Czech University of Life Sciences Prague

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Diploma Thesis

Treasury Management of Selected Company in Automotive Industry

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DIPLOMA THESIS ASSIGNMENT

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Thesis title

Treasury Management of Selected Company in Automotive Industry

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Objectives of thesis

This diploma thesis proposes improvements in treasury management of selected company in the automotive industry. Firstly by assessing its current cash position, secondly by analysing possible financing options of its future investment projects and evaluating their effectiveness.

Methodology

The literature review is done by using methods of abstraction, synthesis, induction, deduction and extraction.

Practical section is conducted using selected methods of financial analysis i.e. calculation of liquidity indices, net present value and cash position analysis.

The proposed extent of the thesis

60

Keywords

treasury management, cash management, financing, automotive industry

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Recommended information sources

BRAGG, Steven M. Treasury management. Hoboken: John Wiley & Sons, Inc., 2010, ISBN 978-0-470-49708-1.

BREALEY, Richard A., Stewart C. MYERS a Franklin ALLEN. Principles of corporate finance. 10th ed. New York: McGraw-Hill/Irwin, c2011. McGraw-Hill/Irwin series in finance, insurance, and real estate. ISBN 0073530735.

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JEFFERY, Craig A. The strategic treasurer. 1. edition, Hoboken: John Wiley & Sons, Inc., 2009, 296 s., ISBN 978-0-470-40777-6.

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Prague on 20. 11. 2016

I declare that this diploma thesis “Treasury Management of Selected Company in Automotive Industry“ is entirely my own composition under the supervision of the supervisor of my thesis, Ing. Petr Procházka, MSc, Ph.D., and that literature and other information sources I am using, are cited in the work and listed in the bibliography at the end of the work.

In Prague 30th November 2016 _____

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Treasury Management of Selected Company in Automotive Industry

Treasury management vybrané společnosti z automobilového průmyslu

Abstract

The goal of the thesis "Treasury Management of Selected Company in Automotive Industry" is to suggest improvements in the treasury management of a selected company in automotive industry. Firstly, by assessing its current cash position, and secondly, by analysing possible financing sources of its future investment project. The thesis has two main sections, theoretical and practical. The theoretical part summarizes available sources about treasury management and its selected areas. The practical part concentrates on description and assessment of corporate cash and investment management in the selected company. In this part are used findings and methods described in literature review. In the conclusion is evaluated current situation of the enterprise and author proposes recommendations for improving the treasury management of the selected company.

Souhrn

Cílem diplomové práce "Treasury management vybrané společnosti z automobilového průmyslu." je navrhnout možná doporučení ke zlepšení treasury managementu u vybrané společnosti z automobilového průmyslu. V první řadě tím, že práce vyhodnotí současný cash managementu společnosti, a za druhé tím, že analyzuje možné zdroje financování budoucího investičního projektu. Teze má dvě hlavní části, teoretickou a praktickou. V teoretické části jsou shrnuty dostupné zdroje o treasury managementu a jeho vybraných oblastech. Praktická část je zaměřena na popis a vyhodnocení cash a investičního managementu vybraného podniku. V této části jsou použity poznatky a metody popsané v literární rešerši. V závěru je vyhodnocena současné situace společnosti a autor navrhuje doporučení ke zlepšení treasury managementu u vybraného podniku.

Keywords: Treasury management, cash management, financing, automotive industry

Klíčová slova: Treasury management, cash management, financování, automobilový průmysl

Content

1. Introduction

According to the Chicago School of Economics, the main role of the business in the market economy does not lie in satisfying the wishes and needs of its customers, but lies mainly in satisfying the needs and wishes of its shareholders. They are the ones who invest their resources in the business with the aim of maximizing their profit. Securing this goal not only means to have a great business idea but also to have ample resources to invest in its activities.

Financing of business activities can be ensured various methods. One of the safest requires keeping high cash reserves covered from own resources. However, this cannot be a successful path of a sophisticated investor, because he or she can surely find more profitable investment opportunities than keeping idle cash in bank accounts. Overall, management of the company's resources can support or limit the business in achieving its goals. Therefore, the financial management holds a key positon in the enterprise.

Financial management covers a broad area of functions, including accounting and financial reporting, budgeting, risk management or insurance for a business. This thesis focuses on the area of treasury management, and in its practical part aims to propose improvements of the treasury management of a selected company in automotive industry.

2. Objectives and Methodology

The aim of this thesis is to propose improvements in treasury management of a selected company in automotive industry. Firstly, by assessing its current cash position, and secondly, by analysing possible financing sources of its future investment projects and evaluation of their availability.

Partial goals:

- Theoretically characterize treasury management and its role in company's management
- Theoretically characterize cash management, financing and risk management
- Evaluate financial position of the selected company in terms of cash management
- Assess the investment project of the selected company in automotive industry and propose available financing possibilities.

The purpose of this paper is to provide valuable information for management of the selected company.

This diploma thesis is divided into two parts- theoretical and practical. The theoretical part summarizes available sources about treasury management and its selected areas. Also, it includes a literature review that is conducted by using methods of deduction, induction, synthesis, abstraction and extraction.

The practical part evaluates cash management of the company by using indices of liquidity and working capital. Furthermore, the analytical section focuses on the assessment of the company's future investment projects and their financing. In conclusion, the findings from the previous sections are summarized, and proposals for improvement of a company's treasury management are described.

The main sources for the theoretical part are cited at the end of the paper. The practical part contains information from publicly available resources, but also internal data that were provided by the company's management.

3. Literature Review

3.1 Treasury Management

The term treasury has been used for centuries, with the first noted use of the word from the term "tresorie", which means "room for treasure."[1] Over time, those treasures have been replaced with assets and money that companies own and use to create value for their shareholders, employees, and customers. One of the first mentions of a treasury as a store of wealth of a country or a company is from the book *Lombard Street: A Description of the Money Market* from Walter Bagehot. Already in 1873 he described treasury as a place "*where the last shilling of the country is deposited and kept*[2]*"*

The concept of treasury management as it is known today, was developed approximately 50 years ago. Firstly, it was centred around working capital management. However, in the late 1970s when the interest rates increased, it became essential for a company to effectively manage its own cash. During this period, financial managers discovered that significant opportunity costs are connected with idle cash.

Nowadays, constantly evolving treasury management can be characterized as part of corporate financial management. The subject of treasury management is both broad and deep, it includes many different activities, ranging from cash management to risk management. Therefore, the precise nature of the objectives of treasury management can vary according to the business philosophy and activities of the company.[3] It may be one of these goals - protection from foreign exchange risks before they arise, reduction of costs associated with banking products or many others.

3.1.1 Treasury Department

The treasury department is often called the lifeblood of the company, and with good reason. Firstly, stakeholders demand proper corporate financial accountability; therefore, the financial management of corporations has become increasingly transparent. Secondly, the

[1] RAJENDRA, Rajiv. *The handbook of global corporate treasury*., pg.1.
[2] BAGEHOT, Walter. *Lombard Street: a description of the money market*.
[3] COOPER, Robert. *Corporate treasury and cash management*. pg. 354.

world is becoming more interconnected, and companies are facing international competition. As a result, company shareholder are searching for intelligent investment decisions. Thirdly, due to the high volatility on the financial markets, changes in interest rates, exchange rates or commodity prices can quickly impact the profit of a company. Consequently, treasury management is more important than ever.

Treasury functions vary according to industry and organization. Usually, in a smaller company, individuals handle treasury management with other functions. Whereas, in a large organization, these functions might be managed by different groups within the treasury department.[4]

M.Režňáková (2010) divides treasury's functions into the following areas:

- Currency management - netting, matching, etc.
- Investing capital - credit and investment policy
- Cash management - liquidity planning, cash flow, etc.
- Supporting activities - hedging of receivables, forfeiting etc.[5]

Vinod Kumar also has similar views on treasury management. He defines three main functions of treasury management: (i) maintaining liquidity of business, (ii) minimizing currency risk and (iii) providing quick finance to the company.[6]

According to Karen Horschert (2006) the treasury departments' functions encompass:

- Cash management
- Risk mitigation
- and others i.e. cash forecasting, investing, hedging, etc.[7]

[4] HORCHER, Karen A. *Essentials of managing treasury*, pg. 5.
[5] REŽŇÁKOVÁ, Mária a kol. Řízení platební schopnosti podniku.
[6] KUMAR, Vinod. Treasury Management and its Functions. *Accounting Education* [online].
[7] HORCHER, Karen A. *Essentials of managing treasury*, pg. 14.

In the book by Steven Bragg: *Treasury Management- The Practioner's Guide*, the author also refers to the liquidity management as a main function of the treasury department.[8] However, he defines three main areas of the treasury department:

- Cash management
- Risk management
- Financing

Responsibilities and Organization

As mentioned above, the corporate treasurer is handling a growing number of functions of financial management; thus, the responsibilities of the treasury department are becoming broader and more strategically focused every day. Polák and Klusáček explain differences between the responsibilities of different fields of corporate financial management. According to them, the treasury department, in contrast to accounting, is focuses on the present and future as expected by the company itself and financial markets.[9]

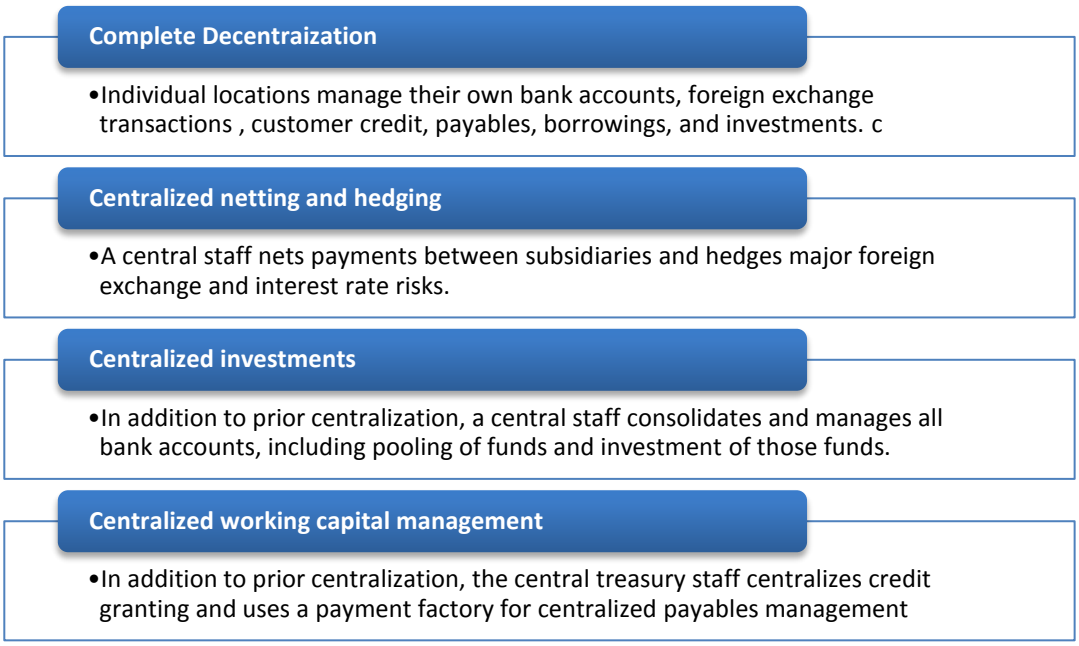
Currently, companies are dealing with the question of centralization or decentralization of the individual functions of treasury management. Decentralization stands for the management of individual activities only in the context of the subsidiary, in case of the international company it means only within the concrete state. On the one hand, it brings the possibility of fast response to the changes in the external environment and needs of the business. On the other hand, it might lead to higher costs (transfer of funds abroad) or to ignoring risks.[10]

Centralization seeks to eliminate the disadvantages of decentralization by managing certain activities across the entire company. Reduction in the number of transactions within the enterprise, the reduction of the number of highly skilled workers, and more control over centralized areas of cost reduction are some advantages connected with centralization of treasury management.[11] The process of centralization is connected with Enterprise Resources Planning (ERP) system.

[8] BRAGG, Steven M. *Treasury management*., pg.3.
[9] POLÁK, Petr a Ivan KLUSÁČEK. *Centralization of Treasury Management*. pg. 13.
[10] HERRICK, John. The Pros and Cons of Treasury Centralisation. *People Bath AC UK* [online].
[11] POLÁK, Petr a Ivan KLUSÁČEK. *Centralization of Treasury Management*. pg.8

Centralised treasury management centres operate mostly at the regional level. They are solving the liquidity issues of companies that exist in a given regional group. They are addressing risks from foreign trade and bank relationships. Centralization is also connected with in-house banks; whose aim is to provide service subsidiaries across the group. This includes the possibility to cover cash shortfalls or the possibility of investing financial surpluses. **Table 1** describes different stages in treasury centralization according to S. Bragg.[12]

Table 1: Stages in Treasury Centralization



Source: Own processing based on S.Bragg

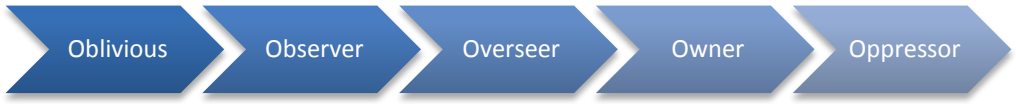
In the most businesses, the treasurer reports directly to the Chief Financial Officer (CFO). According to Rajendra, the treasurer is responsible for the management of financial risk and capital, and also for the liquidity aspects of cash management. Increasingly, the treasurer plays an advisory role in many companies.[13]

In the context of treasury management roles, Jeffery talks about the continuum of responsibilities that treasurers have to perform. He called it the "*The Five Os of Treasury*".

[12] BRAGG, Steven M. Treasury management. pg. 9
[13] RAJENDRA, Rajiv. *The handbook of global corporate treasury*. pg. 7.

As it is shown in **Schema 1** the author distinguishes five categories- Oblivious, Observer, Owner, Overseer and Oppressor. Under each of these falls certain activity i.e. the Owner is responsible for the management of cash, bank accounts, cash balance, debt, investment, hedging and together with the Overseer supervises the management of working capital. [14]

Schema 1: The Five Os of Treasury



Source: JEFFERY, Craig A. The strategic treasurer. pg. 48.

3.1.2 Bank Relations

One of the key responsibilities of any treasurer includes the management of a company's banking relationships. As the company grows larger, it might deal with dozens of banks, so in order to ensure efficient treasury management, the treasurer should gradually reduce the total number of banks with which the treasury department transacts business. By doing so, the relationship task can be refined down to only a core group of key banks. According to Bragg the following subsections belong to the key aspects of bank relations:

- Maintenance of bank relations relationships
- Bank account analysis
- Bank account management
- Loan covenants
- Collateral[15]

3.1.3 Trends in Treasury

Trends in treasury management are especially associated with the development of new technologies which enhance transactions and corporate activities. Furthermore, the treasury department is becoming more centralized, partly a result of new technologies and partly a result of changes in the external environment. As a consequence of these changes, many companies are forming regional treasury groups that take tend of the needs of

[14] JEFFERY, Craig A. *The strategic treasurer*. 1st. edition. pg. 48.
[15] BRAGG, Steven M. Treasury management. pg. 10-14.

associated companies within a particular area. Also, many companies outsource some functions of treasury.

