken into account inflation, membership of a particular state in the business community (CEFTA, NAFTA, EFTA ...) and transnational groupings of characters (EU, Schengen), foreign capital flows and the transport infrastructure.

Political situation and legislation are two factors that are closely related. Quality legislation is based on the political culture of the state and at the same time it greatly affects it. Even liberally thinking people generally acknowledge some regulation system to ensure a certain level of institutions. It is also necessary to preventing unfair commercial practices. However, an excessive degree of regulation may be harmful and carries negative results in the form of lower activity of business entities. Political factors also include the governmental stability and potential civil unrest and the threat of war. (Kotler, Armstrong, 2004)

Social environment includes social, demographic and cultural influences. Particularly, total number of inhabitants, age, sex or education level of the population, the size of labor migration etc.

Technological advancement, according to Solomon (2006), is *strength, which can affect entire sectors of the economy. The author gives the example factory automation, the introduction of electronic databases, the Internet or toll-free customer lines.*

A useful tool when scanning the general environment is PEST analysis. This refers to political, economic, social, and technological factors. PEST analysis is simply another tool to help the organisation detect and monitor those weak signals in the hope of recognising the discontinuities or fractures shaping the environment. PEST analysis can be used to help detect trends in the external environment that will ultimately find their way into the competitive environment. It provides a link between the general and competitive environments in that weak signals in the general environment can become key forces for change in the competitive environment. Although we will deal with each factor in turn, it should be noted that interrelationships between the factors exist. (Henry, 2008)

Micro analysis

Defining the relevant market is elementary and absolutely necessary act in the creation of strategic analysis and valuation process. It is necessary to obtain data about the market and its attractiveness. Specifically, the following attributes:

- *Market size,*

- *market development in time,*

- *market segmentation.*

These data are a prerequisite for the subsequent assessment of the future development of the relevant market. (Mařík, 2007)

According Mařík (2007) *it is not possible to determine the right specific forecasting procedure. It is mostly based on time series analysis, and consequently their extrapolation. It uses the simple and multiple regression analysis, or is compared with foreign countries. The results of such predictions are totally dependent on creative activities and assessment valuator itself.*

To be able to create a prognosis of the relevant market, it is necessary to identify and monitor the factors that have the most significant effect on the market. Among these are:

- Indicators of the macroeconomic situation (for example GDP),

- general demand factors (for example, per capita income, population, price levels etc..),

- specific factors for the products (trends in consumption or consumer behaviour, etc.).

Internal environment analysis

Analysis of the internal environment (competitive forces) is part of the strategic analysis, which aims to predict developments in market share valued the company into the future. Custom process can be divided according Mařík (2007) into the following steps:

1. Establish the current market shares valued business,

2. identification of competitors,

3. analysis of the internal potential of the company,

4. the forecasts of market shares.

Forecast of the market share, according to Mařík (2007), *builds up on previous analysis of the relevant market and internal potential. During valuation of the prospectivity of enterprise, we start from the recognition that is given by the attractiveness of the market, where the company operates and the competitive strength in the market. The next step is to carry out its own forecasts for growth in company's revenues.*

Financial Analysis

Financial analysis is one of the tools used in financial management. Evaluates past and present development of business performance from different views and creates a basis for future decisions. Its use is suitable not only for enterprise managers, but also investors, business partners, state institutions and foreign institutions, employees, auditors, competitors, stockbrokers and last but not least, the professional public agents.

Financial analysis uses data from the financial statements, ie. balance sheet, profit and loss statement and appendices, where you can find information about the entity, a description of accounting policies, principles, methods of valuation, cash flow statement

and additional information. To obtain a comprehensive view of the existence of the company can use data from the annual reports of the company. Of financial analysis consists of financial indicators, which can be divided into absolute, differential and ratio-metric. (Kislingerová 2004)

The purpose and the purpose of financial analysis is to perform a diagnosis of the financial management of the company with the help of special methods, analysing all components, and any further and more detailed evaluation of some of its major financial elements.

Horizontal analysis

Horizontal analysis compares data in a time series of horizontal levels. Thus compares "period n" with "period n-1". Analyses both absolute and percentage change indexes. (Živělová, 2007)

Vertical analysis

Vertical analysis is used to express the structure of assets and liabilities and for the analysis of the profit and loss statement. It is suitable for comparison of data in the financial statements in the long term and for comparison with other companies in the same sector. When analysing the statement, the percentage of specified items of a financial statement is compared with specified base. Often referred as structural analysis. Its disadvantage is that it is unable to determine the causes of changes, but only depicts them. (Živělová, 1998)

Ratio analysis

Ratios are probably the most widely used method and also have the greatest weight in the financial analysis. The most commonly used indicators can be divided into 4 categories:

1. Liquidity ratios

2. Activity indicators

3. Debt ratios

4. Profitability ratios

Liquidity ratios

Liquidity or solvency is very important for the company. Low liquidity can lead to bankruptcy of the company. Therefore is paid great attention for the solvency in the analysis. Ability to pay is generally understood as the ability of the company to pay its obligations. (Grünwald, 1996)

For the analysis are used three indicators of liquidity:

1. Current ratio

Current liquidity measures the number of times the current assets cover short- term liabilities. It means how many times the company is able to satisfy its creditors when turning all the current assets at a time into cash. The recommended value of this indicator is 2. (Kislingerová 2004)

$$Current\ ratio = current\ assets\ /\ short{-}term\ liabilities$$

2. Quick ratio

Quick liquidity is constructed in an attempt to exclude the least liquid part of current assets which is an inventory. From the view of creditors a higher value of this indicator is preferable. From the view of the owner is no longer a higher value of this indicator so desirable. Because the financial resources which are bound here the company could use it more effectively. The recommended value of this indicator is 1 – 1,5. (Živělová, 2007)

$$Quick\ ratio = (current\ assets - inventory)\ /\ short{-}term\ liabilities$$

3. Cash ratio

Cash liquidity means all cash (not just the amount of money on the bank accounts and in cash but also short-term securities and interests and short- term financial assets in progress). The recommended value of this indicator is from 0,2 to 0,5. (Kislingerová 2004)

$$Cash\ ratio = cash\ /\ short{-}term\ liabilities$$

Activity ratios

The activity reflects the degree of utilisation of assets. Sometimes expressed as speed or time of assets turnover. *Activity indicators measure the ability to use the funds invested*

and measuring fluency of the capital components in different types of assets and liabilities. Their analysis is used primarily for the answer to the question of how to manage assets and their individual components, and how it affects the profitability and liquidity. (Růčková, 2010)

$$\text{Assets turnover} = \text{sales} / \text{total assets}$$

$$\text{Inventory turnover} = \text{sales} / \text{inventory}$$

$$\text{Receivables turnover} = \text{sales} / \text{receivables}$$

$$\text{Liabilities turnover} = \text{sales} / \text{liabilities}$$

For calculation of period of turnover for each category in days, is simply possible to plug the turnover ratio into equation:

$$\text{period} = 365 / \text{specific turnover ratio}$$

Debt ratios

Debt ratios measure the extent to which the company is financed by foreign sources. It is basically the evaluation of financial structure. *These indicators capture the long-term stability of the company from a financial perspective. Their main goal is to display the rate of utilisation of external and own sources of financing.* (Živělová, 2007)

$$\text{Total indebtedness} = \text{Total liabilities} / \text{Total assets}$$

Total liabilities in this indicator include short- and long-term liabilities and bank loans and borrowings, which are tracked separately from the Balance Sheet in other liabilities. Generally, the higher the value of this indicator, the higher the debt the total assets of the company and the higher the risk of creditors that their debt will not be repaid. (Živělová, 2007)

$$\text{Times Interest Earned Ratio} = \text{EBIT} / \text{Interest expense}$$

is a coverage ratio which measures the partial amount of income, which is used to cover interest expenses in the future. Interest coverage shows how many times the interest covers the amount of operating profit, ie. How many times is ensured by paying interest.

Value should not fall below 3, and the recommended value is 8. It follows that the higher the interest coverage, the financial situation is better for the company. (Dluhošová 2006)

Long-term indebtedness = Long-term liabilities / Total assets

Short-term indebtedness = Short-term liabilities / Total assets

Profitability ratios

They are also labeled as an indicators of performance. They are considered to be the best indicator of company's efficiency. They show the combined effect of liquidity, activity and indebtedness of firm. They generally measure the net profit attributable to CZK 1 in sales. They use data from both the balance sheet and profit and loss statement. (Synek, 1996)

- Return on Equity

    - *ROE = EBIT (net profit) / Equity*

- Return on Assets

    - *ROA = EBIT / Total assets*

- Return on Sales

    - *ROS = Operating profit / Total sales*

Mařík (2007) states

Division of productive and non-productive assets

We assume that the company has only one business specification (in one sector). Enterprise with more business activities should be valued as the sum of the business units then. (Marik, 2007)

If at all possible, it should pay for most of the methods principle of asset division into the productive and non-productive. The company needs for its core business of a certain size and structure. (Pereiro, 2002)

For elementary business focus needs the company needs certain asset size and structure, including appropriate capacity of reserves. These assets necessary for basic "business performance" and they will be referred to as productive asset. All other assets are denoted

as not necessary productive or non-operational. For most methods for valuing the company should apply the principle that if it is at all possible, it should be a distribution of assets valued on productive and non-productive. Assets that do not serve the main operating company should be valued separately or owner would have to lease or sell. (Mařík, 2007)

Reasons for the asset division according to Mařík (2007) are:

- Part of the assets may not be used at all and not provide any or only a small revenue inflow (eg. Unused land, a long-held shares, not-payable dividends etc.)

- Assets that carry a different risk than other capital assets

Mařík (2003) also states few more often non-productive assets:

- Short-term financial assets (cash, bank accounts, short-term securities and shares)

- Long-term financial assets (shares in subsidiaries and associates, shares in companies under significant influence, other securities and investments, loans and credits etc.)

- Other non-productive assets (Property does not serve the basic purpose of the company, claims unrelated to its main occupation etc.)

Value drivers

To determine the value of the business is essential to understand and locate what and where the value is generated. This serves the process of identifying the so-called. "Value drivers analysis". *It may be hundred of these generators. Any apparent indicator may generate some value. The total enterprise value is then formed by the sum of the component values. When the valuation of companies is practically impossible to unambiguously identify, analysis and understanding of completely all generators values for certain company. So valuators in practice, focusing its attention only on the value drivers, which contributes to the creation of value, the largest extent. These selected generators are referred to as "the key value drivers." It must be added that the selection of key value generators varies from case to case and depends on the particular company and the sector in which the company operates.* (Frykman, Tolleryd, 2010).

According to Mařík (2007) is the value driver analysis used most often for the purpose of determining the value of a company using the DCF method. As key generators of value is selected the following items:

• Sales, their turnover and growth

• Margin of financial results

• Investment in working capital

• Investment in productive fixed assets

• Discount rates

• Sources of financing (ie. size of foreign capital)

• Firm's ability to generate positive operating cash flows.

Analysis of the key value generators drivers a very important insight into the past of company - whether the firm can create value and which factors have an influence on it. Their prognosis is then the backbone of the financial plan. (Mařík, 2007)

Revenues and their prognosis is determined in several steps. First, determine GDP and revenues in the sector. Based on the facts to determine their correlation and using regression market model predict the future trends. In a similar manner, the dependence of the revenues from sales development of the sector and determine the regression line and the sales for future periods are established. Acquired prognosis is adjusted according to the specific conditions of the market.

Operating profit has to be eliminated of property that is not used for operating activities (eg. building in rent is too high or immediate funds). From the corrected operating profit margins is determined in two ways - top and bottom. Both methods lead to the determination of the same amount of profit margins could therefore be used as a control tool of calculation correctness.

For productive assets it is necessary to determine the amount, and reason and development of investment in the past. Based on the facts to determine the amount of investment for the future, the most important factor remains the reason.

The concept of working capital is generally defined as the difference between current assets and short-term foreign capital, or current assets financed from long-term funds. For planning and pricing, it is advisable to perform partial modification. Working capital will be formed as the sum of short-term financial assets, inventories, receivables and accruals active (Other assets) excluding non-interest bearing liabilities and passive accruals (other liabilities). All values are counted only to the extent operationally necessary, which is necessary for the basic operation of the business. (Mařík, 2007)

Financial plan

Another very important part of business valuation using the income approach is the creation of a complete financial plan. *The plan is composed of the balance sheet, income statement and cash flow statement. As the source data are used value drivers. The plan is necessary to include the estimated amount of dividends paid.* (Mařík, 2011).

Financial planning is one of the elementary activities that company performs. The actual financial plan is the result of balanced plans, sales, production, production capacity, labor, economic performance etc.. These plans must be supported by market research and internal analysis in order to achieve a state where the resulting financial plan will best correspond to reality. (Mařík, 2007)

Financial plan composition

As mentioned above, a financial plan is based on analysis and forecast of the generator ensures the value of the results showed the plan four basic indicators of financial plan:

- Revenue plan from sales of major products

- Profit margin and operating profit plan

- Investment into long-term operating assets

According to Mařík (2007) some indicators has to be added in order to achieve complete financial plans:

- Financial plan (sources of financing)

- Other, less significant income and expense items

- Dividends and profit shares plan

- Items unrelated to the main operating activities (sales of assets, investments in securities etc.) plan

- Formal calculations of undistributed profits of CF etc..

The outlined procedure is necessary to modify and rework during the work, so that the true representation of the future development of the company. It is necessary to modify the items scheduled due to the estimated possibilities of the company. Further rule is, that when planning the entries (accruals, reserves and cost adjustments) are either left in the same amount as in the past, or are planning as zero. This correction is done, because it is not assets that would participate in the company's operation. (Mařík, 2007)

Valuation methods

Valuation views the company as a commodity, which is intended to barter. The event itself has no objective value, and therefore does not exist uniform and generally applicable awards and one "correct" the process of valuation. For the valuation of the company can be used a variety of methods that our economy is in most cases inherited from the developed market economies of Western countries. It is absolutely necessary to have the valuation of the company continuously aware that each method is needed to adapt to the conditions of the Czech economy. (Kislingerová, 2001)

Financial valuation of the company aims to express its value using a specific monetary amount. The final value we seek for is mostly based on using multiple valuation methods. Marik (2007) divides the valuation methods under three areas:

1. ***Valuation based on revenues from sales approaches (revenue methods)***

   - *Discounted cash-flow method (DCF)*

   - *Capital asset pricing model (CAMP)*

   - *Economic value added method*

   - *Combined revenue methods*

2. ***Market approaches***

- *Valuation based on market capitalisation*

- *Valuation based on comparison with similar companies*

- *Valuation based on comparison with similar transactions*

- *Valuation based on information about companies entering the stock*

3. ***Asset-based approaches***

- *Accounting value of own assets from historical prices*

- *Liquidation value*

- *Substantial value of replacement costs*

- *Substantial value of cost savings*

In this work, the enterprise value will be determined using the asset and revenue method. Specifically, the book value of equity and the DCF method.

Asset-based valuation approach

Methods based on determining the value of business assets based on the assumption that the value of the enterprise can determine the value of its assets, which is the source of formation of its future revenues. The enterprise value is calculated as the present value of the individual assets. In some ways, therefore, awarded each asset component of the company and the sum of these prices we obtain the aggregate valuation of assets. If we deduct all debts and liabilities, we get the value of equity. (Živělová, 2003)

Equity valuation can be divided depending on what principles and assumptions we use in valuation of individual fixed assets. The first criterion is that we expect the continuation of the company itself (Mařík, 2007).

Accounting value of own assets from historical prices

Valuation carrying value (or the equity) is relatively simple, well-conclusive but shows a low explanatory value. This method of business valuation has only a complementary role. Based on the historical cost basis, ie. how much the property was actually acquired. Of

course, with the passage of time is seen the deviation from economic reality, particularly in fixed assets.

This particular form of valuation is valuation according to the applicable accounting principles. On this basis, draw up a balance sheet, which is a statement of the accounting valuation of the company. The value here is in the net equity understood as an accounting equity. (Mařík, 2007)

Revenues from sales valuation approach (revenue method)

Revenue method based on so-called income approach to valuation, meaning the value of a particular farm is intended expected return for the holder. For this company are utility revenues these, which derive to the company's owners in future. For the valuation is therefore crucial the concept of future profitability. The current value of the company is not considered, it is the source of generating future revenues. Revenue valuation methods are most commonly used. (Živělová, 2003)

Discounted cash-flow method (DCF)

Generally one of the most used modern methods of valuation is discounted cash flow method (DCF). DCF method appreciates the particular object with the ability to generate profit for its owners in the future (Arthur, 2008).

