

**CZECH UNIVERSITY OF LIFE SCIENCES**

**PRAGUE**

**Faculty of Economics and Management**

**Department of Trade and Finance**



**Bachelor thesis**

**Analysis of Financial Statements Prepared according to  
International Financial Reporting Standards IFRS**

**Roman Řezáč**

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Department of Trade and Accounting

Faculty of Economics and Management

## BACHELOR THESIS ASSIGNMENT

Řezáč Roman

Thesis title

**Analysis of Financial Statemetns Prepared according to International Financial Reporting Standards IFRS**

### Objectives of thesis

The primary aim of the thesis is to characterize in detail the elements and the components of financial statements compiled in agreement with international financial reporting standards particularly for the requirements of carrying out the financial statement analysis. The partial aim is to explain the main purpose of financial statement analysis, define the most widely used methods and apply the theoretical knowledge to practical example. The aim is to assess the ability of financial statemetns to inform about financial position and performance of the entity.

### Methodology

In the first instance the aims and the problems focused on in the thesis were determined. In order to reach the aims and to thoroughly work on given topic the appropriate theoretical sources are chosen and critically processed. The methods of analysis, synthesis and comparison are used to prepare theoretical and practical part of thesis. The gathering of knowledge and information is done through special literature provided both in pressed and electronic form. The knowledge and skills learned are discussed by using deduction.

### Schedule for processing

1. Introduction	6/2011
2. Aims and methodology	4/2011 - 6/2011
3. Theoretical basis	6/2011 - 10/2011
4. Own work	10/2011 - 12/2011
5. Results and discussion	2/2012
6. Conclusion	2/2012
7. List of sources	6/2011 - 2/2012
8. Appendices	2/2012

### The proposed extent of the thesis

30 - 40 stran

### Keywords

IAS, IFRS, financial statements, balance sheet, income statement, statement of changes in equity, cash flow statement, horizontal analysis, vertical analysis, náklady, výnosy.

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Prague October 24. 2011

**Statutory declaration**

I declare that I have worked on my bachelor thesis titled “Analysis of Financial Statements Prepared according to International Financial Reporting Standards IFRS” individually under the direction of my supervisor. All the resources I have used are mentioned in the bibliography section at the end of the thesis.

In Prague on .....

.....

Roman Řezáč

### **Acknowledgement**

I would like to thank Ing. Marta Stárová for her professional supervision, valuable advice and helpful consultations during the work on this thesis.

**Analysis of Financial Statements Prepared according  
to International Financial Reporting Standards IFRS**

**Rozbor finančních výkazů sestavených dle  
Mezinárodních účetních standardů IFRS**

## **Summary**

The bachelor thesis is concerned with the explanatory power of the statements compiled in accordance with International Financial Reporting Standards. Primarily, the statements, their constraints and the most widely used methods of financial statement analysis are described. Subsequently, the financial analysis is performed for the years 2006-2010 in order to assess the informative potential of the statements. As a final point, the assessment of the analysis outputs and the overall conclusion are made.

## **Keywords**

International Financial Reporting Standards, Statement of financial position, Statement of comprehensive income, Accounting discretion, Financial analysis

## **Souhrn**

Bakalářská práce se zabývá vypovídací schopností výkazů sestavených dle Mezinárodních standardů účetního výkaznictví. Nejdříve jsou popsány samotné výkazy, jejich omezení a nejpoužívanější metody finanční analýzy. Následně je provedena finanční analýza za období 2006-2010 s cílem zhodnocení informačního potenciálu výkazů. Jako poslední bod jsou zhodnoceny výstupy z finanční analýzy a formulován celkový závěr.

## **Klíčová slova**

Mezinárodní standardy účetního výkaznictví, Výkaz o finanční pozici, Výkaz o úplném výsledku hospodaření, Možnost volby účetní politiky, Finanční analýza

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# 1. INTRODUCTION

Accounting is a structured and sophisticated system for recording business operations in monetary units according to a given group of rules and norms. The operations have unquestionably economic consequences and therefore the role of accountancy as a tool for monitoring, recording and subsequent exposure of financial activities occurring in the accounting entity is indispensable. Then, the main purpose is to gather information about the economic events and transactions, their summarizing and submitting an overall report on financial situation and financial performance of the company. If the objective of keeping the records is to provide such information, particularly to external users, then it is called financial accounting. However, the internal users like managers and even the employees may benefit. Among the external groups involved in the company's activities belong, for example, the investors, owners, tax authority offices, suppliers, customers and trade associations.

Routine accounting records take place during the accounting period; their accuracy undergoes necessary scrutiny and in the end, the works on preparation of financial statements come about. The statements should encompass all above-mentioned information, which is further supported by notes and often by annual report of the company.

The most important group standing outside the company is without a shadow of a doubt the investors. It is principally the investors who are interested in clearly understandable, reliable and comparable financial statements because they must correctly interpret them, consider the potential risks and profitability and finally decide on their financial investments. The difficulties appear when the investors attempt to compare financial statements of several organizations located in many different countries across the globe. Accounting systems vary in many ways actually. Each country has its own specific accounting and tax legislation, methods and procedures and in consequence, the information becomes incomparable from the worldwide perspective. That is why the investors have to put lots of hard work and resources for understanding individual national statements. For this reason, it is exceedingly important and pressing to develop one unified international standard for financial reporting, one consistent and universally applicable language in which the statements would be grouped together. Thanks to this process of unification and standardization (harmonization), it will be

far easier to perform the true international financial statement analysis. The most important means of harmonization are United States Generally Accepted Accounting Principles, International Financial Reporting Standards and EU Directives.

If the investors want to come with appropriate decision about allocating their funds, it is not only important to understand and compare information from financial statements in its original raw shape but a fundamental financial statement analysis should be executed at least since it enables them to see some of the interconnections in the statements with higher facility. The vertical common-size analysis, horizontal common-size analysis and calculation of the most commonly used ratios shall bring more comprehensive picture of the economic situation prevailing in the enterprise. It is indeed a great tool for evaluation of the strengths, weaknesses, health and effectiveness.

## **2. THE GOAL AND METHODOLOGY**

The underlying objective of the thesis is to analyse in great detail the financial statements compiled in agreement with International Financial Reporting Standards with the intention to assess their informative potential via accomplishment of financial statement analysis. The partial aim is to characterize the constraints of the statements, which may debase the ability to inform about financial position and performance, and describe the most widely used methods of financial statement analysis.

The thesis is separated into practical and theoretical part. The latter one functions as the initial point for the practical part.

In order to reach the goal of the thesis, the appropriate theoretical sources are chosen and critically processed in the theoretical part. The retrieval of knowledge and information is done through special literature provided both in pressed and electronic form. Such literature is analysed, compared and the information is subsequently synthetised. In the first instance, the fundamental information about international financial reporting is given followed by thorough characterization of the statements. Subsequently, the constraints to the statements are probed and in the end, the methods of financial statement analysis are described.

With regard to the practical part, the same methodological approach is applied. Firstly, the annual reports of companies are gathered and analysed. Merely the information released freely to public and all other external subjects is used. The data is processed through financial statement analysis and the outputs are compared over time within the company and among companies. Financial statement analysis includes horizontal common-size, vertical common-size and ratio analysis. However, not all existing ratios are used but only those that are important for assessing the explanatory power of the statements. In the end, the synthesis is done by overall assessment of the analysis outcomes.

## **3. LITERATURE REVIEW**

### **3.1. Financial Reporting**

#### **3.1.1. International Financial Reporting Standards**

The International Financial Reporting Standards (IFRS) serve as one of the means of harmonization of different accounting systems around the world: *“The International Accounting Standards Committee (IASC) is committed to narrowing these differences by seeking to harmonise regulations, accounting standards and procedures relating to the preparation and presentation of financial statements.”* [1]

In the second half of the twentieth century, the International Accounting Standards Committee (IASC) was established as an independent and private company that was later transformed to International Accounting Standards Committee Foundation (IASCF) whose members are professional accounting and auditing organizations. The IASCF is now authorized with financing the activities and encompasses various bodies from which the International Accounting Standards Board is the most important due to the fact it is responsible for creation of the actual IFRS. The standards called International Accounting Standards (IAS) developed by IASC are still valid. [2]

#### **3.1.2. Conceptual Framework**

Framework for the Preparation and Presentation of Financial Statements is a very important introductory part, which underlies the philosophy, the essential principles, of the standard construction. Its purpose is to assist the IASB in the development of standards and their review, instruct the preparers of the statements, assist the auditors in deciding whether the statements comply with qualitative characteristics, help the users to interpret the data presented in the statements and provide the information to other interested parties. The framework is concerned with the objectives of financial statements, the qualitative characteristics of the statements, the elements from which the statements are constructed and the concepts of capital and capital maintenance. [3]

## **The objective of financial statements**

The objective as defined in the framework is as follows: “*The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions.*” [1] The usefulness is maintained by providing fair presentation.

## **Qualitative characteristics**

The fair presentation of financial position, performance and cash flows is accomplished by complying with four basic qualitative characteristics.

First, the statements prepared in line with IFRS should be easily understandable by the users who are expected to possess basic knowledge of business and economic activities.

Second quality is the relevance of the information presented. Relevance is an ability of the information to influence the decisions made by the users of the statements. The timelier the information, the more relevant for the users.

Statements should be reliable. It means they do not include any misrepresentation and important errors. The users can rely on the reliable information, which represents the true economic reality of the company. The features of reliability are faithful representation, substance over form, neutrality, prudence and completeness.

The last characteristic is the comparability of the statements that is ensured by applying consistent accounting methods over time. Then, the provided information can be compared either with previous data within one company or among the companies. [1]

## **Underlying assumptions**

Going concern principle is based on an assumption the accounting entity will exist and perform its business in a foreseeable future. The company does not intend to cease or significantly narrow its operations and the assets are bought with the intention of making money. [4]

The transactions are recognized when they occur not when the associated cash flows occur. Such an approach is called accrual, and as a consequence the accounting is referred to accrual accounting. [4]

### **Measurement of the elements of financial statements**

The amount at which the elements are presented in the statement of financial position and the statement of income is determined by the selected measurement basis. The standards recognize five fundamental measurement bases, which are used throughout the whole set of standards depending on the elements they are concerned with.

**Historical cost** is the most common one. It is based on the amount of cash and cash equivalents needed to acquire the asset. In case the asset was not received for cash and cash equivalents, the historical cost is the fair value at the date of acquisition. Liabilities are measured at the expected amount needed for their settlement.

**Current cost** is the amount of cash or cash equivalents needed to acquire the same or similar asset at the day the measurement takes place. Regarding the liabilities, the amount of undiscounted cash or cash equivalents needed to settle the obligation today is used.

**Realizable value** is the amount of cash or cash equivalents, which would be received if the assets were sold in orderly disposal. The liabilities use the amount of undiscounted cash or cash equivalents expected to be settled in the normal course of business.

**Present value.** With regards to the assets, it is the amount of present discounted value of future cash inflows, which are to be generated in the normal course of business. Liabilities are valued at the amount of present discounted value of outflows needed to settle them in the normal course of business.

**Fair value** is an amount for which the asset could be exchanged or the liability settled between the informed partners willing to perform the transactions under the orderly conditions. [5]

## **Complete set of financial statements**

According to IAS 1 - Presentation of Financial statements, the complete set of financial statements comprises of [1]:

- A statement of financial position as at the end of the period.
- A statement of comprehensive income for the period.
- A statement of changes in equity for the period.
- A statement of cash flows for the period.
- Notes, comprising a summary of significant accounting policies and other explanatory information.
- A statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

### **3.1.3. The Statement of Financial Position**

*"Accounting is concerned with how rich a particular person is." [4]*

The statement of financial position, also called the statement of financial condition or the balance sheet, is one of the underlying financial statements. The name "balance sheet" was changed to "the statement of financial position" after the revision of IAS 1. In keeping with the IASB, the new title is more suitable for representing the function and content of the statement. Besides, it was familiar and used internationally for more than twenty years. Its purpose is to inform the readers (users of the statements) about the financial situation prevailing in the company. The user can find the information on how the business is successful or how successful it may be in the future. The balance sheet records the state of current and non-current assets, and the sources these assets are derived from. The sources are the creditors and the owners also known (according to the accounting terminology) as liabilities and equity. It provides the information about the enterprises' condition because it is prepared as of a specific date. Accordingly, the balance sheet is static in nature and reflects the situation on the day of its preparation. The day is called the balance sheet day and it comes about usually at the end of



the accounting period. [3]

At any point in time, the sum of assets has to be equal to the total liabilities and equity that support these assets. This relationship is expressed by the balance sheet equation (also known as accounting equation):

$$\text{ASSETS} = \text{LIABILITIES} + \text{EQUITY}$$

The balance sheet statements differ from one another because they are cumulative and reflect all the transactions, which took place during the reporting period causing the changes in balance accounts. Some of the transactions give rise to expenses and revenues and thus they influence the equity. The transactions have to be thoroughly recorded and the closing balance sheet is compiled on their basis then. The initial balance sheet is compiled easily. All the assets, which will be used in the business, are mentioned and the value of these assets represented by the capital registered as well. The next balance sheet, the closing one, is compiled at the end of the accounting period so that the transactions that occurred in the company over past period and caused the changes in the balance sheet are added to the initial one. With individual reported transactions, there is a relationship between these two statements called "balance continuity". [4]

There are only four possible changes, which can happen in the balance sheet without breaking the rule of accounting equation:

- There is an increment in both assets and liabilities and equity.
- There is a decrement in both assets and liabilities and equity.
- There is a decrement in one item of assets inducing an increment in another item of assets.
- There is a decrement in one item of liabilities and shareholder's equity inducing an increment in another item of liabilities and equity.

Each transaction is expressed in at least two items of assets or liabilities and equity. This is the reason the accountancy is sometimes termed double-entry accounting. The balance sheet should not be confused with a document called "trial balance sheet" which is not a statement but it only sums up all the opening balances, turnovers and closing balances.

Moreover, the statement of financial position has to comply with a group of formal requirements. The title of the statement, the identification of the entity whose financial position is presented and the date of preparation (the balance sheet date) have to be contained in the heading. The name of the entity should be the same as stated in the document by which it was created and should reflect the legal status (e.g. limited liability company, joint-stock company, general or limited partnership). It should also incorporate the currency and the order of figures (millions, thousands, etc.) in which the transactions are reported and the information on whether it is consolidated or individual statement. [3]

### **Format of the balance sheet**

Formats of the statement of financial position differ across the world. In the United States of America, the most liquid assets are the emphasized ones and accordingly they have priority to be reported as the first ones followed by the less liquid ones. In the United Kingdom, it is done in the opposite way. International financial reporting standards, IAS 1 concretely, do not explicitly specify the format and what should be or what should not be directly presented in the statement of financial position. Only the minimal group of items is prescribed. For that reason, the decisions related with the format and details represented in the statement depend solely on the accounting entity, which compiles the statement in a way easing the comprehension of its outcomes. Despite the fact the statements of financial position may vary from company to company, the fundamental information included in them should be the same. [6]

Two main types of formats of the statement exist. They are called the report format and the account format. The account format is based on the conventional pattern of accounting equation with assets on the left and liabilities and equity on the right. The advantage of this format is it enables demonstration of the total balance sum. The account format is the favoured one and usually chosen by the people preparing the statements. The base of the report format stems from the modification of the balance sheet equation and the elements of the statement are listed in a single column from the top to the bottom. This type stresses the liquidity of the items whose appraisal is eased by the inclusion of an indicator called "working capital", which is counted as the difference of current assets and current liabilities. The modified accounting

equation used for report format is as follows[5]:

$$\text{ASSETS} - \text{LIABILITIES} = \text{EQUITY}$$

Despite the minimal group of items that have to be presented (in accordance with IAS 1) directly in the statement, the items, which are considered significant and whose pretermission or incorrect presentation would influence the economic decisions of the users in a negative way, have to be reported either straight in the statement of financial position or in the notes. If the assets have particular nature, liquidity, function within the entity or are measured differently, they are to be contained as well. Liabilities are sorted with respect to their significance, type and the settlement date. Regarding the other standards, they impose specific requirements on the items and their classification. For example, IAS 16 requires presentation of certain categories of non-current assets, IAS 2 requires detailed classification of inventories and IAS 37 assort the provisions according to their relation with company's activities, etc.

### **The elements of statement of financial position**

#### **Assets**

*"Resources controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise."* [6]

Tangible and intangible assets are controlled by the entity. The entity can obtain the economic benefits and to restrict other entities to gain access to the benefit. Sometimes, there would be a considerable problem in distinguishing what part of the benefit flowing in the business belongs to the company. Because of that, the lack of evident control over such an item results in non-recognition of the asset. The requirement of control prevents the companies from omitting some items, which should be positively included in the balance sheet. Unless the condition of control was requested, some of the resources used by the enterprise and related obligations would be hidden and thus the relevance of the provided information would be diminished. For that reason, it is not important whether the item is owned but an existence of a right or other access similar to the right of ownership is sufficient enough for the item to be recognised as an asset. Rights and other access may be comprised, for instance, of agreement to lease or rent resources. [5]

The assets are results of past transactions or events. They are commonly generated through purchase, operating activities (service provided) or financial activities (issuance of debt). Yet, other transactions or events may lead to the increment of the assets because the resources do not have to be necessarily spent to recognize the assets. This is the case of gifted items, subsidies or production quotas assigned free of charge.

Future economic benefits represent the potential of the assets to generate cash or cash equivalents. Some of the assets generate the cash inflows faster than the others. On that ground, they are divided pursuant to their liquidity or current and non-current distinction. Nevertheless, the principal idea is that every asset becomes, sooner or later, an expense and in consequence the revenue may be created. Usually, the goods are sold, the material is used and the machines are depreciated but the future economic benefits may flow to the enterprise by many other ways. The assets can be exchanged for other assets, used for the settlement of a liability or divided among the owners. [4]

In addition, another criterion for recognition is the capability of reliable measurement of the item's value and cost. Reliable means the numbers under which the assets are reported are faithful and free from serious errors and distortions. Sometimes it is necessary to come with some estimation for the information to be faithful enough and so the estimations are permitted by the standards provided they are reckoned in accordance with accounting principles. If the entity is not able to evaluate adequately the expected effect, it is impossible to report the item in the balance sheet but occasionally it is included in the notes. Such an item is called "contingent asset", which is the result of past events and whose recognition in regular statement depends on the future events, which may or may not come about. The typical situation is contingent claim stemming from judicial proceedings. [5], [7]

### **Liabilities**

*"Present obligations of an enterprise arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits.*

*Liabilities are what a company owes (e.g., bank borrowings)." [6]*

The obligations of an enterprise are the fundamental characteristics of the liabilities. The company is liable or obliged to do something on demand when a specific event or particular

date (date of settlement) takes place. There are two main types of obligation. They are either money related or non-money related. The first one commonly arises when something is reported as an expense or an asset but has not been paid yet. This is the case of buying the material, goods or services. Non-money related obligation comes forth when money is received in advance for some services, goods or materials that have to be provided in the future. However, not all the assets are reciprocal, for example the payables to partners and participants in an association. Some of them are legally enforceable because of an agreement or are imposed by government or judicial decision in form of taxes, fines, etc. Some of them arise from changes in currency and interest rates.