3.1.4 Treasury Systems

Nowadays, treasury departments are performing various complex functions. In order to manage all of these tasks, they use different instruments. Among those tools are treasury management systems (TMS) - often referred to as treasury workstations (TWS). They have evolved over time, together with the needs and complexity of constantly growing global markets. TMS are usually automated systems or software packages that allow companies and their treasury departments to communicate and/or interface with banking partners, vendors and customers in real time.[16] Further, TMS enables the treasury department to collect information on treasury transactions and to facilitate the calculation and monitoring of positions and exposures by currency, maturity and type of instrument. In addition, they allow varying levels and types of analysis.[17]

The TMS support the treasurer by processing and supporting business activities in some or all of these fields: cash forecasting, cash positioning, bank account management, foreign exchange management or in-house banking/pooling/netting. To the most frequent systems in the area of treasury belong so called Single dedicated systems. The core of the system is usually very similar. However, certain functions are modified for businesses specific purposes.

Popular and simple user treasury systems are called spreadsheets (usually Excel). They are mainly used for cash flow planning, financial analysis or bank account management. Besides these type businesses further exploit for example reporting software and in-house solutions.

3.2 Cash Management

"Cash is the King. Cash is your best insurance policy"

- Amy B. Kweskin, Treasurer, Washington University in St. Louis

[16] Treasury Management System Survey: Report of survey results. *Bloomberg* [online].
[17] COOPER, Robert. *Corporate treasury and cash management.* pg.375.

Cash is essential to the survival of any organization. Cash, as opposed to more rewarding but riskier assets such as stocks or bonds, is preferable for meeting large, short-term liabilities that are well defined and predictable. Holding cash is also the only sensible investment choice for meeting uncertain (contingent) liabilities that arise in an emergency.[18] Cash at bank and in hand allows companies to purchase material, assets, or services. It also enables companies to manage their liabilities, such as taxes or dividends.

Cash management holds an important role in any company, and it belongs to the central functions of the treasury department. Most other treasury activities develop as a result of cash management.[19] Management of cash is one of the basic daily routines that every treasury department undertakes. While it is routine, efficiencies within this area can lead to significant benefits to an enterprise. [20]

There is not a uniform definition of cash management in the literature. Some literature refers to the cash management as liquidity management or working capital management. R.A.Brealey, S.C.Mayers and F. Allen state that cash management is an activity that ensures the company's ability to pay its obligations.[21] The U.S. Department of the Treasury defines cash management as a:" *Stewardship or proper use of an entity's cash resources. It serves as the means to keep an organization functioning by making the best use of cash or liquid resources of the organization.*"[22]

The objective of cash management is to keep the cost of cash flows as low as possible, while on one hand ensuring maximum availability of funds and on the other hand, the eliminating insolvency. Nowadays the inability to pay in many cases causes the company's bankruptcy. However, cash management stands for more than just avoiding bankruptcy. When managed effectively, it can help companies to achieve desired objectives and also eliminate risks to which they are exposed. The path to successful cash management lies in tabulating realistic projections, monitoring cash flow, establishing effective billing and collection measures, and adhering to budgetary restrictions.[23]

[18] FABOZZI, Frank J. *Cash management: products and strategies.* pg. 1.
[19] HORCHER, Karen A. *Essentials of managing treasury*, pg. 9.
[20] COOPER, Robert. *Corporate treasury and cash management.* pg.263.
[21] BREALEY, Richard A., Stewart C. MYERS a Franklin ALLEN. *Principles of Corporate Finance*.
[22] U.S. DEPARTMENT OF TREASURY. *Cash Management Made Easy* [online].
[23] Inc. com. [online] New York: Inc.com, 2009,

R. Cooper summarizes the objectives of cash management:

- Minimization of the time involved in converting receipts into usable bank funds
- Concentration of those funds into a central account where they can be most effectively managed
- Control and minimization of the cost of payments
- Reduction or elimination of borrowings.[24]

Cash management offers two different points of view, firstly from the perspective of the enterprise, and secondly from the perspective of the banks. In 1997 Niebel and Nitsch introduced this fundamental concept of cash management division. The authors distinguish the practices of corporate cash management and systems of cash management which are offered by the financial institutions.[25]

From the corporate cash management point of view, cash management represents all measures and actions which are focused on maintaining and permanently ensuring a company's liquidity, without neglecting connected risks. Among techniques of corporate cash management Polák includes following measures/ optimization techniques:

- Supplier credit
- Intra-group financing,
- Netting,
- Matching,
- Reinvoicing centres,
- Leads and Lags,
- Management of revenues and expenditures
- Management of receivables and payables,
- Management of interests and exchange rates. [26]

[24] COOPER, Robert. *Corporate treasury and cash management. pg.265*
[25] NIEBEL, Franz a Rolf NITSCH. 1997. *Praxis des Cash Managements: Mehr Rendite durch optimal gesteuerte Liquidität*, pg. 20
[26] POLÁK, David. 2009. Cash pooling jako efektivní nástroj řízení hotovosti podniku, pg. 25

From the perspective of the financial institutions, cash management refers to the services which are provided by banks to the businesses. Outsourcing of these services may include a cash flow analysis, both in domestic and in foreign currency, monitoring and effective management of cash on the bank account, and last but not least, providing specific information about financial market. [27] According to M.Řezňáková the companies use banks especially in the following areas:

- Planning of revenues and expenditures
- Cash settlement within the Group (cash pooling, netting).
- Investments in short-term financial instruments and their sale.
- Foreign exchange risk management
- Use of appropriate payment instruments
- Choosing and maintaining bank relationships.[28]

3.2.1 Liquidity Management

Liquidity is an elusive concept in economics. Sometimes it is used to refer to the bid/ask spread in the market or sometimes it means volume of trade in a particular market. For the purpose of this thesis, liquidity represents a measure of the extent to which a person or organization has cash to meet immediate and short-term obligations, or assets that can be quickly converted into cash.[29] Money (in the form of cash) is the most liquid asset. Liquidity is important for several reasons, including:

- Providing the ability to take advantage of opportunities as they arise
- Funding for future projects and acquisitions
- Serving as a financial buffer against an unexpected decline in revenues or sales
- Meeting the need for collateral against borrowing or debt issuance
- Funding cash-intensive activities, such as research and development.[30]

[27] NIEBEL, Franz a Rolf NITSCH. 1997. *Praxis des Cash Managements: Mehr Rendite durch optimal gesteuerte Liquidität*, pg. 20
[28] REŽŇÁKOVÁ, Mária a kol. *Řízení platební schopnosti podniku*.pg. 134
[29] Liquidity. *Business Dictionary* [online].
[30] HORCHER, Karen A. *Essentials of managing treasury*, pg. 45.

Therefore, ensuring liquidity belongs to the biggest challenges, and wins, for both treasurer and chief financial officer.

Liquidity management is an old topic; it has been discussed at least since John Maynard Keynes' examination in the 1930s.[31] It is the ability of the company to generate cash when and where needed. Liquidity management needs to address drags and pulls on liquidity. Forces that delay the collection of cash, such as obsolete inventory or slow payments by customers, represent drags on liquidity. Whereas, actions that result in paying cash too soon, such as paying trade credit early or bank reducing a line of credit, stand for pulls on liquidity.[32]

Treasurers can look at many areas of business activity in order to manage its liquidity and improve its cash efficiency. However, first they have to understand how the liquidity arises and falls. According to L. Moir liquidity increases through (i) a profit generation, (ii) a sale for cash assets that are no longer necessary or through (iii) a raise in funds. In contrast liquidity is consumed (i) by making investments in fixed assets or business acquisition, (ii) by increasing working capital, (iii) or by making losses in excess of depreciation. [33]

According to E. Kislingerová, high balances of assets ensure high liquidity, while they reduce company's profitability. If the enterprise retains all of its assets in the form of financial assets, exposes itself to the opportunity cost. Because these funds could be invested in projects with high profitability. Only company that can well manage their liquidity, pays its debts at low cost.

The basic equation for liquidity management (1) has the form:

$$\mathbf{CO = CI + CB \ (1)}$$

Where: CO = expenses

CI = income

CB = cash balances

[31] CAMPELLO, Murillo. Corporate Liquidity Management. *The National Bureau of Economic Research*[online].
[32] Corporate Finance. *CFA Institute* [online].
[33] MOIR, Lance. Managing corporate liquidity.pg.2

The debit side of the account includes expenses (CO), which are especially associated with the payment of company's liabilities. In contrast, income (CI) from the company's perspective represents collections of receivables from customers, financial institutions, etc.[34]

The effectiveness of the liquidity management can be measured by a variety of methods, including liquidity or working capital static ratios, average cash balance, or account receivables outstanding. For example, one of the most commonly used measures is current ratio and its variations, such as the quick/acid test. They are quite easy for the treasury to calculate, but they measure liquidity at only one moment in time.[35]

According to F. Esin classical liquidity analysis is an adequacy analysis; therefore, the financial statements subjected to analysis must reflect this adequately and accurately as possible. Thus, when the treasurer wants to see where will the cash requirement or cash surplus arise and in what amount, then he can find in the cash flow statement.[36] Also, Mills and Yamamura state in their study that the use of cash flow statement in the liquidity analysis is more reliable than using an income statement, which contains items such as a balance sheet, non-cash depreciation and retirement benefits.[37]

Cash Flow Statement

The purpose of the statement is to disclose information about the events that affected cash during an accounting period. The statement separates three mutually exclusive segments of the company's uses and sources of cash into three mutually exclusive activities—operating activities, investing activities, and financing activities. Operating cash flow focuses on the company's ability to generate cash from day-to-day operations. Investing cash flow captures changes in a company's investment in the firm. Last but not least, financing cash flow examines how the company finances its attempts and how it remunerates its shareholders through dividend payments.[38]

[34] KISLINGEROVÁ, Eva. Manažerské finance. pg. 811
[35] CAGLE, Corey S., Sharon N. CAMPBELL a Keith T. JONES. Analyzing liquidity using the cash conversion cycle. *Journal of Accountancy* [online].
[36] FIGEN, Esin. Liquidity and financial flexibility using the cash flow statement. *West East Institute* [online].
[37] MILLS, John R. a Jeanne H. YAMAMURA. The Power of Cash Flow Ratios. *Journal of Accountancy* [online].
[38] BAJKOWSKI, John. A look at the corporate cash flow statement. *American Association of Individual Investors* [online].

Cash flow statement can be reported using either direct or indirect methods. The main difference between those two approaches involves the first section of the statement, the operating cash flow statement. Cash flow statement under the direct method would report money received and then subtract money spent in order to calculate net cash flow. Whereas the statement under the indirect method would start with net income, it would then add depreciation back and calculate changes in balance sheet items. The final value of net cash flow should be the same as the one produced by the direct method.[39] **Table 2** shows the simplified structure of cash flow statement complied by using indirect approach.

Table 2: Simplified Cash Flow Statement

CASH FLOW STATEMENT		
1	**Net income**	
2	Depreciation	
3	Change in accounts receivable	
4	Change in inventory	
5	Change in other current assets	
6	Change in accrued expenses	
7	Change in accounts payable	
8	Change in other current liabilities	
9	**Cash flow from operating activities**	1+2+3+4+5+6+7+8
10	Net cash flow from operating activities	
11	Net cash flow from investing activities	
12	Net cash flow from financing activities	
13	**Net cash flow**	10+11+12
14	Cash at beginning of year	
15	Cash at end of year	13+14

Source: Own processing based on BREALEY, Richard A., Stewart C. MYERS and Franklin ALLEN. Principles of Corporate Finance.

Properly compiled cash flow statement provides the treasurer information about events that affected the accounting period. These include:

- Acquisition of financial resources by the company
- Economic and financial policies in the enterprise
- Financial funds structure

[39] Cash flow statement: A breakdown of the cash flow statement, and methods for simplifying the procedure. *Inc* [online].

- **Change in the company's liquidity (changes in financial position)**
- Relationship of funds from internal operations to other financial sources.[40]

3.2.2 Working Capital Management

The term working capital refers to a formula. However, there are two primary definitions of working capital- accounting and treasury. Accounting definition (traditional), shown as a formula (2), is:

(2) **Working Capital**= Current Assets – Current Liabilities.

Whereas, the Treasury definition of working capital, shown as a formula (3) is:

(3) **Adjusted Working Capital (AWC)** = Accounts Receivable + Inventory – Accounts Payable.

This adjusted definition is used by treasurers for optimization and improvement of working capital because one can easily recognize the change achieved by more rapidly converting receivables to cash. [41]

The working capital management objective is to maintain optimal balance and to use cash effectively for day-to-day operations. This refers to minimization of the working capital requirements and to realization of maximal possible revenue. As a result, successful working capital management increases firms' growth opportunities and return to shareholders.[42]

Working capital management is connected to the overall liquidity management of the company. Unusually high proportions of receivable, inventory or payables on working capital might be a result of improper management practices and the treasurer should always be aware of them. For instance, the usually high investment in inventory may correspond to an ongoing practice of purchasing in bulk in order to save per-unit costs. Similarly, a very high receivables balance may be a result of special deals to boost sales over the short term

[40] FREIBERG, František. Financování podniku. pg. 183.
[41] JEFFERY, Craig A. The strategic treasurer.pg.78.
[42] GANESAN, Vedavinayagam. An analysis of working capital management: Efficiency in telecommunication equipment industy. *Rivier University* [online]

or accrued revenues are being that have not yet been billed. In those cases, the company policy is rather the cause of the expanded level of working capital, not sales.[43]

Receivables Management

The main objectives of receivables management include:

- Efficient process and maintenance of records
- Control of accounts receivable records accuracy and security
- Collection on accounts, etc.

Effectively managed account receivables brings benefits such as increased cash flow, lower administrative cost in the entire revenue cycle, reduced bad debt loss or enhanced customer service.[44]

The treasurer does not have a direct control over these activities, but he or she can set up a considerable number of credit controls to reduce the probability of default by customers. S. Bragg state in his book those possibilities:

- Credit based on credit scoring
- Alter payment terms
- Financing by a third party
- Guarantee
- Security interest in goods sold
- Credit insurance,
- Credit re-examination upon an initiating event[45]

The treasurer can use the average receivable collection period (4) or receivables turnover (5) measurements for an assessment of the management of receivables. The formulas are as follows:

$$(4) \quad \textbf{Average Receivable Collection Period} = \frac{\text{Average Accounts Receivable}}{\text{Annual Sales}/365}$$

[43] BRAGG, Steven M. Treasury management. pg. 85.
[44] SALEK, John G. *Accounts receivable management best practices*. pg. 2.
[45] BRAGG, Steven M. Treasury management. pg. 87.

$$(5)\quad \textbf{Receivable Turnover} = \frac{\text{Total Revenue}}{\text{Average Receivables}}$$

Inventory Management

Out of all the components of working capital, inventory management is the most critical because it is the least liquid. Once the company spends money on inventory, it can take quite long to convert it back to cash, therefore it tends to be cash trap. Inventory management may be defined as the system used by a firm to control its investment in inventory. It involves deciding on when and how to order, forecasting future demand and recording and monitoring of stock level. Therefore, the main goal of inventory management, is to have an adequate quantities of high quality items available to serve customer needs, plus also minimal costs connected to carrying inventory.[46]

However, the treasurer cannot exercise control over inventory management Nonetheless, he or she should be aware of activities and processes related to inventory management, because they can have a profound impact on the corporate treasury management. Furthermore, the treasurer should keep close track of the rate of inventory turnover (6). The formula is as follows:

$$(6)\quad \textbf{Inventory Turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Payables Management

Payables management is easier than receivables management. Usually the company itself decides based on their ability when it will pay its debts. Liability management is also closely related to liquidity management, and thus to treasury management.