According to Mařík (2007) can be distinguished between 2 elementary techniques for calculation of income value by DCF method:

- *Entity approach - company as a whole unit (entity)*

- *Equity approach - equity = own capital*

- *APV method (Adjusted present value) - basically is not used, the basis for the calculation of the free cash flow to shareholders assuming debt-free company and the value of the tax shield*

The purpose of these three methods to determine the value of "net asset value" on the basis of § 5 and § 6 of the Commercial Code, or using so-called international terminology "equity value". The individual values, however, varies depending with method of valuation. (Mařík, 2003)

DCF models can work with different cash flows. In terms of cash flow specifications we are differentiated as follows:

- *Cash flow for creditors and shareholders - FCFF (free cash flow to the firm)*

- *Cash flow for shareholders - FCFE (free cash flow to the equity)*

- *Dividends - DDM (dividend discount model)*

- *EVA - cash flow that exceeds the opportunity cost of shareholders and thereby ensuring the growth of their wealth.* (Kislingerová, 2011)

In this paper is used the basic techniques of DCF entity. The starting point for the use of the DCF method is the production entity of capital in the company - operating cash flow. It also needs to deduct investments, which are a precondition for achieving a certain level of cash flow in the future.

The result is called Free cash flow (FCF). Value of this cash-flow is evident from the following calculation formula:

FCFF = EBIT (1 - T) - NWC - INV + DEP

Where: EBIT - Earnings before interest and taxation

DEP - Depreciation

T - Corporate income tax rate

NWC - Change of net working capital (difference between short-term assets and short-term liabilities)

INV - Investments

Final valuation by the DCF method is proceed in two steps. Mařík (2007) explains them:

1. Brutto value

The total value of the revenue is understood the value of the capital invested. In principle, the total value of a company can be viewed from the asset side, and then it is the sum of

adjusted working capital and fixed assets, or look at value from the liabilities side, then it will be the sum of equity and interest bearing debt.

This total value is obtained by discounting the cash flows from principal business operations - cash flows which take into account investments in assets that are not operationally necessary or revenues and costs associated with such property. Therefore, it will only award determined by "service" enterprise value therefore operationally necessary capital invested. (Mařík, 2007)

2. Value of equity

The total value of business operations will reduce the value of interest-bearing debt at the measurement date. New debts that have yet to be adopted, is not considered. DCF method implicitly assumes full financing through its own resources. In the final pricing for the operating value of the equity value we add non-operating assets at the measurement date. (Mařík, 2007)

The value of entity is than calculated according to formula (Mařík, 2007):

$$H_b = \sum_{t=1}^{n} \frac{FCFF_t}{(1+i_k)^t}$$

Where: $FCFF_t$ - free cash-flow in year t

i_k - discount rate (calculated interest rate)

n - number of expected years of company

In practice, however, we assume that the company will exist indefinitely (working with a case "going concern"). Mařík (2003) responds to this problem two proposals for solutions:

- *Standard two-phase method*

- *Method based on estimated average rates of growth.*

In practice, the commonly used two-phase method. We will therefore deal with this procedure in paper as well.

Two-stage method

Two-stage method is based on the idea that the future period can be divided into two phases. The first covers the period for which the valuator is able to develop a forecast of free cash flow for the respective years. The second phase will contain the period from the end of the first phase to infinity. The enterprise value for the period of the second phase is known as a progressive value. (Mařík, 2007)

The enterprise value is calculated according to the two-phase method as follows (Mařík, 2003):

$$H_b = \sum_{t=1}^{T} FCF_t (1 + i_k)^{-t} + \frac{PH}{(1+i_k)^T}$$

Where: T - length of first stage in years

PH - residual value

I_k - Interest rate based on WACC

The continual value is understood the present value of expected cash flows from the end of the first phase to infinity. This present value is recalculated at the date of completion of the first phase, ie. since the beginning of the second phase. The continual value can be determined two ways (Mařík, 2003):

1. Gordon's formula

2. Parametrical formula

For purposes of this paper is used the Gordon's formula, which is explained by Mařík (2007): *Gordon's formula is commonly used for the valuation of shares based on the dividend. If we apply this formula to free cash flow, we gain ongoing value. The condition of the formula is that is $i_k > g$.*

$$Continual\ value\ in\ time = FCFF_{T+1} / (\ I_k - g\ )$$

Where: T - last year of predicted time period

i_k - average cost of capital

g - growth rate (perpetuity)

FCFF - free cash-flow of company

Determination of discount rate

Discount rate significantly affects the final value of the company. The role of the discount rate is to convert future revenues to present value, express the expected profitability over the time and take into account the level of risk that is associated with an investment in a company. (Kislingerová, 2001)

$$WACC = r_d * (1 - t) * \frac{D}{C} + r_e * \frac{E}{C}$$

Where: r_d - cost of foreign capital (interest)

t - income tax

D - foreign capital

C - total long-term invested capital

r_e - cost of own capital

E - own capital

Valuation of ČEPRO, a.s.

Practical part of thesis is based on methodology described in previous theoretical part of paper and applied on the company Čepro, a.s. Starting with short description of company and its activities, followed by of market, sector and competitors. Than deals with financial situation of company, evaluation of financial stability, creation of financial plan and final valuation according to approaches described in the theoretical part.

Purpose of valuation

The main purpose of the valuation is to establish subjective value of company Čepro, a.s. pro their owners. Valuation is done to date 31.12. 2014.

Basic information about the company

Company name:	ČEPRO, a.s.
Address:	Dělnická 213/12, Holešovice, 170 00 Praha 7
Identification number:	60193531
Legal form:	Joint-stock company
Place of registration:	Municipal Court in Prague
Date of registration:	3.11. 1994
Registered capital:	5 660 000 000 CZK
Shares:	5 660 000 in paper form at value of 1000 CZK (all in possession of Ministry of Finance)
Field of business:	Production of hazardous chemical substances and hazardous chemical products and sales of chemicals and chemical products classified as highly dangerous and toxic
	Business in the field of hazardous waste management

Production, trade and services non-specified in Annexes 1 to 3 of the Trade Act

Road motor transport - freight operated vehicles or combinations of vehicles with a maximum weight of over 3.5 tonnes are intended for the transport of animals or goods

Production and processing of fuels and lubricants and fuel distribution

Sale of fermented alcohol, ethyl alcohol and spirits

Valuation date:	31.12. 2013
Processing date:	22.5. 2015
Data source:	Financial statements of Čepro, a.s. - balance sheet, profit and loss statement, annual accounting reports

Balance sheet and profit and loss statement are attached in appendix part of thesis.

Company structure

Board of directors: Mgr. Jan Duspěva (head of board)

Ing. Helena Vostková

Ing. Martin Vojtíšek

Ing. Ladislav Staněk

Ing. František Todt

Supervisory board: Ing. Iban Souček Ph.D. (head of sup. board)

Ing. Petr Blažek

Ing. Petr Hynek

Mgr. Roman Vaigel

Ing. Otakar Krejsa

Company characteristics

ČEPRO was established on January 1, 1994 the privatization of the former state enterprise Benzina. Previously, the company was named Czech pipelines and oil pipelines Inc.. Founder and solo stakeholder till 31. 12. 2005 was the National Property Fund. Since 1. 1. 2006 became the sole shareholder Ministry of Finance.

The main activity is the transport, storage and sale of petroleum products, both within wholesale to other companies, and in the retail end customers, where ČEPRO marketed under the brand name EuroOil. At the same time ČEPRO store inventory of state reserves, in case of power supply of petroleum products to the Czech Republic.

Activity, which is the focus and that is crucial for my thesis is the sale of petroleum products under the trademark EuroOil. ČEPRO operates a network of about 192 gas filling stations in the Czech Republic. According to the number of petrol stations in the Czech Republic is EuroOil at third place, larger are only OMV and Benzina. Based of tapped fuels EuroOil ranks fourth. Way of doing business is the franchising of petrol stations and their equipment to tenants to take care of borrowed assets and generate

profit. In the case of non-compliance with the terms of the loan pumping station to EuroOil reserves the right to replace the tenant. (Čeproas.cz, 2012)

Strategic analysis

The goal of the strategic analysis is to provide background for the analysis of value generator of the selected company. The main aim is to find out, if is the company able to survive and generate future revenue and value.

In the first part is done analysis of the macro environment of the company, which is examining the development of certain observed parameters. For this analysis was chosen the PESTE method, which assesses the political, economic, social, technological and environmental aspects. The main focus is paid on the economical environment, because the relationship between macroeconomic development and own financial performance of company itself. Among the indicators are mainly considered: GDP (gross domestic product), inflation rate and the rate of unemployment.

In the second part is performed analysis of micro environment, which provides elementary information about product sector, where company realises its activities. This information includes:

- Sector history

- Sector characteristics

- Definition of relevant market

- Analysis of the market attractiveness

- Extrapolation of the future market development etc.

At the end of the strategic analysis is done the analysis of the internal environment (analysis of the competing environment) where are described product of company, competitors, strategies and marketing activities.

Macro-environment analysis

In the Czech Republic recorded a total of 6,728 petrol stations. of which 55% (3702 stations) is a public, 6.6% (450 stations) with restricted access, and 38.4% (2576 stations) is private.

Company	Number of stations
Benzina	335
OMV	220
Eurooil (Čepro)	**193**
Shell	180
PapOil	138
Agip	124
RobinOil	73
LukOil	43
Slovnaft	33
KM-Prona	29
Tank ONO	29
Unicorn	28
Ahold	23
Tesco	16

(Source: Superbenzin.cz)

Political environment in the Czech Republic

Czech Republic is a relatively stable political environment. *Diesel and Natural 95 are in Czech tax system subjects of VAT and duty on mineral oils. VAT is the tax related to the price at petrol stations. The tax base is determined as sum of product price, tax on mineral oils, and distribution margins. Gasoline and diesel undergo the primary tax rate, which has been 20 % since 1.1.2010. Diesel is main component of medium oils and heavy gas oils group and according to Act No. 353/2003 Coll. §45 section 1 letter b), which consumption is taxed by tariff rate 10,95 CZK/litter. Natural 95 belongs to group motor and other gasoline and gasoline type jet fuels. Tax for this group is stated in Act No. 353/2003 Coll.*

§45 section 1 letter a) and is 12,840 CZK/litter. Gasoline represents around 20 % of total consumption of oil products. (Kremláček, 2012)

Economical factors

Gross domestic product (GDP)

Gross domestic product is a key indicator reflecting performance of the economy as a whole. For monitoring the real economic situation in the country each year, and its growth rate is a indicator of the value of gross domestic product at constant prices, after an influence inflation is excluded.

Czech economy shows positive tendencies in the GDP growth during observed periods 2010 - 2013. Only in 2014 has exceptionally declined by 1 percent.

Tab. 1: Development of the GDP in the Czech republic

Year	GDP (bil. CZK)	GDP Growth rate
2009	3759,0	
2010	3667,6	-2,4%
2011	3807,2	3,8%
2012	3843,9	1,0%
2013	3883,7	1,0%
2014	3843,9	-1,0%
2015	**3947,7**	**2,70%**
2016	**4046,4**	**2,50%**
2017	**4139,4**	**2,30%**

(Source: Ministry of finance - own elaboration)

The prognosis of the Czech ministry of finance are positive for the future 4 years. Ministry estimates the declining, but still positive rate growth of GDP, despite the negative value in the observed year 2014.

Further development of real growth is depicted in following graph, where are observed the real values of GDP for both empirical and predicted data.

Graph 1: Development of real GDP growth rate in years 2010 - 2018

Inflation

Inflation is an indicator indicating information about increases in the general price level of goods and services and reducing the purchasing power of capital. The Czech Republic is usually measured by the CPI. Development and prognosis of inflation is showed in the following table.

Tab. 2: Historical development of inflation (CPI) and its future prediction (%)

2009	2010	2011	2012	2013	2014	**2015**	**2016**	**2017**
1	1,5	1,9	3,3	1,4	0,4	**0,3**	**1,5**	**1,7**

The highest rate of inflation was recorded in year 2012 caused by fiscal policies of the Czech government. For the future development in predicted period 2015 - 2018 is forecasted slowly increasing tendency in the growth of CPI index.

Graph 2: Historical development of inflation (CPI) and its future prediction

The fuel price is not significantly affected by rate of inflation, because its price composition, where more than 50% price is formed by stable taxes on gas and petroleum products, therefore the space for price change by seller's margin is not that large.

Fuel price development

Yearly price of fuel is taken as simple arithmetical average from observed daily fuel price by company CCS, which collects the data from paying terminal among large sample of petrol station form every region of the Czech Republic, therefore the data can be considered as the most reliable.y

Tab. 3: Fuel price development in observed years

	2009	2010	2011	2012	2013	2014
N95 yearly average price	28,7	31,6	34,9	36,1	35,7	35,9
DIESEL yearly average price	27,2	30,8	34,7	36,5	36	36,1

(Source: CCS)

The similar trend can be observed in price development of both commodities. We can denote the increase in price in years 2010 - 2012, where price of the diesel exceeded the price of natural 95. For the further information about common regression and price development of these two commodities see author's bachelor thesis (2012).

Graph 3: Fuel price development in observed years
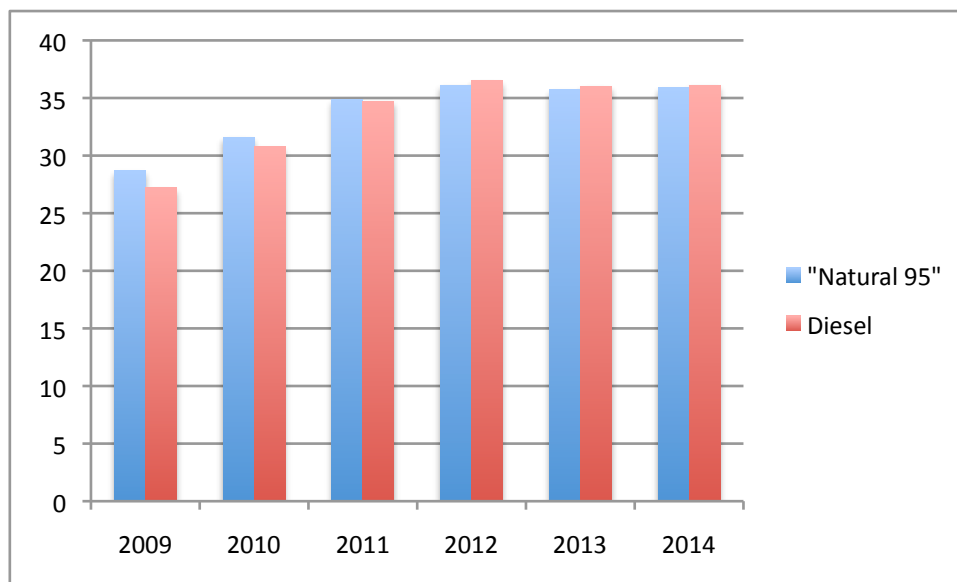
Social and demographic environment

In the table 5 is depicted the development of the fuel consumption in the Czech Republic. Over the observed period is clearly seen the substitution of the natural 95 by the diesel. This phenomenon result ion in the reaction of the market depicted in tab. 3, where is denoted the increase in the price of this commodity due to higher demand.

Tab. 4: Total fuel consumption in the Czech Republic for selected commodities (litres)

	2009	2010	2011	2012	2013	2014
N95 Consumption (l)	2813793	2562759	2470345	2302069	2165517	2175172
Diesel Consumption (l)	4870238	4738095	4851190	4830952	4926190	5189286

Until 2010 there was an increase in population. The reason was not higher birth rate than death rate, but significantly positive net migration. Long-term mortality in our country prevails over the birth rate. Results Czech Statistical Office are that by 2050 there will be an overall decline in the population of the Czech Republic and demographic ageing.

Technological environment

The quality of fuels sold in the Czech Republic, is available at the level common in EU countries. Although the quality control of fuel carried by state authorities, is due to the high number of filling stations in the Czech Republic can reveal many sellers of low-quality fuel. For the ordinary motorist the market situation is often unclear and specific information on the quality of fuels are not available. The starting point for clear identification of the petrol stations that they themselves have an interest periodically demonstrate that they have adequate fuel quality is precisely the "Seal of Quality" program.

Environmental aspects

From the perspective of ecological economics, it is possible to say that they are more environmentally friendly diesel engines, which are commonly used as an energy source in medium and heavy duty applications, as these are due to lower fuel consumption and lower emissions of carbon monoxide (CO).

Therefore is very welcoming to see the substitution to this type of fuel. Many other alternatives to the regular gas and diesel exist as biofuels, cars powered by electricity etc, but these alternatives form only very small share of market in comparison with classic motor fuels. But their share slowly increases over past years due to availability and the veralp pressure in society.

Micro-environment analysis

Characteristics of sector

The entire sector is well characterised in the macro-environment part of analysis, but further information about main principles in the sector are added by official authority - Czech National Bank:

The final price of petrol and diesel (not only) in the Czech Republic affect both market factors and administrative influences. Among the market factors are mainly the oil price of USD exchange rate against the dollar, the cost of refining, distribution and marketing, profit refineries, transporters and traders. To administrative measures are included excise duties, VAT, which is levied and the excise tax, indirectly tightening maximum limits on the content of harmful substances, increasing the minimum required proportions of organic ingredients, or the price of CO2 emissions during oil processing. For petrol prices are also significant seasonal fluctuations in demand / consumption. For the price of diesel in the Czech Republic is less seasonal effect, since a large part of it is consumed in bulk cargo and passenger traffic, where consumption is more evenly throughout the year (unlike in countries where light heating oils used extensively as heating). The price of oil is on the contrary due to freight transport more associated with the phase of the economic cycle.