Anyway, the obligation cannot be avoided and the amount in which it will be settled up has to be reliably measurable. If the criterion of reliable measurement is not accomplished, it is not a liability. Such situations actually happen. Obligation is known to exist but the amount, the date of the settlement end even the person company is liable to is not known. In that situation, the entity has to undertake an estimate of the liability. These estimates are called provisions. Sometimes an obligation may emerge if some future events come about, and thus the existence is not known for sure either. Such obligations are called "contingent liabilities". IAS 37 is devoted to provisions and contingent obligations when they are both further examined and analysed. [5], [7]

### **Equity**

*"The residual interest in the assets that remains after deducting its liabilities. In a business enterprise, the equity is the ownership interest." [3]*

The term net assets may be used. The amounts posed by these terms are equal because they are reckoned in the same way. Net assets reveal of which items the wealth is composed and the equity informs about the sources. The equity is increased either by the owner's investments or by profits and is decreased either by the owner's withdrawals (for instance, in case of paying the dividends) or losses. The equity is further divided. Two basic components are the capital registered and net profit or loss. Only at the beginning of business, the latter one is not present in the balance sheet. [8]

The equity represents the owners' claims on the company's wealth (net assets) and is the

basic criteria for distribution of earnings. The division of the equity depends on the legal status of the entity and, for that reason, differs from company to company. It may be sorted according to its origins and sometimes it is influenced by legal and other restrictions. The key function is to cushion possible losses, maintaining stability and credibility for the creditors. [8]

### **Current and non-current distinction**

The assets and liabilities can be divided into current and non-current. The entities do not have to classify these basic balance sheet components in such a way provided better categorization, which provides more relevant and reliable information, exists. Such a classification is based on the liquidity of assets and liabilities (the banks usually use this method). The combination of both approaches is possible.

Two main ways of defining the currentness and non-currentness are applicable. In the first one, the division is done consistent with a certain period. In compliance with this method, the liabilities and assets are considered current if they are settled (not necessarily in terms of money) during the interval shorter than twelve months. Sometimes the current part of the non-current liability or asset has to be separated and reported if it is realized in the next accounting period. By way of the second one, the relationship between the assets and liabilities and the operating cycle has to be determined. The entity's operating cycle is defined as the time between the purchase of materials coming in the processing and the receipt of cash or cash equivalents for selling the outputs created through processing of the materials purchased. Such an approach enables to reflect individual operating cycles in different accounting entities and thus it provides higher-quality information. Unless the assets and liabilities are settled during the operating cycle, they are not regarded as current. This way of specification is based on an assumption the operating cycle can be defined. If it cannot be defined, the entity has to expect its length of twelve months in compliance with IAS 1. [5]

An asset is classified as current if it complies with at least one of the following criteria [1]:

- It is expected the assets are to be realized during next twelve months since the balance sheet date.
- An asset is expected to be realized or held for sale or consumption within the period of normal operating cycle.

- The assets are either cash or cash equivalents.
- Their primary purpose is to be traded.

Liabilities are classified as current if they conform to one of four following criteria [1]:

- A liability is expected to be settled over a period of the entity's normal operating cycle.
- It is held primarily for trading purposes.
- It is to be settled in twelve months since the end of an accounting period.
- The liabilities are considered current unless the accounting entity has the right to hold over the settlement for a period longer than twelve months.

Non-current assets comprise of tangible, intangible and financial. Tangible and intangible assets are not primarily held for trading but their main purpose is to be used within long-term period and they enable, enhance, facilitate or broaden central business activities of a company. The financial non-current assets are held because of the expectation of future inflow of economic benefits. Contrary to the current ones, the financial non-current assets are considered less liquid by their nature and they represent long-term or strategic investments. [3], [5]

Non-current liabilities include obligations arising as a part of the long-term capital structure (e.g. issuance of bonds, lease obligations) and obligations, which originate in normal course of operations (e.g. long-term bank loans, deferred taxes). Other non-current obligations are contingent liabilities, which have to be included in the notes only. The liabilities are considered contingent provided the emergence of an obligation is not certain enough but the probability of future economic outflow is not insignificant and is of considerable value (e.g. guaranty). [3], [5]

### 3.1.4. Statement of Income and Comprehensive Income

*"The income statement provides a classification of expenses and revenues. It presents the information on how the business got richer." [4]*

The traditional income statement is a written overview of expenses, revenues, losses, gains and net income over a specific period enabling the users to scrutinize the results of company's business activities. The profit, expenses, and revenues are always for a period. The reason is they have to be reported in accordance with the matching principle stipulating the expenses leading to revenues. As a result, there is a link between them. The profit is one of the items presented in shareholder's equity, and thus the same rules are applicable to it. Revenues and expenses are only a part of income and their relationship can be expressed in following equation:

$$\text{REVENUES} - \text{EXPENSES} = \text{NET INCOME}$$

Despite the predominating statement of financial position, the income statement is still treated by the interested parties (e.g. creditors, investors) as the most important one for assessing the company's ability to generate future earnings and cash flows. It is a considerable and indispensable source for evaluating company's profitability since it provides detailed information on how individual items influenced the income. The statement is also known as profit and loss account, statement of earnings or statement of operations. [3]

The standard IAS 1, after its revision in 2007, requires the accounting entity to report all changes in the equity during a period separately from all owner changes (investments by owners and distribution to owners) in a statement of comprehensive income. The purpose of such an income is to provide information about the total performance of an enterprise. All owner changes in equity should be presented in a statement called statement of changes in equity separately whereas the components of comprehensive income must not. Therefore, the total comprehensive income comprises of all revenues, expenses, gains and losses influencing the level of profit or loss in a particular accounting period as well as other changes in net assets except for those resulting from transactions with owners. Such other changes in equity are called other comprehensive income, which does not influence the profit or loss. These items are consisted, for instance, of changes in revaluation surplus of non-current tangible and



intangible assets used for business, changes in foreign exchange rates reported straight in equity, actuarial gains and losses on defined benefit plans and impacts of re-measuring of available-for-sale financial assets. Some of these other comprehensive income items may be recognized as revenues or expenses in the next accounting period and consequently affect the income. The non-current assets, which were revaluated to realizable value, may be sold and a gain becomes revenue. That is the reason the standards require inclusion of comprehensive income because thorough view of a company enables the analysts fully to understand its functioning. [3], [5], [6]

If the amounts classified as other comprehensive income in the preceding period become items influencing profit and loss in the current one, the user should be informed about such reclassification adjustments as they have already been reported in the previous statement of comprehensive income.

### **Structure of the income statement**

The accounting entity has a right to choose between reporting the information either in a single comprehensive income statement or in two separated statements. In line with the single-statement approach, all expenses, revenues, gains, losses and other comprehensive income items are reported in one jointed statement. According to the two-statement approach, the traditional income is compiled and is further supplemented by a second statement that begins with profit and loss and extends the first one with other comprehensive income items. [5]

The standards do not specify the exact format or content of the statement. Merely, the minimum requirements are formulated. In addition, the significant items should be separately presented when it is relevant for understanding the performance of an entity and if it enables easier judgement of its future development. On the contrary, the fourth EU directive describes four main formats: vertical format and horizontal format for expenses either grouped by nature or grouped by function. Anyway, the standard requires the entity to use its legal name and the title "statement of income" to distinguish the statement from other statements and notes in case the components of profit and loss are presented in keeping with the two-statement approach. The reporting period should be clearly identified as well. [3]

Some of the components of the statement have synonyms and the decision on which term

is finally presented depends freely on the company. Net revenue is sometimes replaced by sales and turnover and net earnings or net profit are used in place of net income from time to time but the nature of provided information behind these interchangeable terms is the same. Some companies put the expenses into brackets to make obvious they are subtracted though some enterprises do not do it this way and then the user has to distinguish what the expenses are. Regarding the year columns, the company decides whether they are listed in increasing or decreasing order and whether the most-recent year is either in the last or in the first column. The term net revenue (revenue after adjustments) is ordinarily placed at the top of the statement and net income is usually reported at its bottom. The statements, which include the gross margin (a.k.a. gross profit) subtotal, are considered the multi-step. Single-step format shows all the revenues and gains (usually in order of amount) and then lists all the expenses and losses whose total sum is subsequently deducted and thus creates the most relevant number at the bottom line. [6]

### **The elements of income statement**

#### **Income**

*"Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets that result in increases in equity, other than those relating to contributions from equity participants."* [3]

The standards use the definition of income to encompass revenue and gains. The revenues are labelled as income from entity's ordinary activities like sales of products and services. In regard to the revenues, the offsetting is not allowed, they are not decreased by associated expenses but they may be recognized net of discounts, cash sales incentives, customer bonuses and rebates granted. Gains result from secondary and casual activities, which happen irregularly and usually cannot be influenced by the company. These increases in economic benefits are offset by related losses and reported as net. Gains include, for example, sale of non-current assets not needed anymore, sale of investments, sale of current assets like material (does not apply for goods and products) or exchange rate differences. As some of them are reported among other comprehensive income, they do not have to influence the profit directly.

[3]

The main problem regarding the revenues is undoubtedly the time of their recognition. Revenues occur independently of cash inflows although receiving money is often associated with them. Nevertheless, the receipt of cash does not have any effect on determining the time when the revenue should be recognized. The underlying criterion for recognition is the performance of actions, which give rise to the right of receiving the money. It means the revenue is recognized if it is earned and such a policy represents the essence of accrual principle. The receipt of money may come before the revenue, after it or at the same time. The company may receive an advance payment from clients, issue an invoice for the goods sold or sell the goods for cash. Some of the money receipts are not related to the revenues at all, for instance a cash inflow stemming from a loan provided by a bank. Even though this is a cash inflow (the business received money), no revenue was, is, or will be associated with receiving this money. [4]

IAS 18 dwells on the revenues in detail describing the criteria for recognition the revenues resulting from the sale of goods, the rendering of services and the revenues from interest, dividends and royalties.

### **Expenses**

*"Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurring liabilities that result in decreases in equity, other than those relating to distributions to equity participants."* [3]

The definition encompasses both expenses and losses. The expenses result from ordinary activities of a company. By ordinary activities is meant the normal, regular and recurring transactions like purchasing inventory for cash or for received invoices. Losses represent an antipole to gains and accordingly influence the equity either directly or indirectly through decreasing the profit. [4], [5]

As for revenues, the determination when the expense should be recognized can be quite complicated. They are the opposite of revenues. The moment of recognition is in general in the period a company uses up the economic benefits associated with the cash outflow. It is essential to know when the cause of money paid or obligation to pay arose. The outflows are

independent of the related expenses by reference to time as they may come after expense, at the same time as expense or before expense: consumption of gas at the end of accounting period will be paid in the next one; instant payment for catering; acquisition cost of non-current assets, which is to be spread over time through adequate expenses. The purpose of expenses is to earn revenues. There are no revenues without the expenses since something has to be sacrificed (used up, consumed) at first. The offices are heated up because of the gas consumption so the workers are able to provide services. The machine is used up for production. If it is possible to match the usage to revenue in a period, then it should be recognized as an expense. Accruals and prepayments are used to allocate revenues and expenses into the right accounting period and thus meet the rules of matching principle. Nonetheless, sometimes the link between expenses and revenues is not as clear as in case of cost of sales since there are no such costs without the sale of goods. [4]

Expenses that are less directly matched to revenues (it is unclear whether they bring them or not) are called period expenses. An example would be the fixed costs, which arise in spite of earning no revenues. Administrative expenses such as bookkeeping, consumption of electricity or amortization of architecture software are typical period expenses. In such cases, the matching principle cannot be used for decision in which period the expenses should be reflected. Consequently, a simple rule is applied. If there is no evident relation between expenses or incurred liabilities to revenues, they are to be reported in a period when they happened. Most of the expenses occurring in a company are actually the period expenses. [4]

### **Classification of expenses**

According to the IAS 1, the accounting entity is allowed to prepare the statement using classification of expenses either by their nature or their function. It should be considered, which method provides more reliable and relevant information. The expenses classified by nature answer the question what happened and what was the reason leading to the expense. The expenses may be incurred by wages, material consumption, rent, energy consumption, external accounting services, etc. The depreciation of computer used in the accounting department and the depreciation of a production line are grouped together in a single line called "depreciation". In a line called "wages", both the wages of shop assistants and the

wages of store workers are accumulated under that line. Preparing the statement using the nature of expense method is commonly much easier since the preparers do not have to determine the purpose of each expense, which is sometimes quite difficult. Distinguishing among the individual functions may be too subjective to cause loss of the information value of the statement. In such cases, grouping by nature should be used. [3], [4]

The expenses classified by function are listed in categories regarding the purpose of such expenditure. Hence, there are expense groups like cost of goods sold, administration expenses, distribution costs, research and development or restructuring expenses. Provided that function of expense is used, the accounting entity is obliged to report at least its cost of sales separately and provide information on the expenses grouped by nature, which is useful for prediction of future cash inflows. Such a classification may provide more relevant information (e.g. in case of manufacturing companies) but its usage depends on the decision of an entity and "cost versus benefit" should be considered too. The allocation of expenses to products or work-in-progress and semi-finished products should be done in manufacturing companies in any case to find out the amount of gross margin and to ascertain the compliance with matching principle. [3], [4], [5]

### **3.1.5. Statement of Changes in Equity**

Apart from the statement of financial position, statement of comprehensive income and statement of cash flows, the accounting entity is required to publish the statement of changes in equity (a.k.a. statement of changes in shareholder's equity or statement of shareholder's equity). As for balance sheet and comprehensive income statement, some items should be presented directly in the statement of changes in equity and some are to be disclosed either in the notes or in the statement. Yet, the format of the statement is not explicitly described in the IAS 1. [5], [3]

The primary purpose is to reflect information about the opening and closing balances of the items and the increases and decreases of the net assets and thus to enable the users to fully comprehend the changes in financial position. The effects of retrospectively reported alterations in accounting policies, retrospectively reported impacts of errors (further deeply analysed in IAS 8) and all changes occurred during the last period have to be included for all

equity components. Owner deposits, distributions to owners and comprehensive income are to be presented on the face of the statement as well. Dividends distributed to owners during the past reporting period and the amount of dividends per share are to be reported either in the footnotes to financial statements or in the statement of changes in equity. [3]

### **3.1.6. Footnotes**

The usage of different alternative methods is enabled under the IFRS to ensure the reports fulfil the true and fair view principle. Consequently, the flexibility is ensured but the comparability of statements compiled using different methods, estimates and assumptions (e.g. valuation of inventories, revenue recognition) become more difficult. Hence, the supporting information must be provided.

The notes to financial statements (or just the notes or the footnotes) contain such information. The fundamental requirements for the content of the notes are described within the IAS 1. Nevertheless, all the standards formulate the requirements for the footnotes information. The notes have to be presented systematically and each item presented in the financial statements has to be marked with cross-reference to any information in the footnotes. The notes include the statement of compliance with IFRS, overall information on the accounting policies applied, additional information for items presented in the financial statements relevant to understand any of the published statements and other disclosures (e.g. contingent assets and liabilities). [3]

### **3.1.7. Statement of Cash Flows**

Despite the fact the accounting is based on accrual basis, the overview of the changes in cash flows is essential for assessment of company's financial stability since the enterprise may generate high profit but on the contrary, it may generate zero or negative cash flow. Other financial statements do not provide sufficient information and that is why the statement of cash flows, sometimes referred to as cash flow statement or funds flow statement, has to be compiled. It is one of the most important financial statements considering it provides information explaining the causes of changes happening in cash balances, e.g. company's cash receipts and cash payments, over the reporting period. Every transaction influencing the cash

flow has to be reported. Unlike the other statements scrutinized in IAS 1, the cash flow statement has its own standard called IAS 7 – Statement of Cash Flows. The cash flow is easily ascertainable from the balance sheet [6]:

$$\text{CASH FLOW} = \text{ENDING CASH AMOUNT} - \text{BEGINNING CASH AMOUNT}$$

Information on cash uses and sources helps several groups of users, i.e. creditors and investors, to assess the ability of the company to generate future cash inflows, adaptability to changing market conditions (flexibility), ability to repay its obligations (solvency), ability to pay dividends, differences between accruals and prepayments, differences between cash inflows and outflows and to compare results of operating activities among companies since the cash flow statement is not influenced by various accounting methods and policies.

The term cash is defined as cash on hand and demand deposits with financial institutions (e.g. bank accounts). However, the statement does not merely encompass the cash itself but the changes in near-cash assets, cash equivalents, have to be included as well. Cash equivalents are short-term, highly liquid financial investments, which may be immediately converted into determinable cash amounts and the risk their value would fluctuate is not considerable. The due date of these equivalents is short-term if they are to be settled within three months or less since the date they have been acquired. They are not held for speculative purposes, rather they present short-term deposits of company's cash. These criteria prevent the company from adding the non-financial assets among the cash equivalents. An example of such an equivalent would be short-term debt securities like treasury bills. According to the standards, the cash flows are defined as cash inflows and outflows except for the transfer transactions within cash and cash equivalents like transfer of cash on hand to bank account and purchase of cash equivalents paid from this account. [3], [5]

Some of the investing and financial transactions do not influence the cash flows at all and are not permitted to be reported in the statement of cash flows. An example of non-cash transactions would be an exchange of common stocks for inventories. In case of significance of these transactions, they should be disclosed elsewhere (in the notes actually) in financial statements in accord with IAS 7. [5]

## **Classification of cash flows**

The cash flows are divided into three main areas: operating activities, investing activities and financing activities. The operating activities represent the underlying business activities, which bring revenues and incur expenses, they regularly recur and are significant for assessing to what extent the amount of generated operating cash covers liabilities arising from these activities. Such operating cash flows may be used for forecasting future cash flows and ordinarily should be comprised of positive figures so that the financing of company's usual activities, paying off the redemption instalments, interests and dividends are secured. Ergo, all the events excluding investing and financial transactions are encompassed in this area. Typical operating cash inflows are dividends, interests and reconciliation of accounts receivable arisen from selling goods and services. Outflows are represented by settlement of liabilities and purchases of current assets. [3]

Investment cash flows comprise mainly of capital expenditures (CAPEX), i.e. purchases of and adjustments to (repairs, reconstructions) all non-current tangible assets, which are supposed to be used and allocated over time to expenses through their usage (like equipment, buildings and constructions). The amount of CAPEX is thoroughly scrutinized by financial analysts since such investments secure the future of the company. Anyway, the investing cash flows further encompass purchases of both intangible and non-depreciable non-current assets like works of art and collections, land, software, valuable rights, etc. Investing cash flows are also related with purchases of both long-term and short-term financial assets like the equity and debt securities excluding cash equivalents and those held for dealing and trading. Although this area is usually comprised of negative figures, the cash inflows may occur in case of the sales of the above-mentioned assets. [3], [4]

Cash flows from financing activities include obtaining cash and cash equivalents from external sources of capital, i.e. shareholders and creditors. Accordingly, the financing cash flows have their origin either in the changes of equity or in obtaining short-term and long-term borrowings. Regarding the financing inflows, they consist of receipts from issuing shares and other capital instruments, receipts from issuing bonds, bills of exchange and received loans. Outflows are represented by repurchase of stock, paying dividends and repaying bonds and other amounts borrowed including liabilities related to financial leasing.