Nevertheless, management of account payables does not belong to the direct responsibilities of the treasurer. Anyway, he or she has to be aware of the issues that can impact funding requirements, such as payment terms, processing or intercompany netting. The treasurer can calculate the account payable days (7) value and assess accounts payable management by comparing the number of days of payables with the credit terms. The formula is as follows:

[46] STEVENSON, William J. *Operations management*. pg. 321

$$(7) \quad \textbf{Account Payable Days} = \frac{\text{Account Payable}}{\text{Purchases}/365}$$

Cash Conversion Cycle

The cash conversion cycle (CCC) is a popular measure of working capital management. As it is shown in **Schema 2**, it expresses the length of time that a company uses to sell inventory, collect receivables, and pay its accounts.[47]

Schema 2: Cash Conversion Cycle

Source: Corporate Finance. CFA Institute [online].

Further, it also adds a new dimension that provides more complete insights into liquidity management because it measures the time it takes to convert cash into cash again. Thus, the CCC reflects the company's performance and offers better understanding of the company to treasurers. The general formula of CCC (8) is as follows:

$$(8) \quad \textbf{CCC} = \frac{365}{\text{Inventory Turnover}} + \frac{365}{\text{Receivables Turnover}} - \frac{365}{\text{Accounts Payables Turnover}}$$

Generally, the shorter the CCC, the healthier a business is. Companies can shorten the CCC for example, by reducing inventory, collecting cash more quickly or by delaying payments to suppliers. As a result, the management of working capital is essentially

[47] CAGLE, Corey S., Sharon N. CAMPBELL a Keith T. JONES. Analyzing liquidity using the cash conversion cycle. *Journal of Accountancy* [online].

compromise between levels high enough for smooth commercial operation and levels low enough to be financially efficient.[48]

3.2.3 Cash Forecasting

One of the critical treasury roles is the management of future cash balances. Cash forecasting can be a valuable aid to anyone in the company if it is prepared well and used properly. In companies that make good use of cash forecasting it may be used as an aid in many areas of the business, for example in liquidity and foreign exchange risk management. De Caux states that the form and application of cash forecasting will differ according to the type of business, the size of the cash flows, the different time horizons used and the type and quality of the information on which it is based.[49]

Generally, cash forecasts are made over three time horizons: (i) short, (ii) medium and (iii) long term. Short-term cash forecasts cover approximately 30 days and they are usually used by treasurers to manage liquidity on day-to- day basis. Medium-term cash forecasts are focusing more certain month. Treasures can use medium-term forecast to manage the actual interest cost or short-term liquidity. Long-term cash forecast covers periods in excess of one year and are produced during the strategic planning process. They have a little use in the management of liquidity, but have a greater significance in the management of a company's debt structure. [50]

The process of forecasting contains a few steps. First the treasurer has to look back at the actual cash collection and expenditure history by month, then he or she should create a new forecast spreadsheet and enter new balances. At the end, the treasurer should review the cash forecast for reasonableness. The forecasting process is based on multiple sources of information. When constructing a forecast, an experienced treasurer will consider a number of variables. For example, employee expense reports tend to be paid during the first two week of the following month or during the Christmas holidays the company operates with reduced number of employees, thus it is less likely to issue payments on its usual schedules.[51]

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[48] BOYCE, Sarah. Efficient management of working capital is crucial to business success. *Treasurers*[online].
[49] DE CAUX, Tony. Cash forecasting. *Treasurers* [online].
[50] COOPER, Robert. Corporate treasury and cash management. pg. 323.
[51] BRAGG, Steven M. *Treasury management*. pg. 62-65

To sum it up, cash forecasting is an essential tool to the treasurer if the forecasts are well prepared using reliable base data; produced using time horizons appropriate to the company concerned. Anyways, it needs to be updated regularly to reflect changes experienced, or known future events and refined over time to improve accuracy.[52]

3.2.4 Cash Concentration

Treasurers of larger company with many subsidiaries, especially those with operations in multiple countries, should track all of the individual account balances. However, that would be an inefficient arrangement from the perspective of cash management, since the companies maintain a significant number of bank accounts. An excellent solution to this represent cash concentration, where the cash in multiple accounts is pooled. [53] According to R. Cooper, pooling is" *the offsetting of the credit balances on certain accounts against the debit balances on other accounts, with interest being charged or credited on the resultant net balance*."[54]

P.Polák and I.Klusáček state that cash pooling is a bank product which allows a group to collect money and use it for further investment or lending. Banks offer various methods of cash concentration to automatically offset debit and credit balances on current accounts to companies. The types of cash polling are as follow:

- Real(zero-balancing) cash pooling/Sweeping-
- Fictive(notional) cash pooling
- Multicurrency cash pooling
- Cross-border cash pooling

Sweeping or real cash pooling refers to the automatic transfer of cash from so called zero-balance account into a concentration account. Whenever a sweep occurs, the cash balance in the zero-balance account is reduced to zero. However, if the account has a debit balance at the time of the sweep, then money is shifted from the concentration account back into the account having the debit balance.

[52] DE CAUX, Tony. Cash forecasting. *Treasurers* [online].
[53] BRAGG, Steven M. *Treasury management*. pg. 67.
[54] COOPER, Robert. Corporate treasury and cash management. pg. 300.

Whereas, under the notional (fictive) pooling the cash does not physically leave the bank account. It is only a system for calculating interest on the combined credit and debit balances of accounts that a parent company chooses to cluster together. Under this approach, the subsidiary company can still retain daily cash management privileges.

Multicurrency cash pooling is especially convenient for export-oriented companies. This mechanism takes one currency to which all different foreign currencies are swapped, as the base for the interest rate calculations

Cross-border cash pooling is often used by multinational companies. This way they can avoid the bureaucracy intrinsic to transferring cash across countries and legal entities. [55]

When managed well, the cash aggregation offers a following list of benefits:

- Elimination of idle cash
- Improved investment returns
- More cost-effective oversight of accounts
- Internal funding of debit balances[56]

3.2.5 Cash Management Models

Cash management models are helping to determinate the minimal level of available cash balance, and thus to minimize the total costs associated with the movements between a company's current account and their short-term investments. They state that cash and inventory management problems are one and the same. Cash management models seek to answer the questions: "When and how much of the funds should be moved?"

Baumol Model

Baumol model of cash management -**Graph 1**- aims to determine a firm's optimal cash balance under certainty. It trades off between opportunity cost and the transaction cost. The more cash a company has, transactions to acquire cash become less frequent. The higher the cash balances of a company, the higher the holding costs due to foregoing opportunities.

[55] POLÁK, Petr and Ivan KLUSÁČEK. Centralization of Treasury Management. pg. 35.
[56] BRAGG, Steven M. *Treasury management*. pg. 68.

The model for calculating the economic conversion quantity (9), or the optimal cash order size is as follows:

$$(9)\ \mathbf{Q} = \sqrt{\frac{2 \times C \times f}{i}}$$

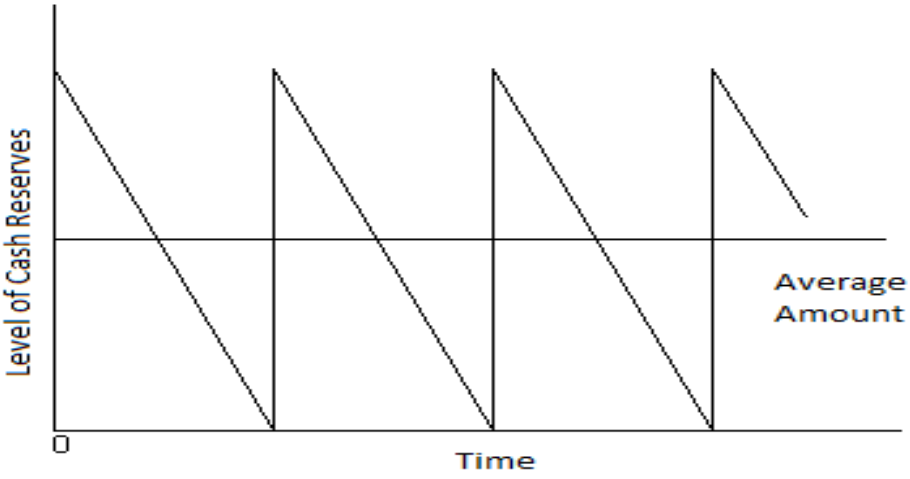
Where: Q= optimum cash balance

C= cash disbursement over a period of time

f= fixed costs per transaction

i= interest rate[57]

Graph 1: Baumol Model of Cash Management



Source: own processing based on E. KISLINGEROVÁ. Manažerské finance

This method makes some assumptions. First, demand for cash during a specific period is certain. Second, the transaction cost is the same. Third, the company should receive a fixed amount of money at regular intervals. And fourth, the company is aware of opportunity cost required for holding cash. [58]

[57] KISLINGEROVÁ, Eva. *Manažerské finance*. pg. 572
[58] RACHLIN, Robert. *Return on Investment Manual: Tools and Applications for Managing Financial Results*. pg. 78.

Miller-Orr Model

Miller Orr model is an extension to Baumol model. This method assumes that the company cannot predict future cash flow, because income and expenses are normally distributed. As it is shown in **Graph 2**, Miller Orr model identifies three cash levels - upper and lower limit and an optimal level (point of return). Cash level above the upper limit encourages the treasurer to buy financial instruments for the available funds. Conversely, if the cash level gets below the company's bottom line, the organization should sell part of their instruments. The distance between the individual levels is determined by the interest rate, transaction costs on the sale of securities and the daily variance of changes of the cash balance.[59]

The method for calculating the optimal cash order size according to Miller-Orr model (10), is as follows:

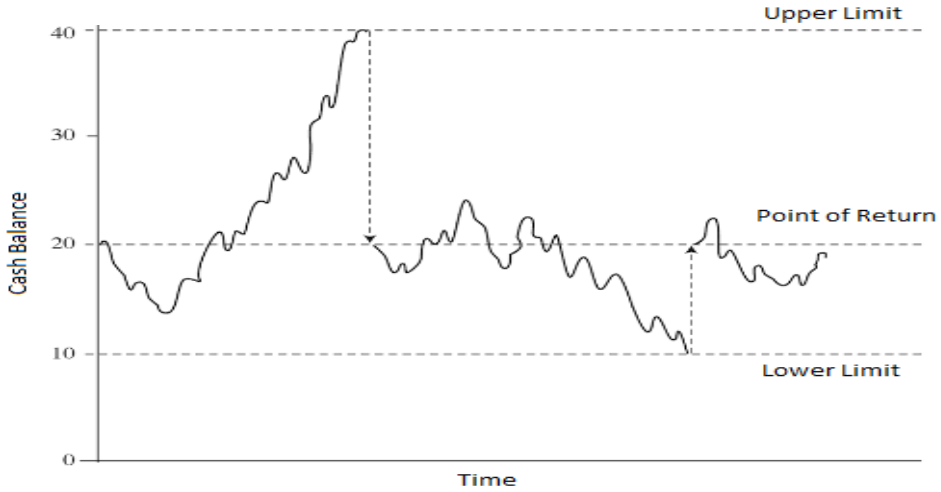
$$(10) \quad R = 3\,x\left(\sqrt[3]{\frac{3}{4}\,x\,\frac{f\,x\,\sigma}{i}}\right)$$

Where: R= spread between the minimum and maximum cash levels

σ= variance of daily cash flows

other variables were already introduced in Baumol model.

Graph 2: Miller-Orr Model of Cash Balance



Source: own processing based on E.KISLINGEROVÁ. Manažerské finance

[59] KISLINGEROVÁ, Eva. *Manažerské finance*. pg. 572-574.

Nevertheless, the Miller-Orr model is not considering seasonal cycles and the complexity of investing in certain financial instruments.[60]

3.3 Risk Management

"Risk management alters the risk a company faces to match the risks it desires"

Greg Krissek

All company's' operations and investments are nowadays accompanied by uncertainty and risk, because firm's are operating in increasingly interconnected world, where new technologies and processes are entering market on a daily basis. According to J. Craig, without risk returns would be minimal and barriers to competition would be low. The term risk is usually linked to a negative impact, such as:" *the exposure to the chance of injury or loss, a hazard or dangerous chance.*" However, from the financial perspective it might be seen more as the variance in possible outcomes, or the "*exposure to uncertainty.*"[61]

The risk can be classified in many ways, for example by point of origination (external or internal), by cause or relevance (environmental causes, process causes, etc.) or by immediate consequence (reputation, financial or legislation). R. Rajendra in his *Handbook of Global Corporate Treasury* defines four main classical classes of risk:

- Business
- Financial
- Operational and technology
- Event

Business risk refers to the uncertainty associated with the actual business activity. This includes e.g. customer demand variability, competition or pricing shifts. The second group of risk, financial risk, is connected with the uncertainty regarding the financial performance e.g. market risk, credit risk, accounting and tax risk. Operational and

[60] Same as previous
[61] JEFFERY, Craig A. *The strategic treasurer*. pg. 101.

technology risk stands for uncertainty arising from people, systems and processes. Last group of even risk includes areas of reputation, liability, strikes or terrorism. [62]

Generally, the treasury department is typically in charge of financial risk management. The process of financial risk management is rather complex; thus, it requires at least one person who has a keen understanding of company's exposures as well as knowledge of the valuation of derivatives and applicable accounting regulations. As C. Jeffery states, a good risk management framework consist of three interacting parts- economics, controls and accounting. In the economic part, the company should assess and identify potential risks and determine their impact. Through the second part of the process- controls, the treasures make sure that the goals of risk management operations are being met. Further, controls represent the guidelines for the hedging activity. The third area involves accounting for the hedging under the accounting standards.[63]

The reasons for managing financial risk from the perspective of the treasurer are as follows:

- Increased stability of cash flows and balance sheet
- Lower the cost of capital
- Preventing problems with liquidity[64]

3.3.1 Foreign Exchange Risk Management

Foreign exchange (FX) refers to the exchange of two different currencies on a specific date. By accepting foreign currency in payment for company's goods and serviced, it also accepts foreign exchange risk. It is caused by the fact that between the beginning of the contract the value of one currency in comparison to the company's home currency might fluctuate. This may lead to serious loss. Due to the global competition this is becoming bigger issue over time because global competition. Before trading in foreign currency, the treasurer must determinate the company's level of exposure and based on that create a plan

[62] RAJENDRA, Rajiv. *The handbook of global corporate treasury*. 258- 265.
[63] JEFFERY, Craig A. *The strategic treasurer*. pg. 120-123.
[64] RAJENDRA, Rajiv. *The handbook of global corporate treasury*. 266.

how to mitigate the foreign exchange risk. After implementing the plan, the treasury department should account for each transaction.

On one side, smaller companies that are not engaged in international trade are more likely to accept the gains and losses from changes in the spot rate. On the other side, these changes may cause fluctuations in the profitability of larger firms which are greatly involved in international trading activities. The treasurers of these companies are more likely to look for a solution that would reduce the company's earnings volatility. The solution to these swings is hedging. However, a treasurer needs to know if there is any foreign currency risk that requires hedging before considering this solution.

In general, there are three possible approaches to foreign risk management. First method of accepting risk refers to the simplest solution for the treasurer, because it does not involve any type of hedging. Second strategy includes all internal business practices that reduce currency exposure e.g. home currency payment, foreign currency loans and accounts, or netting agreements. Third approach of foreign exchange risk managements refers to the use of derivatives e.g. forward exchange contracts, currency futures, options and swaps.[65]

3.3.2 Interest Rate Risk Management

Interest rate risks emerge from the many different financial activities of a company. For instance, risks can arise from business transactions such as extending credit, long-term borrowing to fund new projects, or as a consequence of portfolio of fixed income securities. Generally, country's domestic currency trading influences interest rate markets. Multinational corporations also have global exposures that has to be managed.[66]

According to Cooper interest rate risk management is "*the extent to which a company's interest expense may increase due to increases in interest rates, or income from cash balances will be reduced by falling rates."* Further, it is important to notice that around the world the interest rates have been falling consistently over the past few years. [67] The objectives of interest risk management are to secure the profit of the organization, and to decrease the volatility of interest rates.