The price of gasoline and diesel fuel can be decomposed in terms of vertical processing chain into individual components, which are the price of oil, gross refining margins and retail trade (including distribution) and taxes (ČNB, 2015)

Relevant market definition

Defining the relevant market is a fundamental step in creating a strategic analysis. This definition is necessary for the further performing of strategic analysis.

ČEPRO a.s. belong to one the largest fuel distributors in the Czech Republic, which corresponds to its sales and revenues. Relevant market for this company is the market with fuel gases. Geographically is this market limited within boarder of the Czech Republic.

Due to sector, where the vaulted company operates, , the basic step for the definition was data collection of total annual sales of motor fuels in The Czech Republic and annual average prices of the fuel. The data was obtained from agencies ČAPPO and CSS. For the calculation of the relevant market was chosen the price of natural and diesel as two 2

major commodities at the motor fuel market. Followed by multiplication with consumption of these commodities. The consumption was stated in the weight units (tones), therefore muster by adjusted to cubic units (litres) according to technical parameter of each commodity.

Eventually, the final estimation of the relevant market size was done. In table 5 are stated sizes of relevant markets in specific years. Their value was calculated as sum of: Total consumption of natural and its average yearly price plus the same multiplication for the diesel consumption and its average price in CZK.

Tab. 5: Definition of the relevant market for years 2010-2014

	N95 Consumption (t)	Diesel Consumption (t)	N95 Consumption (l)	Diesel Consumption (l)	N95 annual average price (CZK)	DIESEL annual average price (CZK)	Fuel Market (CZK)
2009	2040	4091	2813793	4870238	28,7	27,2	213226338,3
2010	1858	3980	2562759	4738095	31,6	30,8	226916505,7
2011	1791	4075	2470345	4851190	34,9	34,7	254551344
2012	1669	4058	2302069	4830952	36,1	36,5	259434451,6
2013	1570	4138	2165517	4926190	35,7	36	254651822,7
2014	1577	4359	2175172	5189286	35,9	36,1	265421903,9

Source: ČAPPO, CCS, own calculations

Extrapolation of the market development

Prediction of the market development is focused on the evaluation, how the relevant market will evolve in the future. For this purpose was necessary to employ the data of the GDP values and previous relevant market size. Afterwards the linear regression analysis was done in order to describe relationship between variables. X variable is represented by the values of GPD in the observed period 2010-2014. As Y variable are employed values of sales of selected motor fuels in the Czech Republic.

Final equation of regression analysis is denoted as:

$$Market = -1009,352993 + 0,000329909 * GDP$$

The reason for choosing this model is the fact that the values obtained already known for years, nearly approaching reality. Determination index has value of 74,31%, which is strongly proves the dependency between observed indicators and variables.

In the table 6 are displayed calculated values and prediction for the relevant values derived from the regression analysis and formula.

Tab. 6: Prediction of the relevant market (CZK)

Year	GDP (mil. CZK)	GDP Growth rate	CPI	Fuel market	Growth rate
2009	3759000,0		1	213,2263383	
2010	3667600,0	0,98	1,5	226,9165057	1,06
2011	3807200,0	1,04	1,9	254,551344	1,12
2012	3843900,0	1,01	3,3	259,4344516	1,02
2013	3883720,0	1,01	1,4	254,6518227	0,98
2014	3843900,0	0,99	0,4	265,4219039	1,04
2015	3947685,3	1,03	0,3	293,0243989	1,10
2016	4046377,4	1,03	1,5	325,5838337	1,11
2017	4139444,1	1,02	1,7	356,2873807	1,09

(Source: ČNB, own calculations)

Average grow rate in empirical data and also for predicted data are displayed in the following table 7. In both indicators, is depicted higher growth rate than in previous years from the prediction of Czech National Bank. Due to high correlation is reasonable that same trend remains for prediction of the market development.

Table. 7: Average growth rate

Average growth rate	GDP	Relevant Market
2009-2014	0,84%	4,67%
2015-2017	1,62%	8,79%

(Source: Own calculations)

Internal analysis

Čepro a.s. belong to the overall stable companies in the Czech fuel market. Čepro is also holder of the several certificates of the product quality as EU - ISCC, ISO 9001, ISO 14001, lager "Safe company" and mainly award "Arch of Europe" for significant contribution in business, for high professionalism and excellent results.

Pic. 1: Čepro and Eurooil logo

Source: Čepro a.s.

Competition analysis

In this part are identified the three biggest competitors EO, who as the number of petrol stations and the number of tapped fuels are not too distant. It is the company Benzina (335), OMV (220) and Shell (180)

Benzina is in the number of petrol stations, the largest player on the Czech market. Filling stations are mainly located on motorways, expressways and cities. Fuel prices are more expensive than the average price, it is caused by placing a filling station on motorways and expressways, where the rules of the price of petroleum products by up to 3 CZK more expensive than in cities, villages and lower class roads. The combination of the number and location of petrol stations, discount cards and occasional fidelity programs makes Benzina strongest competitor in the market.

The second largest company in country is OMV. As was the case with Benzina, filling stations are mostly on motorways, highways and in cities. Prices are very similar prices to the items of Benzina. Compared to Benzina, provide a loyalty program called. Smile & Drive, where customers earn points for refueling and buying goods, which can then be

redeemed for products that OMV has in its catalog or other goods in the shop. OMV has less oil products than gasoline. They have three basic types.

The third strongest competitor is Shell. Despite the lower number of petrol stations than EuroOil, fuel consumption exceeds EuroOil. Petrol stations are again located mainly on motorways, highways and in cities. Shell prices are highest in the Czech Republic. Despite this, demand for petroleum products is very high. The main reason is the location of the petrol stations, Shell Card loyalty program and the company's image, which has the best fuels. A variety of fuel is similar as in the case of OMV.

Market share and sales prediction

The market share at the relevant market was calculated by following procedure:

1. Calculation of the market share for the historical periods from the previously established relevant market size and the Čerpo sales in corresponding years obtained from profit and loss statement.

2. Calculation of the Čepro market share growth rate, which is used in following calculation of the future development of market share: Calculated as average of 4 past growth rates in the previous years, reduced by 50% of its value in order to reduce the tempo of the revenue growth. This calculation is based on subjective valuation according the collected information in the previous macro and micro environment analysis.

3. Future market shares are easily derived from the predicted growth rates of the Čepro market shares.

4. Future revenues obtained using as multiplication the previously predicted relevant market size for the future period and newly calculated market share in the future periods.

Tab. 8: Market share and revenue prediction (mil. CZK)

Year	Relevant Market	Growt Rate	Market share	Market share growth	Revenues	Revenue growth rate	Rev. average growth rate
2009	213,23		18,68%		39,837868		15,08%

2010	226,92	6,42%	19,64%	5,13%	44,568874	11,88%	
2011	254,55	12,18%	18,10%	-7,87%	46,061742	3,35%	
2012	259,43	1,92%	23,52%	29,99%	61,023819	32,48%	
2013	254,65	-1,84%	26,99%	14,75%	68,731171	12,63%	
2014	265,42	4,23%	28,41%	5,25%	75,39815604	9,70%	14,63%
2015	293,02	10,40%	29,90%	5,26%	87,62096897	16,21%	
2016	325,58	11,11%	31,97%	6,91%	104,08037	18,78%	
2017	356,29	9,43%	33,25%	4,02%	118,4746567	13,83%	

The market share shows growing tendency over the course of entire observation and prediction, except the 2011, where the market share declined by nearly 8%. In the prediction is counted with growth rate of the market share between 4,02 - 6,91% based on strategical information obtained in the previous analysis. Leading to the increase of market share from 26,99% in 2014 to the predicted 33,25% in year 2017.

Revenues also proves positive tendency as they are predicted to increase up to 118 billions in year 2017.

Average growth of revenues in historical periods was 15,08% and for the future is its value slightly lower 14,63%, which is higher than the growth of the estimated market size, which was denoted before (by approx. 6%).

In the following graph is depicted progression of market share throughout entire historical and predicted period.

Graph 4: Development of the Čepro's market share
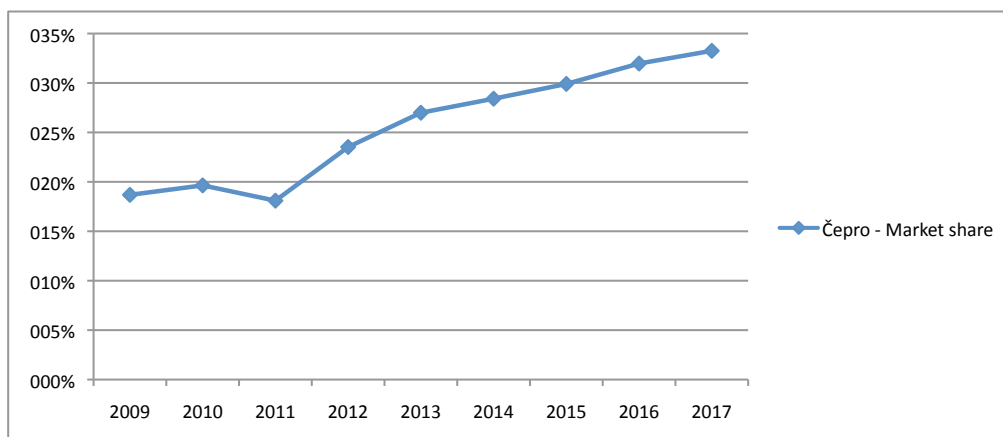
(Source: Own calculations)

Financial analysis

An integral part of business valuation is an analysis of the financial health of the company. In the financial analysis will be elaborated horizontal and vertical analysis, cash-flow analysis and ratio analysis.

For the purpose of financial analysis of ČEPRO, a.s. are used their own finical statements - profit and loss statement and balance sheet. The examined time period are years 2009 - 2013.

Horizontal and vertical analysis

Vertical analysis determines the structure of individual assets and liabilities related to one particular value. At the balance sheet is used as a base value the total assets, with profit and loss account, the total revenues.

Horizontal analysis provide us with the information, how the items changed (how many units or percent) in time. We always compare two consecutive periods.

<u>**Assets analysis**</u>

The results of the vertical analysis (completely attached in the appendix section of the paper), is clearly visible the decrease in the fixed assets possession. The fixed assets form less than 31,6% in the last observed period, which is, compare with 46,8% in year 2009, significant change. Company has no receivables for subscribed registered capital and also deferrals moves at the minimal values.

The current assets forms in the last observed year 63,7% of total assets. The most significant subgroup are the short-term receivables and short-term financial assets. Short-term receivables forms 37,1% of total assets in year 2013.

The following graph depicts the composition of deferrals, current assets, fixed assets and receivables for subscribed registered capital throughout the observed period.

Graph 5: Vertical assets analysis

Legend:
- Deferrals (L. 64+65+66)
- Current assets (L.32+39+48+58)
- Fixed assets (L.04+13+23)
- Receivables for subscribed registered capital
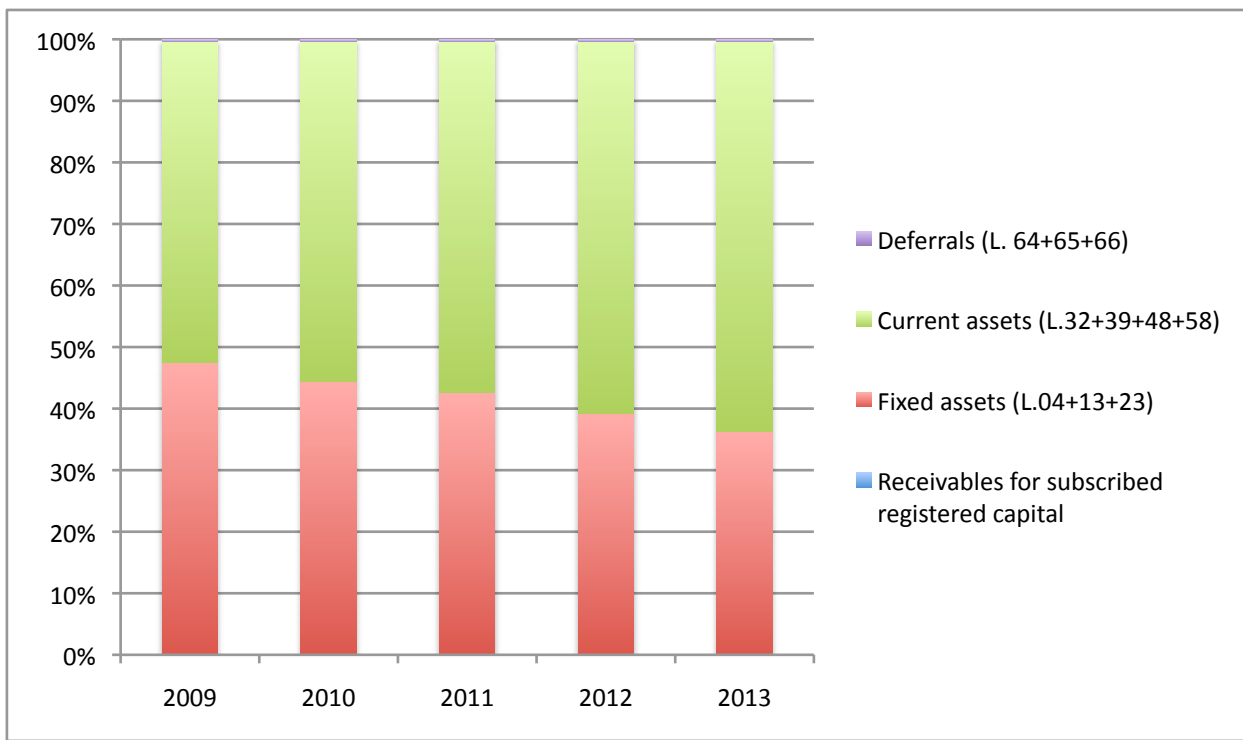
(Source: Own calculations)

The results of the horizontal analysis (completely attached in the appendix section of the paper) do not depict any common conclusion for the trend of their progression in time. Some of them fluctuate around zero change, some them increases, some of them decreases. The most significant increase during entire time period is seen at the coefficients of the fixed assets. We can see growth around 40% each year. Starting with 47,5% in the 2009 and finishing at level of 36,1% in 2013. This trend is mainly driven by the tangible fixed assets, which forms the most of this growth. The same phenomenon is nicely visible in the coefficients of current assets growth, which even exceeds the growth rate of the fixed assets at the levels between 50-65%. The growth is led mainly by 3 groups - short-term receivables and short-term financial assets. Unstable tendencies are recorded by inventories and deferrals as well, the sudden and significant changes has roots in the irregular management decision making processes.

Following graph depicts the development of the asset (fixed assets, current assets and deferrals level in real values and time.

Graph 6: Development of asset levels

Chart legend:
- Fixed assets (L.04+13+23)
- Current assets (L.32+39+48+58)
- Deferrals (L. 64+65+66)
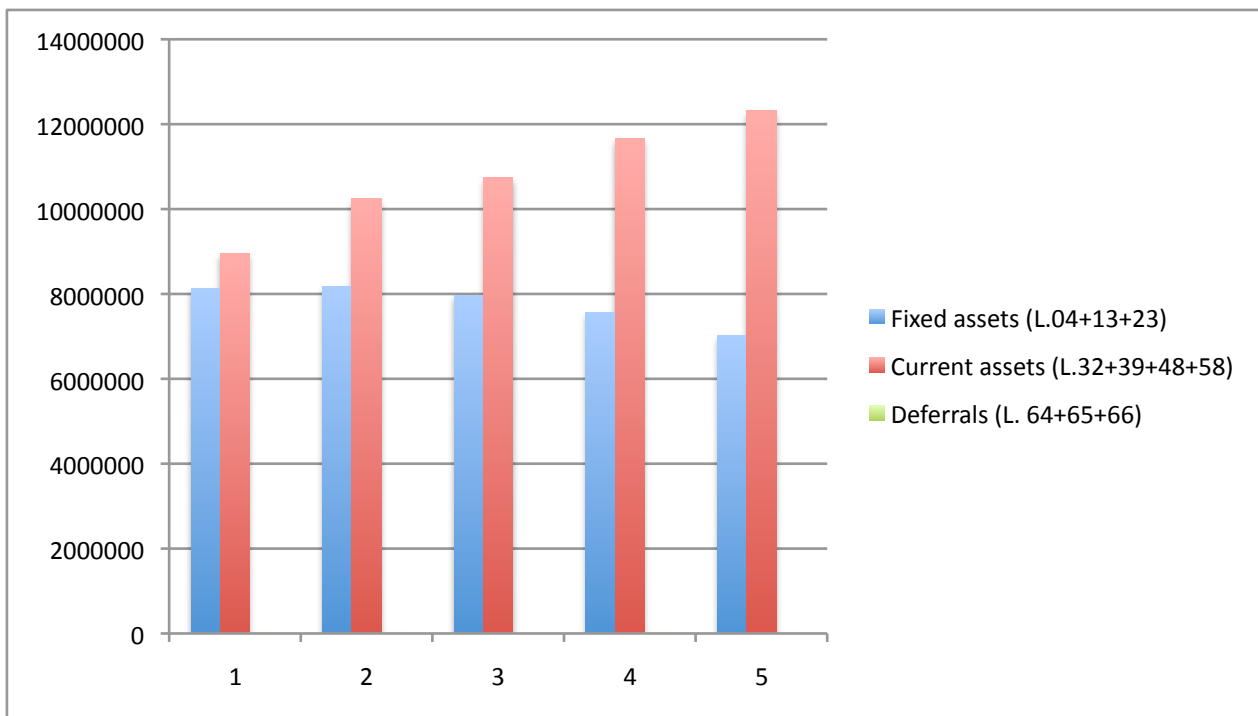
(Source: Own calculations)

Liabilities analysis

In the vertical analysis (completely attached in the appendix section of the paper) is depicted the almost equal distribution of liabilities among equity, liabilities, with only small portion of the accruals. Equity is mostly formed from the registered capital, which was 29,3% of total liabilities in last year 2013. Liabilities are mostly represented by short-term liabilities, which forms almost entirely this liabilities class.