### **Format of the cash flow statement**

The direct format provides direct information on cash inflows and outflows, which are ascertained by scrutinizing of cash-related documents or by sufficient analysis and adjustments to accounts so as not to include impact of accruals. The direct method is preferred by the standard since it provides information on specific operating cash inflows and outflows like receipts from customers, payments to suppliers, employees. It can be used to understand past development and to forecast future cash flows. [5]

The indirect method for obtaining cash flow from operations begins with net income, which is subsequently adjusted for non-cash revenues and expenses so that the net income equals cash flow in the end. Such a format explains why the net profit does not equal cash flow but the user has to understand what the economic result is and how it is calculated to appreciate the format. The indirect technique of calculation is done via modified accounting equation, which includes changes (closing balances minus opening balances) in assets on the left side and changes in shareholder's equity and liabilities on the right side. Only the changes in cash and cash equivalents are on the left side and all other changes in assets are moved to the right side. The indirect method is nothing more than solving an equation. [4]

### **3.1.8. Constraints of Financial Statements**

Despite the fact the IFRS setters put much effort in creation of the standards to enhance comparability in time within one company and among the companies from different countries, it is impossible for the preparers of the statements to achieve all the qualitative characteristics simultaneously due to several reasons. In the International Financial Reporting Standards Framework, the three basic constraints on financial statements are timeliness, cost versus benefit and balance between qualitative characteristics, which is deemed the most important. Rather, the constraints should be divided into cost versus benefit constraints, qualitative characteristics trade-offs and omission constraints. [6]

### **Cost versus benefit**

Cost versus benefit is a well-known analysis that is based on an idea the benefits acquired due to decision or carrying out a project should be higher than the costs associated with such a decision or a project. Same principle is applied to the information provided by the statements while the goal is to achieve the appropriate balance between cost and benefits. [1]

### **Omission constraints**

It is not only the problem of statements compiled in accordance with IFRS but the accountancy in general. The accounting omits information about items, which is not quantifiable in nature but contributes to the large extent to financial position and performance. Typical examples of such items are company work force, qualification, high-quality management, innovation, loyalty, environmental respectfulness or the support of lobby groups. [6], [9]

### **Balance between qualitative characteristics**

The information has to be timely in order to influence economic decisions of the users (i.e. relevant) but not all the aspects related to the transaction or event may be known and thus the information becomes less reliable. On the contrary, the utterly reliable information requires considerable time until it is available for decision makers, which impairs relevance. An example could be doubtful account allowance. When revenue is recognized, it is required to simultaneously estimate and record an expense for uncollectible accounts. Such an attitude provides information that is more relevant but, because it is only an estimate, it possesses uncertainty and as a result decreases the reliability. [1]

The method how the assets and liabilities are evaluated is another problem. The balance sheet describes the condition of the company usually using the historical costs. This measurement worsens the ability to inform. Historical costs do not reflect the company's dynamics and present value of its wealth. For example the buildings, they might be purchased many years ago and, provided they stay on a profitable place, their present value may very differ from their historical costs under which they are reported in the accountancy. Such a situation leads to a fact the shareholder's equity (net asset value) does not equal the real

economic value of the company. Ergo, the equity is only a part of the company's real economic value.

Another qualitative characteristic balance should be achieved between the comparability and the quality of the information presented (true and fair view). The statements are comparable provided the preparers use consistent accounting methods over time. In fact, the consistency is usually disrupted by two main reasons. The policies are changed either it is required due to change in IFRS or because of the decision of the accounting entity, which considers the change to result in the financial statements providing more reliable and relevant information. According to the IAS 8 - Accounting policies, Changes in Accounting Estimates and Errors, the accounting entity is required to give reasons for the change in accounting policies and apply the change retrospectively if possible. If the requirement of retrospection cannot be achieved, the accounting entity has to justify the reasons why. [1], [5]

The usage of estimates is a part of accounting and does not weaken the reliability of the statements. The prevailing opinion is that it is better to do the estimates than not to use them at all. Thus, the changes in estimates are not considered as a correction of an error and are recognized prospectively. Material errors, which arose in previous accounting periods, should be corrected retrospectively if possible. [1], [5]

In case of comparison of various companies, the different balance sheet dates, dissimilarities in presentation and changes in company structure may worsen the comparability as well. [11]

### **3.1.9. Accounting Discretion**

The necessary trade-offs between qualitative characteristics are possible thanks to the accounting discretion, which ensures the accounting entities have sufficient flexibility with regard to the choices of accounting methods and usage of estimates. The right of choice has to be permitted by standards to allow the companies to reflect underlying economic activity. Actually, the IFRS are full of estimates, which may lead the management to use the discretion opportunistically and thus the changes in accounting policies, estimates and errors could be made intentionally to achieve desired presentation of financial position, financial performance or cash flows. Such an abuse is sometimes called „creative accounting“. Distinguishing among

neutral estimation errors and strategic errors can be difficult but the analysts should be aware of some financial statement weaknesses that make the analysis more difficult and should be able to make some adjustments and estimations. [6]

The opportunistic discretion can be mitigated by a set of mechanisms, including external auditors, internal auditors, management certification, lawyers, regulators and general market scrutiny. [6]

### **Incentives to manage the financial statements**

Management's opportunistic approach to the right of choice is influenced by a variety of interrelated manipulation incentives. These incentives may be driven by capital markets, contracts, compensation, executive changes, political and regulatory elements, business cooperation, economic downturn, competition and union negotiations. The different incentives may lead to diverse reporting strategies, which are usually divided into earnings management and balance sheet structure management. [11]

#### **Capital markets**

The investors, potential investors and analysts perceive the companies with less volatile reported figures less risky and as a result, the share price of such companies is higher than the price of those perceived riskier. Therefore, the managers try to influence the earnings in a particular direction to reduce the variability in reported results. Such an action is called „income smoothing“. [11]

#### **Contracts**

When borrowing money, the company is committed not to breach certain set of covenants. The covenants are usually based on accounting ratios computed from accounting data and are specified, for instance, as maximum leverage ratio, minimum interest coverage ratio, minimum solvency ratio, etc. Because of that, the company's management tries to manage the annual accounts to decrease the risk of violation of these covenants and in this way to avoid potential immediate repayment of the debt, higher interest rate imposed, further covenants as collaterals and other penalties. [11]

### **Compensation**

Typically, the compensation of managers is linked to the reported profit. In such a case, there is no wonder they try to exceed the profit targets set in their contracts and even prefer short-term benefits to long-term wealth maximization. Because of this unfavourable behaviour, the compensation can be based on share options to managers or can be relative to industrial performance benchmark. [11]

### **Executive changes incentives**

They are linked to obligatory or voluntary executive changes in the company. The leaving chief executive officer (CEO) might have influenced the accounts in order to achieve higher reported income focusing on short-term performance as an effect of different incentives and thus borrowed income from the future. Then the new CEOs may rightfully blame the predecessors for lower earnings and start to exploit the discretion for their purposes. [11]

### **Regulatory elements**

In many countries, the tax authorities have an unquestionable influence on the behaviour of the firms. If the link between the accounting income and taxable income is strong, the efforts of the companies will lead to reduce the profit as much as possible in order to reduce the taxable income as well. In other words, they try to maximize their tax shield. [11]

### **Competition**

Taking into consideration the information from annual accounts and disclosures may be useful for the competition, the companies may either reduce the quality of disclosure or try to avoid it. The profits can be even decreased via earnings management to deter new firms from entering the industry. [11]

### **Other incentives**

Strong labour unions might ask the company to increase the salaries pursuant to the levels of profit. In such a case, the goal is to present lower profit.

When a company is not able to avoid a loss in the accounting period, one possible

approach is, on the contrary, maximize the losses in this period by „frontloading of costs“ via, for example, higher depreciation or reporting higher provisions. In such a way, the performance of the firm will artificially increase in next years thanks to lower depreciation and drawing on provisions. [11]

## **3.2. Financial Analysis**

### **3.2.1. The Objective of Financial Analysis**

Regarding the historical roots of financial analysis, it is as old as the money itself. The country in which the most theoretical works have been published is the United States of America and thus it is considered as the cradle of financial analysis. The focus of the analysis has changed during the times and the appropriate methods as well. The milestone in the development is without a doubt the beginning of the computer age when the principles and reasons for conducting the analysis changed. The computers helped the analysts to perform more complex and sophisticated computations. [10]

In the beginning, only the absolute differences between the outputs of financial reporting were computed and analysed. In the thirties of twentieth century, the focus moved to evaluate the credit worthiness of the companies due to the fact the financial crisis was under way. The company's liquidity and ability to survive were the most important that time. During the second half of the century, the attention aimed to the questions of economy and rentability. [10]

There are two main objectives for performing the analysis. The first one is to examine the financial health (financial performance and financial position) of the company and consequently to identify its weaknesses and strengths. Sometimes it is called as ex-post analysis and represents the gist for marketing analysis like SWOT (strengths, weaknesses, opportunities and threats). The past and current financial health is evaluated and the causes are found. [10]

The second one is to forecast future performance and financial position based on the outputs of the ex-post analysis. Such an analysis is called ex-ante and underlies the financial planning, which encompasses both operational and strategic. The direction of the development and potential remedies are determined. [10]

According to the object of examination, the analysis can be divided into international, national, sector (industry) and company analysis. The company analysis is the most common one. [10]

### **3.2.2. The Users of Financial Analysis**

Analogically to the users of accounting information, the users of financial analysis can be divided into two main groups: the external users and the internal users. The external users have an access to the information released to public through financial reporting only. Quite the opposite, the internal users have all the data from internal information system at disposal. In consequence, the internal users process the information from both the financial and managerial accounting and their outcomes are more accurate and timely. Consistent with the decisions the users wish to make using the outputs of the analysis, they can be further classified. [9], [11]

#### **The managers**

They perform the analysis in order to obtain information necessary for short-term and long-term decision-making process. In short-term, they are concerned particularly with the company's ability to pay its liabilities. Further, they are interested in management of resources, financial leverage, financial independence and profitability.

#### **The equity investor group**

This group consists of both the existing and potential shareholders that represent the underlying group of the external users of financial information. Their goal is to assess whether the money they invest in the company is sufficiently treated and gaining in value. Investment decisions are then influenced by such an assessment. The investors focus on the level of dividends and capital gains and thus are interested in the development of market, profitability of the company and its cash flow. In case of present shareholders owning more than a half of voting rights, they may even change the management if dissatisfied. [11]

#### **The loan creditor group**

Long-term, medium-term and short-term lenders of money belong to this group. The aims of long-term creditors are similar to the ones of shareholders. It is the long-term monitoring of the company's liquidity, profitability, stability of cash flows, solvency, various claims on the resources and prediction of future development. The short-term lenders assess the short-term



liquidity. They are interested in current assets, their net realizable value and claims on these assets. All the creditors are concerned with the level of risk, which subsequently influences the price of money they lend. [11]

### **The employee group**

Employees naturally need the information about the business and its prosperousness because it influences wage negotiations and future job security. They want to maintain at least the status quo; the same level of wages and security of their current position. [11]

### **Suppliers and trade creditors**

Their information needs are similar to the short-term loan creditors but furthermore, they have to be concerned with the business's future because they are more interested in the continuance of the relationship. [11]

### **Customers**

Both the short-term and long-term monitoring is required. They need their goods to be delivered in time and in a perfect state. Besides, the company they buy from should be reliable in terms of providing after-sale services. [11]

### **The government**

The government's most apparent objective is the taxation. Still, it also needs the information for other decision-making purposes: the control of subsidies, control in case the government is in a position of creditor or buyer, the economic decisions, etc. [11]

### **The public**

The business is a part of society and interacts with its actors. Varied entities from the business environment are interested in various features and actions of this business. Despite the fact most of the information needed by these entities is of non-financial nature, the outputs of financial analysis may be helpful. [11]

### 3.2.3. Sources of Information

The financial statements as defined in IFRS are the main sources of information for financial analysis. However, they are only a part of a broader term called financial reporting. Financial reporting encompasses additional quantitative and qualitative data [12]. Supplemental information may be found in [9], [6]:

- **Semi-annual or quarterly reports** which consist of the basic financial statements and other information. Despite the advantage they provide more timely information, they are not audited.
- **Auditor's reports** where the opinion of independent auditing company regarding the fair presentation of financial statements can be found.
- **Management discussion and analysis (MD&A)** provide similar information as the footnotes but there is a certain distinction. In MD&A, only the most significant policies and estimates are discussed while in the footnotes to financial statements all accounting policies are encompassed.
- **Prospectus** is also known as offer document and it thoroughly describes financial security for potential buyers. It includes, for instance, the list of material properties or biographies of directors and officers in the company issuing the security.
- **Proxy statements** are made before the meeting of shareholders. It provides information needed to be considered before the meeting and voting take place. The salaries of management and directors, fees paid to the auditors and background of nominated directors can be included.
- **Other sources of information:** conference calls, press releases, independent specialized institutions, company's websites, etc.

### 3.2.4. Techniques of Financial Analysis

Various methods and tools are used to examine the company's financial health. They should be selected according to the purpose of the analysis. Particular companies require specific approach and the analyst has to be sensitive in choosing the appropriate techniques considering the cost versus benefit principle as well. The preparers should be aware the data they gather from the statements may not be reliable enough and may need to be adjusted before processed to obtain dependable outcomes. [9]

#### **Horizontal common-size analysis**

Each amount is compared to a certain base amount for a selected base year (basic index) or to previous year (chain index). The changes in the items are compared over time and expressed either as a percentage or as a simple difference. The difference is more useful in case the prior year amounts are equal to zero or very low and the amount highly increased in the next year. This analysis enables the user to get a better insight into the financial statements, identify unexpected changes and estimate future development. [13], [14]

$$\text{DIFFERENCE}_1 = \text{AMOUNT} - \text{PREVIOUS YEAR AMOUNT}$$

$$\text{DIFFERENCE}_2 = \text{AMOUNT} - \text{BASE YEAR AMOUNT}$$

$$\text{PERCENTAGE}_1 = (\text{DIFFERENCE}_1 * 100) / \text{PREVIOUS YEAR AMOUNT}$$

$$\text{PERCENTAGE}_2 = (\text{DIFFERENCE}_2 * 100) / \text{BASE YEAR AMOUNT}$$

The problem with the percentage change expression is when some of the input amounts are negative. The following table shows all possible cases and related countermeasures [13]:

Amount	Previous year amount	Explanation	Adjustment
positive	positive	Increase in profit	No problem
negative	positive	Change from profit to loss	No problem
positive	negative	Change from loss to profit	Denominator * (-1)
negative	negative	Increase in loss	Denominator * (-1)

**TABLE 1 Possible cases concerning the horizontal common-size analysis computation**

### **Vertical common-size analysis**

It is also known as percentage or structure analysis. The method is based on comparison of each amount to a base amount determined from the same year. Expressing each item of the statement as a percentage of a certain base item (usually the balance sum, total revenues and total cash inflows) enables the users to get insight into the composition of the statements and facilitates comparison over time and among other companies. [14]

### **Working capital**

Working capital, sometimes referred to as net working capital, is used to measure to what extent the amount of long-term finance is used to keep current assets working for the business. In other words, it represents the excess of current assets over current liabilities. [8]

$$\text{NET WORKING CAPITAL} = \text{CURRENT ASSETS} - \text{CURRENT LIABILITIES}$$

As a part of liquidity measures (as defined in liquidity ratios), the working capital is one of the basic and the most frequently used indicators. If the amount of working capital is low, the company may have problems with being able to pay its liabilities in case of financial fluctuations. On the contrary, the high amounts of working capital may imply the resources are unnecessarily kept in form of current assets instead of being used as CAPEX. Considering the

indicator is merely a difference, the comparison with other companies is meaningless unless expressed as a percentage. Due to relative size of the company, the period-to-period analysis should be used as well to determine the reasonability of the difference, which changes in time actually. [14]

### **Ratio analysis**

Horizontal and vertical common-size analyses are based on relative values expressing the items relative to one selected item whereas the ratio analysis expresses the relationship among a variety of items. It enables the user to discover additional relations in the composition of the statements. When computing the ratios, an analyst must always bear in mind that ratios are only indicators implying what happened but not explaining the reasons for what happened. The after-computation part is the most important one putting the ratios into context via trend analysis or cross-sectional analysis and interpreting the situation. One computed financial ratio does not reveal a lot about the company. [6]

For the sake of comprehensibility of a vast number of different ratios, various categories are used. The ratios can be classified according to the statements from which the input data is taken in the first place. Then the categories are balance sheet, income statement and cash flow ratios. Nevertheless, they are rather categorized based on what they are expected to reveal. Common categories of ratios, in line with the aspects they are focused on, are liquidity, solvency (debt), profitability, activity and market (valuation). These categories could be supplemented with cash flow ratios. [10]

### **Liquidity ratios**

These ratios measure the ability of a company to satisfy its short-term obligations as they come due and are related to the working capital indicator. Analogically to the working capital, the higher the amount, the better the liquidity and safeguard against unfavourable circumstances. On the other hand, extremely high figures may indicate senseless retention of financial resources in current assets and thus inducing lower profitability. By looking at the higher rates of liquidity, the shareholders may require to replace more costly equity with less-expensive liabilities and hence increase the leverage. [9]

With regards to the contingent liabilities and assets, their inclusion into the computation of liquidity should be considered as well. Especially if these items represent significant potential of cash outflows or inflows. [6]

Three basic liquidity ratios are called current ratio, quick ratio and cash ratio. From current to cash ratio the current assets are gradually adjusted to represent the most liquid part.

**Current ratio** is a similar source of information as the difference indicator called working capital but removes the influence of company's relative size. The total current assets are put into relation to current liabilities revealing how many times the current assets cover current liabilities. The higher the ratio, the higher the liquidity and vice versa. Notwithstanding, it does not take into account different liquidity of current assets items. Some of the assets could be impossible or difficult to transform into cash like prepaid expenses. Furthermore, the impairment adjustments to inventories may be inappropriate. It is calculated as follows [15]:

$$\text{CURRENT ASSETS} / \text{CURRENT LIABILITIES}$$

**Quick ratio** is also known as acid-test ratio. It removes the impact of less liquid items of current assets and thus it provides better information about the firm's liquidity. The least liquid current assets are inventories due to the fact they consist of semi-finished products, special-purpose items and the like. If the inventories tend towards obsolescence, the higher the difference between current ratio and quick ratio, the worse the situation. [6] It is computed as follows [16]:

$$(\text{CASH AND CASH EQUIVALENTS} + \text{RECEIVABLES}) / \text{CURRENT LIABILITIES}$$

**Cash ratio.** Only the most liquid assets are included in the numerator. It represents how the current liabilities are covered with cash on hand today. If the figures the cash ratio provides are too high, an analyst should ask for what purpose is all the money held. Calculation:

$$\text{CASH AND CASH EQUIVALENTS} / \text{CURRENT LIABILITIES}$$

### Solvency ratios

Measure the ability to meet long-term debt obligations and provide insight into financial structure of a company. The ratios express the relationship between equity and liabilities revealing the level of financial leverage and enabling the user to assess company's indebtedness and therefore its creditworthiness.