[65] BRAGG, Steven M. *Treasury management*. pg. 207.
[66] HORCHER, Karen A. *Essentials of managing treasury*. pg. 107.
[67] COOPER, Robert. *Corporate treasury and cash management*. pg. 36.

There are a number of interest risk management strategies available to hedge against this risk, which a treasurer can use either at a minimal level, with selective hedging, or completely, with full - cover hedging. The extent to which hedging is used differs widely by company, and is dependent on the level of conservatism that treasurer applies in managing the funds of the organization. The main strategies for interest risk management are the use of derivatives such as forwards, futures, and options[68]

3.4 Investment Management

Depending on the company, responsibilities of treasury department can involve various areas of corporate financial management. The treasurer is responsible for company's liquidity, risk management and also for financing. According to S. Bragg the treasurer is usually called upon to manage company's debt and equity, as well as to invest company's funds. Further, the treasurer should ensure that sufficient funds are available to meet ongoing operational and capital investment requirements. In order to address the objectives of this thesis, this part will focus on various types of investment financing and on methods of investment evaluation.

Organizations invest in real assets, which can generate cash inflows and income. Some of them are tangible assets such as plant and machinery; others are intangible assets such as brand names and patents. R.A. Brealey, S.C. Mayers and F. Allen state that the corporation's financial or treasury manager faces two main questions: First, what investments should the company make? Second, how should it finance those investments? Generally speaking, the investment decision involves the decision how to spend money; whereas the financing decision focuses on raising it. [69] Nevertheless, they are focusing on the same financial goal: they are trying to increase the value of the company and its current stock price. Financial managers and treasurers are adding value whenever the company can earn a higher return than shareholders can earn by themselves in the financial markets.

[68] BRAGG, Steven M. *Treasury management*. pg. 240-267.
[69] BREALEY, Richard A., Stewart C. MYERS and Franklin ALLEN. *Principles of Corporate Finance*. pg. 1.

3.4.1 Methods of Investment Evaluation

As it already discussed, a corporation's shareholders want to maximize the company's value. In order to reach this goal, the company's financial manager or treasurer ought to invest the organization's funds in real assets that are worth more than they cost. Therefore, any manager has to know how to evaluate capital investments to make a right decision.

Most frequently used approaches in the evaluation of investment projects belong the methods of net present value (NPV) and of internal rate of return (IRR) which are based on discounted cash flows. According to study by V.Tomaševič and J. Mackevičius., the prevalence of these methods in practice varies from 70 to 100%. It is caused by the fact that both methods have a universal character, strong methodological basis and broad application in the areas of both investment project evaluation and other areas such as business value or financial investments analyses.[70]

Net Present Value

The net present value, or NPV, is one of the most common methods applied for investment evaluation. As the formula (11) shows, the NPV is the sum of the present values of the net cash flows for each time period t, where t takes on the values 0 (the beginning of the project) through N.

$$(11)\quad \mathrm{NPV} = C_o + \sum_{t=1}^{T} \frac{Ct}{(1+r)^t}$$

Where: C_o=initial cash flow

C_t= expected cash flow

r= discount rate

t= time period

T=the end of the project

[70] TOMAŠEVIČ, Vladislav a Jonas MACKEVIČIUS. Evaluation of Investment Projects in Case of Conflict between the Internal Rate of Return and the Net Present Value Methods. *Vilniaus Universitetas* [online]. pg. 116.

It is a method of discounted cash flow because money today is worth more than tomorrow and because safer money is worth more than a risky one. According to R.A. Brealey, S.C. Mayers and F. Allen Mayer the discount rate *r* is determined by current rates of return in markets. For example, the discount rate is equal to the interest rate on safe securities such as government debt, when the future cash flow is absolutely safe. However, when the future cash flow is uncertain, then the expected cash flow should be discounted at the expected rate of return offered by equivalent-risk securities.[71]

Depending on its NPV an investment project is accepted or rejected because it shows its effectiveness at any given discount rate the net present. The following criteria for determining the effectiveness of investment projects based on NPV can be identified:

- NPV > 0 – the investment project is considered effective at the discount rate *r*, i.e. the value of a business will increase upon implementing the project;
- NPV < 0 – the investment project is not effective and the investor will suffer losses the amount of which will be equal to the NPV;
- NPV = 0 – the project will not generate profit but will not be loss-making.[72]

Internal Rate of Return

The Internal Rate of Return (IRR) refers to the discount rate that makes the present value of the cash inflows equal to the present value of the cash outflows. This is the same as saying that the IRR is the discount rate that makes the net present value equal to zero.[73]The basic formula (12) for calculation of IRR is as follows:

$$(12)\ \text{IRR} = \left(\frac{FV}{PV}\right)^{1/T} - 1$$

Where: FV= future value

PV= present value

[71] BREALEY, Richard A., Stewart C. MYERS and Franklin ALLEN. *Principles of Corporate Finance*. pg. 39.
[72] TOMAŠEVIČ, Vladislav a Jonas MACKEVIČIUS. Evaluation of Investment Projects in Case of Conflict between the Internal Rate of Return and the Net Present Value Methods. *Vilniaus Universitetas* [online]. pg. 118.
[73] Evaluating Cash Flows: NPV & IRR. *Columbia University* [online].

T= end of project

According to IRR rule, companies should accept an investment project if the internal rate of return is higher than the opportunity cost of capital. The IRR rule is as well technique based on discounted cash flows. Therefore, if properly used, in most cases it will give the same result as NPV method. However, there are several situations where the use of IRR may lead to wrong conclusions, or cannot be used at all e.g. mutually exclusive projects. The main advantage of IRR lies in the fact that there is no need to know the exact discount rate.[74]

3.4.2 Financing Options

Because investment refers to an action or process of investing money for profit in the future, the treasurer must ensure a long-term capital, which will finance this. This solution should be financially stable and should strive for the lowest cost of additional capital.

A company is facing a wide range of financing options. Sources of financing are most of the time classified according to two aspects - according to their origin and ownership. **Table 3** below illustrates the classification of different sources of financing.

Table 3: Sources of Financing

		OWNERSHIP	
ORGIN		**Own – Equity**	**Foreign – Debt**
	Internal	Retained earnings Depreciation and amortization Reserve funds	In-house bank
	External	Contributions from owners (shares) Grants and donations Venture capital	Loans from financial institutions Bonds and notes Leasing Business loans Received prepayments Other liabilities

Source: Own processing based on E. KISLINGEROVÁ,Manažerské finance

[74] BREALEY, Richard A., Stewart C. MYERS and Franklin ALLEN. *Principles of Corporate Finance*. pg. 107.

According to the origin of the resources we differentiate between internal sources that are generated through its business activities (and self-financing); and external sources, which are acquired from outside of the enterprise.

External sources usually represent smaller part of the total capital structure. However, they are irreplaceable during the start-up and they allow company to respond to changes in financing needs. The variety and availability of external sources is closely correlated with the level of development of the financial market in a particular country.[75]

Each of the above mentioned type of financial resources has its unique characteristic, the acquisition cost and its effects on liquidity, risk and stability of the company, and etc. Therefore, the treasurer has to consider all possibilities and carefully chose the most suitable method of financing of concrete project.

[75] KISLINGEROVÁ, Eva. *Manažerské finance*.

4. Practical Part

The practical part of this thesis is divided into three sections. The first part focuses on the introduction of the selected company, its scope of business, organizational structure, and responsibilities of the treasury department. Furthermore, the principles of financial analysis are used to characterize the company's financial position in comparison with the automotive industry in the Czech Republic.

The second section of the practical part concentrates on evaluating corporate cash management by analysing the company's bank and intercompany relations, working capital management, and liquidity. This part also contains descriptions of the cash flow forecasting process. According to the obtained information, the author proposes improvements in the cash management to the selected company. The third part addresses practises and processes in the area of ABC Company's risk management

Finally, the last part assesses the investment projects of the company by calculating its net present value. Various financing options are proposed to the management of the selected company.

Due to the fact that this diploma thesis includes some internal information and sensitive data about the company, its name is not disclosed. However, in order to facilitate orientation and understanding of the thesis, the paper refers to the selected company as "**ABC Company Ltd.**"

4.1 Basic Information about Selected Company

Business Name:	**ABC Company Ltd.** **(Only for purpose of this thesis)**
Address:	Prague, Czech Republic
Legal Form:	Limited Liability Company
Number of Employees:	451
Scope of Business:	Manufacture of other parts for motor vehicles

The ABC Company Ltd. (hereafter referred to as ABC Company) was established in the 1990s in the Czech Republic. In the beginning of the 2000s, the company opened another branch, and currently the ABC Company operates from two locations in the Czech Republic. As mentioned above, the main scope of business of ABC Company is manufacturing parts for motor vehicles. However, it also sells motor vehicles on the Czech market. ABC Company is wholly owned by international investors and belongs to the ABC Group (only for purposes of this thesis), a multinational automotive corporation. In **Table 4** below are shown basic economic indicators of ABC Company.

Table 4: Basic Economic Indicators of ABC Company

	2011	2012	2013	2014	2015
Net turnover in mil. CZK	1,541	1,449	1,923	2,993	2,991
Export	64%	64%	56%	45%	45%
Average number of employees	421	413	394	419	451

Source: Financial Statements of the Selected Company, for years 2011-2015

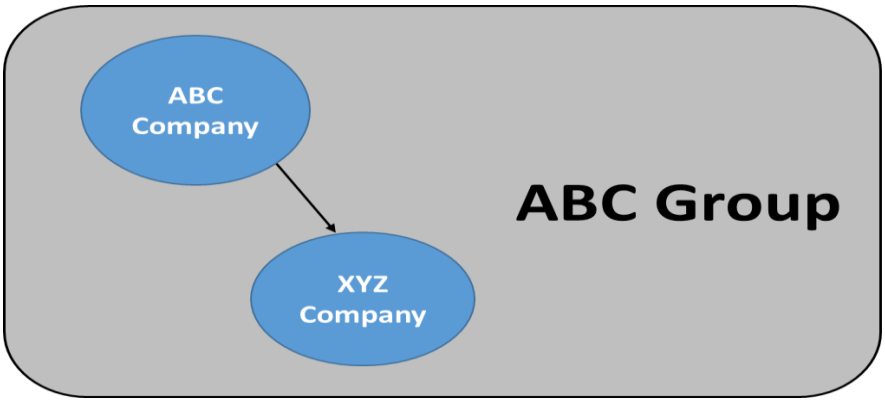
ABC Company manufactures body segments (chassis, roof, sides, etc.) for motor vehicles, and delivers these parts exclusively to the parent company (approximately 97% of total production). Hence, the main customer for ABC Company is the ABC Group. In 2015, the production plant made 5,265 segments for 1,280 million CZK. More details about production development can be found in **Attachment 1.**

Other activities of ABC Company include the sale and service of motor vehicles. The company provides repairs and other services not only to the Czech external customers, but also to customers from abroad. ABC Company purchases motor vehicles from parent company and sells them on the Czech market. The sales volumes depend on negotiated contracts and tenders won. The development of sales can be seen in **Attachment 1.**

4.1.1 Organizational Structure

As already mentioned, ABC Company is a subsidiary of a multinational automotive corporation, ABC Group. The ownerships rights of the ABC Group represent the top management of the company. Both Chief Executive Officer (CEO) and Chief Financial Officer (CFO) are employees of the parent company. Further, all areas of production, sales or administration are under supervision of the ABC Group and must comply with is directives and guidelines.

Schema 3: Organizational Integration of ABC Company



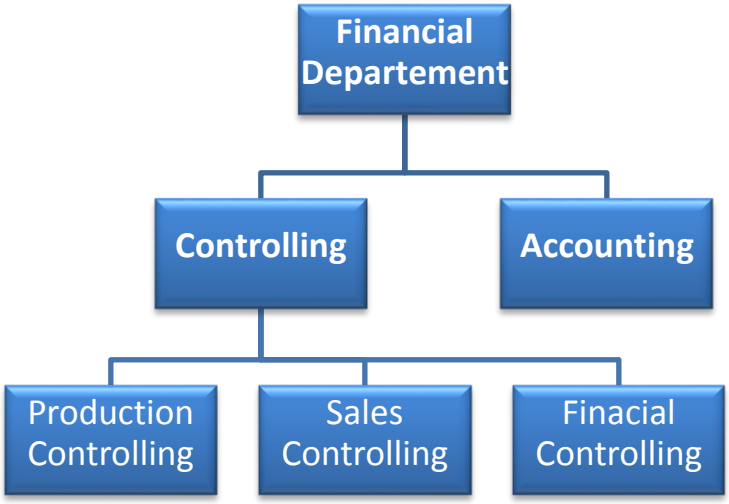
Source: Own processing

The **Schema 3** above illustrates the simplified organizational integration of ABC Company and its subsidiary XYZ Company within ABC Group. The XYZ Company owns and rents its production halls to ABC Company. The company's strategy is to maintain all the halls and buildings owned by the subsidiary.

4.1.2 Financial Department of the ABC Company

The head of the ABC Company financial department, CFO, is responsible for the management of the firm's finances. The **Schema 4** below illustrates the basic organizational structure of the Financial Department of the ABC Company.

Schema 4: Organizational Structure of ABC Company's Financial Department



Source: Own processing

As it can be seen on the **Schema 4** above, the ABC Company does not have a treasurer job position. Instead, the financial controlling is responsible for the areas of treasury management. Moreover, due to the fact that ABC Company is a part of ABC Group, some functions of treasury management, such as risk management, have been centralized. For instance, central staff hedges major foreign exchange and interest rate risks. Other functions of ABC group treasury management are discussed in the section below.

Even though the ABC Company centralized some of the functions of its treasury management, the company's financial department still manages its bank accounts, payables or receivables.

In order to manage all tasks of the treasurer, ABC Company uses different tools. One of those instruments is SAP software, which collects information on facilities and calculates and monitors the company's finances. Furthermore, it allows different types and levels of

analysis. The financial department of ABC Company also uses spreadsheets (usually Excel) for cash flow planning or financial analysis.

4.1.3 Treasury Management within ABC Group

The regional treasury is responsible for the capital structure management of the Group and its Group Companies. The responsible regional Treasury centre is the primary contact for ABC Company. According to the ABC Group guidelines, treasury has to ensure that all Group Companies have access to funds sufficient to meet their payment obligations. Therefore, treasury develops respective funding structures for Group Companies and is responsible for:

- all kind of external and internal funding measures of Group companies (equity, debt) including the related support policy
- ensuring access to all kind of external funding sources
- banking relationship

The **Schema 5** below shows the different fields of ABC Group treasury.

Schema 5: Structure of ABC Group Treasury

Source: Own processing based on information provided by financial department

4.1.4 Fundamental Financial Analysis

The ABC Company can be characterized based on its disclosed financial statements. For the purposes of this financial analysis data from 2011 till 2015 were used. The **Table 5** below describes the structure of the total assets of ABC Company between the years 2011 and 2015. In this period of time, the total assets of the company were increasing except in year 2014 when they decreased by 7%. The biggest increase (31.6%) in assets occurred in 2015 mainly due to the increase of two lines of financial statement: short-term receivables and short-term financial assets.