Discussed results are graphically depicted in the following graph, drawing the liabilities structure of of 100% in consecutive years.

51

Graph 7: Vertical liabilities analysis

Legend:
- Accruals (L.122+123)
- Liabilities (L.89+94+105+117)
- Equity (L.69+73+80+83+87)
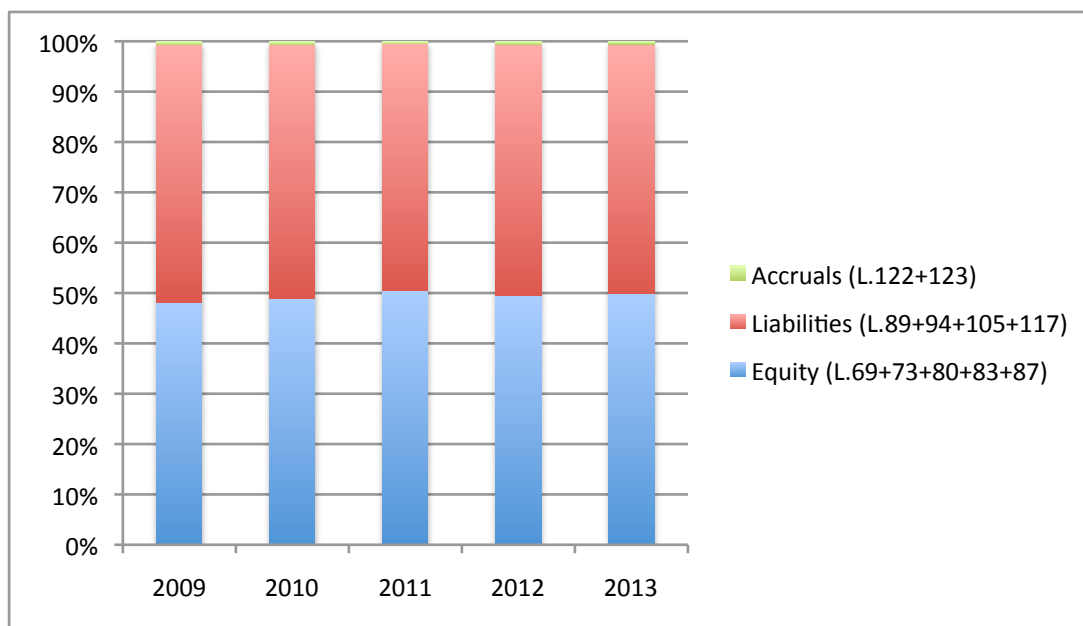
(Source: Own calculations)

In the horizontal analysis of liabilities (completely attached in the appendix section of the paper) are denoted year to year changes by the indexes. The most significant change is recorded by Intangible fixed assets between years 2009 and 2010. And as well as increase of inventories from year 2010 to 2011 by 72,9%.

Following graph depicts the development of the liabilities - Equity, liabilities and accruals in real values and time.

Graph 8: Development of liability levels

Legend:
- Equity (L.69+73+80+83+87)
- Liabilities (L.89+94+105+117)
- Accruals (L.122+123)
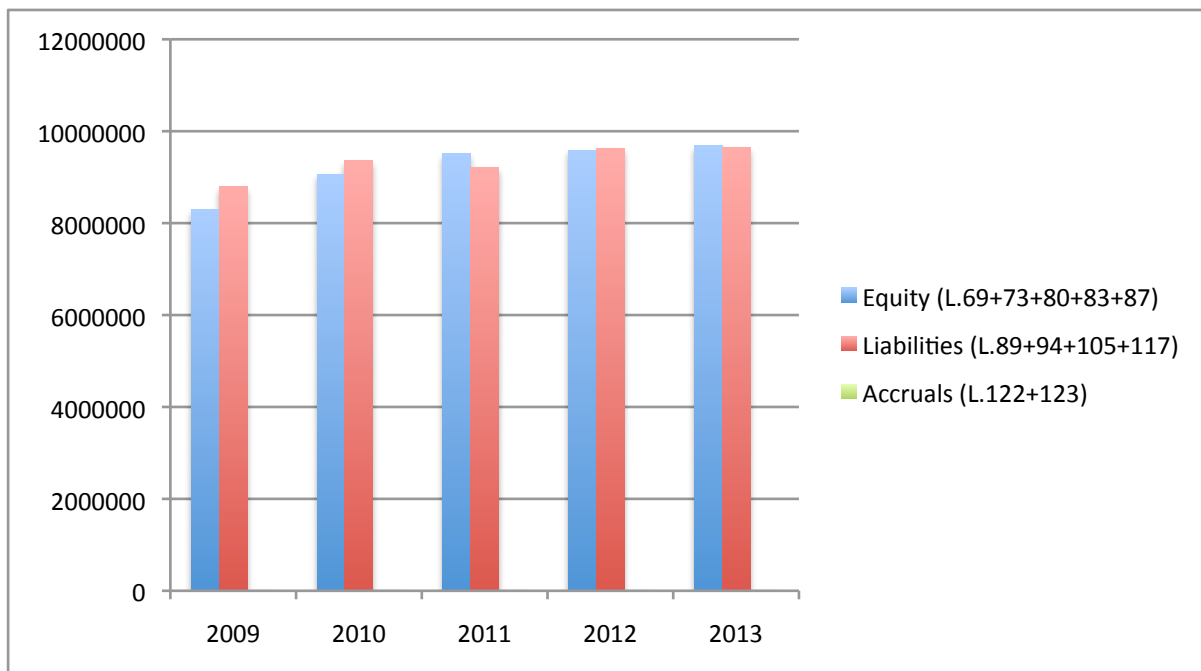
(Source: Own calculations)

Profit and loss statement analysis

Vertical and horizontal analysis of profit and loss statement are completely attached in the appendix section of the paper. The base for the vertical analysis are considered the total revenues, which are created by 98,6% by costs of goods sold in the first observed year. And this value is hold with small percentage rage throughout entire period. Operating profit represent respectively 2,0%; 2,3%; 1,8%; 1,0%; 0,7% of total revenue. Profit or loss from financial operations fluctuates around zero: -0,2%, -0,1%, 0%, 0%, 0,1%. And the extraordinary play similar unimportant role considering amour of total revenues.

Positive phenomenon is seen in financial operation, which increased from negative values in first half of observed period. But from further vertical analysis is disturbing the fact that the operating profit, which drives accounting profit has decreasing tendency since its peek in 2010.

Operating profit, profit from financial operations, extraordinary profits and final profit (loss) for the accounting period are depicted in the following graph, where are obviously depicted all previously discussed phenomenons.

Graph 9: Development of the economic results of company
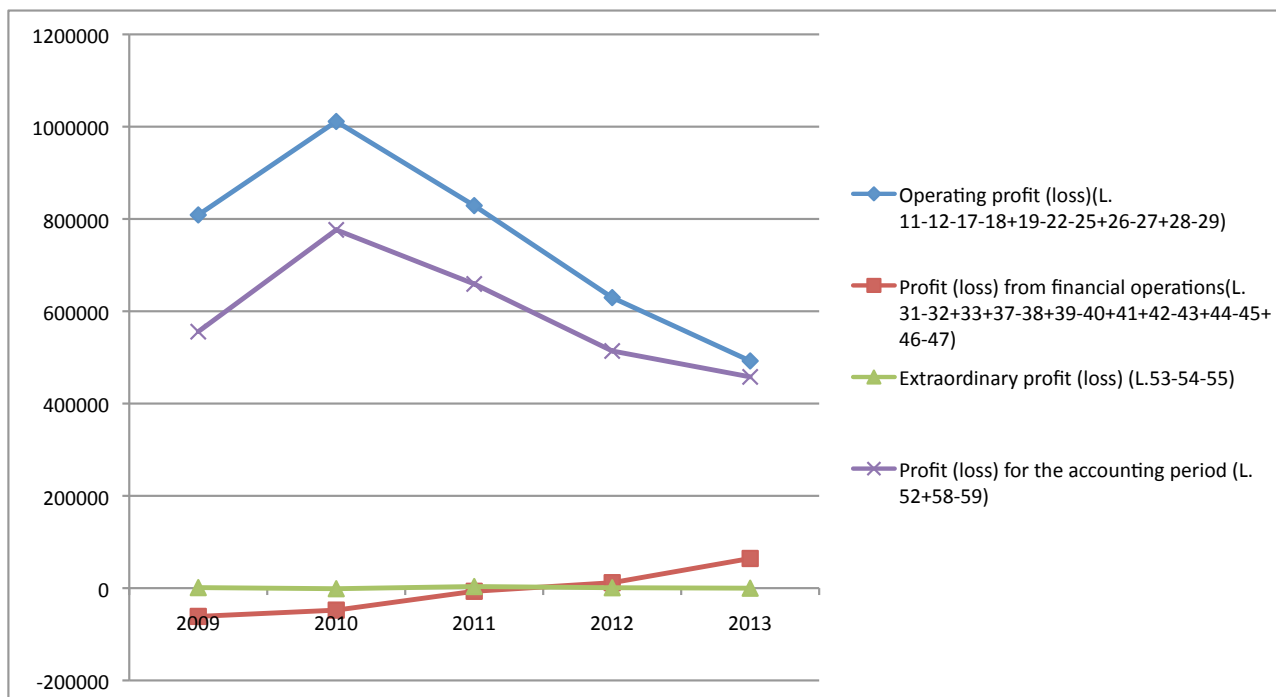
(Source: Own calculations)

Cash-flow analysis

The following table presents the overview of the cash-flows, divided into 3 categories: Cash-flow from production, investments and financial operations.

Tab. 9: Cash-flow analysis 2010 - 2013

	2010	2011	2012	2013
Cash-flow from production	3 103 908	615 437	747 103	585 084
Cash-flow from investments	-863 856	-457 248	-289 460	-134 659
Cash-flow from financial operations	24 928	-3 574	-15 162	-7 960
Total cash-flow	2 264 980	154 615	442 481	442 465

(Source: Own calculations)

Cash-flow prom production (Operational CF) shows positive values throughout the entire observed period. As was depicted in previous financial analysis the revenues in the production sector of the vaulted company are leading all financial inflow.

Cash-flow from investments remain in negative number in whole course of observation, but high marginal fall decreases with time, so there can be seen potential for the possible improvement.

Financial cash flow is except 2010 negative as well with the lowest peek in 2012 with value of 15 162 000 CZK, but over all total cash-flow is positive and showing growing tendency and promises for the future periods.

Graph 10: Cash.flow development in years 2010-2013
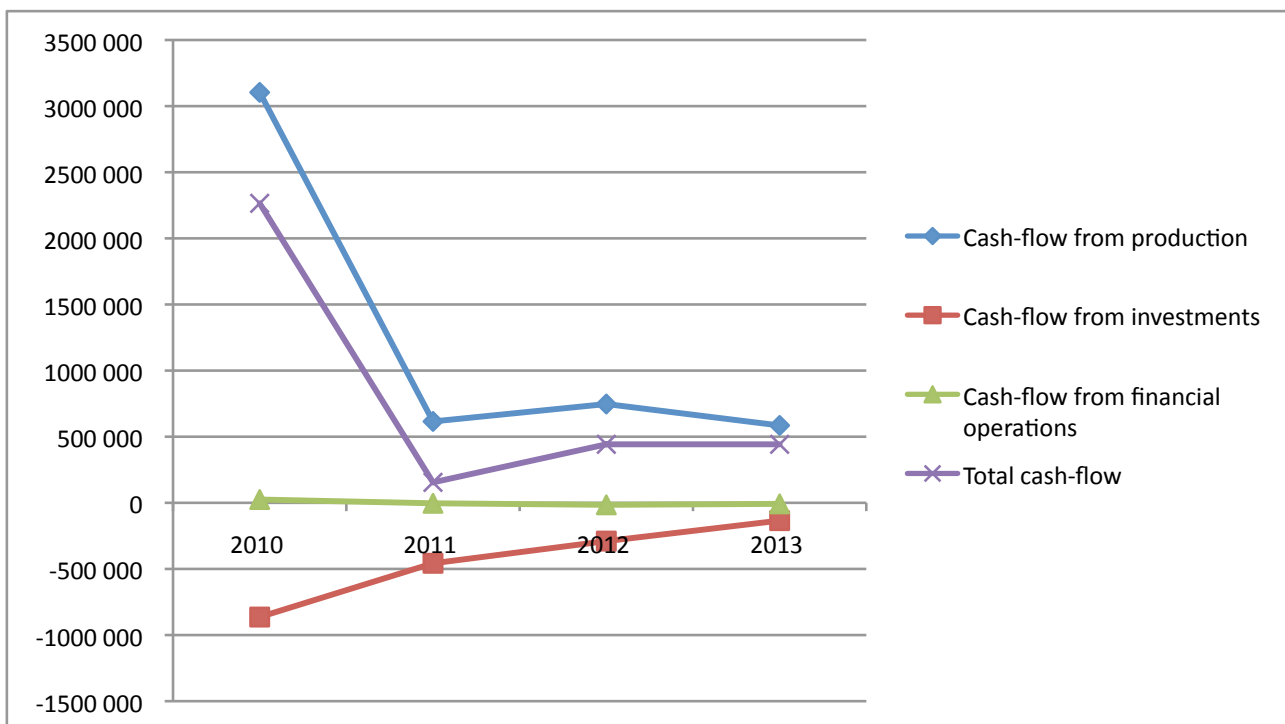
<div align="right">(Source: Own calculations)</div>

Ratio analysis

The ratio analysis provides the absolute values of each item in the ratios, because it can analyse the interactions and relationships between several indicators. Ratios can be divided into the following groups: liquidity ratios, debt ratios, profitability ratios and activity indicators.

Liquidity ratios

Liquidity indicators shows the ability of company to pay obligations in various forms of assets with different liquidity.

Tab. 10: Liquidity ratios 2009 - 2013

	2009	2010	2011	2012	2013
Cash ratio	0,36	0,41	0,34	0,35	0,39
Quick ratio	0,87	1,01	0,99	1,07	1,16
Current ratio	1,07	1,14	1,21	1,26	1,33

(Source: Own calculations)

Description of results is started from bottom with Current ration. It measures, how many time the current assets covers the the short-term liabilities of the company. Liquidity of the optimal strategy should fluctuate in range between 1,5 and 2,5. From the table is obvious, the Čepro has the current liquidity slightly below this required values. The company perform the best in recent year, where current liquidity exceeds values of 1,26 and 1,33.

Quick ratio is constructed as previous liquidity excluding inventories and short-term receivables - it is the reason for lower values of indicator. According to recommendation stated in literature the recommended values for quick liquidity are between 0,7 and 1,2. In this case we can see optimal performance of the Čepro financial management and achieving the optimal liquidity.

Cash ratio is the most liquid indicator - in only insist of cash and short-term liabilities. The optimal value of cash ratio is in the range between 0,2 - 0,5. According to this ratio is Čepro performing again in range of recommended values and its cash liquify is totally eligible to meet the requirements for coverage of financial liabilities.

In following graph is visible how the liquidity ratios progress throughout the years and the positively growing tendency is very commendable.