The leverage is an effect of using a certain amount of borrowed money, which magnifies both the revenues and loss. It could be divided into operating, financial and total leverage. The operating leverage results from the use of fixed costs like interest payments. Owing to the interest payment, the percentage changes in earnings before interest and taxes (EBIT) induce in higher percentage changes in earnings before taxes (EBT). [6]

Concerning the computation of solvency ratios, two main categories can be specified. They are the debt and coverage ratios. The first group is based on balance sheet data, the latter one on income statement data. Many of the ratios use „total debt“ as a numerator. The definition of the total debt varies both from literature to literature and among analysts. Either inclusive or restrictive approach is used. Inclusive approach includes all liabilities whereas restrictive includes only long-term debt. The golden mean approach includes interest bearing short-term and long-term debt. Such definition is used in following formulas. [6]

**Total debt ratio** provides information to what extent the total assets are financed by creditors. The higher the ratio, the higher the indebtedness and financial risk of the company. It is calculated as follows [9]:

$$\text{TOTAL DEBT} / \text{TOTAL ASSETS}$$

This indicator is usually supplemented with **the equity ratio** that represents the percentage of total assets financed with total shareholders' equity. The sum of total debt ratio and equity ratio should equal one provided the inclusive approach to total debt is used. The equity ratio is calculated as follows [9]:

$$\text{TOTAL SHAREHOLDERS' EQUITY} / \text{TOTAL ASSETS}$$

**Debt equity ratio** combines total debt ratio and equity ratio. The amount of debt is expressed in relative to equity providing the same information as the total debt ratio. The higher the indicator, the higher the indebtedness of a company. Calculation [9]:

$$\text{TOTAL DEBT} / \text{TOTAL SHAREHOLDERS' EQUITY}$$

**Financial leverage ratio** is simply called the leverage ratio. The higher the leverage is, the higher the proportion of total debt on financing the assets. The computation is inverse to the equity ratio calculation [6]:

$$\text{TOTAL ASSETS} / \text{TOTAL SHAREHOLDERS' EQUITY}$$

**Times interest earned ratio** is also known as the interest coverage ratio, which measures the firm's ability to meet its contractual interest expenses. Higher values of this ratio indicate the company is able to service its debt without any trouble. Computed as [16]:

$$\text{EBIT} / \text{INTEREST PAYMENTS}$$

**Fixed payment coverage ratio** is used for measuring the ability to meet all fixed-payment charges including interest and principal, lease payments and preferred stock dividends. Sometimes the lease payments are divided into thirds where one-third is represented as an interest on the lease obligation. In case of this variant, only one-third of lease payments is included. Common calculations [6]:

$$(\text{EBIT} + \text{LEASE PAYMENTS}) / (\text{INTEREST PAYMENTS} + \text{LEASE PAYMENTS}) [6]$$

Or

$$(\text{EBIT} + \text{LEASE PAYMENT}) / (\text{INTEREST PAYMENTS} + \text{LEASE PAYMENTS} + \text{PRINCIPAL PAYMENTS} + \text{PREFERRED DIVIDENDS}) [16]$$

### **Profitability ratios**

The term profitability (a.k.a. rentability) means the ability of a company to generate profit on capital invested, which is the information needed particularly by both current and potential investors. It reflects the quality of management, competitive position in the market and is the key cause of company's value and value of the stock issued. Time series of these ratios should contain the upward sloping trend.



The underlying financial statements providing the input data are the balance sheet and the income statement with emphasis on the latter one. For the numerator, certain form of earnings is used and for the denominator either the sales or some form of capital is used. Earnings, which are put into the formula, are usually divided into gross profit, operating profit and net profit. When using revenues as the denominator, the same outcome is achieved by vertical income statement common-size analysis. [6]

**Gross profit margin** measures the percentage of revenues remaining after the firm has met all of its expenses other than operating, interest, taxes and preferred stock expenses. The higher the indicator, the better implying the company is either able to charge higher prices or minimize the product costs. It is calculated as follows [16]:

$$\text{GROSS PROFIT} / \text{REVENUES}$$

**Operating profit margin** indicates the percentage of sales available to cover gross profit margin after deduction of operating costs. If the values of operating profit margin increase faster than the values of gross profit margin indicator, the company may improve the control over operating costs. Computed as follows [6]:

$$\text{OPERATING INCOME} / \text{REVENUES}$$

**Net profit margin.** Net profit is a difference between all expenses and all revenues. Hence, the indicator is commonly cited as a measure of firm's overall success with respect to earnings on sales. The formula for calculation [16]:

$$\text{NET INCOME} / \text{SALES}$$

**Return on assets (ROA)** ratio is sometimes called return on investment (ROI) and it measures how efficiently a company uses its asset base. The higher the ratio, the better. The income statement provides information for a period whereas the balance sheet shows the condition on a date at the end of this period. On that ground, the discrepancy is mitigated by averaging the total assets usually using the opening and closing balance sheet data. Because the assets are not financed solely by equity holders, sometimes the numerator is substituted with EBIT. Computed as follows [9], [6]:

#### NET INCOME / AVERAGE TOTAL ASSETS

**Return on equity.** For the investors, the most important indicator is, without a doubt, the return on equity ratio (ROE) which measures the profitability in terms of what they have invested. The higher the values, the better. The formula for computation is as follows [6]:

#### NET INCOME / AVERAGE TOTAL EQUITY

#### Activity ratios

Ceteris paribus, the company's goal is to convert its inventories into sales and to convert these sales into cash as fast as possible. The activity ratios enable the analysts to measure how efficiently the company utilizes its assets. As in case of ROA and ROE ratios, the information from both the balance sheet and income statements is combined and as a consequence, only the average balance sheet data is used. The accuracy of some of these ratios is limited by the ability of the statements to inform about some entries in more detail. The missing information consists of the credit sales information and the amount of purchases. Therefore, an approximation is used. [6], [9], [17]

**Inventory turnover and days of inventory on hand.** These are used to assess the effectiveness of inventory management by computing how many times the inventory is transformed into other forms of current assets and how long does one turnover last. The higher the inventory turnover, the shorter the days of inventory on hand. Formulas [9], [6]:

$$\text{COST OF GOODS SOLD} / \text{AVERAGE INVENTORY} = \text{INVENTORY TURNOVER (I.T.)}$$
$$\text{NUMBER OF DAYS IN PERIOD} / \text{I.T.} = \text{DAYS OF INVENTORY ON HAND}$$

**Receivables turnover and average collection period.** The receivables turnover ratio indicates how fast the company collects cash from receivables. The higher the amount of receivables turnovers during a period, the shorter the average period of collection of cash from customers. More appropriate form of receivables turnover ratio would be ascertained by using sales made on credit as a numerator but for an approximation, the total revenues are used. The ratios are computed as follows [6]:

REVENUES / AVERAGE RECEIVABLES = RECEIVABLES TURNOVER (R.T.)

NUMBER OF DAYS IN PERIOD / R.T. = AVERAGE COLLECTION PERIOD

**Payables turnover and average payment period.** To find out how long does the company take to settle its liabilities, the average payment period should be calculated. Nonetheless, there is a difficulty in calculation stemming from the need of approximation of the amount of purchases, which are usually estimated by adjusting the cost of goods sold. The purchases are either presented as a percentage of cost of goods sold or cost of goods sold plus ending inventory less beginning inventory. The formulas are [6]:

PURCHASES / AVERAGE PAYABLES = PAYABLES TURNOVER (P.T.)

NUMBER OF DAYS IN PERIOD / P.T. = AVERAGE PAYMENT PERIOD

#### **Other ratios**

*„The number of different ratios that can be created is practically limitless.” [6]*

Regarding the activity ratios, other ratios used are working capital turnover (revenue / average working capital), fixed asset turnover (revenue / average net fixed assets) and total asset turnover (revenue / average total assets) which measure how efficiently these assets are used in generating the sales. [6]

The valuation ratios (market ratios) are used to relate company's market value to a set of certain accounting values allowing the analysts to better understand the reasons and motivations influencing investors' decisions. The most widely used indicator is price-to-earnings ratio, which indicates the degree of confidence the investors put in the firm's future performance. Price to book value is used for assessment of how the investors perceive the company's performance. [16]

The cash flow ratios provide further information about company's performance. They can be divided into cash flow performance ratios (e.g. cash flow to revenue) and cash flow solvency ratios (e.g. cash flow to total debt).

### **Cross-sectional analysis**

Common-size financial statements and computed ratios should be compared with different firms to understand how well a particular firm performed confronting to the results presented by other companies in the industry. If the outputs of analysis are put into relation with key competitors, it is called benchmarking analysis. The data used for comparison can be obtained from various sources including Annual Statement Studies, Almanac of Business and Industrial Financial Ratios, Standard and Poor's Industry Surveys, Industry Norms and Key Business Ratios and many more. [14], [16]

### **Trend analysis**

The outputs of the analysis are usually meaningless unless compared over time. When analysing the time series of ratios or common-size figures, an analyst should determine if it is stationary (does not contain long-term tendency) or non-stationary (containing a trend). Sufficiently long non-stationary time series can be of great assistance for extrapolation and prediction of future development. In case of volatile data, supplementary information has to be ascertained in order to clarify the major fluctuations.

Regression analysis can be used in order to find out relationship between two time series of variables, for example sales and GDP. Strong relationship (correlation) represented by coefficient of determination approaching one enables to explain volatility and extrapolate future development in relation to other variables. However, the regression analysis should be rather used for stationary data due to possible existence of spurious variables, which may cause incorrect conclusion. [6]

## **4. CASE STUDY**

### **4.1. Selection of a Company**

The primary criteria for a company to be analysed was the sufficient number of years for which the financial statements prepared in compliance with IFRS were available. Thorough period-to-period trend analysis requires time series for at least five accounting periods. Another criterion was the accessibility of financial statements presented by the key competitor or competitors in order to perform cross-sectional benchmarking analysis.

After walking through main European stock exchanges including London Stock Exchange, Prague Exchange and Warsaw stock Exchange, the PEGAS NONWOVENS SA was chosen because it fulfilled all above-mentioned criteria.

### **4.2. Basic Information**

PEGAS NONWOVENS SA (PEGAS, Group) belongs among the European leaders in production of nonwoven textiles, which are used primarily for hygiene purposes such as baby diapers, adult incontinence and feminine hygiene products. To a lesser extent, the PEGAS produces textiles that can be applied in construction, agriculture and medicine.

The origins of the company reach to the year 1990 when the company PEGAS a. s. was established as an exclusively Czech private company. In 2005, the company was acquired by Pamplona Capital Partners and incorporated under the name Pamplona PE Holdco 2 SA in Luxembourg under the legal form of a “Société anonyme”. In December 2006, PEGAS completed an initial public offering (IPO) and its shares were listed on Prague Exchange, Warsaw Stock Exchange and since 2007, they are traded at RM-system, which is the Czech stock exchange focusing on minor and medium investors. [18]

The PEGAS NONWOVENS SA is a 100% owner of the operating subsidiary based in Znojmo, which owns 100% of four operating subsidiaries located in Czech Republic and from 2011 it owns 3% of one subsidiary located in Egypt. The remaining 97% are held by PEGAS NONWOVENS International, s. r. o. whose 100% owner is the PEGAS.

Its competition can be classified as European producers of nonwoven textiles represented by the key competitor Fiberweb plc. PEGAS is a member of EDANA, European association of non-woven fabric manufacturers.

### **4.3. Financial Reporting**

The consolidated statements are prepared in accordance with IFRS and its interpretations as adopted by the European Union. These statements incorporate the financial statements of PEGAS SA and entities controlled by the Group. As defined in IAS 27, the control exists where the Group has a power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. All intra-group transactions, balances, income and dividends are eliminated on consolidation. [18]

Annual reports of the company are provided on the Group's websites for the years 2006, 2007, 2008, 2009 and 2010 comprising of statement from the chief executive officer, management report, investor information, corporate governance, independent auditor's report, consolidated financial statements, stand-alone financial statements and other information.

Regarding the statement of comprehensive income, the Group prepared only the income statement until 2009 due to the fact the IAS 1 (revised 2007) was adopted by Commission Regulation at 17 December 2008. For that reason, the statement of comprehensive income has been prepared since 2009. The accounting entity decided to present it in line with single-statement approach and its format could be classified as multi-step if it included gross profit subtotal. Unfortunately, such information is not ascertainable from the statements and from the notes, which makes the computation of some ratios impossible (Gross profit margin, Inventory turnover). The expenses are classified pursuant to their nature. Among the other comprehensive income items belong net value gain on cash flow hedges and changes in translation reserves. The latter one is ascertainable from previous statements allowing their adjustment to statement of comprehensive income.

Accounting entity uses the account format for the presentation of the statement of financial position with less liquid items followed by the more liquid ones. Such a structure facilitates the accomplishment of common-size vertical analysis due to the presence of total balance sum. In keeping with the Company's decision, the items are considered current if they

are settled within twelve months. From 2009, the statement is called “statement of financial position” instead of the “balance sheet” in compliance with revised IAS 1.

Unfortunately, the cash flow statement is presented in indirect format that disable the users to forecast future cash flows and comprehend the foregone development.

The consolidated financial statements are prepared on the historical cost basis with the exception of derivative financial instruments, which are measured at fair value. The functional currency of subsidiaries located in Czech Republic is Czech koruna (“CZK”). The Company sets a fixed rate of exchange based on the Czech National Bank official rate for the last working day of the calendar month to be applied to transactions recorded during the following month. For the purpose of presenting, the assets and liabilities are expressed in thousands of EUR (TEUR) using exchange rates ruling at the balance sheet date. The differences from translation are classified as equity and transferred to the Group’s translation reserves. [18]

## **4.4. Analysis of Statement of Comprehensive Income**

### **4.4.1. Horizontal Common-Size Analysis**

To facilitate the analysis of the income and expense items presented in the statement, a certain method to identify the major over year changes has to be developed. The average five-year change was 63% and hence all the changes above the average were brought into focus. These were analysed with the information available in the annual reports and common-size vertical analysis to identify the significance of the item.

Year over year increase of the other operating income was 685% in 2007 from loss to profit. The reason for such enormous change was the one-off 1.04 million euros of received damage compensation from arbitration proceeding. Because of the non-recurring nature of the arbitration award, this item decreased by 67% next year. In 2010, the other operating income increased by 72.1% in accord with higher gain on the sale of equipment and insurance proceeds from write-off of overdue receivables. However, the item even did not present 1% of total income.

The interest income gradually decreased from 2006 because of the decrement in bank accounts and term deposits. In 2010, the interest income increased again consistent with the

increment of cash and cash equivalents. Examining the influence on total income, the interest income was insignificant with the percentage expression of total income below 0.5%.

In 2007 and 2010, the functional currency appreciated against the euro resulting in year over year change in translation reserves of 148% in 2007 and 213% in 2010. In proportion to other income items, the reserves are comparatively significant.

With regard to the foreign exchange (FX) losses, this item increased by 137% in 2008 due to development of the CZK. In first half of the year, CZK appreciated but in the second half depreciated, which led to unrealized losses. In line with the vertical common-size analysis, the amount of FX is relatively significant.

The income tax expense decreased by 230% in 2007 due to release of deferred tax liability from statutory income tax rate. In 2008, the over year change was 65% increment attributable to changes in deferred tax. Almost 200% increase in 2009 was caused by unrealized foreign exchange gains resulting mainly from the bank debt revaluation. Yet, the percentage expression reveals the subtleness of the item.

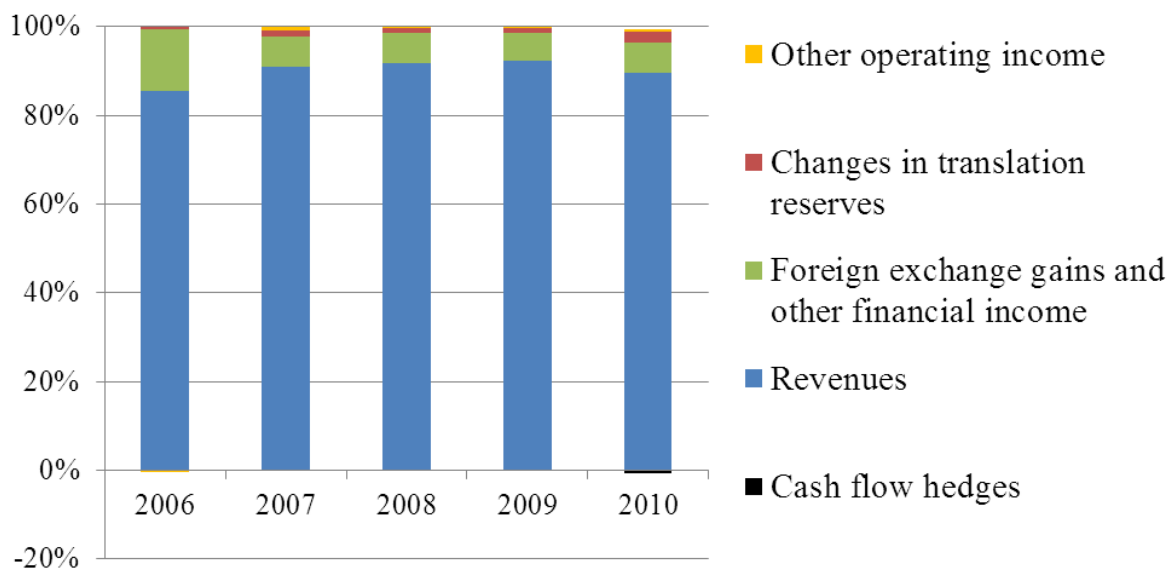
#### **4.4.2. Vertical Common-Size Analysis**

As the base values, the total income and total expenses were chosen. With reference to total income, the highest proportion was presented by the revenues with the maximum of 92% in 2009 and the minimum of 85.3% in 2006. Foreign exchange gains and other financial income were the other important items with the maximum share of 13.6% in 2006 and the minimum of 6.4% in 2009. Other operating income, interest income and cash flow hedges did not represent substantial influence on the base sum with the exception of translation reserves with the maximum portion of 2.7% in 2010.