Table 5: Development of Total Assets between 2011- 2015

in thousand CZK	2011	2012	2013	2014	2015
TOTAL ASSETS	965,879	1,120,632	1,388,120	1,288,961	1,696,078
Fixed Assets	553,040	567,228	610,713	688,080	654,876
Intangible fixed asset	2,582	3,899	3,191	2,485	745
Tangible fixed assets	542,817	555,688	474,235	552,308	520,844
Long-term financial assets	7,641	7,641	133,287	133,287	133,287
Current Assets	412,253	553,186	777,288	600,832	1,040,953
Inventory	117,252	138,588	343,293	120,308	133,758
Long-term receivables	0	218,263	219,932	209,109	194,007
Short-term receivables	245,007	157,870	146,153	256,069	546,281
Short-term financial assets	49,994	38,465	67,910	15,346	166,907
Accrual	586	218	119	49	249

Source: Financial Statements of the ABC Company, for years 2011-2015

As it was already discussed in the theoretical part, the main task of the treasurer is to manage cash and working capital. Therefore, the treasurer is particularly interested in the development of current assets. When looking at the **Table 5** above, it can be seen that ABC Company has recorded an increase (67%) in current assets between years 2011-2015. In 2015 current assets represented 61% of total assets. However, the long-term receivable item represents a credit line of 12 million EUR with an interest rate set by the ABC Group and surcharge of 0.2% that ABC Company provided to its subsidiary- XYZ Company. The duration of this contract is not limited. More details about the development of individual items of balance sheets can be found in **Attachment 2** and **Attachment 4.**

Table 6 shows the structure of total liabilities of ABC Company between years 2011 and 2015. The equity represents in average 35% of total liabilities, but in 2015 it was only

30%. The decrease in the relative share of equity in 2015 was mainly due to the increase in short-term payables. According to the financial statements, the biggest increase in equity (25.8%) was caused by the increase of profit in 2013.

Table 6: Development of Total Liabilities between 2011- 2015

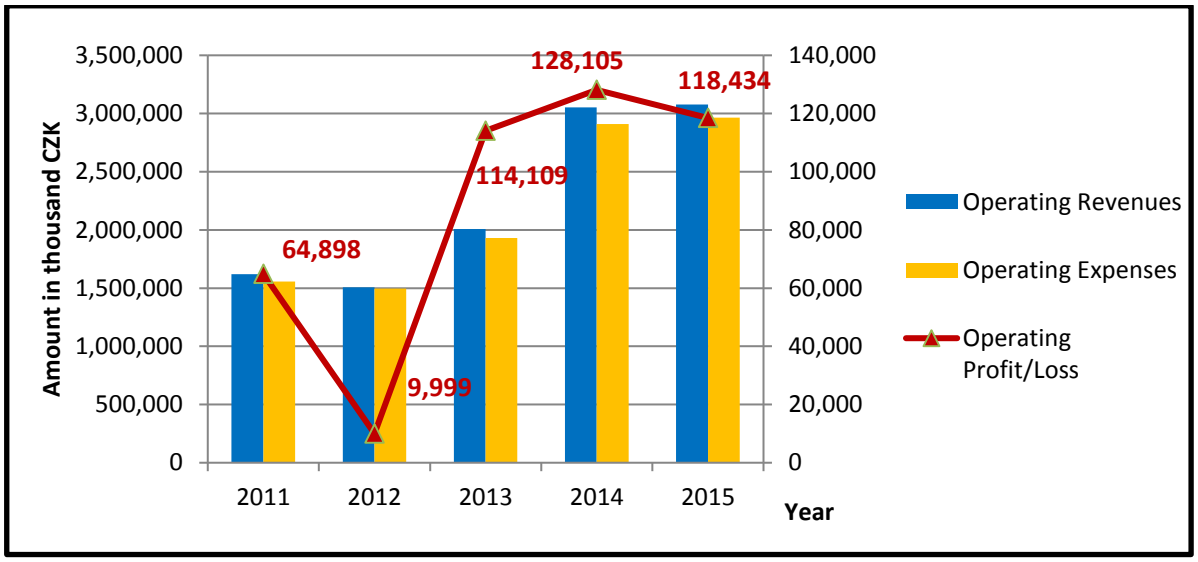
in thousand CZK	2011	2012	2013	2014	2015
TOTAL LIABILITIES	965,879	1,120,632	1,388,120	1,288,961	1,696,078
Equity	360,328	366,164	460,708	533,175	515,667
Registered capital	339,000	339,000	339,000	339,000	339,000
Capital funds	0	0	0	0	0
Reserve funds, etc.	12,946	15,114	15,406	20,133	26,106
Profit / loss of previous years	-34,971	6,214	11,758	54,575	54,575
Profit / loss of current period (+/-)	43,353	6,836	94,544	119,467	95,986
Other Sources	605,551	754,468	927,412	755,786	1,180,411
Reserves	103,072	93,427	105,569	119,190	118,959
Long-term payables	262,058	0	219,400	221,800	0
Short-term payables	240,421	510,069	437,893	414,796	1,061,452
Bank loans and financial assistance	0	150,972	164,550	0	0
Accruals	0	0	0	0	0

Source: Financial Statements of the ABC Company, for years 2011-2015

It is also worth mentioning the composition of liabilities in 2015. In 2015, the ABC Company did not have any long-term payables. However, in September 2013, ABC Company received a loan of €8 million with an interest rate 1.37% from the ABC Group. Because the loan is due in August 2016, it was classified as a short-term liability.

Income statement or profit and loss statement represents another part of disclosed financial statements. The table with individual items of income statements from years 2011-2015 can be found in **Attachment 3** and **Attachment 5.** However, the following **Graph 3** shows the development of operating profit/loss in those years. The ABC Company significantly increased (more than ten times compared to previous year) its operating profit in year 2013. It was mainly caused by the increase of 139% in sales margin. However, the operating profit and also profit for the investigative period of the ABC Company peaked in year 2014. This was due to the 27% increase in revenues from own products and services. Nevertheless, in 2015 the ABC Company recorded decrease of 7.5% in operating profit.

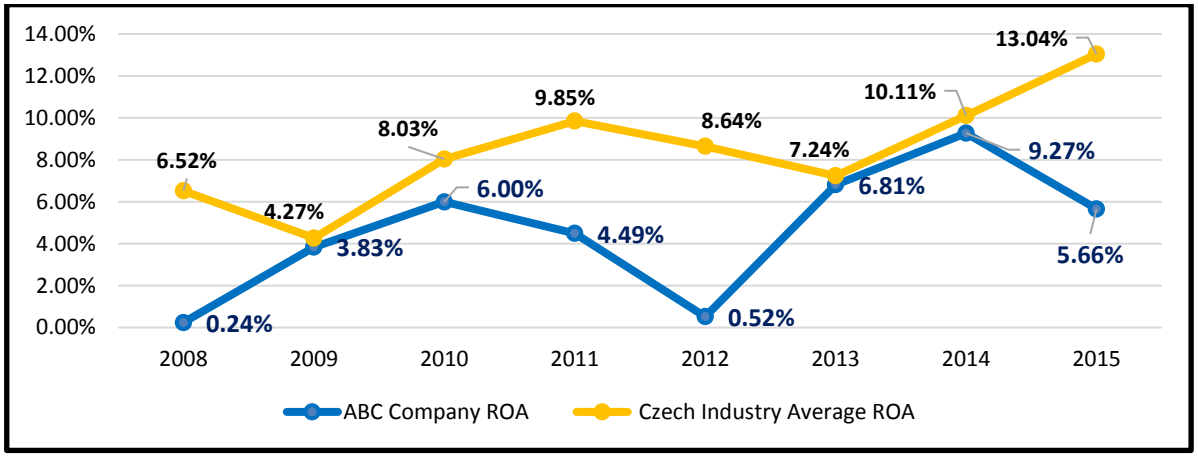
Graph 3: Development of Operating Profit/Loss



Source: Financial Statements of the ABC Company, for years 2011-2015

For the financial department of the ABC Company it is also important to observe and understand the situation on the market. For example, **Graph 4** below illustrates the development of profitability ratio- return on assets, from 2011 till 2015. It compares the ABC Company's return on assets with the Czech industry average profitability. It can be seen that ABC Company's ROA indicator reached its highest value in 2014. It was caused mainly by the increase in company's turnover. Whereas, in 2012 the company recorded a decline in profitability due to the effects of global financial crisis.

Graph 4: ROA of ABC Company and Automotive Industry



Source: Own processing based on data from the Ministry of Industry and Trade of CR

ABC Company purchases materials and services, sells products to associated persons as well as to third parties. In 2015, transactions with related parties amounted approximately 1.7 billion CZK

4.2 Cash Management of the ABC Company

Already the theoretical part highlighted the importance of the cash management to the company's performance. The objective of this part of the thesis is to evaluate financial position of the ABC Company in terms of cash management and propose improvements in management of liquidity and working capital. Hence, here the thesis is going to focus, at first, on description and explanation of current state of cash management, and later, in the results part, on the evaluation of strengths and weaknesses of ABC Company's approach.

4.2.1 Realization of Payment Transactions

The cash management is closely tied to the realization of payments through which all the expenditures and revenues in ABC Company are realized. In order to eliminate security risk, company's internal guidelines regulate the rules of payments realization. Basic instruction is to minimize cash payments in favour of direct bank transfers.

Cash payments are carried out rarely and only in smaller amounts in the ABC Company. This is mainly the case of small purchases, postages or deposits for business trips. Only assigned employees are entitled to collect or withdraw money from the cash registers. Authorized persons have to issue revenue or expenditure cash receipts from the information system. This strengthens the security of manipulation with cash. Further, in accordance with an internal directive, cash balances exceeding specified limits must be transferred to the bank accounts of the ABC Company.

The vast majority of payments is carried out through ABC Company's bank accounts. In order to reduce the security risk, realisation of payment transactions is governed also by the company's internal regulations, which are part of the internal control system. Always before sending electronic payment order to the bank, it has to be signed by two electronic signatures. The ABC Company uses MultiCash Transfer, server-based application, which automates communication between SAP (ABC Company's ERP) and

banks. This way all key workflows are centralized. However, at the same time, the authorized staff is able to access the application from different locations.

When it comes to ABC Company's bank relationships, financial department maintains them at a high level. Currently, the firm has opened bank accounts in two banks- Komerční banka, a.s. and UniCredit Bank Czech Republic and Slovakia, a.s. From the perspective of these two banks, the ABC Company is a very reliable partner mainly due to its creditworthiness and payment morality.

4.2.2 Intercompany Cash Management

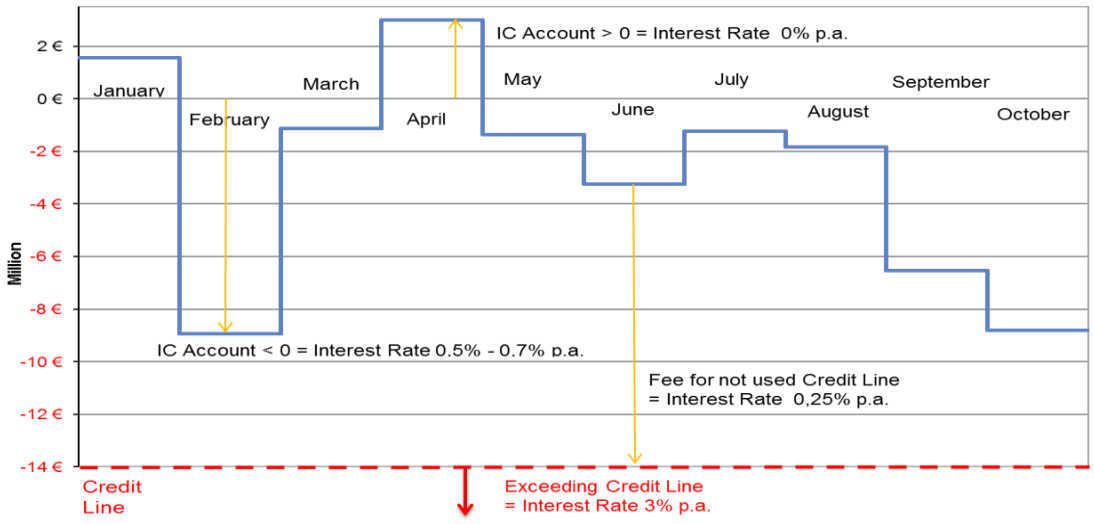
Together with already mentioned bank accounts, ABC Company also uses internal bank account provided by the mother company; ABC Group, so called IC Account. IC Account serves as a clearing account for business transactions among group companies. Furthermore, this account includes overdraft, which is based on mutual contract between ABC Company and parent company.

Basic conditions for the use of the overdraft are as follows:

- Maximal amount of overdraft is 14 million Euro per year (set every year based on company's turnover)
- Interest is derived from a monthly market rate, which is published on the ABC Group Intranet (Financial Department of ABC Group), or sent via e-mail.
- If the ABC Company overdrafts the credit limit, ABC Group will charge 3% per annum of the credit amount plus there is a fee of 0.25% from not drown amount.

On one side, overdraft gives the ABC Company opportunity to settle their liabilities on time. Thus, IC Account represents an important tool of financial department for managing both company's liquidity and working capital. On the other side, the basic conditions provided by the mother company are less favourable than current conditions available on the market. Especially, when the company has to pay interest from not drown amount. The **Image 1** on the following page illustrates how the IC Account works in more detail.

Image 1: ABC Company's Intercompany Account



Source: Own processing based on information provided by the financial department

Moreover, ABC Group provides to the ABC Company a debt limit of a total amount of €60 million (as to 31.12.2015) which can be divided into two parts- Export Credit Sublimit (30 million Euro) and Funding Sublimit (30 million Euro). Above mentioned above, IC Account is part of Funding Sublimit together with any loans provided to the enterprise. Export Credit Sublimit represents the liability towards the parent company on a monthly basis. Most of the time, the financial department has no problem to comply with these limits. However, in case of higher monthly sales, the ABC Company is at risk of exceeding the Export Credit Sublimit.

4.2.3 Liquidity Management

As it was written in the theoretical part, liquidity management belongs to the main challenges of any treasurer. The ABC Company financial department is aware of the importance of ensuring the company's liquidity; therefore they track, assess, and plan company's cash inflows and outflows on daily basis. Further, the financial controller monitors daily balances on all ABC Company's bank accounts.

However, before analysing the process of liquidity management in ABC Company, the liquidity ratios are used to evaluate company's ability to pay its short-term debt obligations. Following **Table 7** shows the development of liquidity from 2011 till 2015. The

liquidity ratios vary from industry to industry, hence in order to obtain the complete financial picture it is important to compare the ABC Company's results with other companies within the same industry.

Table 7: Liquidity Ratios

	2011	2012	2013	2014	2015	Czech Industry Average 2015
Current Ratio	1.71	1.08	1.78	1.45	0.98	1.42
Quick Ratio	1.23	0.81	0.99	1.16	0.85	1.17
Cash Ratio	0.21	0.08	0.16	0.04	0.16	0.24

Source: Own calculations based on Financial Statements from 2011 till 2015

According to the literature the optimal current ratio should be somewhere between 1.5- 2.5. Nevertheless, even the Czech industry average is below those values. In 2015, the ABC Company's current and quick ratio fell by more than 30% and 27% respectively. It was mainly caused by the reclassification of loans (due in August 2016) to a short-term payable. The strictest liquidity indicator; the cash ratio, fluctuates in the reporting period quite significantly. For instance, in 2015 it increased more than four times due to the increase in short-term financial assets. However, before drawing any conclusions about company's financial health, it is necessary to understand that according to the group policy, financial management should clear ABC Company's bank accounts at the end of the financial year.

Another publicly available source for the liquidity analysis is the ABC Company's cash flow statement which discloses the changes in company's financial position. Following **Table 8** shows a simplified statement of cash flow of ABC Company from 2012 till 2015. Financial resources of the ABC Company are primarily created by its operating activities and subsequently, a substantial portion is invested in non-current assets and dividends. Therefore, investing in fixed assets and dividend policy are the key concerns for the development and future of the ABC Company.