Graph 11: Development of liquidity ratios in years 2009 - 2013

- Cash Ratio
- Quick Ratio
- Current ratio
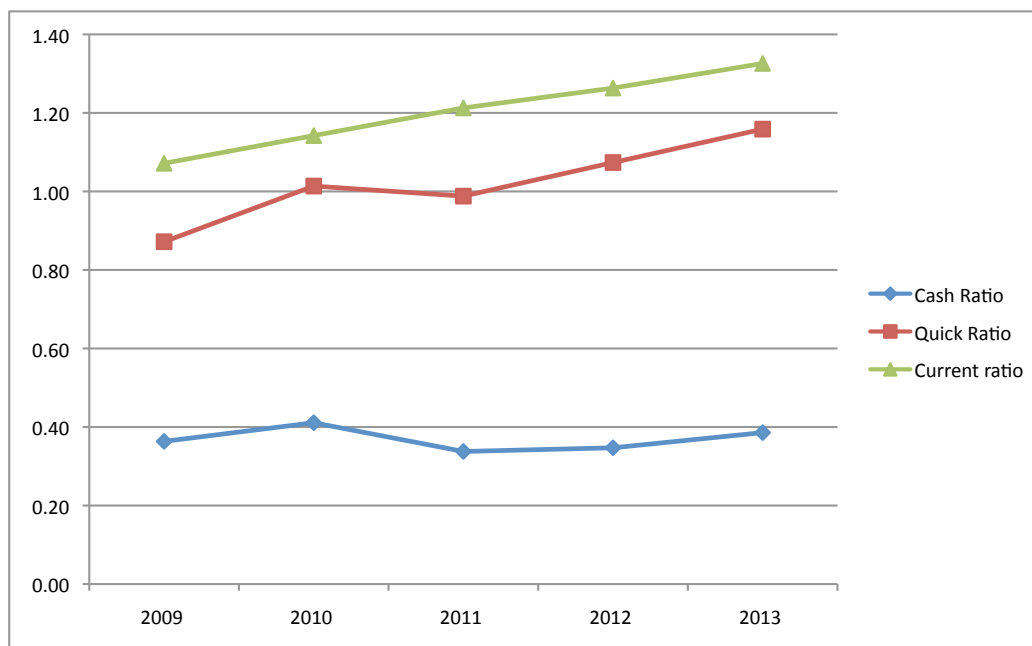
(Source: Own calculations)

Debt ratios

Debt indicators show how the company uses foreign capital to finance its assets.

Tab. 11: Debt ration (indicators of indebtedness) 2009 - 2013

	2009	2010	2011	2012	2013
Total indebtedness	51,4%	50,8%	49,1%	50,1%	49,9%
Times Interest Earned Ratio	143,3	224,2	163,4	197,0	177,6
Long-term indebtedness	1,6%	1,0%	1,2%	1,2%	1,1%
Short-term indebtedness	48,9%	48,6%	47,3%	48,0%	48,1%

(Source: Own calculations)

In the observed time period was the share of foreign capital in fluctuating around the 50% of total assets, which denote the company uses approximately equally own resources and capital from outside sources to finance its business activities.

Times interest ratio explain the ability of the coverage of reposing interest expenses from the company's profit. Higher the ratio is, better financial performance of company prevents.

In the case of Čepro, we can see the values are very high, so the financial management do very good in the debts repayment.

In following table is depicted the growth and proportion of company foreign sources of capital. We can see stable growth and the majority is consist out of short-term liabilities.

Graph 12: Share of long-term and short-term indebtedness in years 2009 - 2012
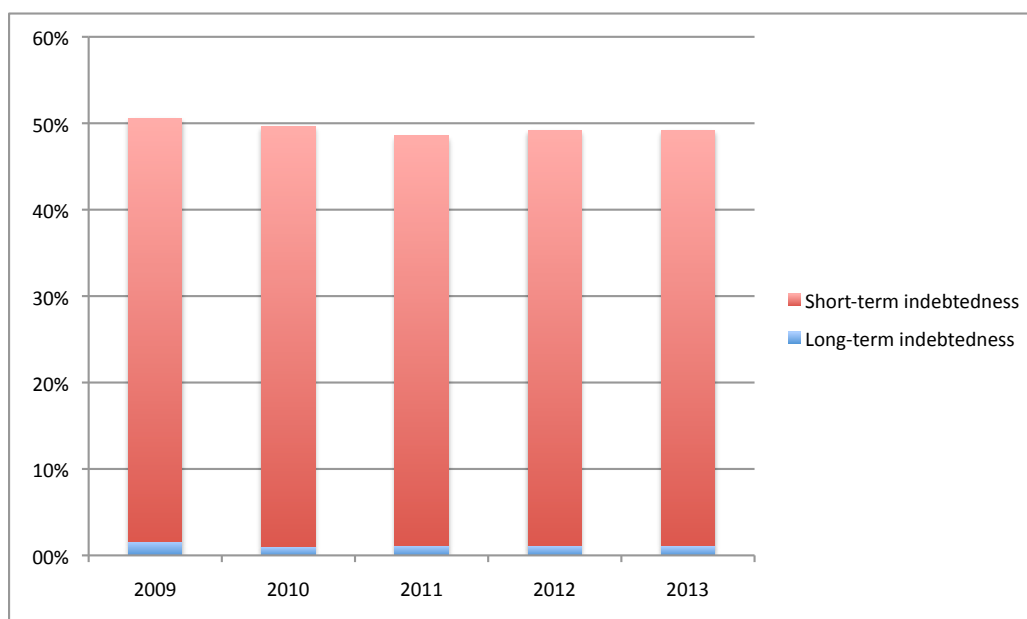
(Source: Own calculations)

Profitability ratios

Profitability ratios are the most important financial ratios that describe the business. Using indicators of enterprise profitability can assess how able to generate profit using the invested capital. These indicators give a ratio of profit to various components of the capital.

Values of profitability achieved by enterprise in the years 2009 - 2013 are shown in Table 12. Specifically, pursuing three indicators: ROA, ROE, and ROS.

Tab. 12 Profitability ratios 2009 - 2013

	2009	2010	2011	2012	2013
ROA	4,4%	5,2%	4,4%	3,4%	2,9%
ROE	6,7%	8,6%	6,9%	5,4%	4,7%
ROS	1,4%	1,7%	1,4%	0,8%	0,7%

Value of ROA express the ability of company to generate revenue. The company recorded positive values in entire observed period. The highest value exceeded in year 2010, where return on assets was 5,2%. The lowest was observed in the last year 2013, where the indicator decreased to 2,9%.

Return on equity (ROE) examines the ability to valuate invested capital into the company. It has the similar development as ROA, with peaks in the same years. Positive values are also important in the financial analysis.

Return on sales (ROS) evaluate ability of comfy to reach profit at different levels of sales. Similar development and calculated values to the ROE and ROA indexes are denoted.

In the graph 13 is clearly depicted declining tendency of the profitability ratios and the company should be aware of these negative progression and take necessary measures in order to maintain current level of profitability.

Graph 13: Development of profitability ratios in years 2009 - 2013
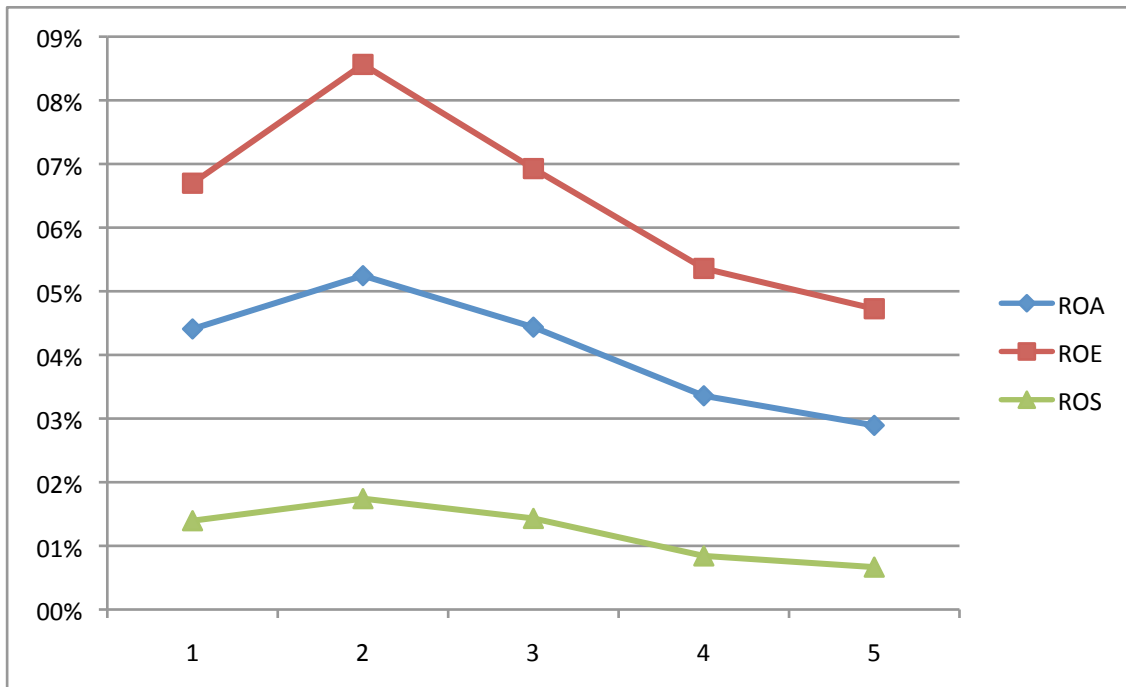
(Source: Own calculations)

Activity ratios

Activity indicators show how efficiently the company uses assets. For selected items is tracked their yearly turnover. The resulting values are listed in Table 13.

Tab.13: Activity ratios in period 2009 - 2013

	2009	2010	2011	2012	2013
Inventory turnover	15,5	9,6	16,0	10,6	8,3
Receivables turnover	38,9	44,2	45,7	40,1	38,2
Liabilities turnover	11,6	20,5	24,7	23,5	20,6

(Source: Own calculations)

The indicators show how many times in accounting period (1 year) the company turn the certain asset over. The highest turnover have the receivables and all observed assets are depicted in table, where can be seen their progress in the period 2009 - 2013.

Graph 14: Development of activity ratios in years 2009 - 2013
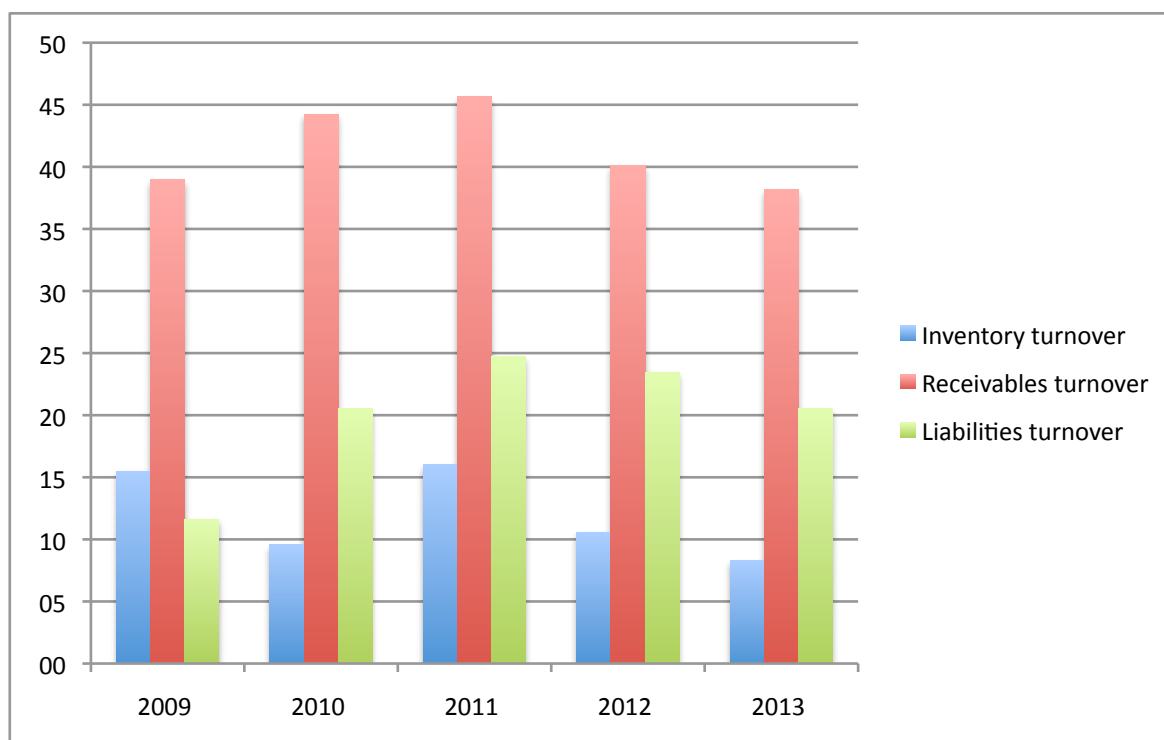
(Source: Own calculations)

Valuation of ČEPRO a.s.

The following chapter deals with the final determination of the company's value. Starting with a asset division into productive and non-productive. The next step is to build a financial plan based on an analysis and forecast of future values. Business valuation is performed using the DCF method and accounting entity in the last part.

Productive and non-productive asset division

Division of assets in productive and non-productive is an essential step in business valuation. It is important to allocate non-productive assets, in order to prevent any underestimation of the final value of the business, which could lead to bias the final enterprise value by using income method.

Productive capital invested is determined by the sum of the fixed assets and working productive capital. Productive funds have been established based on calculated levels productive liquidity, which is compounded as ration between cash and short-term liabilities and according to lit. research is does not exceed 0,15. Calculation of the productive capital is depicted in following table.

Tab. 14: Productive capital invested in years 2009 - 2013

	2009	2010	2011	2012	2013
Long-term intangible assets	12 759	94 071	62 800	44 391	19 628
Long-term tangible assets	7 998 819	8 087 166	7 907 916	7 507 464	6 991 040
Long-term productive assets	**8 011 578**	**8 181 237**	**7 970 716**	**7 551 855**	**7 010 668**
Inventories	1 669 407	1 151 885	1 991 862	1 750 494	1 555 034
Receivables	4 250 859	5 402 256	5 764 690	6 705 516	7 185 344
Deferrals	17 935	11 347	4 880	15 902	9 076
Short-term liabilities	8 359 216	8 963 074	8 864 268	9 229 225	9 296 312
Accruals	9 195	8 321	7 358	8 847	7 901
Cash	648 682	2 904 301	2 883 357	2 903 007	2 986 017
Liquidity	0,08	0,32	0,33	0,31	0,32
Productive liquidity	0,08	0,15	0,15	0,15	0,15
Oproductive cash	648 682	1 344 461	1 329 640	1 384 384	1 394 447
Working productive assets	**-1 781 528**	**-1 061 446**	**219 446**	**618 224**	**839 688**
Productive capital invested	**6 230 050**	**7 119 791**	**8 190 162**	**8 170 079**	**7 850 356**

(Source: Own calculations)

Corrected earnings before taxes is calculated based on EBIT adjusted to the sales of long-term assets which are not considered as the income from regular business.

Tab. 15: Corrected EBIT in years 2009 - 2013

	2009	2010	2011	2012	2013
Operating profit (loss)	808 752	1 011 251	828 927	629 618	492 347
EBIT adjusted to the sales of long-term assets	-39 702	-1 577	-5 141	-5 171	-8 126
Corrected EBIT from operations	**769 050**	**1 009 674**	**823 786**	**624 447**	**484 221**

(Source: Own calculations)

Value drivers

Among the value drivers (generators) belongs:

· Revenues

· Profit margin

· Working capital

· Investment into long-term assets

Revenues

Prediction of sales for the years 2014 - 2017 has been analysed previously in the strategic analysis, see section prediction of the market share and sales. This value driver need special attention, because it derives from all the other results that are needed to determine the value of the entire enterprise.

Revenues are predicted for the future periods with growth rate of 14,63%, comparing to the historical growth rate 15,08%.

Profit margin

For the calculation of the another value driver, profit margin, was used as the method of calculation top-bottom, which is based primarily on the development of profit margins in the past and his forecasting and calculating profit margins analytical manner from the

bottom. Profit margin was set at the level 2.93%, deriving as arithmetical average of the empirical data.

For calculating the profit margin bottom-up approach is a necessary step determining the expected development of the main operating cost of firm, such as cost of goods sold, the power consumption or personal expenses. Individual items were analysed and forecasted in subjective matter. The findings were grossed corrected operating profit as the difference between operating income and expenses. Of the identified operating profit and revenue could be fixed profit margin.

Tab. 15: Sales prediction in years 2009 - 2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sales (mil.CZK)	2 974	4 036	4 657	4 160	3 651	3 015	3 504	4 163	4 738
Share in sales	7,47%	9,06%	10,11%	6,82%	5,31%	4,00%	4,00%	4,00%	4,00%
Growth rate		35,73%	15,37%	-10,67%	-12,22%	-17,41%	16,21%	18,78%	13,83%
Average growth rate					5,3%				6,7%

(Source: Own calculations)

Share of the sales in years 2009 - 2013 was fluctuating between 5,31% - 10,11% at the average growth rate 5,3%. The lowest absolute value was in year 2009 and relevant in last observed year 2013. Estimated share in sales is according prediction of sales at level of 4% with origin in strategical analysis.

Tab. 16: Personnel costs in years 2009 - 2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Personel costs (CZK)	485 447	475 003	469 547	492 676	500 742	331 752	385 532	457 954	521 288
Growth rate		-2,15%	-1,15%	4,93%	1,64%	-33,75%	16,21%	18,78%	13,83%
Average growth rate					0,8%				1,0%

(Source: Own calculations)

Personnel cost future development is established at the growth rate 0,44% in order to maintain the tendency examined in the previous analysis, where were depicted the growth rates for previous years, moving between -1,15% and 4,93%.