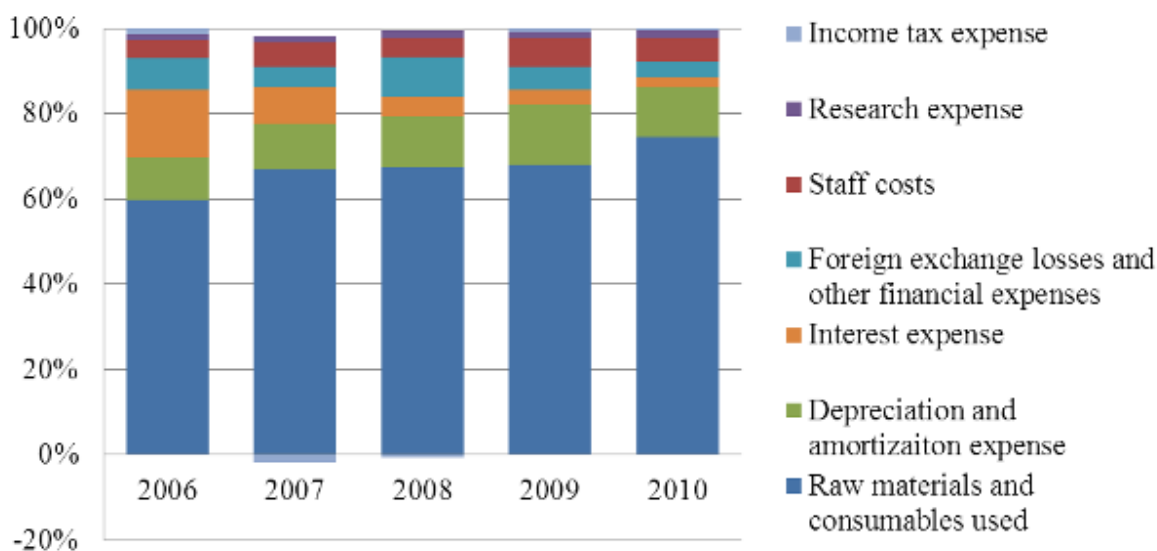
Commensurate with the vertical analysis of the total expenses, they were dominated by raw materials and consumables used with the maximum of 74.5% in 2010 and the minimum of 59.8% in 2006. The second largest proportion was presented by depreciation and amortization expenses with the maximum share of 14.3% in 2009 and the minimum of 10.1% in 2006. Other significant items were staff costs, FX losses and other financial expenses and interest expenses.



All the significant items are further examined via trend analysis. The proportion of the total income and total expenses can be seen in the 100% stacked column charts below:



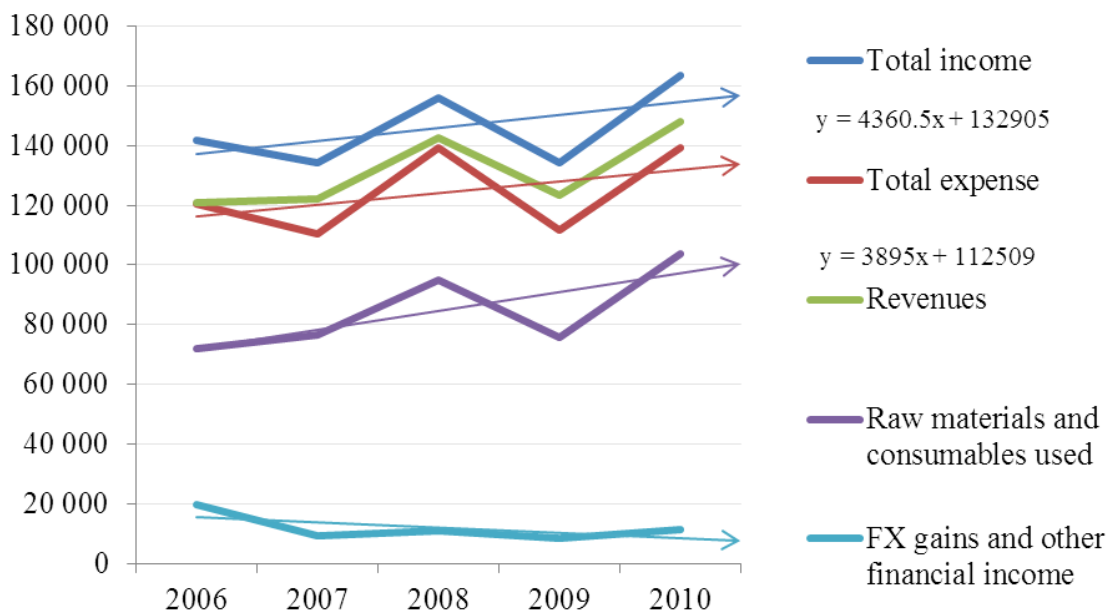
**CHART 1 Total income composition**



**CHART 2 Total expense composition**

### 4.4.3. Trend Analysis

Although the time-series are relatively short, the linear trend line can be added as seen in Chart 3. The slope of the income linear trend line is a little bit higher than in case of expense trend line suggesting the incomes grow faster than the expenses. Such a development is reflected in the increasing comprehensive income. Another explanation would be higher volatility of the expenses.



**CHART 3** *The development of income and expense items (in TEUR)*

From the vertical analysis, it is clear the total income is influenced mainly by the revenues. The relationship is confirmed in the Chart 1. Due to increased volumes produced and sold and higher material prices passed to customers, the revenues increased by 0.9% in 2007. Nevertheless, the total income decreased because of the decrement in foreign exchange gains associated with the CZK/EUR development and company's indebtedness. Thanks to new production line, the revenues increased by 17.1% in 2008. The drop in sales in 2009 was caused by lower material prices, which were passed to customers. The prices of polymer, the main input material, started to rise again in 2010 inducing higher sale prices. Despite the

volatility, the overall trend of revenues is up moving, whereas the overall trend of foreign exchange gains is down moving.

The trend of raw materials and consumables used is up moving due to increasing prices of polymer. Staff costs and depreciation and amortization increased over time as well. Interest expenses follow down-sloping trend. In appendix AP1, the development can be seen.

In keeping with the Chart 2, the dominating item is the raw materials and consumables used. The total expenses decreased in 2007 in spite of the increase in dominating item. The main reason was the year over year decrement in FX losses and other financial expenses and interest expenses. FX losses decreased simultaneously with FX gains. The interest expenses were reduced because of the repayment of external debt with proceeds from IPO. Staff costs and depreciation and amortization (D&A) expenses increased due to CZK appreciation. Another reason for higher staff costs were the employees hired for the new production line and introduction of share option plan.

In 2008, the operating costs rose due to higher consumed volume of raw materials, increase in energy prices and appreciation of CZK. Staff costs increased because of the stronger “koruna”, higher number of employees and share option revaluation. D&A increased by 36.3% due to new production hall and machinery. Because of the depreciation of CZK in second half of the year, the FX loss increased. By reason of refinancing and more favourable loan conditions, the interest expenses decreased by 36.1%.

In 2009, the lower polymer prices induced decrement in operating costs. Increment in salary gave rise to higher staff costs and D&A decreased because of the CZK depreciation between the compared periods. However, the FX gains were positive.

The turnabout in the development of polymer prices led to increase in operating costs in 2010. CZK/EUR appreciation caused higher staff costs and D&A, whereas the interest expenses decreased owing to lower interest rates.

Concerning the trends of profits, the operating profit was declining over time in spite of the volatile EBT, net profit and comprehensive income. These decreased a lot in 2008 because of the CZK depreciation. The main causation of the operating profit's trend is the period-to-period increment of polymer prices, staff costs and D&A.

## **Regression analysis**

The coefficient of determination ranges from -1 to 1. The higher the relationship among the data sets, the closer is the coefficient to 1. During the economic downturn in 2009 and 2008, the demand was confirmed relatively inelastic due to non-ceasing growth in volumes. At least such a statement is presented in the annual report. By putting the GDP of Europe (the major PEGAS' market) in relation with the sales, the non-cyclical nature of the business is partially verified by comparatively low coefficient of determination: 0.36.

## **4.5. Analysis of Statement of Financial Position**

### **4.5.1. Horizontal Common-Size Analysis**

The average five-year change of the balance sheet items is 74%. The averaging simplifies the determination of the changes, which should be clarified. The 94% increase of intangible assets in 2007 was caused by higher software purchases. Cash and cash equivalents decreased significantly in 2007 due to new cash management policy resulting in cash being used to reduce balance of the overdraft and sequentially the interest costs. The level of cash and cash equivalents was increased in 2010 by 890.5% in order to pay for the construction of the new production line. Yet, the items did not pose eminent proportion of total assets.

Legal reserves are obligatory created under the Czech commercial law. Over a period of five years, they were increasing with no less than 80% increment in 2007, 2008 and 2009. In 2010 they increased only by 37.3%. Compared to other items, they did not represent substantial proportion of equity.

The changes in translation reserves were altogether unstable because of the reasons already explained in the analysis of the statement of comprehensive income. They were driven by the depreciation or appreciation of CZK against EUR. Commensurate with the vertical analysis, they did not represent higher portion of the equity.

Almost 90% increase in retained earnings in 2007 can be assigned to company's decision not to pay any dividends from the fund. Their portion of total equity was quite high.

Other payables due after one year were represented by the long-term part of the share option scheme. This item changed rapidly over time in line with the decisions of the holders of

phantom shares to apply their right. However, their share of equity was at maximum 0.1%.

The changes of tax liabilities were very volatile with the highest year over year change in 2009. Grants related to income tax induced such volatility. Tax liability was not accounted for a total but was reduced by the expected investment incentives. Nonetheless, its influence (with the maximum of 0.7% in 2010) on the total balance sum is inconsiderable.

The bank loans are divided into revolving credit facility and overdraft facility. The revolving credit is divided into current and non-current liability based on cash-flow predictions, whilst the overdraft is always treated as current. Therefore, the major changes (the highest 277.4% increase in 2008) in bank current liabilities were caused by management's estimations. The level of used overdraft steadily decreased from 2008. [18]

Provisions were recognized only once, in 2009, and subsequently settled in the next year. They were related to the departure of a director of the company.

#### **4.5.2. Vertical Common-Size Analysis**

The most appropriate base value is the total balance sum, which is mutual for both assets and total equity and liabilities. With reference to total assets, they were dominated by two items: property, plant and equipment (PP&E) and goodwill. In 2007, PP&E represented their five-year period maximum of 52.1%. They reached minimum in 2010 with 42.9% of balance sum.

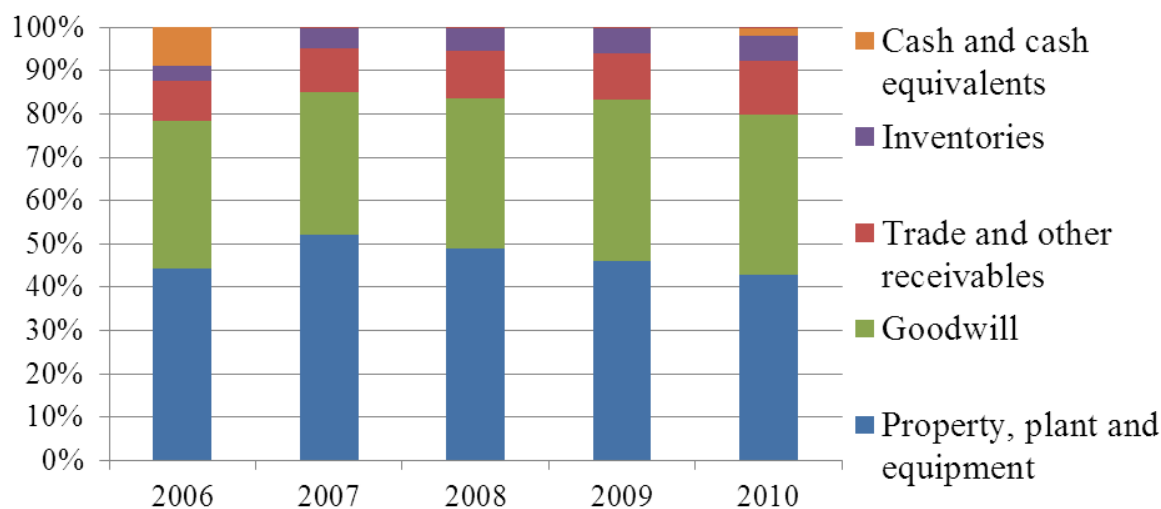
In 2005, the Group acquired full control over PEGAS, a. s. and its subsidiaries. Positive difference between the cost of acquisition and the fair value of the net identifiable assets and liabilities of a subsidiary is represented by goodwill. After its initial recognition in intangible assets, the goodwill was tested for impairment losses. At its maximum, it represented 37.2% in 2009 and its minimum was reached in 2007 with 33%. [18]

Another significant portion of balance sum was represented by the trade and other receivables with 12.5% maximum in 2010 and 9.5% minimum in 2006.

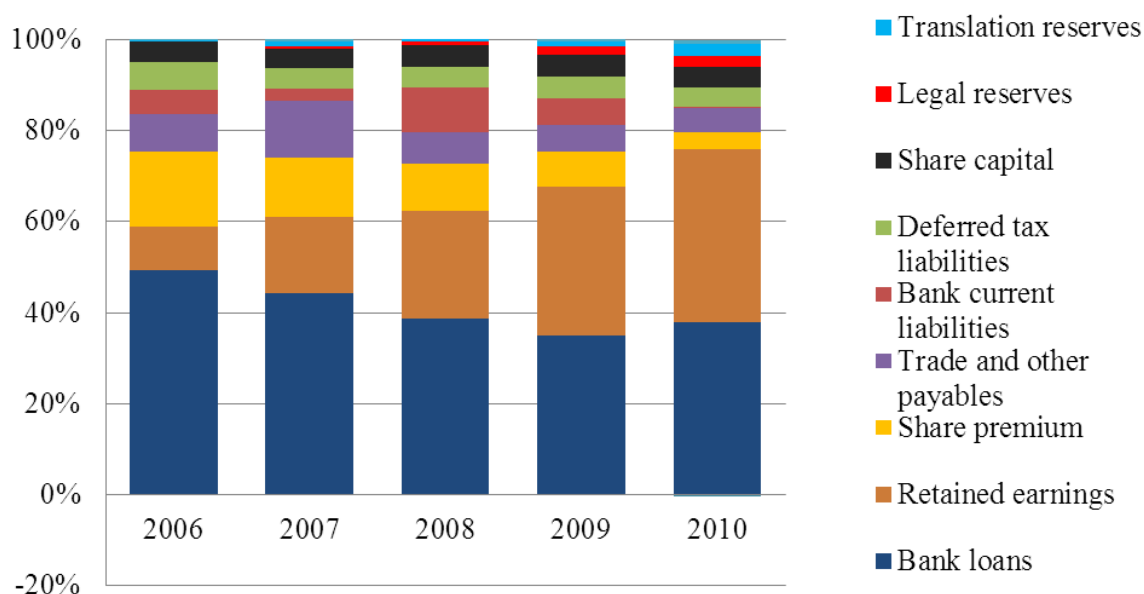
With regard to the equity and liabilities, they were primarily dominated by bank loans, share premium and retained earnings. In 2006, the bank loans with their proportion of 49.3% represented almost one-half of the total balance sum. They reached minimum in 2009 with 35% share. After the IPO, the share premium presented 16.5% at its highest. At its lowest in

2010, the additional paid-in capital constituted only of 3.6%. Retained earnings moved from their 9.5% share in 2006 to 38.5% share in 2010.

Other important items were deferred tax liabilities, trade and other payables and bank current liabilities. The proportion of balance sheet items can be seen in following 100% stacked column charts:



**CHART 4** *Composition of assets*



**CHART 5** *Composition of equity and liabilities*

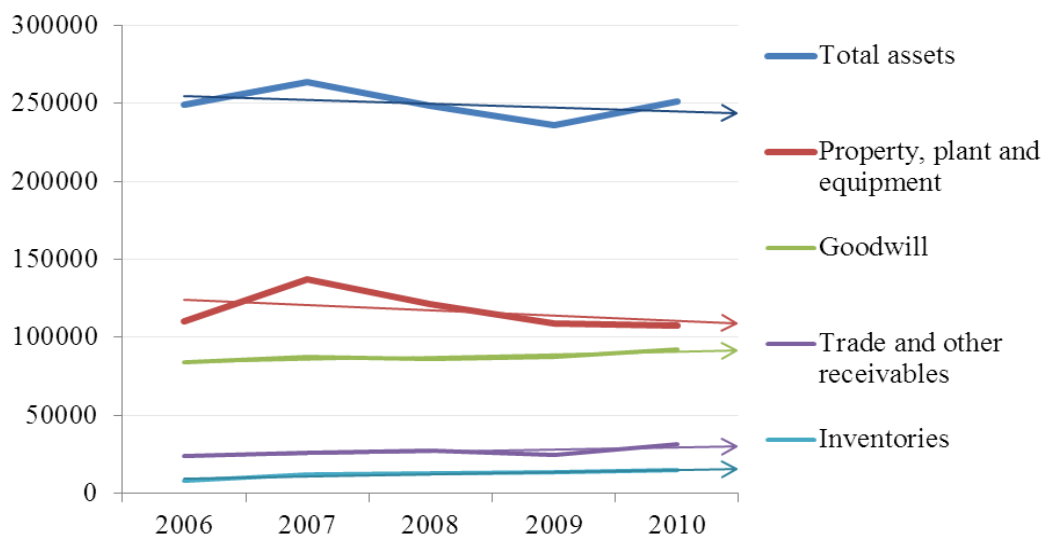
### 4.5.3. Trend Analysis

The increase in PP&E in 2007 was caused by recognition of the new production hall and machinery. PP&E is recognized at acquisition cost less accumulated depreciation and any impairment loss. Depreciation is calculated via straight-line method and thus the trend of PP&E was of decreasing nature since 2007. [18]

Regarding the goodwill, no impairment losses were recognized during the five-year period. Therefore, the changes in the item were caused exclusively by the foreign exchange differences.

Trade and other receivables were slowly increasing until 2009, the year of economic downturn and lower polymer prices. Hence, the lower sales induced 8.7% year over year decrease in trade and other receivables. Yet, in 2010, the higher revenues were reflected in 25.2% accrual.

Inventories were gradually increasing over time with the highest change of 48.5% in 2007. The reason was the higher purchase of material needed to be processed in the new production line. From the chart below, it is apparent the total assets were most especially influenced by PP&E. However, the 6.5% growth in 2010 was driven by increases in other items.



**CHART 6** Development of assets (in TEUR)

Bank loans were decreasing till 2010 when they achieved 15.5% increase. Such an increase was associated with high level of cash and cash equivalents needed for gradual payments for construction of the new production line. Previous decreasing trend was caused by progressive repayments with the yield from IPO.