Table 8: ABC Company's Cash Flow Statement

Statement of Cash Flows (in thousand CZK)	2012	2013	2014	2015
Cash and cash equivalents at the beginning of the year	49,994	38,456	67,910	15,346
Net cash flow from operating activities	14,859	70,101	255,910	455,296
Net cash flow from investing activities	-242,598	-143,294	-99,371	-120,773
Net cash flow from financing activities	216,210	102,638	-209,103	-182,962
Net increase (decrease) in cash and cash equivalents	**-11,529**	**29,445**	**-52,564**	**151,561**
Cash and cash equivalents at the end of the year	38,465	67,901	15,346	166,907

Source: Financial Statements of the ABC Company, for years 2011-2015

The statement of cash flow is in accordance with the theoretical concept structured into three basic activities: operating, investing, and financing. The decisive component of the statement is the operating cash flow which demonstrates the ABC Company's ability to generate cash from day-to-day operations. In the reference period, this indicator shows an increasing trend. For example between years 2012 and 2013 the net cash flow from operating activities increased by more than 3.7 times. In order to better understand the reasons behind this development, the individual items of the cash flow from operating activities are analysed in **Table 9** below.

Table 9: Cash Flow from Operating Activities

Cash Flow from Operating Activities (in thousand CZK)	2012	2013	2014	2015
Net income	8,114	107,243	126,262	120,560
Adjustments for non-cash transactions	74,753	109,009	126,059	91,193
Change in inventory	-24,337	-198,555	211,564	-7,090
Change in accounts receivables	28,026	38,901	-115,520	-198,509
Change in accounts payables	-55,266	32,336	-78,518	459,463
Cash flow from operating activities	**31,290**	**88,934**	**269 847**	**465 617**

Source: Financial Statements of the ABC Company, for years 2012-2015

The breakdown indicates different factors which caused fluctuations in operating cash flow of ABC Company in each of those years. In 2013, there is a visible positive impact of the net income and depreciation. In years 2014 and 2015, the changes in working capital had the most significant influence on the ABC Company's cash flow from operating

activities. Namely, in 2014 the cash flow increased mainly due to the decrease in inventory, and in 2015 due to the increase in payables. However, the working capital management will be addressed in more details in the following chapter.

When it comes to the actual liquidity management process, the financial controlling of the ABC Company monitors the situation on a daily basis. In the first instance, the controller assess the liquidity of ABC Company's production plant. As it was already discussed, the ABC Company sells 97% of its actual production exclusively to the ABC Group. The ABC Group plans its orders one year ahead and makes adjustments on a monthly basis. Hence, the ABC Company's management knows the production plan and the financial controlling is able to plan company's revenues and expenses beforehand. **Table 10** below determines the monthly liquidity of production plant in year 2015.

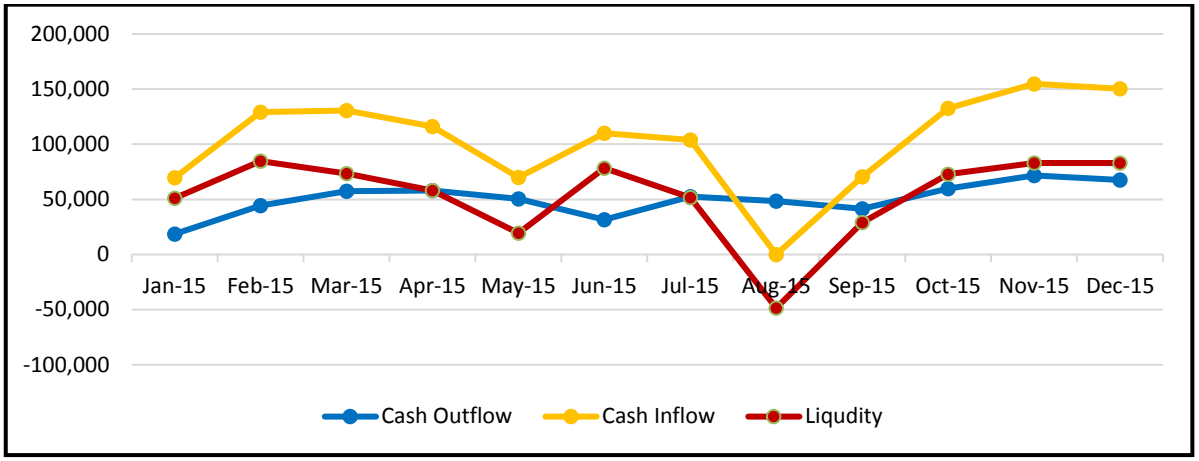
Table 10: Liquidity of Production Plant

thousand CZK	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Number of Vehicles	**244**	**482**	**513**	**428**	**289**	**447**	**491**	**326**	**562**	**661**	**621**	**198**
Turnover	69,760	129,024	130,732	116,108	69,831	109,874	103,948	70,580	132,627	154,801	150 360	43,483
Material	43,512	55,055	56,404	47,733	29,259	49,555	47,638	38,200	57,889	66,918	64 110	16,593
Turnover- Scrap	518	0	1,619	1,111	940	651	812	897	647	826	875	1,377
Transportation	328	649	1,013	917	620	956	1,072	480	831	1,161	1,119	810
Cooperation	503	3,337	1,679	2,868	2,386	2,727	733	3,552	1,786	4,504	3,64	4,316
Monthly Liquidity	**25,935**	**69,982**	**73,255**	**65,702**	**38,505**	**57,288**	**55,317**	**29,245**	**72,767**	**83,044**	**82,366**	**23,140**

Source: Own processing based on information provided by the financial department

The first line of the table indicates the number of produced vehicles within the specific month. Naturally, the turnover and material consumption are correlated with the production cycle. Transportation is a cost connected to the purchase of material, thus it represents liability towards suppliers. Whereas, scrap turnover stands for income from sold material leftovers. The last item included in the calculation is cooperation with external suppliers on the production process. Nevertheless, this calculation does not consider different payment terms of individual production entries.

Graph 5: ABC Company's Production Liquidity in 2015



Source: Own processing based on information provided by the financial department

Graph 5 above illustrates the development of production liquidity in 2015 when different payment terms are considered. In the respective period, cash outflow is slowly increasing, whereas cash inflow experienced large fluctuations. In August 2015, the ABC Company recorded a negative liquidity due to the extension of payment conditions.

However, more challenging part of ABC Company's liquidity management lies in managing liquidity of sales and service centre. It is caused by the fact that the cash inflows and outflows resulting from this business activity are randomly distributed, and therefore hard to predict. The biggest fluctuations of ABC Company's liquidity are especially caused by the large purchases of motor vehicles.

Table 11: Liquidity of Sales and Service Centre

in thousand CZK	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Vehicle Purchases	0	-140,942	-115,219	-946	-226,526	-81,295	-14,670	-39,194	-46,128	-17,442	-33,588	-276,350
Vehicle Sales	53,986	6,885	75,086	186,361	155,713	31,990	16,788	52,452	0	40,633	332,008	365,254
Service Centre	200	200	200	200	200	200	200	200	200	200	200	200
Monthly Liquidity	**54,186**	**-133,857**	**-39,933**	**185,615**	**-70,613**	**-49,105**	**2,318**	**13,458**	**-45,928**	**23,391**	**298,620**	**89,104**

Source: Own processing based on information provided by the financial department

Table 11 illustrates the large swings in liquidity development of sales and service centre in year 2015, which has to be considered by treasurer.

4.2.4 Working Capital Management

Liquidity management is closely related to the working capital management, in which is necessary to observe the development of the individual items that effect working capital. As it was mentioned in the theoretical part of this diploma thesis, calculation of the adjusted working capital is the first step to assess and evaluate the effectiveness of the treasury management. The **Table 12,** with calculated adjusted working capital of ABC Company is positioned under this paragraph. AWC indicates the part of current assets which is being financed by long-term resources. Between years 2011 and 2014 the value of AWC was around 200,000 thousand CZK. However, in 2015 the value of AWC dropped significantly. This decrease reduced the capital held in the current assets, but also reduced financial cushion of ABC Company in case of an unfavourable event.

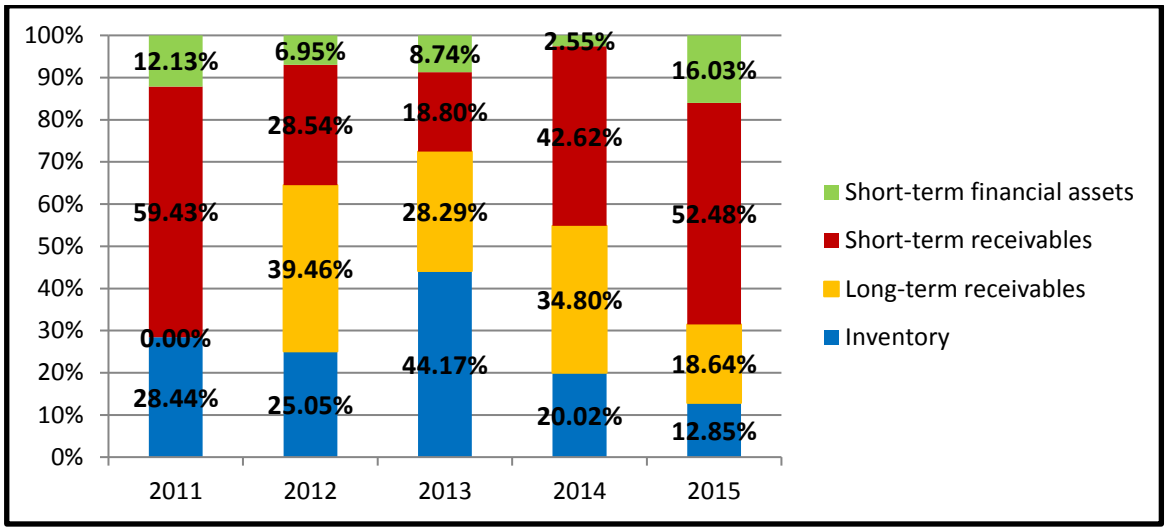
Table 12: Development of Adjusted Working Capital

In thousand CZK	**2011**	**2012**	**2013**	**2014**	**2015**
Adjusted Working Capital	121,838	257,697	271,485	170,690	29,757

Source: Own calculations based on Financial Statements from 2011- 2015

However, for assessment and optimization of WCM of ABC Company, treasurer has to understand the development of individual items of current assets and short-term payables. From 2011 till 2015, current assets of ABC Company represented, on average, more than 50% of total assets and in 2015 61%. After closer observation it can be seen that the level of current assets is closely connected to the level of production. The following **Graph 6** illustrates the share of various components of current assets on their total value. As it can be seen, in the last three years the share of short-term receivables increased, whereas the share of inventory decreased significantly.

Graph 6: Vertical Analysis of Current Assets



Source: Financial Statements of the ABC Company, for years 2011-2015

Management of Receivables

As it was already described, the majority of the ABC Company's production is sold to the related parties and settled via intercompany account. Nevertheless, the ABC Company also sells vehicles and provides aftersales services to its customers on the Czech market. All activities connected to the company's account receivables are fully within the competence of the sales controlling department. Their responsibility is, for instance, management of customer credit limits, creation of allowances for receivables, credit notes or demand notes.

Furthermore, the ABC Company's sales controlling department monitors an aging schedule of receivables on a monthly basis. Their main objective is to keep the total amount of overdue external receivables below 3%. In order to reach this goal, ABC Company does not provide credit to its occasional customers and requires cash on sale. Only customers with certain turnover are given credit limits. ABC Company uses a credit-scoring model to make decisions of whether to extend credit, based on characteristics of the customer and prior experience with extending credit to the customer. However, this credit limit only applies to services. In general, ABC Company sells vehicles only to customers with secured financing.

Based on the amount of short-term receivables and revenues from merchandise, own products, services and sale of assets, receivable turnover can be calculated. Usually, businesses are trying to reach a growing trend of this index. This strategy is also shared by

the management of ABC Company. From the following **Table 13** it is possible to see a favourable development from 2011 to 2013. Nevertheless, especially in year 2015 the trend has changed. This was caused by the classification of long-term IC receivable as a short-term.

Table 13: Receivable Turnover

	2011	2012	2013	2014	2015
Receivable Turnover	6.56	9.55	13.66	11.96	5.61

Source: Own calculations

Inventory Management

Effective inventory management at the production company is more than important activity which should ensure smooth production and satisfaction of the customer, who requires his/her order at the right time, in the right place and in the correct amount. In case of ABC Company's production plant it means ensuring that the order will be produced and delivered within five days to the related party.

Table 14: Development of Inventory in 2015

in thousand CZK	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Production Parts	55,771	58,131	53,838	46,037	45,699	51,120	51,050	57,734	58,945	57,639	45,639	41,394
Raw Material	15,085	16,236	17,675	19,099	16,759	17,485	18,187	20,978	21,874	22,731	19,022	17,559
Transport	1,373	1,449	1,261	1,378	1,436	1,449	1,453	1,388	1,577	1,364	1,590	1,474
Other	5,468	4,841	3,594	3,217	6,887	4,769	7,115	5,667	8,865	6,426	4,167	2,781

Source: Own processing based on information provided by the financial department

As it was mentioned earlier, ABC Company manufactures vehicles according to the production plan provided by the mother company. And therefore, it can plan the amount of material needed for the production in advance. **Table 14** above shows the development of the inventory in year 2015. The level of inventory is closely linked to the production process. The objective of the ABC Company's production controlling is to transform bought inputs into the final products as soon as possible and to reduce inventories at the end of the year.

An integral part of the inventory management is the calculation of inventory turnover index, which tells how many times during the year are inventories converted into cash.

Therefore, inventory turnover should ideally show an upward trend. Data used for calculation of ABC Company's turnover were taken from the financial statements. Thus, the results indicate effectiveness of the inventory management at the year end. It is apparent that especially during the last two years, ABC Company focused on reduction of inventory held at the year end. This was done by selling its excessive supply to ABC Group and other external parties. Nevertheless, due to its service activities ABC Company has to keep certain spare parts always on stock.

Table 15: Inventory Turnover

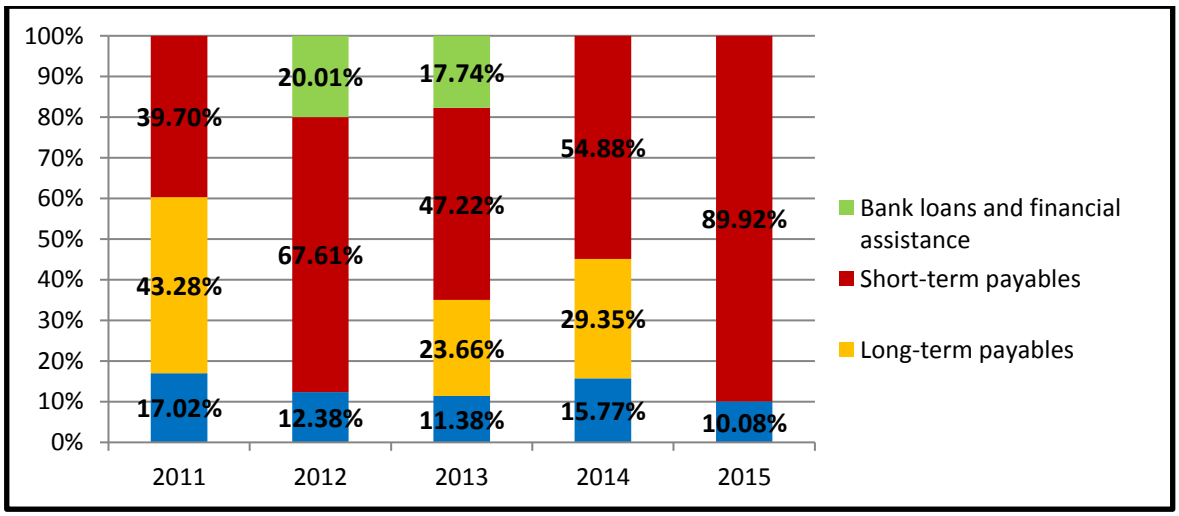
	2011	2012	2013	2014	2015
Inventory Turnover	10.51	8.14	4.47	20.68	18.72

Source: Own calculations

Management of Payables

Accounts payables arise from trade credit and represent a spontaneous form of credit. Credit terms can differ among industry sectors or among companies. When managing the account payables, the ABC Company has to take into account intercompany purchases, trade credit and the cost of alternative forms of short-term financing, inventory management system and also the impact of foreign exchange rates. In case of ABC Company's production plant and service centre, 70% of received invoices are issued in Euro. The rest represents purchases of material and services from the local suppliers.