The calculations of individual items projected revenues and expenses were found to be corrected operating income. From its share of sales due to revenues and final amount of profit margins the company, which is listed in table 17 below.

Tab. 17: Corrected profit margin in years 2009 - 2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Corrected EBIT	769 050	1 009 674	823 786	624 447	484 221	407 150	473 153	562 034	639 763
Profit margin calculated from corrected EBIT	**1,93%**	**2,27%**	**1,79%**	**1,02%**	**0,70%**	**0,54%**	**0,54%**	**0,54%**	**0,54%**

(Source: Own calculations)

Working capital

Working capital was then calculated as the sum of inventories, short-term receivables operationally necessary assets and than the current liabilities were deducted. Individual values are shown in table below.

Tab 18: Working capital in years 2009 - 2017

CZK	2009	2010	2011	2012	2013	2014	2015	2016	2017
Inv.	1 669 407	1 151 888	1 991 86	1 750 49	1 555 03	2 376 389	2 419 161	2 836 264	3 411 200
Rec.	4 242 841	5 393 683	5 640 03	6 628 47	7 133 59	8 415 844	9 463 930	11 220 50	12 930 90
Op. CF	648 682	1 344 461	1 329 64	1 384 38	1 394 44	1 746 380	1 892 750	2 244 626	2 619 473
Acc.	17 935	11 347	4 880	15 902	9 076	9 076	9 076	9 076	9 076
S-T Liab.	8 359 216	8 963 074	8 864 26	9 229 22	9 296 31	11 642 53	12 618 33	14 964 17	17 463 15
Def.	9 195	8 321	7 358	8 847	7 901	7 901	7 901	7 901	7 901

CZK	2009	2010	2011	2012	2013	2014	2015	2016	2017
Prod. working capital	-1 789 54	-1 070 01	94 793	541 185	787 937	897 254	1 158 680	1 338 391	1 499 600
Growth rate					8,9%				1,4%

<div align="right">(Source: Own calculations)</div>

Financial plan

The financial plan consists of the balance sheet, income statement and cash-flow statement plan for the years 2014 to 2017. It was completed on the basis of data from the value drivers and it is an another important part needed to determine the final value of a company.

During the construction of the financial plan were used the values of revenues, profit margins, cost, operating profit, projected levels of inventories and investments in tangible and intangible assets acquired during the previous value drivers and previous analysis.

For the calculation of income tax of legal entities established for future years is used law on income tax (years 2013 to 2016 we expect a flat tax of 19%). The amount of interest expense in individual years based on estimated size of planned future short-term and long-term loans and interest rates at levels 5.5% and 4.0%.

Fully prepared financial plans financial statements are presented in annexes part of paper for further evidence consultation.

Final valuation

For the calculation of the final enterprise value are used two methods: Method of accounting value of equity on the basis of historical prices and secondly discounted cash flow method (DCF entity). The result is enterprise value expressed in thousands of CZK.

Accounting method

Valuation method is based on the book value of equity value. The disadvantage of this method is that it is based on historical rather than real value. Accounting value of Čepro a.s. equity on 31.12 2013 is **9 687 709** thousand CZK.

DCF valuation

<u>WACC calculation</u>

Determination of WACC - weighted average cost of capital is essential for business valuation. WACC was calculated using the CAPM method. Capital costs and the value of which is based on the calculation are listed in table 19.

Tab 19: CAPM

r_f (rate of 10 years US treasure bills	1,76%
Beta for fuel production and distribution	1,69
Risk Premium	4,91%
CZ Rating	A1
Risk of country bankruptcy	0,70%
Share risk premium estimation	1,5
Country risk premium	1,05%
Country risk premium adjusted by inflation (0,4%)	5,05%
Added risk for the medium size company	2,0%
Added risk for the low liquidity	1,5%
Equity/Liabilities ratio	50%
Tax rate	19%
Beta (Indebt.)	2,370
Cost of own capital	21,9%

(Source: Damodaran, Own calculations)

When determining the cost of borrowed capital was first calculated the product of interest rates for bank loans (short and long) and the value of the loans. The result was the value of the interest on loans. The cost value of foreign capital has been identified as a share of interest on long-term and short-term loans and the total value of loans. The average cost of foreign capital was at the value of 5%

The WACC value was calculated and the result is **9,5%** in the case of Čepro, a.s.

<u>DCF entity</u>

DCF method entity is regarded as a basic income method that best reflects the theoretical definition of value.

The first of all actions is needed to establish operational necessary assets, which are established according to recommended operational liquidity in the provisos analysis.

Tab. 20: Calculation of productive financial assets

	2013	2014	2015	2016	2017
Operating liquidity	0,15	0,15	0,15	0,15	0,15
Short-term liabilities	9 134 444	11 642 533	12 618 336	14 964 174	17 463 151
Productive financial assets	151 911	1 061 098	2 253 008	2 244 626	644 344
Non-productive fin. assets	0	0	0	8 382	0

(Source: Own calculations)

Further, the operational necessary capital invested is given by the sum of operational necessary long-term assets and operational necessary working capital.

Tab. 21: Calculation of the operational necessary invested capital

	2013	2014	2015	2016	2017	2018
Long-term assets	6 936 791	7 330 988	7 725 035	8 111 711	11 582 064	
Corrected operating capital	-1 823 006	-2 128 793	-862 004	-1 453 851	-3 834 142	
Total capital invested	**5 113 785**	**5 202 195**	**6 863 030**	**6 657 860**	**7 747 922**	**8 034 596**

(Source: Own calculations)

For the purposes of the second stage is calculated corrected economic result adjusted by tax. For this purpose are used again the value drivers from previous analysis.

Tab. 22: Calculation of the corrected earnings after tax

	2013	2014	2015	2016	2017	2018
Corrected operational earnings	-4 373 104	1 985 123	2 914 876	3 475 882	4 058 633	
Corrected earnings after tax	**-3 542 214**	**1 607 949**	**2 361 050**	**2 815 464**	**3 287 493**	**3 409 130**

(Source: Own calculations)

Tab. 23: Discounted free cash flow

	2014	2015	2016	2017
Corrected operational EBIT	1 985 123	2 914 876	3 475 882	4 058 633
Corrected tax	377 173	553 826	660 418	771 140
Corrected EAT	1 607 949	2 361 050	2 815 464	3 287 493
Depreciation	683 972	186 906	208 563	135 370
Productive necessary long-term assets investment	-1 078 169	-580 952	-595 240	-3 605 723
Working necessary capital investment	305 787	-1 266 789	591 846	2 380 291
FCFF	1 519 539	700 215	3 020 634	2 197 431
Discounted FCFF	1 387 707	583 987	2 300 677	1 528 476

(Source: Own calculations)

The next step is to determine the terminal value, which is calculated using Gordon and parametric formula mentioned in the literature search. To their determination it is necessary to define the relevant parameters. Firstly, the rate of growth, which is setter 4,1% from profitability ratio analysis. Another variable is the rate of net investments in fixed assets and working capital, which is calculated as the difference between the capital invested in 2018 and 2017, then divided by the corrected operating profit after tax in 2017. The last variable is the net return on investment, which is calculated by dividing the growth rate the rate of investment netto.

Tab. 24: Continuing value

Growth rate	4,1%
Investment NETTO	9,2%
Profitability of investment	44,2%
FCFF 2011	*3 106 399*
Parametrical formula	57 102 929
Gordon's formula	57 102 929

(Source: Own calculations)

Continuing value is 57 102 929 ths. CZK and after its discounting is its value 39 719 177 ths. CZK, which is the value of the 2nd stage.

Following table shows the calculation of the final valuation using DCF method. The asset value netto by DCF is the sum of the present value of the first and second phases, and subtracting them from interest-bearing loan capital (bank loans) and added non-operating assets at the measurement date.

Tab. 25: Final valuation on date 31.12. 2013

Current value (1.stage)	5 800 847
Current value (2. stage)	39 719 330
Operating value BRUTTO	**45 520 177**
Interested external capital	12 770
Operating value NETTO	**45 507 407**
Non-operating assets	893
Final DCF value (thousands. CZK)	**45 508 300**

(Source: Own calculations)

Final value go the ČEPRO, a.s. calculated using DCF method is 45 508 300 000 CZK.

Conclusion

The aim of this work was to determine the subjective value of the company ČEPRO, a.s. on the date of valuation 31. 12. 2012 (assuming continuous company performance in the future years). The company operates in the motor fuel market, hold Czech oil reserves and operate 3rd largest network of gas stations in the Czech Republic.

The valuation was based on four basic steps necessary to achieve proper valuation results. The strategic analysis, financial analysis, forecast of financial results in future periods and the valuation itself according to previously described models in the literature. Due to the use of income approach in valuation was necessary to complete the financial plan in the third part. All used procedures for the achievement of the valuation eligible outcome of and proper understanding of ongoing results, were all terms and formulas explained in the paper's theoretical part.

At the beginning of the practical part was on the basic characteristics of the company, its history and organisational structure. This part provided only informational background in order to create overall picture about company and its activities, strengths, weaknesses and possible potential.

The following work was focused on strategic analysis. Within which an analysis of the external and internal environment. Macro and micro environment was examined considering all possible factors, which could affect the company during its future performance. Firstly were examined all macro parameters as GDP, inflation rate, fuel prices, market size etc. The analysis of the macro external environment was supported by the PESTE analysis, which main aim was to find out what is the current situation on the motor market and the aim of these analysis is also the possibility of the company to prevent threats and exploit opportunities on the market. Followed by micro environment analysis, which was on the other hand focused on the internal environment of the company Furthermore in micro analysis, the definition of the relevant market was performed, which has been defined by geological location as entice area of the Czech Republic and competitors were described as well.

For the extrapolation of the relevant market was used the regression analysis with already predicted growth of GDP by Czech National Bank. Regression showed positively strong relationship between these two variable for the future prediction of fuel market. Market

share were calculated from the comparison between sales of Čepro, a.s. and the relevant market size, following by the prediction of market share for the future periods using the moving averages for outcome reliability, which is used further in DCF valuation. The share of company constantly grows with potential.

After strategical analysis was finished, the financial analysis was done using financial statements of the company. Basic horizontal and vertical analysis of the balance shed and profit and loss statement preceded prior to the ratio analysis, which provided the best information about the company economical performance and Čepro proven itself as the very stable market player with overall positive results of financial management.

Considering all preparations above, after financial analysis the ground was prepared for the process of valuation itself starting with a division of assets into productive and non-productive, where Čepro exceeds large negative values in the operational necessary assets. Value drivers analysis necessary for prediction of future capital inflows was performed for 4 categories: revenues, profit margin, working capital and investment into long-term assets. The Čepro record very small values of the value added compared with large volume of sales, which has negative impact on its future predicted cash-flows. Profit margin for future periods was set 2.93% and average growth rate in sales in future periods was predicted 6,7%.

Using data from value driver analysis was possible to create the financial plan for all three financial statements - BS, P&L and C-F statement for periods 2014 - 2017. But the values of cash-flow throughout the entire predicted period were negative, leading to lower the potential future revenues. Prior to the DCF valuation is calculated CAPM to evaluate cost of own capital 21,9%. Cost of foreign (external) capital is calculated 5% and combining these two parameters into WACC 9,5% for the company.

DCF entity is than calculated preparing for discounted free cash flow calculations, which result are denoted in table 23. After this step is employed 2 stage model to compound the final DCF value of Čepro, which is **45 508 300 thousands CZK.**

Literature references

ARTHUR W. ROVINE, Arthur W.editor. *Contemporary issues in international arbitration and mediation: the Fordham papers 2007.* Leiden: Martinus Nijhoff Publishers, 2008. ISBN 978-900-4167-384.

BUCHTA, K. - SEDLÁČKOVÁ H. *Strategická analýza* 2. přepracované a roz- šířené vydání. 2. přepracované a doplněné. Praha: C. H. BECK, 2006. ISBN 80- 7179-367-1.

BREALEY, R A. - ALLEN, F. - MYERS, S C. *Principles of corporate finance*. 1. vyd. Maidenhead: McGraw-Hil, 2014. 889 s. ISBN 978-0-07-715156-0.

DAMODARAN, A. *Damodaran on Valuation.* New York: John Wiley & Sons, 2006. ISBN 0-471-75121-9.

DAMODARAN, A. *Investment Valuation.* New York: John Wiley & Sons, 2002. ISBN 0-471-41488-3.

DAMODARAN, A. *The Dark Side of Valuation.* New York: John Wiley & Sons, 2001. ISBN 0-13-040652-X.

DLUHOŠOVÁ, D. *Finanční řízení a rozhodování podniku: analýza, investování, oceňování, riziko, flexibilita.* 1. vyd. Praha: Ekopress, 2006, 191 s. ISBN 80-861-1958-0.

FRYKMAN, D. - TOLLERYD J. *The Financial Times guide to corporate valuation.* 2nd ed. Harlow, England: Financial Times Prentice Hall, 2010. ISBN 978- 027-3729-105.

GRÜNWALD, R. *Finanční analýza a plánování podniku.* 1. vyd. Praha: Vysoká škola ekonomická, 1994, 197 s. ISBN 80-707-9257-4.

HENRY, A.: *Understanding strategic management.* New York: Oxford University Inc., 2008, 52s. ISBN 978-0-19-928830-4

KISLINGEROVÁ, E. *Manažerské finance.* 1. vyd. Praha: C. H. Beck, 2004. ISBN 80-717-9802-9.

KISLINGEROVÁ, Eva. *Oceňování podniku.* 2. edition. Praha: C.H.Beck, 2001, 367p. ISBN 80-717-9529-1.

MAŘÍK, Miloš. *Určování hodnoty firem.* 1. vyd. Praha: Ekopress, 1998, 206 s. ISBN 80-861-1909-2.

MAŘÍK, M. *Metody oceňování podniku: proces ocenění, základní metody a postupy.* 1.vyd. Praha: Ekopress, 2003, 402 s. ISBN 80-861-1957-2.

MAŘÍK, M. *Metody oceňování podniku: proces ocenění - základní metody a postupy.* 2. upr. a rozš. vyd. Praha: Ekopress, 2007, 492 s. ISBN 978-80-86929- 32-3.

RŮČKOVÁ P. *Finanční analýza.* 1. vyd. Praha: GRADA Publishing, 2007, 120 s. ISBN 978-80-247-1386-1.

SOLOMON, R. - MARSHALL, W. - STUART, E W. *Marketing: Očima světových marketing manažeru.* Brno: Computer Press, a. s., 2006. 572 s. ISBN 80-215-1273-X.

SYNEK, M. *Manažerská ekonomika.* 5., aktualizované a dopl. vyd. Praha: Gra- da, 2011. ISBN 978-80-247-3494-1.

VISHWANATH, R. *Corporate finance : theory and practice.* 2. vyd. New Delhi: Response Books, 2007. 761 s. ISBN 978-81-7829-649-4.

ŽIVĚLOVÁ, I. *Finanční řízení podniku.* 1. vyd. Brno: Mendlova zemědělská a lesnická univerzita v Brně, 1998, 105 s. ISBN 80-715-7339-6.

ŽIVĚLOVÁ, I. *Finanční řízení podniku.* 1. vyd. Brno: Mendlova zemědělská a lesnická univerzita v Brně, 2003. ISBN 80-715-7369-8.

ŽIVĚLOVÁ, I. *Podnikové finance: metody, ukazatele, využití v praxi.* 1. vyd. Brno: Mendelova zemědělská a lesnická univerzita, 2007, 111 s. ISBN 978-80- 7375-035-0.

Legal norms:

Act No. 151/1997 Sb., O oceňování podniku.