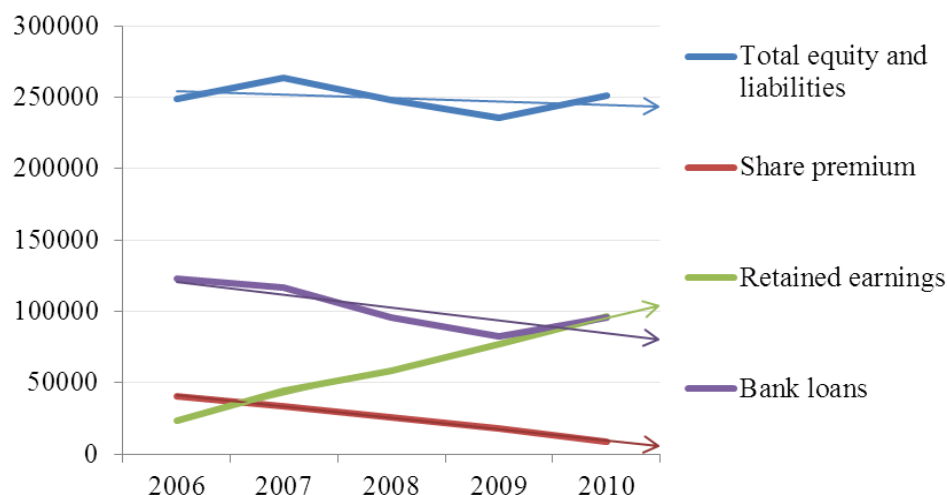
During the monitored period, the retained earnings item constantly increased. The resources on this account may be utilised in many ways. Nonetheless, the up-moving trend is positive considering the source can be used for further development.

Over the five-year period, the dividends were entirely distributed from the share premium account. Therefore, the item follows down-sloping trend, which can be seen in the chart below.

Increase in trade and other payables in 2007 was attributable to purchases of new machinery and material in connection with new production line. Since that year, the trend was decreasing due to management's decision to exploit trade discounts for early payments.

Current bank liabilities were, as mentioned above, influenced by estimations reckoned by management. Such estimations are based on cash-flow predictions. Possibly, the company could afford higher current indebtedness in 2008 in line with prediction of higher cash-flow from operations in 2009. Which was confirmed and the liabilities rapidly descended.

The changes in deferred tax arise from the tax reforms ratified by the Czech Parliament. Additionally, the course of other items is depicted in appendix AP2.

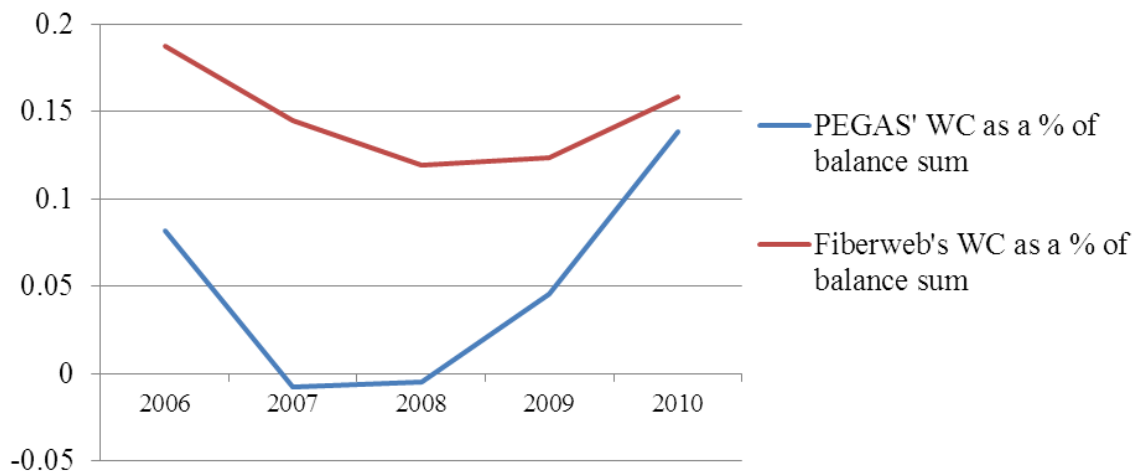


**CHART 7 Development of equity and liabilities (in TEUR)**



## 4.6. Working Capital

Following chart depicts the development of working capital (WC) of PEGAS SA and Fiberweb plc as a percentage of total balance sum. The 27.5% decrease of total current assets and 22.2% increase of total current liabilities resulted in negative level of PEGAS' WC in 2007. Such a decrease was caused by above mentioned cash management policy. If an unfavourable situation had arisen, the company would have been forced to settle the current liabilities with fixed assets. However, since 2007 the level of WC steadily increased and the years 2009 and 2010 stood for positive values with the highest 13.8% of balance sum.



*CHART 8 Development of working capital*

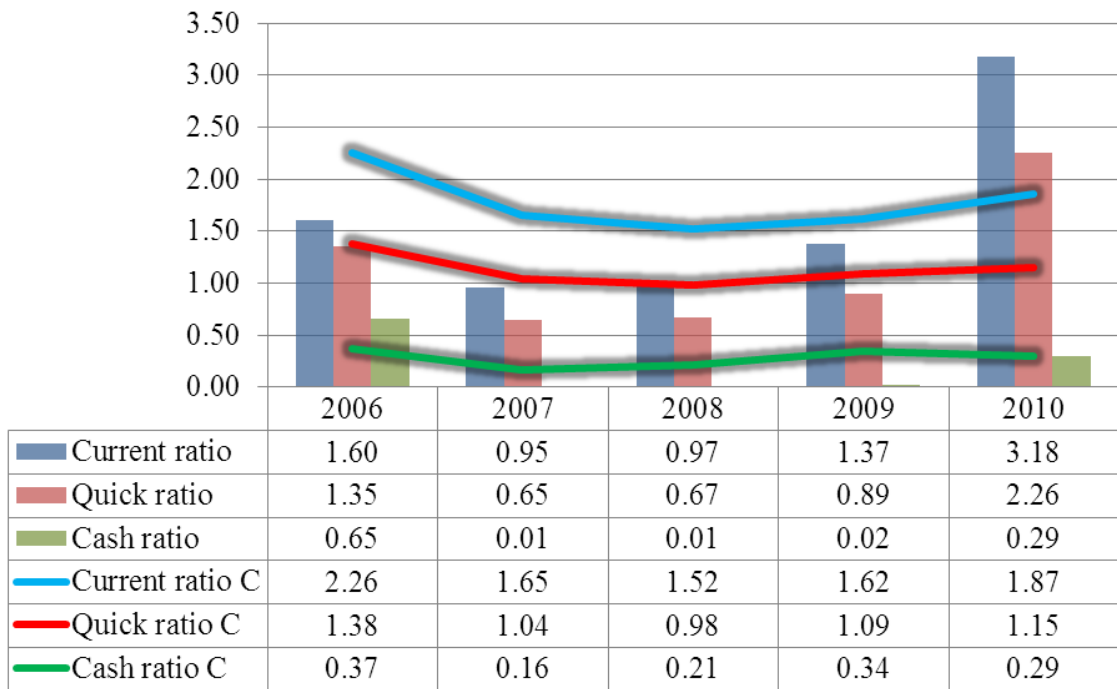
It is evident the key competitor's levels of WC were higher in all accounting periods. Positive numbers of the indicator may suggest the management's aim is to decrease financial risks. In consequence, the key competitor had a better safeguard against potential economic fluctuations than analysed company.

## **4.7. Ratio Analysis**

In the next part, the liquidity, solvency, profitability and activity ratios are computed and interpreted. Their explanation is based on trend and benchmarking analysis. Ratios, which belong to key competitor, are marked with 'C' at the end. Because of the inaccessibility of industrial financial ratios for European market, five-year (06-10) period ratios were calculated using the data from BACH (Bank for Accounts of Companies Harmonized) database developed by European Committee of Central Balance-Sheet Data Offices (ECCBSO). In appendix, these ratios are marked with 'I'. BACH database contains common-size vertical balance sheets and income statements from nine European countries (all within EU) and the data can be sorted in line with Statistical Classification of Economic Activities in the European Community. Non-woven industry is categorized as C13 – Manufacture of textiles. Additionally, the ratios from Almanac of Business and Industrial Financial Ratios (2009 edition) are stated for comparison. Classification of ratios in the “Almanac” is based on North American Industry Classification and for that reason it is more suitable for US market. Non-woven industry is classified as 313 – Textile Mills. Still, not all of the ratios introduced in the theoretical part of the thesis were calculated due to the lack of necessary data.

### **4.7.1. Liquidity Ratios**

From the chart 9, it is apparent the current ratio provides similar information to the working capital indicator. The values were less than one in 2007 and 2008 due to changes in current assets described in the balance sheet analysis. Considering the key competitor, its values were quite stabilized over time not falling below one. In all monitored periods, the Fiberweb's current liability was better except for 2010 when PEGAS managed to reach 3.18 value and surpassed its competitor. Such a development can be assessed positively. Regarding the European development, the current ratio moved between the minimum of 1.46 and the maximum of 1.60. Fiberweb exceeded the levels in all periods. For that reason, its above-average five-year ability to meet current liabilities was much better than in case of PEGAS. North American ratio value of 1.9 suggests the American companies operate with higher amounts of WC. The comparison of PEGAS and industry can be seen in appendix AP3.

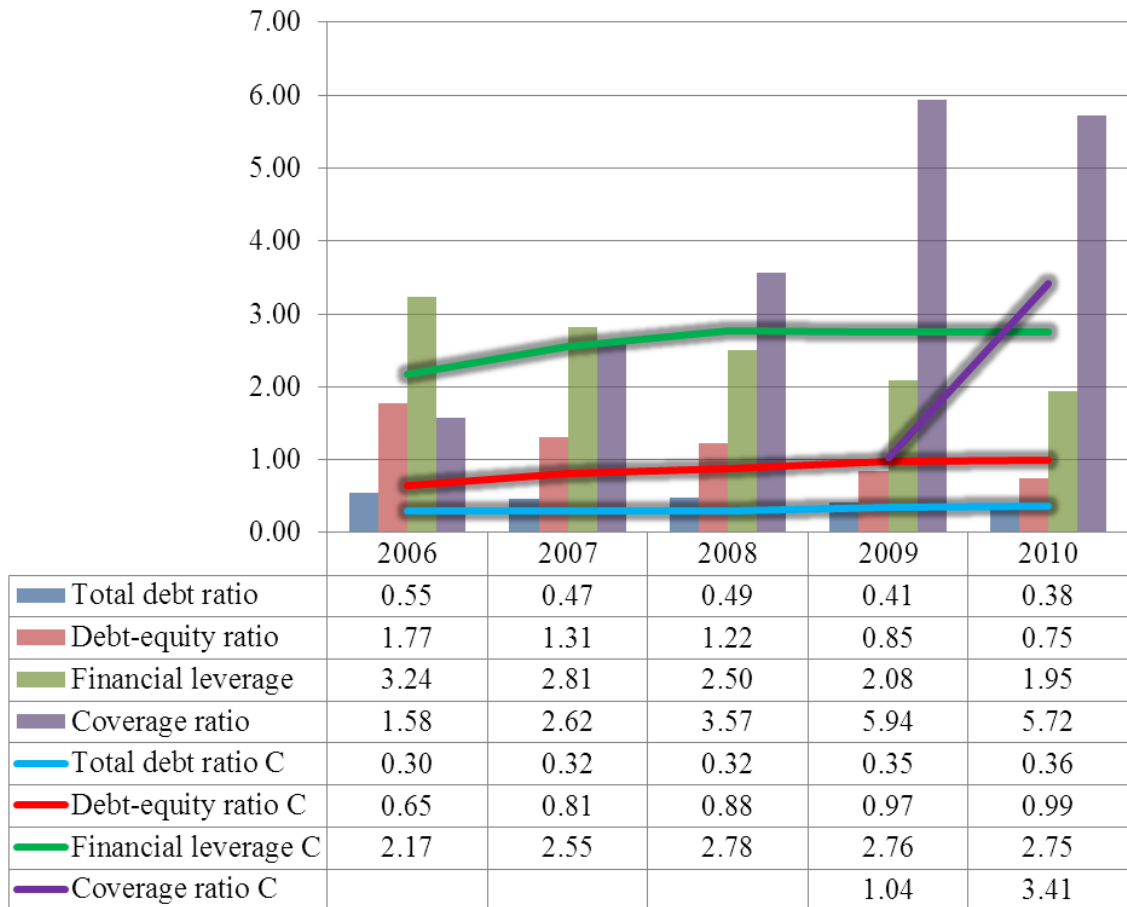


**CHART 9 Liquidity ratios**

Quick ratio copies the development of the current one. In 2006, the values of the competitors were almost equal. Even so, the PEGAS' decreased in 2007 due to increase in current liabilities predominantly attributable to construction of the new production line. Owing to reduction of trade payables in 2008 and current bank liability in 2009, the ratio started to rise in 2008 and in the end transcended Fiberweb's. The nine European countries (EU9) textile acid-test ratios kept their values above 0.9 and under 1. Again, the better-than-average key competitor's quick liquidity excelled PEGAS'. American quick ratio is exactly one.

Concerning the cash ratio, it decreased and increased simultaneously with increments and decrements of cash and cash equivalents. The gist of the cash changes is characterized in horizontal common-size analysis. PEGAS' cash ratio was higher than the competitor's in 2006, followed by three-year slump and in 2010, the ratios were identical in effect. EU9 ratios ranged from 0.13 to 0.17 over time. Once again, the Fiberweb maintained above-average figures. Almanac does not provide the users with cash ratio.

### 4.7.2. Solvency Ratios



**CHART 10 Solvency ratios**

In keeping with the total debt ratio, the indebtedness of PEGAS SA was decreasing over time except for 2008, when the amount of current bank loan subtly increased. Such a development was related to repayment of company's interest bearing debt from IPO. Net debt, which is defined as long-term and short-term debt minus cash and cash equivalents, was lesser from year to year. On the contrary, the Fiberweb's total debt indicator reveals up-moving trend of the indebtedness. Comparing to the European industry, the total-debt ratio is fairly low not exceeding 21% over five-year period. With regard to the American data, only the inclusive total debt ratio is provided. Its value is 45.5%.

Debt-equity ratio provides the same information as the total debt reducing the impact of total assets changeability. The trend is obviously down moving by virtue of retained earnings, legal and translation reserves. By comparison with the key competitor, it is evident the increasing nature of the ratio, which is almost equal one in 2010. In such a case, the equity is identical to short and long-term bank loans. The EU9 debt-equity ratio is 0.44 at minimum and 0.50 at maximum. Almanac of financial ratios provides enough information to compute ratio for American environment. However, it does not differ substantially from the European one considering its value of 0.42. Like in previous example, both firms are above average.

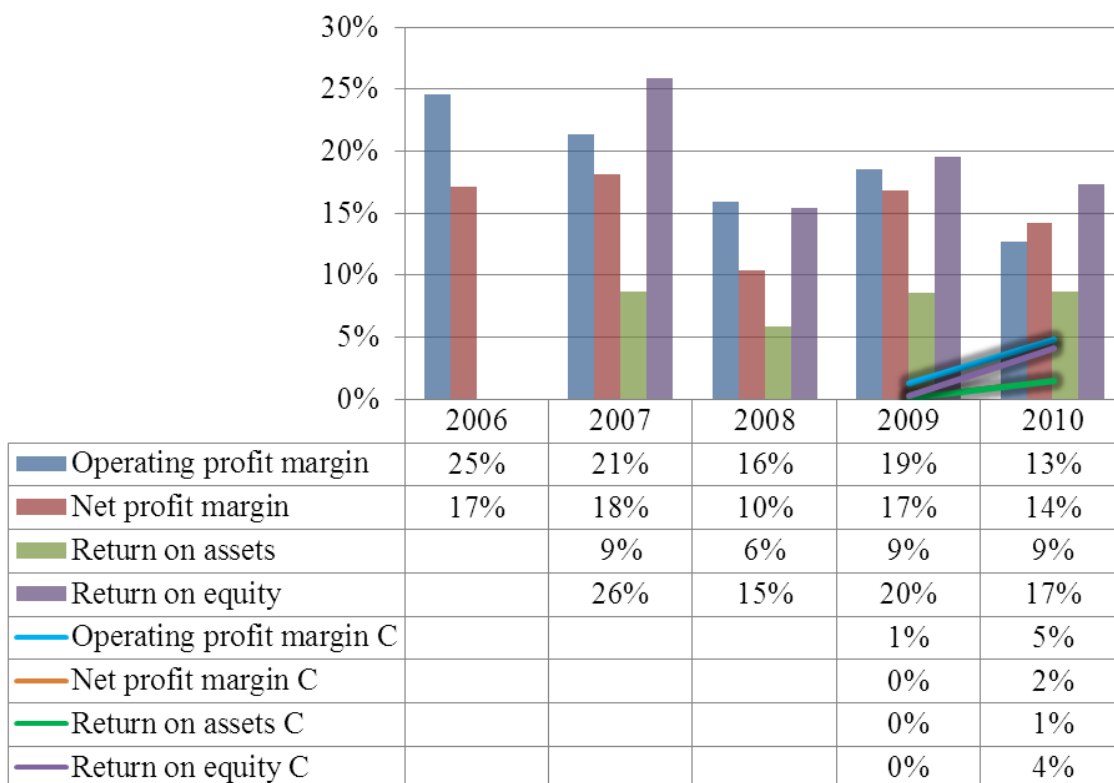
Financial leverage of PEGAS was decreasing in conjunction with total debt and debt-equity ratio. The leverage of total assets was reduced and thus the indebtedness and risk associated with leveraging as well. On the other hand, the potential of revenue maximization reduced in consequence. Fiberweb was leveraging its asset base to a greater extent over time. Slight decrease in 2009 and 2010 was caused by higher decrease in total assets and total liabilities. Regarding the EU, the values were moving between 2.45 and 2.56 during the time. In 2010, the PEGAS was under average whereas Fiberweb was above average. Considering the Almanac's financial leverage, the value of 1.83 indicates the American firms select less risky way of financing their assets.

Interest coverage ratio increased in case of PEGAS. Such a development can be assessed positively by reason of Group's strengthening ability to meet its contractual interest expenses. In accord with the competitor, the indicator cannot be calculated except for 2009 and 2010 due to losses reported in previous periods attributable to grand restructuring costs. Still, PEGAS' ratios are higher in those years. Industry coverage ratio decreased significantly in 2008 and 2009 due to higher interest expenses and lower operating profit. The fall can be attributable to financial crisis. American coverage ratio is equal to 4.2.

### **4.7.3. Profitability Ratios**

Commensurate with the chart below, it is apparent the analysed company was profitable in all periods, whilst Fiberweb was not until 2009. Ergo, in terms of profitability, the PEGAS SA overtook its key competitor and achieved better outcomes in all periods. Gross profit margin cannot be computed for PEGAS owing to the format of statement of financial position,

which does not provide information on gross profit. Due to the averaging of balance sheet data, the ROA and ROE indicators are not present for the year 2006. Because of the nature of vertical common-size BACH's financial statements, the ROE and ROA cannot be calculated. Hence, only the American ROE and ROA ratios are used for comparison.