Graph 7: Vertical Analysis of Liabilities



Source: Financial Statements of the ABC Company, for years 2011-2015

Graph 7 from the previous page uses data from the financial statements of the ABC Company. It illustrates the structure of liabilities from 2011 till 2015. As it can been seen the ABC Company maintains a stable level of reserves. Their main aim is to strengthen company's financial position. Furthermore, in the year 2015, the company did not account for any long-term payables or bank loans. Therefore, the main part of the liability represented short-term payables (almost 90%) from which the majority stands for transactions with related parties.

In the ABC Company management of account payables is responsibility of both production and financial controlling. They monitor the maturity of all received invoices and ensure their payment before due date. In **Attachment 9** can be found the aging schedule of account payables at 31 December 2015. To evaluate the effectiveness of account payables management, indicators that can be observed are account payables dates or payables turnover. Below, in the **Table 16**, is calculated the account payables days, which indicates how long, on average, the company takes to pay on its accounts. Ideally, in order to use the interest-free supplier credit, the account payables days should exceed the value of account receivables days, which it does in all observed time periods.

Table 16: Account Payables Days

	2011	2012	2013	2014	2015
Account Payables Days	71	83	104	61	123

Source: Own calculations

Cash Conversion Cycle

Value of CCC is derived from the previously calculated indicators: receivables turnover, inventory turnover, and payables turnover. The result indicates that the length of time which it takes for ABC Company's investments in inventory to generate cash, and it helps to estimate how much liquidity ABC Company needs. For calculation of individual items of CCC values were used that are listed in the ABC Company's financial statements.

Table 17: Cash Conversion Cycle

	2011	2012	2013	2014	2015
Cash Conversion Cycle	19	0	4	-13	-39

Source: Own calculations

Total turnover of receivables and inventory in 2015 equals 84 days. Whereas, the total turnover of short-term liabilities 2015 equals 123. However, this result indicates the negative value of capital requirement of the ABC Company for financing working capital. This negative length of CCC is primarily caused by the calculation methodology which does not include prepayments, accruals and estimates. Invoices for certain services such as energy, IT or lease, which represent substantial portion of ABC Company's expenditures, are not issued according to the consumption on the last day of month but during it. Hence, the explanatory value of CCC derived from the ABC Company's financial statements is rather limited and negative capital requirement for financing of working capital calculated on its basis would be incorrect.

Management of ABC Company's working capital should therefore rely on another tools. In this context the financial department of ABC Company uses cash flow forecasting.

4.2.5 Cash Forecasting

One of the main tasks of the financial controlling department in the ABC Company is to plan and manage future cash flows. Every working day the employee responsible for treasury records balances on all companies' bank accounts on the spreadsheet. This Excel file is then used for planning of cash flow over short, medium and long-term periods. When planning cash flow for ABC Company, the management has to take into account several items. First, the liquidity of production process and liquidity of sale and service centre has to be calculated. This process was already described in previous part. Second, the financial manager has to consider overheads, such as rent, energy consumption, and IT expenses. Also, salaries and wages for more than 400 employees have to be included in cash flow forecasting. Another significant position represent capital expenditures such as new machines and equipment. Finally, the financial manager has to take into account taxes, interests or dividends.

Table 18 below illustrates planned cash flow for the year 2016. As is apparent from this chart, in some months cash flow is expected to be in red values. These fluctuations are mainly caused by the purchases of larger quantities of vehicles, extended credits for some customers, taxes, and paid dividends. In situations like this, the financial department of the company uses mainly the overdraft provided by ABC Group to settle companies' liabilities.

Table 18: Cash Forecasting for Year 2016

In thousand CZK	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
Liquidity of Production	38,284	66,904	65,823	81,400	55,548	67,132	63,823	47,154	74,341	76,527	79,869	29,070
Liquidity of Service Centre	200	200	200	200	200	200	200	200	200	200	200	200
CF from sold products	-369,306	-135,837	68,557	77,142	51,386	-82,289	-20,253	84,683	131,769	-62,554	11,148	53,662
Overheads	-12,049	-9,997	-8,919	-10,318	-9,983	-8,630	-10,696	-9,791	-9,178	-14,692	-11,461	-11,788
Wages and Salaries	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000	-31,000
CAPEX	-10,476	0	-1,090	-11,653	-2,625	-6,691	-2,186	-4,054	-7,720	-1,511	-12,447	-18,495
Loans and Interests	-27	-14	-11	-11	-8	-8	-5	-29,962	-54	-54	-54	-54
Taxes	-67,000	0	-3,634	-6,440	-44,000	-27,567	-3,000	0	-44,900	0	0	-5,900
Other (Dividends, etc.)	0	0	0	0	-54,000	0	0	0	0	-31,576	0	0
Total CF	**-451,374**	**-109,743**	**97,193**	**99,319**	**-34,481**	**-88,853**	**-3,117**	**57,231**	**113,458**	**-64,660**	**36 255**	**15,694**

Source: Own processing based on information provided by the financial department

Short-term surpluses of liquidity are managed according to the company's guidelines and regulations. The company's management cannot undertake any speculative transaction (invest in stocks or speculate on the exchange rate) with excess cash. This is the result of a mainly conservative approach of the ABC Company's owners. The financial department of the ABC Company compares planned cash flow with actual situation on a daily basis.

4.3 Risk Management

Risk management represents an important part of treasury management. As it was described in theoretical part, the treasurer focuses mainly on interest and foreign exchange risks.

The ABC Company is monitoring the actual situation on the Czech market on a regular basis. In terms of foreign exchange risk, management is mainly interested in the development of Czech crown and the Euro relationship. In this context, it is important to mention monetary policy of the Czech National Bank (CNB). In order to maintain price levels and prevent inflation, the CNB decided to intervene and weaken the exchange rate of the Czech crown to 27 CZK / EUR by buying foreign currencies and government bonds. The effects of easing monetary policy could be clearly seen in the development of the Czech automotive industry. The export has been growing and at the same time, a weaker exchange rate, resulted in higher operating profits of Czech enterprises. Many companies in the automotive industry started to invest in new production capacities. Investments, together with consumption, have become the driving force of the Czech economy.

When it comes to interest rates, generally for the euro area, interest rates remain at very low levels, and there is no indication that they will grow by the end of 2016. In addition, there are growing expectations of a possible introduction of further unconventional fees by the European Central Bank. A raise in interest rates by the CNB is not expected.

Nevertheless, according to the company's policies and guidelines, the financial department of ABC Company is not allowed to use any type of hedging against foreign exchange or interest risks. Due to bad experiences from the history, the owners of the company have decided to centralize this activity. Nowadays, management of any market price risk is carried out exclusively by the regional treasury of the ABC Group.

4.4 Investment Management

ABC Company's treasury management encompasses also the management of the entity's investments. Executive management seeks a systematic growth of the intensity of production and labour productivity to survive in a competitive market environment. Therefore, every year they search for new investment opportunities and try to implement them. The evaluation of the company's investments is carried out by the mother company. However, it is responsibility of ABC Company's financial department to assess various financing options.

For instance, in 2014 ABC Company began reconstruction of the office building for 35 million Czech Crown and in 2012 expanded its production capacity by investing 1.260 million Czech crowns in production hall. Moreover, the ABC Company's ongoing investments each year include the modernization of the machines and the purchase of more efficient appliances, so the ABC Company could increase its productivity. To ongoing investments belong also expenditures connected to new technologies.

4.4.1 Investment Project

Among the new investment opportunities, which the ABC Group identified in 2015, is the movement of production from Germany to the Czech Republic. The intended investment project should meet the strategic objective of the company, which is to maximize the company's market value.

Construction of a new production plant in the Czech Republic offers many opportunities for the entire ABC Group .To one of its main benefits belong reduction of the production and labour costs. Furthermore, the Czech Republic offers relatively stable macroeconomic environment with a good geographic location. Also, Czech government provides incentives for new investments in the form of tax allowances

The ABC Company is currently in the stage of investment project preparation. The identification of business opportunities and the preliminary technical and economic study was conducted, and its aim was to choose the appropriate machines and appliances for further economic assessment

4.4.2 Project Evaluation

As it was mentioned above, evaluation of the project effectiveness is carried out by the mother company. However, ABC Company also assesses future revenues and expenses connected to the investment in order to determine the best funding solution. For this purpose the financial department of the company calculates the net present value of the investment by using expected future cash flow. **Attachment 10** shows the NPV calculation of new production hall in the Czech Republic.

Calculation of NPV is based on few assumptions:

- Construction shall begin in year 2017 and last till the end of 2020. First vehicles should be manufactured in 2019.
- Initial capital expenditures should amount around 1.7 billion Czech crowns excluding value added tax.
- Discount rate is set by the mother company at 8% (shareholders expectations) and inflation is 3%.
- Depreciation is calculated based on current ABC Company accounting policy.

Cash income represents revenue from own products. The formula for calculation is: *cash income= number of produced cars * average selling price of one vehicle * (1+inflation rate).* Savings that arise due to the transfer of production from Germany to the Czech Republic have to be also considered in the calculation. Nevertheless, possible future tax allowances were not taken into account. Cash outflow is calculated by adding expected annual production costs, wages, overheads, depreciation and taxes. Finally, differences between cash inflow and outflow is discounted by an 8% discount rate which is expected by the company's shareholders.

In 2029, ten years after producing the first vehicle, the NPV of the investment project is estimated at 2.096 billion Czech crowns. The expected payback of the new production hall is during the seventh year, in 2023. However, the management of the ABC Company should remember that NPV is highly sensitive to the discount rate (the desired return); the higher the discount rate (under otherwise identical conditions) the lower absolute contribution that investment brings.

4.4.3 Financing Options

The entire financing proposal should be based on the ABC Company's current capital structure. Furthermore, the proposal should reflect the real possibilities of obtaining additional financial resources, and specific requirements and characteristics of the investment.

According to **Table 3,** to the own internal sources of the company belong retained earnings after taxes, created reserve funds and depreciation. Retained earnings are included in equity. Nevertheless, the ABC Company would have to in advance create sufficient retained earnings from previous years in the form of cash, only then it could be used to finance the construction of the production hall. Looking into the balance sheet, it is not even expected that, together with profit for 2016, they will be able to cover the required long-term capital. Similarly, the reserve funds are part of equity. They are formed in order to protect company against various risks, but also this source of financing is insufficient for the estimated investment. The last own internal source of financing is depreciation. Its annual amount is given in the income statement (above 100 million CZK) and is relatively stable. However, depreciation in the ABC Company ensures the renewal of existing fixed assets. For this reason, it makes no sense to consider using depreciation, it would automatically create deficit in the financing of renewal of existing fixed assets, which is essential for the production activities of the ABC Company.

The only possible source of own financing from external sources would be owners contribution to equity. However, from the cost perspective it would be the most expensive solution. A better and more optimal solution in this case is to use external sources.

After consultation with management, these are two possible external sources of funding: (i) loan from financial institutions or (ii) loan from ABC Group. Type of loan, which is able to cover the required amount of capital and guarantees and stability over time, is normally called investment bank loan. Due to the value of investment, banks can provide tailored offers with exclusive conditions. Therefore, loan for construction of new production plant should be based on mutual negotiations between commercial bank and company.

Based on its own financial analysis, bank should derive ABC Company's rating. The rating should consider all credit risks of a company, as well as the structure of working

capital and other major financial indicators (total debt, debt equity ratio, interest coverage, receivables collection time etc.). Below are calculated current values of certain debt ratios (as to 31.12.2015) which should be compared with the industry average and considered in ABC Company's rating:

(13) Debt Ratio = Total Liabilities / Total Assets * 100% = 69.7%

(14) Debt- Equity Ratio = Total Liabilities / Equity * 100% = 228.9%

(15) Interest Coverage Ratio = EBIT / Interest Expense = 34

As it was already mentioned, ABC Company sustains a good relationships with its banks and in the past used this type of financing. Based on this past experience and current market conditions the management expects interest rate in the range of 0.30-0.40%. Thus, the total amount of interest would be 3-months EURIBOR (currently negative) + interest rate. Moreover, currently commercial banks offer possibility to pay interests only from drawn amount which represents advantages in particular for project that will take four years. However, so far no negotiations between the ABC Company and any commercial bank have taken place and above data may not represent the actual offer. Nevertheless, the basic conditions such as requiring safeguards, calculating debt ratios, participation and assessment of the financial position of the company will be in all commercial banks the same.

Last but not least, the financing option which is being considered by the management is a loan from the in-house bank. In-house bank provides increased control, security and visibility. ABC Company has already experience with similar type of product and based on this and current market situation, it is expected that interest rate would be around 0.25% - 0.35 %. Thus, the financial management of the ABC Company's has to assess pros and cons of both possibilities, and choose option which offers better and more flexible conditions.

5. Results

Treasury management involves various areas. In order to understand and assess its different fields in ABC Company, this diploma thesis focused first on summarizing basic information about company. It highlights the scope of business and integration in the multinational company. ABC Company operates from two locations in the Czech Republic and manufactures and sells vehicles on the Czech market. It is fully owned by multinational company- ABC Group- which is a market leader in the automotive industry.

Due to its international business environment, ABC Group has decided to form a regional treasury group and centralized some areas such as risk management. That is the reason why financial management of ABC Company is not allowed to use any types of derivatives to hedge against foreign exchange or interest risks.

Furthermore, fundamental financial analysis of available financial statements from years 2011 till 2015 were carried out. From the assessment of absolute indicators, it is clear that the main source of financing ABC Company's assets during this time frame were liabilities. Especially, in 2011, 2013, and 2014 the share of company's obligations increased due to its investments in production plant or administrative building. ABC Company was always able to meet all its obligations. In contrast to the balance sheet, attached profit and loss statement allowed us to identify two main streams of revenue. In year 2011 revenues from merchandise represented only 36% of total revenues, whereas in year 2014 situation changed. Currently 55% of total revenues are result of trading activity.

In order to evaluate profitability of the ABC Company, the indicator "Return on Assets" was used. ROA can tell how much efficient management was at using ABC Company's assets when generating earnings. For better understanding, calculated values were compared to the average ROA of the automotive industry in the Czech Republic. It is evident that in the past ABC Company has recorded larger fluctuations in profitability, especially due to the swings in the financial item line: "Revenues from sold vehicles".

Nevertheless, as it was mentioned in theoretical part, treasurer is mainly interested in the development and management of current assets and liabilities. During the last five years, the share of current assets on assets increased from 43% to 62%. Moreover, in year 2015 the

share of current liabilities reached 62% of total liabilities. From this is evident, that treasury management represents very important part of ABC Company's financial management.