Online book sources:

KRPATA, Tomáš. Obecné zásady pro oceňování podniku. Ekonomické analýzy a znalecké posudky [online]. 2005 [cit. 2015-05-22]. Available at: http://www.ekonomicke-analyzy.cz/zasady.html

Internet data sources:

JUSTICE.cz [online]. [cit. 2015-05-22]. Available at: www.or.justice.cz

ČEPRO [online]. [cit. 2015-05-22]. Available at: www.ceproas.cz

MINISTRY OF FINANCE CZ [online]. [cit. 2015-05-22]. Available at: www.mfcr.cz

CCS [online]. [cit. 2015-05-22]. Available at: www.ccs.cz

ČAPPO [online]. [cit. 2015-05-22]. Available at: www.cappo.cz

STERN [online]. [cit. 2015-05-22]. Available at: http://www.stern.nyu.edu/~adamodar/pc/datasets/betaEurope.xls

ČNB [online]. [cit. 2015-05-22]. Available at: www.cnb.com

Appendix

App. 1: Balance sheet ČEPRO, a.s. 2009-2013 - Assets

Ident.	ASSETS	line	2009	2010	2011	2012	2013
	TOTAL ASSETS (L.02+03+31+63)	1	17102292	18430026	18725505	19226774	19346139
A.	Receivables for subscribed registered capital	2	0	0	0	0	0
B.	Fixed assets (L.04+13+23)	3	8126409	8181237	7970716	7551855	7010668
B.I	Intangible fixed assets (L.05 to 12)	4	12759	94071	62800	44391	19628
	Incorporation expenses	5	0	0	0	0	0
	Research and development	6	0	0	0	0	0
	Software	7	93615	91137	61701	44230	19528
	Intellectual property rights	8	448	390	250	161	100
	Goodwill	9	0	0	0	0	0
	Other intangible fixed assets	10	0	0	0	0	0
	Intangible fixed assets under construction	11	33527	2544	849	0	0
	Advance payments for intangible fixed assets	12	0	0	0	0	0
B.II	Tangible fixed assets (L.14 to 22)	13	7998819	8087166	7907916	7507464	6991040
	Land	14	189745	197713	198822	203954	204262
	Buildings	15	5586605	5602566	6762355	6461913	6098990
	Plant and equipment	16	1023735	895837	849954	735629	613911
	Cultivated areas	17	0	0	0	0	0
	Adult livestock	18	0	0	0	0	0
	Other tangible fixed assets	19	11208	11109	11009	10910	10810
	Tangible fixed assets under construction	20	1009449	1331894	90567	98875	65832
	Advance payments for tangible fixed assets	21	184817	53813	0	0	77
	Adjustments to acquired fixed assets	22	-6740	-5766	-4791	-3817	-2842
B.III	Long-term investments (L.24 to 30)	23	0	0	0	0	0
	Equity investments - subsidiaries	24	0	0	0	0	0
	Equity investments - associated companies	25	0	0	0	0	0
	Other long-term securities and ownership interests	26	0	0	0	0	0
	Loans - group undertakings, associated companies	27	0	0	0	0	0
	Other long-term investments	28	0	0	0	0	0
	Long-term investments (provisional value)	29	0	0	0	0	0
	Advance payments for long-term investments	30	0	0	0	0	0
C.	Current assets (L.32+39+48+58)	31	8957948	10237442	10749909	11659017	12326395
C.I	Inventories (L.33 to 38)	32	1669407	1151885	1991862	1750494	1555034
	Raw materials	33	26050	22758	13250	10874	8277
	Work-in-progress and semi-finished products	34	0	0	0	0	0
	Finished goods	35	10509	14134	13526	18165	16482
	Young and other livestock	36	4	4	4	4	4
	Goods for resale	37	1632844	1114989	1965082	1721451	1530271
	Advance payments for inventories	38	0	0	0	0	0
C.II	Long-term receivables (L.40 to 47)	39	0	0	0	0	0
	Trade receivables	40	0	0	0	0	0
	Receivables - group undertakings	41	0	0	0	0	0
	Receivables - associated companies	42	0	0	0	0	0
	Receivables from shareholders/owners and alliance partners	43	0	0	0	0	0
	Long-term advances paid	44	0	0	0	0	0
	Estimated receivables	45	0	0	0	0	0
	Other receivables	46	0	0	0	0	0
	Deferred tax asset	47	0	0	0	0	0
C.III	Short-term receivables (L.49 to 57)	48	4250859	5402256	5764690	6705516	7185344
	Trade receivables	49	4242841	5393683	5640037	6628477	7133593
	Receivables - group undertakings	50	0	0	0	0	0
	Receivables - associated companies	51	0	0	0	0	0
	Receivables from shareholders/owners and alliance partners	52	0	0	0	0	0
	Social security and health insurance	53	0	0	0	0	0
	Tax receivables	54	0	0	89667	31262	23711
	Short-term advances paid	55	6531	5485	5775	4639	3452
	Estimated receivables	56	1176	2221	249	36545	987
	Other receivables	57	311	867	28962	4593	23601
C.IV	Short-term financial assets (L.59 to 62)	58	3037682	3683301	2993357	3203007	3586017
	Cash	59	1746	2231	1394	606	570
	Bank accounts	60	646936	2902070	2881963	2902401	2985447
	Short-term securities and ownership interests	61	2389000	779000	110000	300000	600000
	Short-term investments (provisional value)	62	0	0	0	0	0
D.I	Deferrals (L. 64+65+66)	63	17935	11347	4880	15902	9076
	Prepaid expenses	64	17554	10742	4794	13754	6516
	Complex prepaid expenses	65	0	0	0	0	0
	Accrued revenues	66	381	605	86	2148	2560

(Source: ČEPRO, a.s.)

App. 2: Balance sheet ČEPRO, a.s. 2009-2013 - Liabilities

Ident.	Item	line	2009	2010	2011	2012	2013
	TOTAL LIABILITIES AND EQUITY (L.68+88+121)	67	17102292	18430026	18725505	19226774	19346139
A.	Equity (L.69+73+80+83+87)	68	8298827	9065955	9515466	9590244	9687709
A.I	Registered capital (L.70+71+72)	69	5660000	5660000	5660000	5660000	5660000
	Registered capital	70	5660000	5660000	5660000	5660000	5660000
	Own shares and ownership interests (-)	71	0	0	0	0	0
	Changes in registered capital	72	0	0	0	0	0
A.II	Capital contributions (L.74 to 79)	73	284580	284580	284580	284722	284721
	Share premium	74	0	0	0	0	0
	Other capital contributions	75	285015	285015	285015	285156	285156
	Revaluation of assets and liabilities	76	-435	-435	-435	-435	-435
	Revaluation reserve on transformations	77	0	0	0	0	0
	Differences resulting from transformations	78	0	0	0	0	0
	Change in revaluation reserve on transformations	79	0	0	0	0	0
A.III	Reserve funds, undistributable fund and other funds from profit (L. 81+82)	80	1304515	1178296	1402469	1412169	1457803
	Statutory reserve fund / Undistributable fund	81	562105	590105	629105	662064	687761
	Statutory and other funds	82	74241	588191	773364	750105	770042
A.IV	Retained earnings (L.84+85+86)	83	493909	1166663	1509242	1719409	1827387
	Retained profits	84	493909	1166663	1509242	1719409	1827387
	Accumulated losses	85	0	0	0	0	0
	Other retained earnings	86	0	0	0	0	0
A.V	Profit (loss) for the current period (+/-)	87	555823	776416	659175	513944	457798
B.	Liabilities (L.89+94+105+117)	88	8794270	9355750	9202681	9627683	9650529
B.I	Provisions (L.89 to 92)	89	152891	200489	115695	174567	137408
	Tax-deductible provisions	90	0	0	0	0	0
	Provision for pensions and other similar payables	91	0	0	0	0	0
	Income tax provision	92	83687	73718	0	0	0
	Other provisions	93	69204	126771	115695	174567	137408
B.II	Long-term liabilities (L.95 to 104)	94	282163	192187	222718	223891	216809
	Trade payables	95	115669	9709	17268	13369	9876
	Liabilities - group undertakings	96	0	0	0	0	0
	Liabilities - associated companies	97	0	0	0	0	0
	Liabilities to shareholders/owners and alliance partners	98	0	0	0	0	0
	Long-term advances received	99	0	0	0	0	0
	Debentures and bonds issued	100	0	0	0	0	0
	Long-term bills of exchange payable	101	0	0	0	0	0
	Estimated payables	102	0	0	0	0	0
	Other payables	103	0	0	0	0	0
	Deferred tax liability	104	166494	182478	205450	210522	206933
B.III	Short-term liabilities (L.106 to 116)	105	8359216	8963074	8864268	9229225	9296312
	Trade payables	106	1348065	2699738	3382245	4157297	4049141
	Liabilities - group undertakings	107	0	0	0	0	0
	Liabilities - associated companies	108	0	0	0	0	0
	Liabilities to shareholders/owners and alliance partners	109	0	0	0	0	0
	Payables to employees	110	19348	20523	21486	23454	29930
	Payables to social security and health insurance	111	10324	11201	11493	11277	16684
	Tax liabilities and subsidies	112	6759949	5930540	5134974	4639115	5038689
	Short-term advances received	113	93172	245555	261933	350628	119962
	Debentures and bonds issued	114	0	0	0	0	0
	Estimated payables	115	82138	55016	51802	47155	35784
	Other payables	116	46220	501	335	299	6122
B.IV	Bank loans and overdrafts (L.118+119+120)	117	0	0	0	0	0
	Long-term bank loans	118	0	0	0	0	0
	Short-term bank loans	119	0	0	0	0	0
	Short-term financial liabilities	120	0	0	0	0	0
C.I	Accruals (L.122+123)	121	9195	8321	7358	8847	7901
	Accrued expenses	122	4739	6569	5909	5262	2141
	Deferred revenues	123	4456	1752	1449	3585	5760

(Source: ČEPRO, a.s.)

App. 3: Profit and loss statement ČEPRO, a.s. 2009 - 2013

Ident.	TEXT	line	2009	2010	2011	2012	2013
I	Revenue from goods	1	39837868	44568874	46061742	61023819	68731171
A.	Cost of goods sold	2	39297105	43945724	45322422	60509709	68251884
+	Gross profit	3	540763	623150	739320	514110	479287
	Revenue from production (L.05+06+07)	4	4315345	5552036	5849785	5389251	4779331
	Revenue from own products and services	5	4329258	5543187	5850334	5341885	4697312
	Change in inventory of own production	6	-13913	8849	-549	47366	82019
	Own work capitalized	7					
B.	Cost of sales (L.09+10)	8	2974062	4036610	4657046	4160074	3651528
	Materials and consumables	9	2321659	3389741	3835427	3348709	2903700
	Services	10	652403	646869	821619	811365	747828
+	Added value	11	1882046	2138576	1932059	1743287	1607090
C.	Personnel expenses (L.13 to 16)	12	485447	475003	469547	492676	500742
	Wages and salaries	13	368231	354461	349196	372358	372233
	Remuneration of board members	14	4752	4536	5586	5314	
	Social security and health insurance expenses	15	100206	103650	102619	103482	111421
	Social expenses	16	12258	12356	12146	11522	11315
D.	Taxes and charges	17	12144	11843	9338	14933	15055
E.	Depreciation of intangible and tangible fixed assets	18	693351	695774	672910	713492	683972
	Proceeds from disposals of fixed assets and raw material (L.20+21)	19	43185	4123	12369	9284	6064
	Proceeds from disposals of fixed assets	20	43185	3953	11700	9273	6064
	Proceeds from disposals of raw material	21		170	669	11	
F.	Net book value of fixed assets and raw material sold (L.23+24)	22	39702	1747	5810	5182	8126
	Net book value of fixed assets sold	23	39702	1633	5223	4891	8126
	Raw materials sold	24		114	587	291	
G	Change in provisions and adjustments relating to operating activity and change in complex prepaid expenses	25	-32141	6718	-12486	3301	-22274
	Other operating revenues	26	2664301	2928180	6742855	11519091	14895950
H.	Other operating expenses	27	2582277	2868543	6713237	11412460	14831136
	Transfer of operating revenues	28					
I.	Transfer of operating expenses	29					
*	Operating profit (loss)(L.11-12-17-18+19-22-25+26-27+28-29)	30	808752	1011251	828927	629618	492347
	Proceeds from sale of securities and ownership interests	31	100				
	Securities and ownership interests sold	32	500				
J	Revenue from long-term investments (L.34+35+36)	33					
	Revenue from investments in group undertakings and associated companies	34					
	Revenue from other long-term securities and ownership interests	35					
	Revenue from other long-term investments	36					
	Revenue from short-term financial investments	37					
K.	Financial assets expenses	38					
	Revenue from revaluation of securities and derivatives	39			28690	17270	107472
L.	Expenses for revaluation of securities and derivatives	40	45455	29890	42	4331	26433
M.	Change in provisions and adjustments relating to financial activity	41					
	Interest revenue	42	34901	18464	23555	29202	18694
N.	Interest expense	43	5226	4292	5053	3260	3134
	Other financial revenues	44	37022	10538	35671	26666	67506
O.	Other financial expenses	45	82114	42470	89646	53741	99812
	Transfer of financial revenues	46					
P.	Transfer of financial expenses	47					
*	Profit (loss) from financial operations(L.31-32+33+37-38+39-40+41+42-43+44-45+46-47)	48	-61272	-47650	-6825	11806	64293
Q	Income tax on ordinary profit (loss) (L.50+51)	49	192817	185959	166426	128397	98757
	(-) current	50	117034	169975	143454	123352	102347
	(-) deferred	51	75783	15984	22972	5072	-3590
**	Profit (loss) on ordinary activities after tax (L.30+48-49)	52	554663	777642	655676	513027	457883
	Extraordinary revenue	53	1211	303	5579	931	72
R.	Extraordinary expenses	54	51	1529	2080	14	157
	Income tax on extraordinary profit (loss) (L.56+57)	55					
	(-) current	56					
	(-) deferred	57					
*	Extraordinary profit (loss) (L.53-54-55)	58	1160	-1226	3499	917	-85
T.	Transfer of profit or loss to partners	59					
***	Profit (loss) for the accounting period (L.52+58-59)	60	555823	776416	659175	513944	457798
****	Profit (loss) before tax	61	748640	962375	825601	642341	556555

(Source: ČEPRO, a.s.)

App. 4: Balance sheet - Assets - Vertical analysis (simplified)

	Item	2009	2010	2011	2012	2013
	TOTAL ASSETS (L.02+03+31+63)	100,0%	100,0%	100,0%	100,0%	100,0%
A.	Receivables for subscribed registered capital	0,0%	0,0%	0,0%	0,0%	0,0%
B.	Fixed assets (L.04+13+23)	47,5%	44,4%	42,6%	39,3%	36,2%
	Intangible fixed assets (L.05 to 12)	0,1%	0,5%	0,3%	0,2%	0,1%
	Tangible fixed assets (L.14 to 22)	46,8%	43,9%	42,2%	39,0%	36,1%
C.	Current assets (L.32+39+48+58)	52,4%	55,5%	57,4%	60,6%	63,7%
	Inventories (L.33 to 38)	9,8%	6,3%	10,6%	9,1%	8,0%
	Short-term receivables (L.49 to 57)	24,9%	29,3%	30,8%	34,9%	37,1%
	Short-term financial assets (L.59 to 62)	17,8%	20,0%	16,0%	16,7%	18,5%
D.I	Deferrals (L. 64+65+66)	0,1%	0,1%	0,0%	0,1%	0,0%

(Source: Own calculations)

App. 5: Balance sheet - Liabilities - Vertical analysis (simplified)

	Item	2009	2010	2011	2012	2013
	TOTAL LIABILITIES AND EQUITY (L.68+88+121)	100,0%	100,0%	100,0%	100,0%	100,0%
A.	Equity (L.69+73+80+83+87)	48,5%	49,2%	50,8%	49,9%	50,1%
A.I	Registered capital (L.70+71+72)	33,1%	30,7%	30,2%	29,4%	29,3%
A.II	Capital contributions (L.74 to 79)	1,7%	1,5%	1,5%	1,5%	1,5%
A.III	Reserve funds, undistributable fund and other funds from profit (L.81+82)	7,6%	6,4%	7,5%	7,3%	7,5%
A.IV	Retained earnings (L.84+85+86)	2,9%	6,3%	8,1%	8,9%	9,4%
A.V	Profit (loss) for the current period (+/-)	3,2%	4,2%	3,5%	2,7%	2,4%
B.	Liabilities (L.89+94+105+117)	51,4%	50,8%	49,1%	50,1%	49,9%
B.I	Provisions (L.89 to 92)	0,9%	1,1%	0,6%	0,9%	0,7%
B.II	Long-term liabilities (L.95 to 104)	1,6%	1,0%	1,2%	1,2%	1,1%
B.III	Short-term liabilities (L.106 to 116)	48,9%	48,6%	47,3%	48,0%	48,1%
C.I	Accruals (L.122+123)	0,7%	0,7%	0,5%	0,6%	0,5%

(Source: Own calculations)

App. 6: Balance sheet - Assets - Horizontal analysis (simplified)

	Item	2010	2011	2012	2013
	TOTAL ASSETS (L.02+03+31+63)	7,8%	1,6%	2,7%	0,6%
A.	Receivables for subscribed registered capital	0,0%	0,0%	0,0%	0,0%
B.	Fixed assets (L.04+13+23)	0,7%	-2,6%	-5,3%	-7,2%
	Intangible fixed assets (L.05 to 12)	637,3%	-33,2%	-29,3%	-55,8%
	Tangible fixed assets (L.14 to 22)	1,1%	-2,2%	-5,1%	-6,9%
C.	Current assets (L.32+39+48+58)	14,3%	5,0%	8,5%	5,7%
	Inventories (L.33 to 38)	-31,0%	72,9%	-12,1%	-11,2%
	Short-term receivables (L.49 to 57)	27,1%	6,7%	16,3%	7,2%
	Short-term financial assets (L.59 to 62)	21,3%	-18,7%	7,0%	12,0%
D.I	Deferrals (L. 64+65+66)	-36,7%	-57,0%	225,9%	-42,9%

(Source: Own calculations)

App. 7: Balance sheet - Liabilities - Horizontal analysis (simplified)