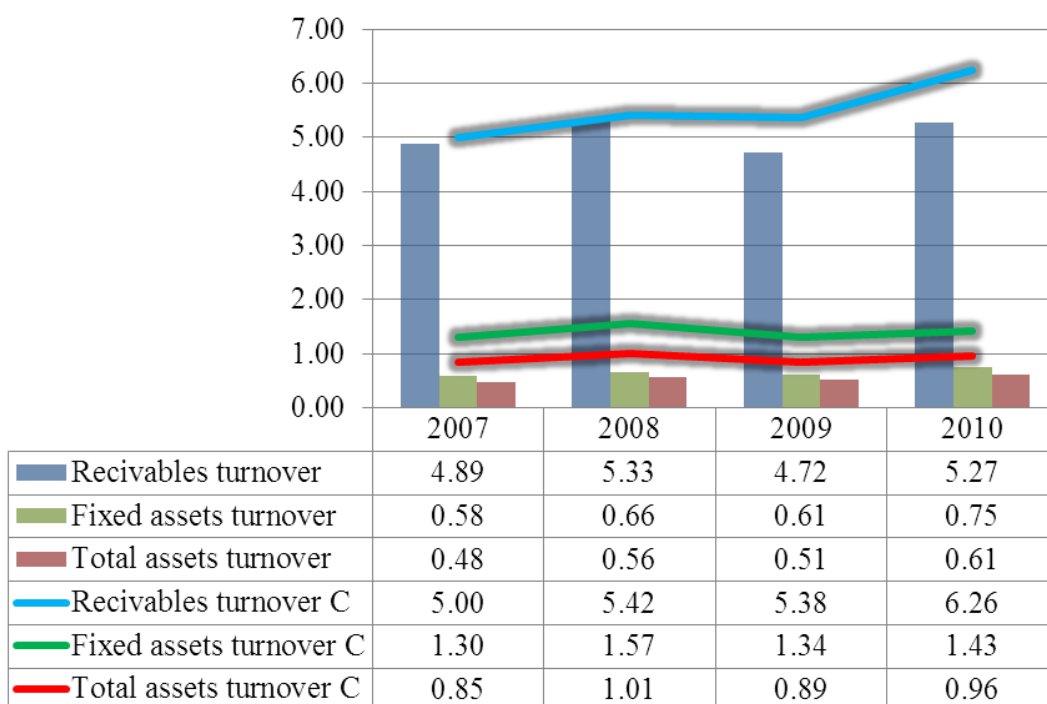
**CHART 11 Profitability ratios**

Operating profit margin was decreasing until 2009 when the drop of polymer prices and lower D&A induced in higher operating profit. The European industry ratio held on markedly lower values with the maximum of 4% in 2007. Net profit margin fluctuates concurrently with net profit that is affected by changeable taxes, FX gains and losses and other financial incomes and expenses. Compared to the EU9 net profit margin, which achieved maximum of 2%, PEGAS is considerably above average. American net profit margin is a little bit higher: 4.4%.

The assets were used with the same efficiency over time with the exception of 2008 when the higher operating costs and “CZK” appreciation resulted in lower net profit. Almanac’s

ratio is 9.2%. On that ground, the PEGAS is almost at the same level with the American average. ROE decreased in 2008 for the same reason as ROA but conversely, it did not return to 2007's level by virtue of increasing total share capital and reserves. Nonetheless, consistent with the Almanac, the ROE is 11.1% and PEGAS was above average in all periods.

#### 4.7.4. Activity Ratios



**CHART 12 Activity ratios**

Concerning the activity ratios, they were merely computed for four years due to averaging of balance sheet data in order to cushion the difference between flow and static figures. Considering the higher numbers of the average collection period, it is not present in the chart to avoid screening of other indicators. The ratio can be found in the table below:

	2007	2008	2009	2010
PEGAS SA	74.64	68.52	77.38	69.31
Fiberweb plc	73.02	67.37	67.78	58.35

**TABLE 2 Average collection period (in days)**

The development of revenues and related trade receivables induced in lower receivables turnover in 2009. Average collection period increased at the same time to 77.38 days indicating the solvency of customers deteriorated. The reason is, with the highest possibility, the economic downturn predominating in that period. Comparing with the competitor, its values were almost at the same level in 2007 and 2008 but Fiberweb's change from 67.35 to 67.78 days in 2009 signifies it did not have such problems with collection of cash from customers. With regards to Almanac, the receivables turnover is 6.0 resulting in average collection period of almost 61 days. PEGAS SA is above American average in all periods, whilst Fiberweb managed to reduce the collection of cash from customers to 58.35 days in 2010.

Fixed assets turnover decreased in 2009 concurrently with lower revenues. The revenues decreased to a greater extent than the averaged fixed assets in spite of the depreciation of PP&E. The key competitor's non-current assets turnover was higher in all periods suggesting either more efficient usage of fixed assets or their lower share on total balance sum. New fixed assets recognized may affect the ratio actually.

The values of total assets turnover provide insight into the fixed assets turnover and facilitate the interpretation. From the chart above, it is clear the Fiberweb's figures were once again higher than in case of PEGAS. For that reason, the key competitor utilised its asset base with higher efficiency in terms of generating the sales. For further comparison, the value of American total asset turnover is stated at 1.4. In keeping with such a value, both competitors were below American average over time.



## 5. OUTCOMES ASSESSMENT

The PEGAS SA was profit making in all periods, whilst its key competitor and other firms in the industry (EU9) were not. It is a sign of healthy firm. The revenues represented the main part of the total income not falling under 85.3% over time. They fluctuated side by side with the raw materials and consumables used suggesting the ability to pass volatile prices to customers. Such ability is assessed positively. However, the net income was to a great extent influenced by FX losses/gains and EBIT was declining. The main drivers of declining EBIT were increasing polymer prices, staff costs and D&A. Therefore, the company should focus on these expense items and try to find a way of their optimization.

With reference to development of PEGAS' financial position, the PP&E increased significantly in 2007 because of the recognition of the new production line. Another production line was going to be launched in the second half of 2011. Such investments, which support organic growth, are considered favourable. Bank loans were decreasing until 2010 when the construction of the new production line began. Nonetheless, net debt was decreasing over time. Other positive signals are the steady increment in retained earnings resulting in higher equity and management's decision to reduce trade and other payables in order to acquire trade discounts. Unfortunately, the WC development was not as smooth as in case of the key competitor. The company should avoid such situation in the future and maintain positive WC figures.

The key competitor was more liquid over time with the exception of 2010. Such a development was mainly attributable to new cash management policy. The purpose of the policy was the reduction of interest expenses via reduction of the overdraft. Interest expenses were decreasing over time indeed. Nevertheless, the below average liquidity cannot be assessed positively and the company should have evaded it.

Considering the indebtedness of the company, the total debt ratio was decreasing over time approaching the EU9 average, whilst the Fiberweb's was receding. The debt-equity ratio provides the same information. Reduction of the indebtedness is of positive nature. On the contrary, the financial leverage was moving under European average since 2008 indicating the other firms had more of its liabilities kept in form of other than interest bearing debt.

Positively can be assessed the development of coverage ratio, which was increasing over time. Thus, the PEGAS' ability to meet its interest bearing liabilities intensified. The ratio kept its up moving trend in spite of the negative development visible in EU9.

In terms of profitability, the Group was above average in all periods. The assets were used almost evenly over time considering the ROA of 9%, which is nearly as good as Almanac's 9.2%. Company's ROE was above American industrial average. These positive figures should be retained or even improved in next periods.

PEGAS's receivables turnover was below the Fiberweb's and American average resulting in higher collection period. The increase in receivables turnover in 2010 can be reckoned optimistically. Still, the competition was better considering its above average value in 2010. The company may curtail the average collection period by setting up more rigorous requirements on customers. In line with the fixed and total assets turnover, the competitor used its assets more efficiently in generating the revenues.

In conclusion, the PEGAS is a healthy firm, which is profitable and credible. It reduces its overall indebtedness and it is able to meet its interest bearing liabilities. On top of that, the Group increases equity and invests in its further development.

## 6. CONCLUSION

The financial statements as defined in IAS 1 – Presentation of Financial statements were thoroughly scrutinized in the theoretical part of the thesis. They are the statement of financial position, statement of comprehensive income, statement of changes in equity and statement of cash flows. All these statements are further supplemented with notes comprising a summary of significant accounting policies. With regard to the statement of financial position, the main elements are assets, liabilities and equity while the income statement's underlying elements are expenses and incomes. Concerning the cash flow statement, it is divided into operating activities, investing activities and financing activities.

Be that as it may, the explanatory power of the statements compiled in accordance with IFRS is lowered by several constraints. These can be divided into cost versus benefit, omission constraints and balance between qualitative characteristics. The balance between four fundamental qualitative characteristics is secured by essential accounting discretion, which may be used opportunistically to achieve desired presentation of the statements. The opportunistic attitude to the right of choice is driven by a set of manipulation incentives, which are explained in the thesis.

Financial statements analysis is an excellent instrument how to assess statements' ability to inform about financial position and performance. It can be divided into ex-post and ex-ante analysis. In accordance with the examined object, it can be further classified as international, national, industry and company analysis. The most known techniques are horizontal common-size analysis, vertical common-size analysis, working capital analysis and ratio analysis. In keeping with the aspects the ratios are focused on, they are categorized as liquidity, solvency, profitability, activity and market.

In the practical part, the ex-post company analysis was performed by utilization the theoretical model developed in the preceding part. The analysed company reported the statements in compliance with IFRS from 2006. By decision of the company, the presentation of the income statement was amended in 2007 in order to present better the operating profit. Therefore, for the sake of comparability, the 2006 income statement was retrospectively restated consistent with IAS 1 requirements. The statement of comprehensive income has

begun to be prepared since 2009 in line with the revised IAS 1. It is a nice example of consistency disruption attributable to change in IFRS. Nevertheless, the data provided in the previous statements enabled their adjustment to statement of comprehensive income and thus the overall comparability. With the aim to review the trends in cash receipts and payments, the direct format of operating cash flow is needed. However, the company's cash flow statement was presented in indirect format.

As the standards do not specify the exact format of the income statement, the accounting discretion led to omission of an item called "cost of goods sold". Such an item is crucial for calculation of some ratios and for conversion of cash flows from the indirect to direct format. These ratios include gross profit margin, inventory turnover, payables turnover and related average payment period.

With regard to the ratio analysis, the industry financial ratios needed for cross-sectional analysis are relatively inaccessible for EU. Yet, the ECCBSO set up the BACH database in 1987 in order to allow inter-country comparison. Taking into consideration the items in BACH are expressed in percentage of the total balance sum or total turnover, the database enables the computation only of ratios, which do not put into relation balance sheet and income statement data. As the non-financial companies' statements are not affected to the same degree by IFRS implementation, the quality of cross-sectional comparison is worsened. The fact remains that the majority of the approachable industry financial ratios are suitable for U.S. market and the access to them is charged with considerable amounts of money.

Irrespective of above mentioned imperfections, the IFRS' demanding requirements on the notes to financial statements permitted the interpretation of all outputs of the performed financial analysis. Taking into consideration the possibility of ratio calculation and application of these calculated ratios as a benchmark, the IFRS facilitate comparison between companies on the international level. Without being presented consistent with one unified standard, such a comparison would not be attainable.

Based on above-mentioned findings, it is evident that the informative potential of financial statements prepared according to International Financial Reporting Standards is eminent.

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## 8. LIST OF ABBREVIATIONS

<b>A.K.A.</b>	Also known as
<b>BACH</b>	Bank for Accounts of Companies Harmonized
<b>CAPEX</b>	Capital expenditures
<b>CEO</b>	Chief executive officer
<b>D&amp;A</b>	Depreciation and amortization
<b>EBIT</b>	Earnings before interest and taxes
<b>EBT</b>	Earnings before taxes
<b>ECCBSO</b>	European Committee of Central Balance-Sheet Data Offices
<b>E.G.</b>	Exempli grati; for example
<b>EU</b>	European Union
<b>EU9</b>	Austria, Belgium, France, Germany, Italy, the Netherlands, Poland, Portugal and Spain
<b>FX</b>	Foreign exchange
<b>GDP</b>	Gross domestic product
<b>IAS</b>	International Accounting Standards; International Accounting Standard
<b>IASC</b>	International Accounting Standards Committee
<b>IASCF</b>	International Accounting Standards Committee Foundation
<b>I.E.</b>	Id est; that is
<b>IFRS</b>	International Financial Reporting Standards
<b>IPO</b>	Initial public offering
<b>I. T.</b>	Inventory turnover
<b>MD&amp;A</b>	Management discussion and analysis
<b>PP&amp;E</b>	Property, plant & equipment
<b>P.T.</b>	Payables turnover
<b>ROA</b>	Return on assets
<b>ROE</b>	Return on equity
<b>R.T.</b>	Receivables turnover
<b>SWOT</b>	Strengths, Weaknesses, Opportunities and Threats
<b>TEUR</b>	Thousands of EUR
<b>WC</b>	Working capital

## 9. LIST OF CHARTS

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## **11. APPENDIX**

### **11.1. List of Appendices**

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- AP2** Statement of financial position analysis
- AP3** Ratio analysis of EU9

## AP1 Statement of Comprehensive Income Analysis

### The income and expense items horizontal common-size analysis

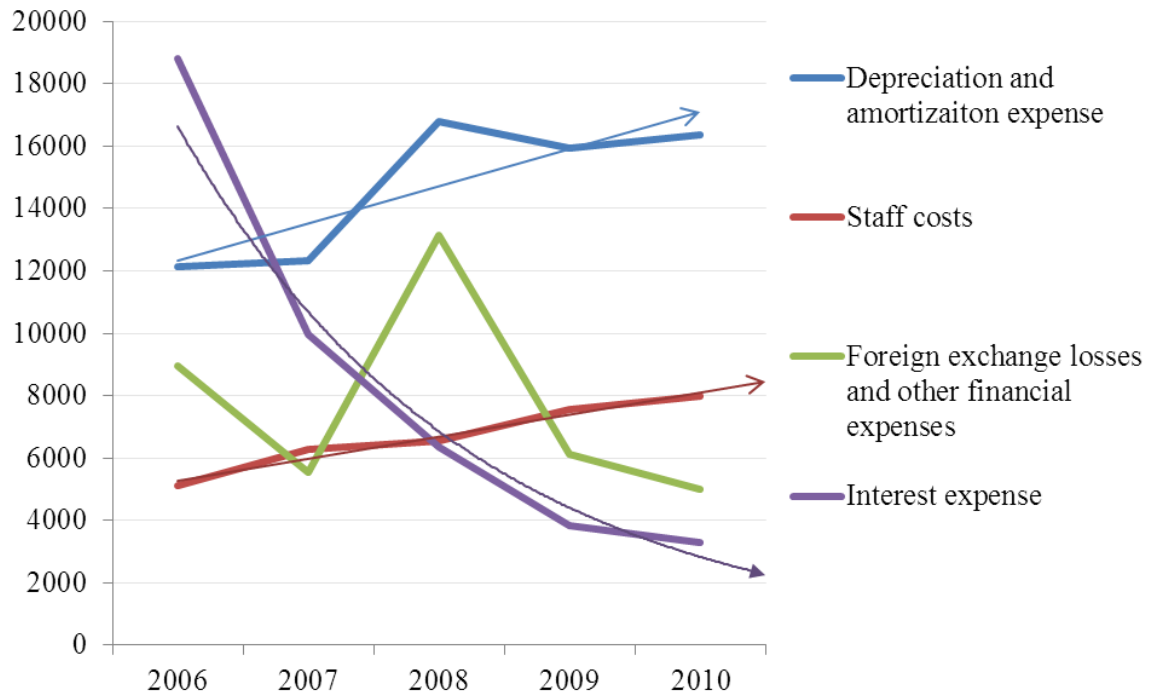
(The differences in thousands of EUR)

	07 - 06	07/06	08 - 07	08/07	09 - 08	09/08	10 - 09	10/09
Revenues	1 030	0.9%	20800	17.1%	-19324	-13.5%	24703	20.0%
Other operating income	1 294	684.7%	-742	-67.1%	75	20.7%	316	72.1%
FX gains and other financial income	-10 369	-52.7%	1599	17.2%	-2271	-20.8%	2653	30.7%
Interest income	-414	-67.5%	-125	-62.8%	-64	-86.5%	6	60.0%
Cash flow hedges	0	0.0%	0	0.0%	181	0.0%	-1119	-618.2%
Changes in translation reserves	1 082	148.4%	-61	-3.4%	-333	-19.0%	3018	213.0%
<b>Total income</b>	<b>-7 377</b>	<b>-5.2%</b>	<b>21471</b>	<b>16.0%</b>	<b>-21736</b>	<b>-13.9%</b>	<b>29577</b>	<b>22.0%</b>
Raw materials and consumables used	4 648	6.5%	18237	23.8%	-18937	-20.0%	27743	36.6%
Staff cost	1 168	22.9%	266	4.2%	1006	15.4%	445	5.9%

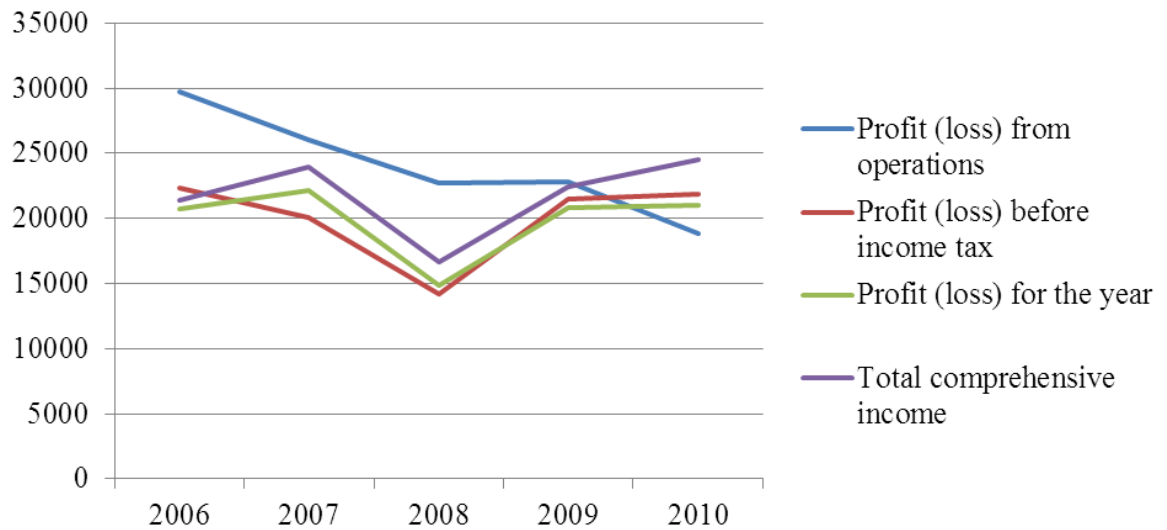
D&A expenses	181	1.5%	4477	36.3%	-876	-5.2%	419	2.6%
Research expense	34	1.9%	440	24.0%	-618	-27.1%	404	24.4%
FX losses and other financial expenses	-3 381	-37.8%	7589	136.5%	-7010	-53.3%	-1155	-18.8%
Interest expense	-8 850	-47.1%	-3593	-36.1%	-2512	-39.5%	-550	-14.3%
Income tax expense	-3 692	-230.6%	1365	65.3%	1450	199.7%	135	18.6%
<b>Total expenses</b>	<b>-9 892</b>	<b>-8.2%</b>	<b>28781</b>	<b>26.1%</b>	<b>-27497</b>	<b>-19.7%</b>	<b>27441</b>	<b>24.6%</b>
<b>Profit (loss) from operations</b>	<b>-3 707</b>	<b>-12.5%</b>	<b>-3362</b>	<b>-12.9%</b>	<b>176</b>	<b>0.8%</b>	<b>-3992</b>	<b>-17.5%</b>
<b>Profit (loss) before income tax</b>	<b>-2 259</b>	<b>-10.1%</b>	<b>-5884</b>	<b>-29.4%</b>	<b>7363</b>	<b>52.0%</b>	<b>372</b>	<b>1.7%</b>
<b>Profit (loss) for the year</b>	<b>1 433</b>	<b>6.9%</b>	<b>-7249</b>	<b>-32.7%</b>	<b>5913</b>	<b>39.7%</b>	<b>237</b>	<b>1.1%</b>
<b>Total comprehensive income</b>	<b>2 515</b>	<b>11.7%</b>	<b>-7310</b>	<b>-30.5%</b>	<b>5761</b>	<b>34.6%</b>	<b>2136</b>	<b>9.5%</b>