	Item				
	TOTAL LIABILITIES AND EQUITY (L. 68+88+121)	2010	2011	2012	2013
A.	Equity (L.69+73+80+83+87)	9,2%	5,0%	0,8%	1,0%
A.I	Registered capital (L.70+71+72)	0,0%	0,0%	0,0%	0,0%
A.II	Capital contributions (L.74 to 79)	0,0%	0,0%	0,0%	0,0%
A.III	Reserve funds, undistributable fund and other funds from profit (L.81+82)	-9,7%	19,0%	0,7%	3,2%
A.IV	Retained earnings (L.84+85+86)	136,2%	29,4%	13,9%	6,3%
A.V	Profit (loss) for the current period (+/-)	39,7%	-15,1%	-22,0%	-10,9%
B.	Liabilities (L.89+94+105+117)	6,4%	-1,6%	4,6%	0,2%
B.I	Provisions (L.89 to 92)	31,1%	-42,3%	50,9%	-21,3%
B.II	Long-term liabilities (L.95 to 104)	-31,9%	15,9%	0,5%	-3,2%
B.III	Short-term liabilities (L.106 to 116)	7,2%	-1,1%	4,1%	0,7%
C.I	Accruals (L.122+123)	-9,5%	-11,6%	20,2%	-10,7%

(Source: Own calculations)

App. 8: Profit and loss - Vertical analysis (simplified)

Ident.	TEXT	line	2009	2010	2011	2012	2013
I	Revenue from goods	1	100,0%	100,0%	100,0%	100,0%	100,0%
A.	Cost of goods sold	2	98,6%	98,6%	98,4%	99,2%	99,3%
+	Gross profit	3	1,4%	1,4%	1,6%	0,8%	0,7%
B.	Cost of sales (L.09+10)	8	7,5%	9,1%	10,1%	6,8%	5,3%
+	Added value	11	4,7%	4,8%	4,2%	2,9%	2,3%
C.	Personnel expenses (L.13 to 16)	12	1,2%	1,1%	1,0%	0,8%	0,7%
D.	Taxes and charges	17	0,0%	0,0%	0,0%	0,0%	0,0%
E.	Depreciation of intangible and tangible fixed assets	18	1,7%	1,6%	1,5%	1,2%	1,0%
F.	Net book value of fixed assets and raw material sold (L.23+24)	22	0,1%	0,0%	0,0%	0,0%	0,0%
G	Change in provisions and adjustments relating to operating activity and change in complex prepaid expenses	25	-0,1%	0,0%	0,0%	0,0%	0,0%
H.	Other operating expenses	27	6,5%	6,4%	14,6%	18,7%	21,6%
I.	Transfer of operating expenses	29	0,0%	0,0%	0,0%	0,0%	0,0%
*	Operating profit (loss)(L. 11-12-17-18+19-22-25+26-27+28-29)	30	2,0%	2,3%	1,8%	1,0%	0,7%
J	Revenue from long-term investments (L. 34+35+36)	33	0,0%	0,0%	0,0%	0,0%	0,0%
K.	Financial assets expenses	38	0,0%	0,0%	0,0%	0,0%	0,0%
L.	Expenses for revaluation of securities and derivatives	40	0,1%	0,1%	0,0%	0,0%	0,0%
M.	Change in provisions and adjustments relating to financial activity	41	0,0%	0,0%	0,0%	0,0%	0,0%
N.	Interest expense	43	0,0%	0,0%	0,0%	0,0%	0,0%
O.	Other financial expenses	45	0,2%	0,1%	0,2%	0,1%	0,1%
P.	Transfer of financial expenses	47	0,0%	0,0%	0,0%	0,0%	0,0%
*	Profit (loss) from financial operations(L. 31-32+33+37-38+39-40+41+42-43+44-45+46-47)	48	-0,2%	-0,1%	0,0%	0,0%	0,1%
Q	Income tax on ordinary profit (loss) (L. 50+51)	49	0,5%	0,4%	0,4%	0,2%	0,1%
**	Profit (loss) on ordinary activities after tax (L.30+48-49)	52	1,4%	1,7%	1,4%	0,8%	0,7%
R.	Extraordinary expenses	54	0,0%	0,0%	0,0%	0,0%	0,0%
*	Extraordinary profit (loss) (L.53-54-55)	58	0,0%	0,0%	0,0%	0,0%	0,0%
T.	Transfer of profit or loss to partners	59	0,0%	0,0%	0,0%	0,0%	0,0%
***	Profit (loss) for the accounting period (L. 52+58-59)	60	1,4%	1,7%	1,4%	0,8%	0,7%
****	Profit (loss) before tax	61	1,9%	2,2%	1,8%	1,1%	0,8%

(Source: Own calculations)

App 9: Profit and loss - Horizontal analysis (simplified)

Ident.	Item	line	2010	2011	2012	2013
I	Revenue from goods	1	11,9%	3,3%	32,5%	12,6%
A.	Cost of goods sold	2	11,8%	3,1%	33,5%	12,8%
+	Gross profit	3	15,2%	18,6%	-30,5%	-6,8%
+	Added value	11	13,6%	-9,7%	-9,8%	-7,8%
C.	Personnel expenses (L.13 to 16)	12	-2,2%	-1,1%	4,9%	1,6%
D.	Taxes and charges	17	-2,5%	-21,2%	59,9%	0,8%
E.	Depreciation of intangible and tangible fixed assets	18	0,3%	-3,3%	6,0%	-4,1%
F.	Net book value of fixed assets and raw material sold (L. 23+24)	22	-95,6%	232,6%	-10,8%	56,8%
G	Change in provisions and adjustments relating to operating activity and change in complex prepaid expenses	25	-120,9%	-285,9%	-126,4%	-774,8%
H.	Other operating expenses	27	11,1%	134,0%	70,0%	30,0%
I.	Transfer of operating expenses	29	0	0	0	0
*	Operating profit (loss)(L. 11-12-17-18+19-22-25+26-27+28-29)	30	25,0%	-18,0%	-24,0%	-21,8%
J	Revenue from long-term investments (L.34+35+36)	33	0	0	0	0
K.	Financial assets expenses	38	0	0	0	0
L.	Expenses for revaluation of securities and derivatives	40	-34,2%	-99,9%	10211,9%	510,3%
M.	Change in provisions and adjustments relating to financial activity	41	0	0	0	0
N.	Interest expense	43	-17,9%	17,7%	-35,5%	-3,9%
O.	Other financial expenses	45	-48,3%	111,1%	-40,1%	85,7%
P.	Transfer of financial expenses	47	0	0	0	0
*	Profit (loss) from financial operations(L. 31-32+33+37-38+39-40+41+42-43+44-45+46-47)	48	-22,2%	-85,7%	-273,0%	444,6%
Q	Income tax on ordinary profit (loss) (L.50+51)	49	-3,6%	-10,5%	-22,9%	-23,1%
**	Profit (loss) on ordinary activities after tax (L. 30+48-49)	52	40,2%	-15,7%	-21,8%	-10,7%
	Extraordinary revenue	53	-75,0%	1741,3%	-83,3%	-92,3%
R.	Extraordinary expenses	54	2898,0%	36,0%	-99,3%	1021,4%
*	Extraordinary profit (loss) (L. 53-54-55)	58	-205,7%	-385,4%	-73,8%	-109,3%
T.	Transfer of profit or loss to partners	59	0	0	0	0
***	Profit (loss) for the accounting period (L.52+58-59)	60	39,7%	-15,1%	-22,0%	-10,9%
****	Profit (loss) before tax	61	28,5%	-14,2%	-22,2%	-13,4%

(Source: Own calculations)

App. 10: Financial plan - Balance sheet (assets)

A K T I V A	2013	2014	2015	2016	2017
AKTIVA CELKEM	13 443 258	14 842 536	15 914 668	17 989 432	20 123 234
Dlouhodobý majetek	6 936 791	7 329 388	7 721 835	8 111 711	11 582 064
Dlouhodobý nehmotný majetek	19 628	21 999	23 999	24 999	396 704
Dlouhodobý hmotný majetek	6 917 163	7 308 989	7 701 036	8 086 712	11 185 360
Pozemky	204 262	204 262	204 262	204 262	204 262
Stavby	6 098 990	6 475 816	6 852 643	7 229 469	7 606 295
Samostatné movité věci	613 911	628 911	644 131	652 981	3 374 803
Dlouhodobý finanční majetek	0	-1 600	-3 200	0	0
Oběžná aktiva	6 497 391	7 504 072	8 183 757	9 868 646	8 532 094
Zásoby	24 759	35 623	38 219	44 022	52 588
Materiál	8 277	14 735	14 430	16 671	20 547
Zboží	16 482	20 888	23 790	27 351	32 041
Krátkodobé pohledávky	7 133 593	8 415 844	9 463 930	11 220 500	12 930 904
Pohledávky z obchodních vztahů	7 133 593	8 415 844	9 463 930	11 220 500	12 930 904
Krátkodobý finanční majetek (peníze + účty)	-660 961	-947 395	-1 318 392	-1 395 876	-4 451 397
a) Provozně potřebné	1 394 447	1 746 380	1 892 750	2 244 626	2 619 473
b) Provozně nepotřebné	-2 055 408	-2 693 775	-3 211 142	-3 640 502	-7 070 870
Časové rozlišení	9 076	9 076	9 076	9 076	9 076

(Source: Own calculations)

App. 11: Financial plan - Balance sheet (liabilities)

P A S I V A	2013	2014	2015	2016	2017
PASIVA CELKEM	18 210 190	20 581 827	21 694 135	24 180 199	26 880 371
Vlastní kapitál	8 917 667	8 781 215	8 917 719	9 057 947	9 259 141
Základní kapitál	5 660 000	5 660 000	5 660 000	5 660 000	5 660 000
Kapitálové fondy	284 721	284 721	284 721	284 721	284 721
Fondy ze zisku	687 761	687 761	687 761	687 761	687 761
Zákonný rezervní fond	687 761	687 761	687 761	687 761	687 761
Výsledek hospodaření minulých let	1 827 387	2 376 153	2 057 731	2 145 010	2 224 271
Výsledek hospodaření běžného úč. období (+-)	457 798	-227 420	227 506	280 454	402 388
Cizí zdroje	9 284 622	11 792 711	12 768 514	15 114 352	17 613 329
Rezervy	137 408	137 408	137 408	137 408	137 408
Dlouhodobé závazky	12 770	12 770	12 770	12 770	12 770
Vydané dluhopisy	12 770	12 770	12 770	12 770	12 770
Krátkodobé závazky	9 134 444	11 642 533	12 618 336	14 964 174	17 463 151
Závazky z obchodních vztahů	4 049 141	5 038 282	5 662 093	6 604 086	7 696 684
Závazky k zaměstnancům	29 930	32 327	36 467	44 422	50 223
Závazky ze sociálního zabezpečení a zdrav. pojištění	16 684	17 016	19 079	23 806	26 544
Stát - daňové závazky a dotace	5 038 689	6 554 908	6 900 698	8 291 860	9 689 700
Bankovní úvěry a výpomoci	0	0	0	0	0
Bankovní úvěry dlouhodobé	0	0	0	0	0
Krátkodobé bankovní úvěry	0	0	0	0	0
Časové rozlišení	7 901	7 901	7 901	7 901	7 901

(Source: Own calculation)

App. 12: Financial plan - Profit and loss statement

Položka	2013	2014	2015	2016	2017
Tržby za prodej zboží	68 731 171	75 398 156	87 620 969	104 080 370	118 474 657
Náklady vynaložené na prodané zboží	68 251 884	71 628 248	83 239 921	98 876 351	112 550 924
Obchodní marže	479 287	3 769 908	4 381 048	5 204 018	5 923 733
Výkonová spotřeba	3 651 528	3 015 926	3 504 839	4 163 215	4 738 986
Přidaná hodnota	-3 172 241	753 982	876 210	1 040 804	1 184 747
Osobní náklady	500 742	331 752	385 532	457 954	521 288
Daně a poplatky	15 055	15 080	17 524	20 816	23 695
Odpisy	683 972	683 972	186 906	208 563	135 370
Ostatní provozní položky (změna rezerv)	1 094	0	0	0	0
Korigovaný provozní výsledek hospodaření	-4 373 104	-276 822	286 247	353 471	504 393
b) Náklady na cizí kapitál					
Položka	2013	2014	2015	2016	2017
Nákladové úroky	3 134	639	639	639	639
c) Vedlejší činnost - náklady a výnosy spojené s neprovozním majetkem					
Položka	2013	2014	2015	2016	2017
Výnosy z dlouhodobého finančního majetku	0	0	0	0	0
Výnosové úroky	18 694	-3 305	-4 737	-6 592	-6 979
Výsledek hospodaření z neprovozního majetku	18 694	-3 305	-4 737	-6 592	-6 979
d) Celkový výsledek hospodaření					
Položka	2013	2014	2015	2016	2017
Mimořádný výsledek hospodaření před daní	-85	0	0	0	0
Celkový výsledek hospodaření před daní	556 555	-280 765	280 872	346 240	496 776
Daň	98 757	-53 345	53 366	65 786	94 387
Výsledek hospodaření za účetní období po dani	457 798	-227 420	227 506	280 454	402 388

(Source: Own calculation)

App 13: Financial plan - CF statement

1) PENĚŽNÍ TOK Z PROVOZU					
Korigovaný provozní výsledek hospodaření (KPVH	-4 373 104	-276 822	286 247	353 471	504 393
Daň připadající na korigovaný VH (d x KPVH$_d$	-830 890	-52 596	54 387	67 159	95 835
Korigovaný provozní VH po dani (KPVH)	-3 542 214	-224 226	231 860	286 311	408 559
Úpravy o nepeněžní operace	646 813	683 972	186 906	208 563	135 370
Odpisy dlouhodobého majetku (provozně nutného)	683 972	683 972	186 906	208 563	135 370
Změna zůstatků rezerv	-37 159	0	0	0	0
Úpravy oběžných aktiv (provozně nutných)	-211 401	242 616	-115 055	172 164	213 638
Změna stavu pohledávek	-473 002	-1 282 251	-1 048 086	-1 756 571	-1 710 403
Změna stavu krátkodobých závazků	66 141	2 346 221	975 803	2 345 837	2 498 978
Změna stavu zásob	195 460	-821 355	-42 772	-417 103	-574 936
Peněžní tok z provozní činnosti celkem	-3 106 802	702 362	303 711	667 039	757 567
2) INVESTIČNÍ ČINNOST					
Nabytí dlouhodobého majetku (provozně nutného)	-142 785	-1 078 169	-580 952	-595 240	-3 605 723
Peněžní tok z investiční činnosti celkem	-142 785	-1 078 169	-580 952	-595 240	-3 605 723
PENĚŽNÍ TOK Z PROVOZNÍHO MAJETKU CELKEM	-3 249 587	-375 808	-277 241	71 799	-2 848 156
b) Náklady na cizí kapitál					
Položka	2013	2014	2015	2016	2017
PLATBA NÁKLADOVÝCH ÚROKŮ	-3 134	-639	-639	-639	-639
c) Peněžní tok z neprovozního majetku					
Položka	2013	2014	2015	2016	2017
Příjmy z neprovozního majetku a mimoř. příjmy	-911 038	-2 556	-3 716	-5 218	-5 532
Výnosy z dlouhodobého finančního majetku	0	0	0	0	0
Výnosové úroky	18 694	-3 305	-4 737	-6 592	-6 979
Diference v platbě daně oproti dani z KPVH *)	-929 647	749	1 021	1 374	1 447
Mimořádný výsledek hospodaření před daní	-85	0	0	0	0
Nabytí neprovozního majetku	0	0	0	0	0
Nabytí dlouhodobého finančního majetku	0	0	0	0	0
Prodej neprovozního majetku	0	1 600	1 600	-3 200	0
Snížení dlouhodobého fin. majetku (splátka půjčky)	0	1 600	1 600	-3 200	0
PENĚŽNÍ TOK Z NEPROVOZNÍHO MAJ. CELKEM	-911 038	-956	-2 116	-8 418	-5 532
*) Diference v dani zahrnuje daň z výnosů z neprovozního majetku, daň z mimořádného zisku					

1) PENĚŽNÍ TOK Z PROVOZU					
a daňovou úsporu z nákladových úroků					
d) Finanční činnost					
Položka	2013	2014	2015	2016	2017
Změna stavu dlouhodobých závazků	-7 960	0	0	0	0
Změna dlouhodobých bankovních úvěrů	0	0	0	0	0
Změna stavu krátkodobých bankovních úvěrů	0	0	0	0	0
Změna dluhopisů	-7 960	0	0	0	0
Zvýšení a snížení VK z vybraných operací	0	90 968	-91 002	-140 227	-201 194
Upsání cenných papírů a účastí (zvýš. zákl. kap.)	0	0	0	0	0
Výplata dividend a podílů ze zisku	0	90 968	-91 002	-140 227	-201 194
PENĚŽNÍ TOK Z FINANČNÍ ČINNOSTI CELKEM	-7 960	90 968	-91 002	-140 227	-201 194
e) Peněžní tok celkem					
Položka	2013	2014	2015	2016	2017
PENĚŽNÍ TOK CELKEM	-4 171 719	-286 434	-370 997	-77 485	-3 055 521
Stav peněžních prostředků na konci období	-660 961	-947 395	-1 318 392	-1 395 876	-4 451 397

(Source: Own calculation)