### The income and expense items vertical common-size analysis

	2006	2007	2008	2009	2010
Revenues	85.3%	90.7%	91.6%	92.0%	90.5%
Other operating income	-0.1%	0.8%	0.2%	0.3%	0.5%
FX gains and other financial income	13.9%	6.9%	7.0%	6.4%	6.9%
Interest income	0.4%	0.1%	0.0%	0.0%	0.0%
Cash flow hedges	0.0%	0.0%	0.0%	0.1%	-0.6%
Changes in translation reserves	0.5%	1.3%	1.1%	1.1%	2.7%
<b>Total income</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Raw materials and consumables used	59.8%	69.3%	68.1%	67.9%	74.5%
Staff costs	4.2%	5.7%	4.7%	6.8%	5.7%
D&A expense	10.1%	11.2%	12.1%	14.3%	11.7%
Research expense	1.5%	1.7%	1.6%	1.5%	1.5%
FX losses and other financial expenses	7.4%	5.0%	9.4%	5.5%	3.6%
Interest expense	15.6%	9.0%	4.6%	3.4%	2.4%
Income tax expense	1.3%	-1.9%	-0.5%	0.6%	0.6%
<b>Total expenses</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



**AP CHART 1** *Development of dominating expense items*



**AP CHART 2** *Development of profits*

## AP2 Statement of Financial Position Analysis

### Horizontal common-size statement of financial position

(The differences in thousands of EUR)

	07 - 06	07/06	08 - 07	08/07	09 - 08	09/08	10 - 09	10/09
<b>ASSETS</b>								
<b>Non-current assets</b>								
Property, plant and equipment	26833	24.3%	-15915	-11.6%	-12575	-10.4%	-1152	-1.1%
Intangible assets	94	92.2%	53	27.0%	-43	-17.3%	13	6.3%
Goodwill	2773	3.3%	-1003	-1.2%	1514	1.8%	4915	5.6%
<b>Total non-current assets</b>	<b>29700</b>	<b>15.2%</b>	<b>-16865</b>	<b>-7.5%</b>	<b>-11104</b>	<b>-5.3%</b>	<b>3776</b>	<b>1.9%</b>
<b>Current assets</b>								
Inventories	4053	48.5%	315	2.5%	921	7.2%	1089	8.0%
Trade and other receivables	2604	11.0%	1116	4.3%	-2377	-8.7%	6297	25.2%
Cash and cash equivalents	-21503	-97.7%	-202	-39.5%	164	53.1%	4212	890.5%
<b>Total current assets</b>	<b>-14846</b>	<b>-27.5%</b>	<b>1229</b>	<b>3.1%</b>	<b>-1292</b>	<b>-3.2%</b>	<b>11598</b>	<b>29.7%</b>
<b>Total assets</b>	<b>14854</b>	<b>6.0%</b>	<b>-15636</b>	<b>-5.9%</b>	<b>-12396</b>	<b>-5.0%</b>	<b>15374</b>	<b>6.5%</b>
<b>EQUITY AND LIABILITIES</b>								
<b>Share Capital and reserves</b>								
Share capital	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Share premium	-7014	-17.1%	-7845	-23.1%	-8306	-31.8%	-8768	-49.1%

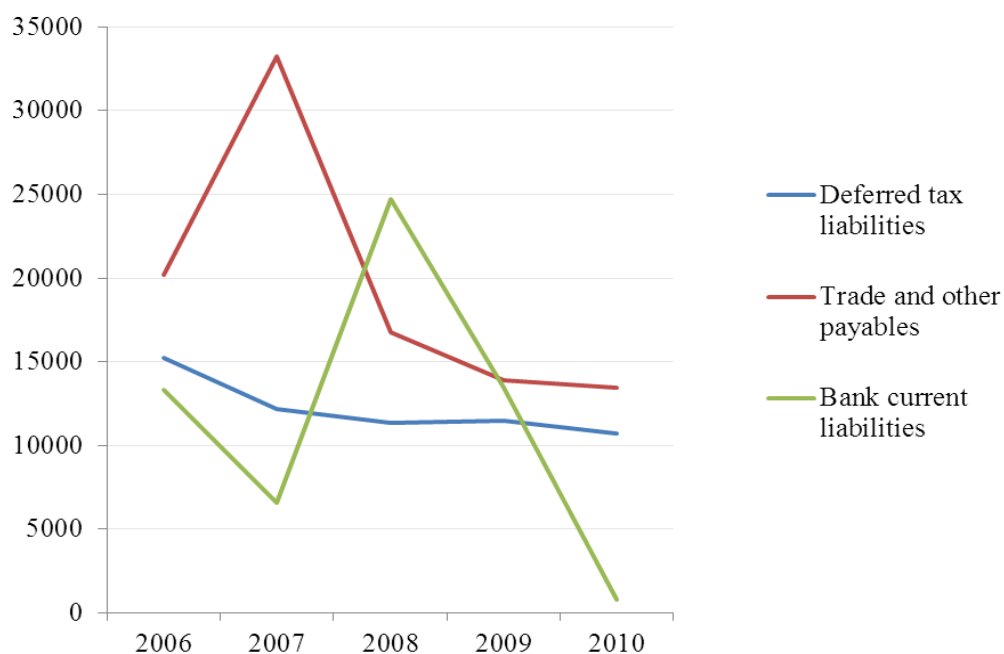
Legal reserves	1120	100.0%	1313	117.2%	1963	80.7%	1638	37.3%
Translation reserves	1811	249.8%	-1750	-69.0%	1417	180.3%	4435	201.3%
Cash flow hedges	0	0.0%	0	0.0%	181	100.0%	-938	-518.2%
Retained earnings	21018	88.4%	13576	30.3%	18839	32.3%	19401	25.1%
<b>Total share capital and reserves</b>	<b>16935</b>	<b>22.0%</b>	<b>5294</b>	<b>5.6%</b>	<b>14094</b>	<b>14.2%</b>	<b>15768</b>	<b>13.9%</b>
<b>Non-current liabilities</b>								
Bank loans	-6343	-5.2%	-20377	-17.5%	-13517	-14.1%	12836	15.5%
Other payables	-174	-63.3%	-96	-95.0%	22	440.0%	76	281.5%
Deferred tax liabilities	-3035	-19.9%	-812	-6.7%	93	0.8%	-785	-6.8%
<b>Total non-current liabilities</b>	<b>-9552</b>	<b>-6.9%</b>	<b>-21285</b>	<b>-16.5%</b>	<b>-13402</b>	<b>-12.5%</b>	<b>12127</b>	<b>12.9%</b>
<b>Current liabilities</b>								
Trade and other payables	13006	64.3%	-16467	-49.6%	-2872	-17.1%	-460	-3.3%
Tax liabilities	1235	643.2%	-1348	-94.5%	937	1186.1%	718	70.7%
Bank current liabilities	-6770	-50.8%	18170	277.4%	-11251	-45.5%	-12681	-94.1%
Provisions	0	0.0%	0	0.0%	98	100.0%	-98	-100.0%
<b>Total current liabilities</b>	<b>7471</b>	<b>22.2%</b>	<b>355</b>	<b>0.9%</b>	<b>-13088</b>	<b>-31.5%</b>	<b>-12521</b>	<b>-44.0%</b>
<b>Total liabilities</b>	<b>-2081</b>	<b>-1.2%</b>	<b>-20930</b>	<b>-12.3%</b>	<b>-26490</b>	<b>-17.8%</b>	<b>-394</b>	<b>-0.3%</b>
<b>Total equity and liabilities</b>	<b>14854</b>	<b>6.0%</b>	<b>-15636</b>	<b>-5.9%</b>	<b>-12396</b>	<b>-5.0%</b>	<b>15374</b>	<b>6.5%</b>

### Vertical common-size statement of financial position

	2006	2007	2008	2009	2010
<b>ASSETS</b>					
Non-current assets					
Property, plant and equipment	44.4%	52.1%	48.9%	46.2%	42.9%
Intangible assets	0.0%	0.1%	0.1%	0.1%	0.1%
Goodwill	33.9%	33.0%	34.7%	37.2%	36.9%
Total non-current assets	78.3%	85.2%	83.7%	83.4%	79.8%
Current assets					
Inventories	3.4%	4.7%	5.1%	5.8%	5.9%
Trade and other receivables	9.5%	9.9%	11.0%	10.6%	12.5%
Cash and cash equivalents	8.8%	0.2%	0.1%	0.2%	1.9%
Total current assets	21.7%	14.8%	16.3%	16.6%	20.2%
<b>Total assets</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>EQUITY AND LIABILITIES</b>					
Share Capital and reserves					
Share capital	4.6%	4.3%	4.6%	4.9%	4.6%
Share premium	16.5%	12.9%	10.5%	7.6%	3.6%
Legal reserves	0.0%	0.4%	1.0%	1.9%	2.4%
Translation reserves	0.3%	1.0%	0.3%	0.9%	2.6%
Cash flow hedges	0.0%	0.0%	0.0%	0.1%	-0.3%
Retained earnings	9.5%	17.0%	23.5%	32.7%	38.5%
Total share capital and reserves	30.9%	35.6%	40.0%	48.0%	51.4%
Non-current liabilities					
Bank loans	49.3%	44.2%	38.7%	35.0%	38.0%

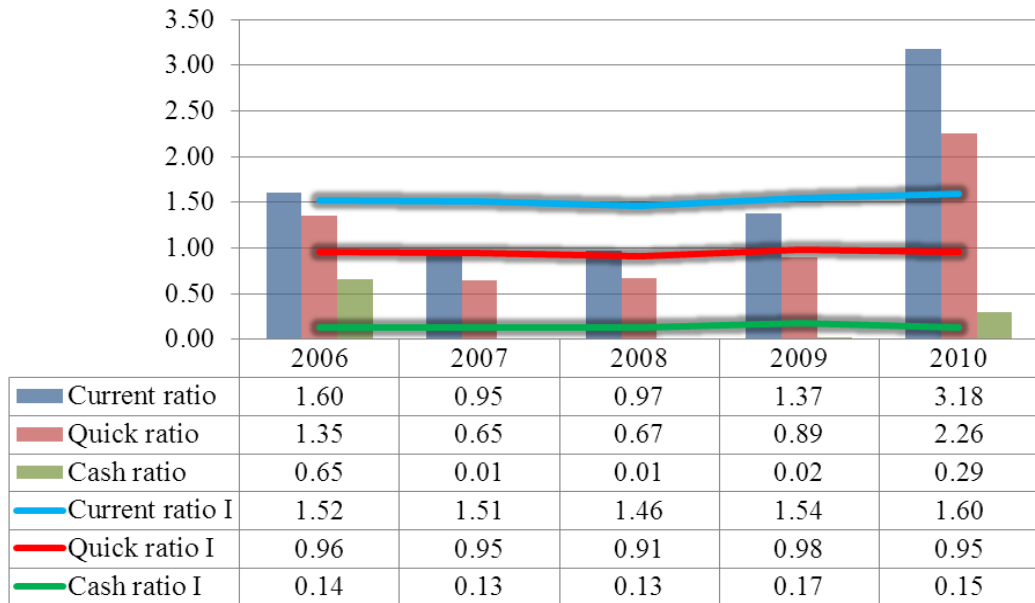


Other payables	0.1%	0.0%	0.0%	0.0%	0.0%
Deferred tax liabilities	6.1%	4.6%	4.6%	4.9%	4.3%
Total non-current liabilities	55.6%	48.8%	43.3%	39.9%	42.3%
Current liabilities					
Trade and other payables	8.1%	12.6%	6.7%	5.9%	5.3%
Tax liabilities	0.1%	0.5%	0.0%	0.4%	0.7%
Bank current liabilities	5.3%	2.5%	10.0%	5.7%	0.3%
Provisions	0.0%	0.0%	0.0%	0.0%	0.0%
Total current liabilities	13.5%	15.6%	16.7%	12.1%	6.3%
Total liabilities	69.1%	64.4%	60.0%	52.0%	48.6%
<b>Total equity and liabilities</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

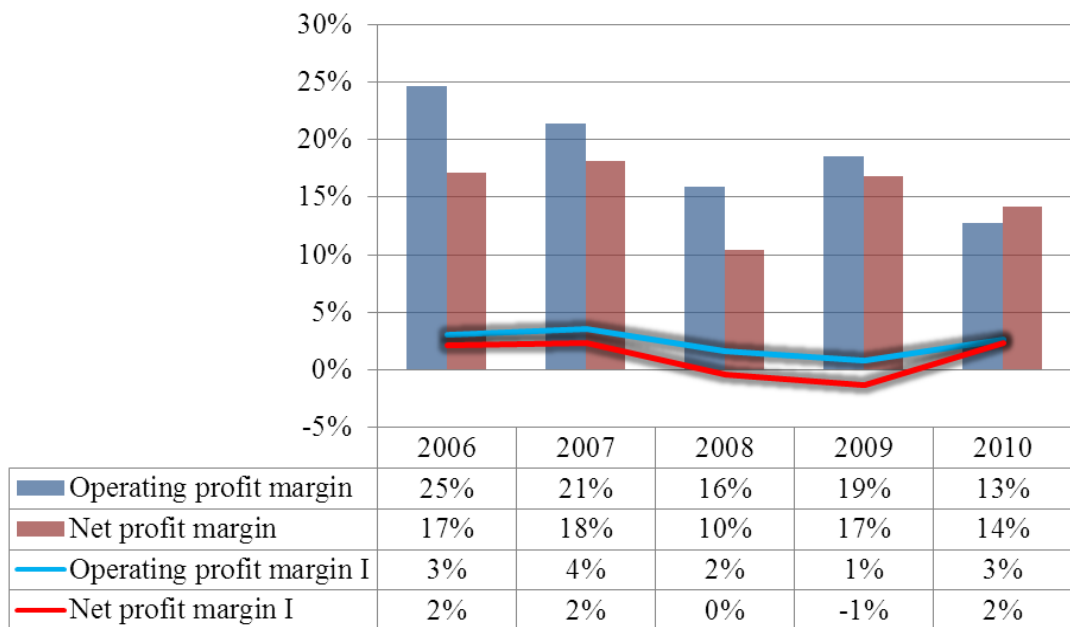


*AP CHART 3 Development of other dominating liabilities*

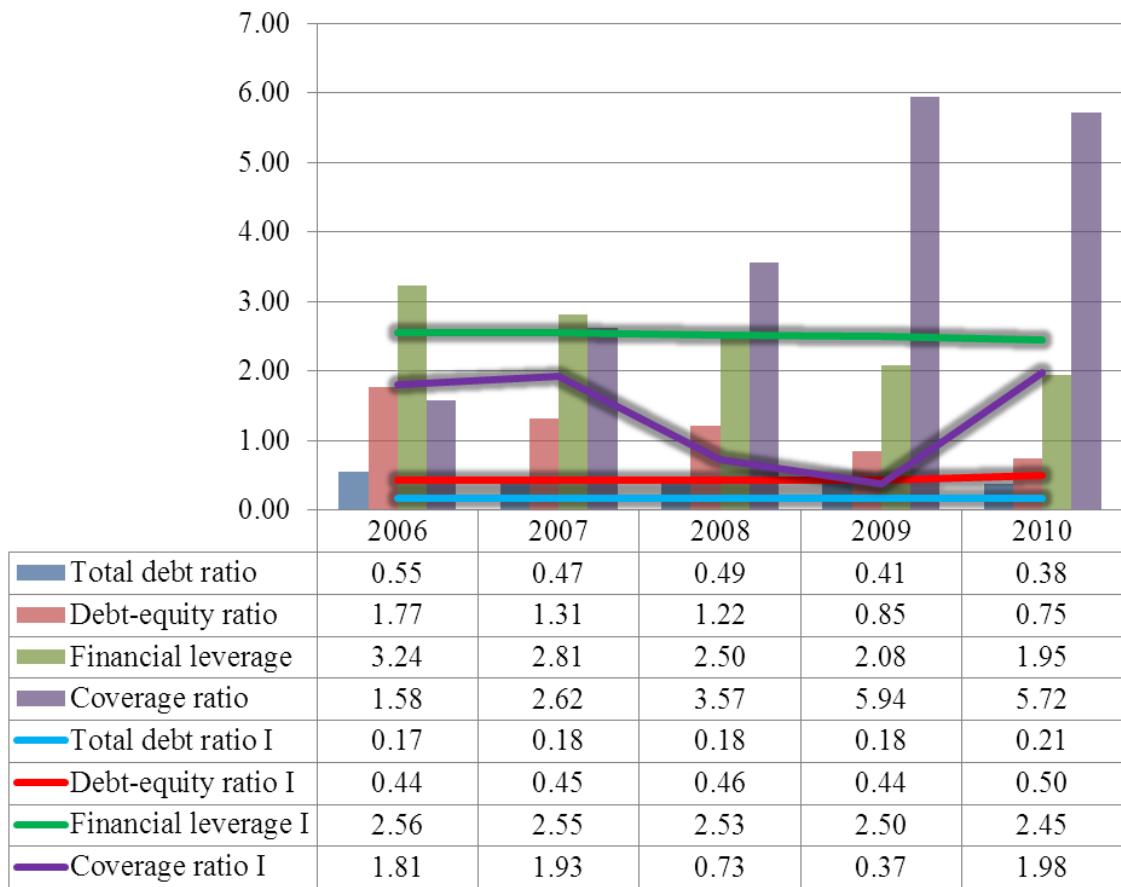
### AP3 Ratio Analysis of EU9



**AP CHART 4 Liquidity ratios for PEGAS and EU9**



**AP CHART 5 Profitability ratios for PEGAS and EU9**



**AP CHART 6 Solvency ratios for PEGAS and EU9**