Cash Management

The aim of this part was to evaluate financial position of ABC Company in terms of cash management. First, the realization of payments together with bank relationships were described. ABC Company maintains relationships with commercial banks at a very high level, and is considered as a reliable partner. This position offers financial management many opportunities for negotiation of preferable conditions for both day to day cash operations and larger investment projects.

Another tool highly used by the ABC Company for managing cash and working capital is Intercompany Account provided by ABC Group. Intercompany transactions represent a major part of the company's business activities and this is the place where the majority of them are settled. Furthermore, this account comes with a credit limit of €14 million. The financial department monitors the balance on daily basis. On one hand, IC Account enables ABC Company to meet its obligations and requirements on time. On the other hand, 0.25% interest paid from not drawn amount represents expenses that could have been avoided by using nowadays available products from commercial banks. For instance, UniCredit Bank offers overdraft with the interest of 0.35% + monthly Euribor (currently negative) paid only for drown amount. Moreover, if the company would be able to negotiate conditions that would reflect fluctuations in sales, it would make the entire process of liquidity and working capital management more efficient.

The next chapter of cash management focuses solely on liquidity management and on all the processes connected to it. However, first the effectiveness of ABC Company's liquidity management was assessed by using three ratios: current, cash, and quick. In year 2015, the ratios of liquidity were below recommended values or even below industry average. According to this, it could be assumed that the ABC Company might have problems with paying its obligations. However, it is important to understand that these numbers indicates situation only in a certain time- at the end of the year, in this case.

Furthermore, to better evaluate the company's liquidity management, preliminary analysis of the cash flow statement was performed. During all observed periods, ABC

Company experienced surpluses from net operating activities and negative result from net investing activities. In general, based on this, it can be stated that ABC Company generates money from manufacturing and selling vehicles on the Czech market, and at the same time is engaged in investment activities.

The financial management of ABC Company understands the importance of liquidity management, and therefore monitors and forecasts liquidity on daily basis using sophisticated spreadsheets. On one side, the process of liquidity planning for production plant is quite straightforward because the plan of production is known already few months in advance. Consequently, the financial department is able to forecast production liquidity beforehand. On the other side, liquidity of sales and service center is almost unpredictable. As it was mentioned above, the biggest challenge for the treasurer represents purchases of larger quantities. This is one of the cases, when company uses IC Account to meet its obligations.

The following section was dedicated to ABC Company‘s working capital management. The objective of WCM is to sustain optimal cash balance and in accordance with the literature review, it corresponds to minimization of working capital requirements. Particularly significant decrease in adjusted working capital occurred in 2015 as a result of increase in current liabilities. Nevertheless, for company’s financial department is essential to understand all financial items included in WCM.

As to the receivables, at the end of 2015, they accounted for more than 52% of current assets. As it can been seen from attached aging schedule, more than 60% arose from IC transactions (as to 31.12.2015). Most of the IC transactions were cleared via IC Account on the 1st of the 2nd following month. To ensure efficient receivables management with external parties, uses ABC Company’s sales controlling various tools such as customer credit limits, repayments schedules or demand notes. Moreover, according to the company’s guidelines the payment for new vehicles must be made before or at the time of delivery. Accounts receivable ratio „Number of days receivables” can be compared with credit terms in order to evaluate its effectiveness. In 2015 calculated indicator (65 days) corresponded with above mentioned IC payment terms.

For every manufacturing plant, it is essential to ensure the level of inventory that would be sufficient to cover demand at minimal costs. In its production plant, ABC Company coordinates production planning with inventory management. This approach of managing levels of inventory is called "Materials or manufacturing resource planning". Even though employees from financial department are not directly involved in managing stock, they are aware of all business processes and they keep close track of them. Furthermore, in order to support effective inventory management, ABC Company provides incentives to all responsible employees

The last area of WCM discussed were payables. Also in this case, same as in accounts receivable, the majority of transactions represent trade between related parties. These transactions are settled again via IC Account.

Another important role of financial deparment is to plan future cash balances. ABC Company uses sophisticated spreadsheets to plan expected cash flow for both short-term and long-term period. Cash deficits are covered through overdraft account. When it comes to short-term surpluses of liquidity, the ABC Company holds rather conservative position because financial management is not allowed to invest excess cash.

Investment Management

Another part of the thesis focuses on the investment project of the selected company. The aim was to evaluate new investment opportunities by calculating net present value and select the most suitable financing option.

Last year ABC Group decided to move production from Germany to the Czech Republic. Construction of this investment project should start in 2017 and cost more than 1.7 billion Czech crowns. According to the calculated NPV, the payback is expected in 2023, four years after production of first vehicle.

Due to the size of the investment project, the ABC Company will have to use sources of debt financing. First option is to use the investment loan from commercial bank or, as a second option, to borrow money from in-house bank.

6. Conclusion

The objective of this diploma thesis was to propose improvements in treasury management of ABC Company by assessing its cash management, and by analysing various financing sources of new investment project.

ABC Company is a part of the multinational corporation, and as such has to comply with many rules and regulations set by the parent company. This also applies to the areas of treasury management, starting at bank relationships all the way to risk management. Moreover, ABC Group is the main business partner of ABC Company, and any changes in cash or investment management would have to be approved by the management board in Germany. In terms of treasury management, this arrangement offers both advantages and disadvantages to ABC Company. The enterprise is operating in quite a stable environment, but does not have the flexibility and tools to solve unusual situations.

Based on findings of this diploma thesis following recommendations were compiled:

- Financial department of ABC Company should consider opening an overdraft account by a commercial bank. For instance, UniCredit Bank currently offers an overdraft with the interest of 0.35% + monthly Euribor (currently negative). Most importantly, there are no fees for not drawn amount as in the case of IC Account.
- ABC Company should focus on its ability to pay short-term obligations. For instance, liquidity risk could be solved by negotiating longer payment terms with suppliers of material. This way the enterprise could shorten the cash conversion cycle, and thus avoid liquidity deficits.
- Finally, the new investment project have to be finance via loan. However, the management should consider and carefully assess offers from both parent company and commercial banks.

Nevertheless, considering all results of this thesis, the author concluded that ABC Company has all managing activities related to treasury management at a high level. Therefore, all measures described above serves only as recommendations to increase efficiency of cash and investment management.

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Financial Statements of Selected Company 2011- 2015

List of Abbreviations

AWC ..... Adjusted Working Capital

CCC ..... Cash Conversion Cycle

CEO ..... Chief Executive Officer

CFO..... Chief Financial Officer

CNB ..... Czech National Bank

CZK ..... Czech Crown

ERP ..... Enterprise Resource Planning

EUR ..... Euro

EURIBOR..... Euro Interbank Offered Rate

FX ..... Foreign Exchange

IC ..... Intercompany

IRR..... Internal Rate of Return

NPV ..... Net Present Value

ROA..... Return on Assets

TMS ..... Treasury Management System

TWS..... Treasury Workstations

WCM ..... Working Capital Management

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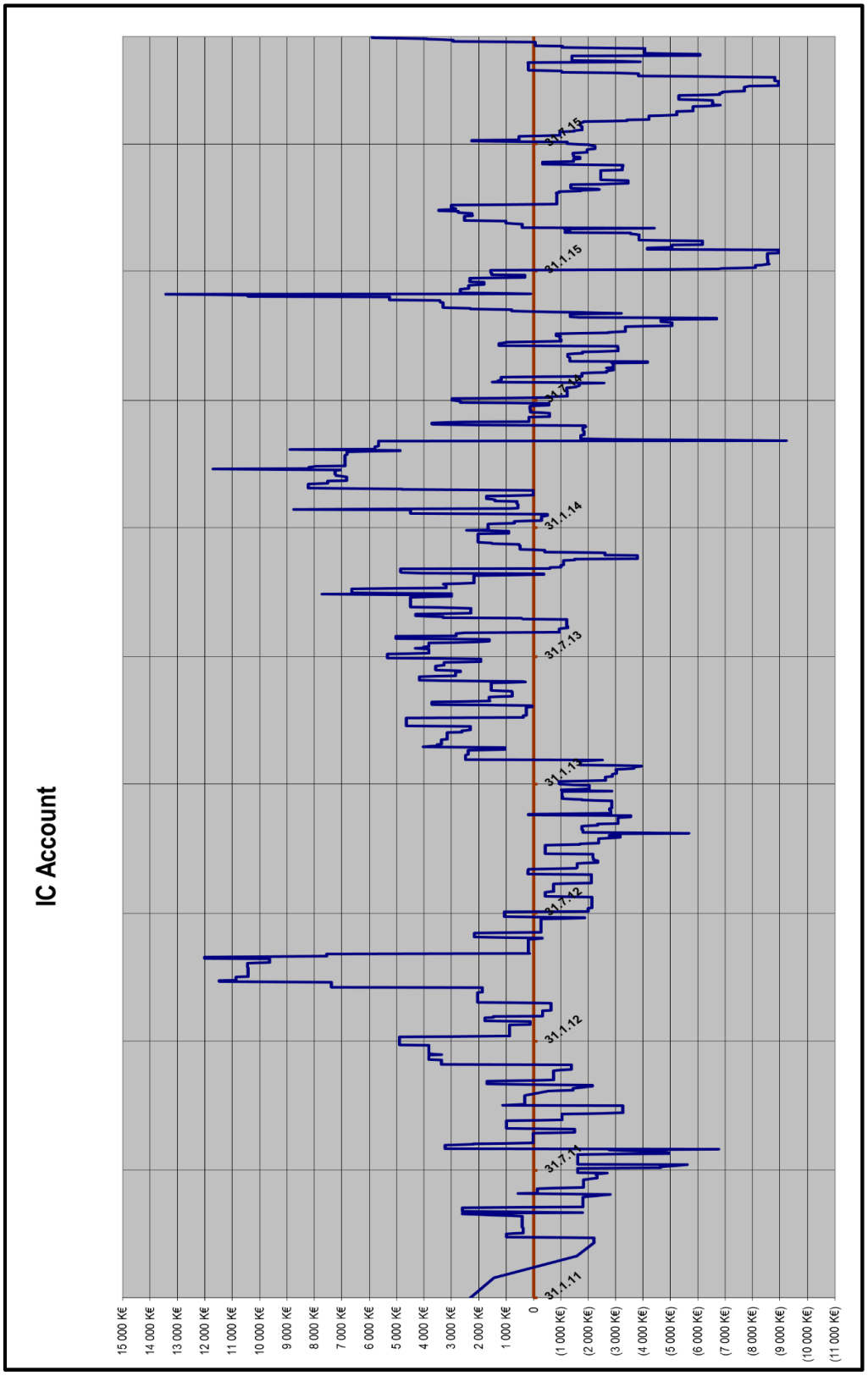
Attachment 1: Development of Sales and Production 2010 - 2015

	2010	2011	2012	2013	2014	2015
No. of vehicles produced	5,453	5,012	4,359	4,978	5,632	5,262
No. of vehicles sold	146	123	112	197	297	270

Attachment 2: IC Account from 2011 - 2015



Source: Own processing based on information provided by the financial department

Attachment 3: Horizontal Analysis of Balance Sheets 2011 - 2015

	Δ 11-12		Δ 12-13		Δ 13-14		Δ 14-15	
Horizontal Analysis	**Absolute TCZK**	**Relative (%)**	**Absolute TCZK**	**Relative (%)**	**Absolute TCZK**	**Relative (%)**	**Absolute TCZK**	**Relative (%)**
TOTAL ASSETS	154,753	16	267,488	24	-99,159	-7	407,117	31,6
Fixed Assets	14,188	3	43,485	8	77,367	13	-33,204	-4,8
Intangible investment assets	1,317	51	-708	-18	-706	-22	-1,740	-70,0
Tangible fixed assets	12,871	2	-81,453	-15	78,073	16	-31,464	-5,7
Long-term financial assets	0	0	125,646	1,644	0	0	0	0,0
Current assets	140,933	34	590,187	107	-77,363	-7	715,231	67,1
Inventory	21,336	18	204,705	148	-222,985	-65	13,450	11,2
Long-term receivables	218,263	x	1,669	1	-10,823	-5	-15,102	-7,2
Short-term receivables	-87,137	-36	-11,717	-7	109,916	75	290,212	113,3
Receivables Total	131,126	54	-10,048	-3	99,093	27	275,110	59,1
Short-term financial assets	-11,529	-23	29,445	77	-52,564	-77	151,561	987,6
Accruals	-368	-63	-99	-45	-70	-59	200	408,2
	,							,
TOTAL LIABILITIES	154,753	16	267,488	24	-99,159	-7	407,117	31,6
Equity	5,836	2	94,544	26	72,467	16	-17,508	-3,3
Registered capital	0	0	0	0	0	0	0	0,0
Capital funds	0	x	0	x	0	x	0	x
Reserve funds, etc.	2,168	17	292	2	4,727	31	5,973	29,7
Profit / loss of previous years	41,185	-118	5,544	89	42,817	364	0	0,0
Profit / loss of current period (+/-)	-36,517	-84	87,708	1,283	24,923	26	-23,481	-19,7
Liabilities	148,917	25	172,944	23	-171,626	-19	424,625	56,2
Reserves	-9,645	-9	12,142	13	13,621	13	-231	-0,2
Long-term payables	-262,058	-100	219,400	x	2,400	1	-221,800	-100,0
Short-term payables	269,648	112	-72,176	-14	-23,097	-5	646,656	155,9
Bank loans and financial assistance	150,972	x	13,578	9	-164,550	-100	0	x
Accruals	0	x	0	x	0	x	0	x

Source: Financial statements of selected company 2011 - 2015

Attachment 4: Horizontal Analysis of Income Statements 2011 - 2015

	Δ 11-12		Δ 12-13		Δ 13-14		Δ 14-15	
Horizontal Analysis	**Absolute (TCZK)**	**Relative (%)**	**Absolute (TCZK)**	**Relative (%)**	**Absolute (TCZK)**	**Relative (%)**	**Absolute (TCZK)**	**Relative (%)**
Revenues from merchandise	-39,255	-7	333,796	66	777,917	92	22,944	1
Costs of sold goods	-36,635	-7	279,814	59	795,586	106	20,466	1
Sales margin	-2,620	-6	53,982	139	-17,669	-19	2,478	3
Production	-72,940	-7	157,319	17	271,397	25	-8,886	0
Revenues from own products and services	-53,226	-5	140,569	15	291,772	27	-25,240	-2
Change in inventory of the company´s own production	-19,714	-162	16,750	-221	-20,375	-222	16,354	-146
Capitalization	0	X	0	X	0	X	0	X
Production consumption	-66,584	-9	126,043	19	157,667	20	-3,936	0
Consumption of material and energy	-36,020	-7	94,229	20	69,799	12	18,633	3
Services	-30,564	-13	31,814	17	87,868	39	-22,569	-7
Added value	-8,976	-3	85,258	27	96,061	24	-2,472	-1
Personnel expenses	694	0	306	0	30,262	14	46,741	19
Taxes and fees	101	19	131	20	28	4	1,003	125
Depreciation of tangible and intangible fixed assets	17,963	31	5,152	7	9,768	12	27,834	30
Revenues from disposals of FA and materials	-7,823	-12	14,951	26	-3,000	-4	6,230	9
Net book value of disposed FA and materials	-4,670	-10	8,214	20	-2,780	-6	4,311	9
Change in operating reserves and adjustments and complex deferred costs	16,753	188	-7,489	-95	27,721	7,679	-48,384	-172
Other operating revenues	6,545	483	-5,469	-69	-2,132	-88	5,948	1,996
Other operating expenses	0	0	-1,880	-18	11,934	140	-12,128	-59
Operating profit / loss	**-54,899**	**-85**	**104,110**	**1,041**	**13,996**	**12**	**-9,671**	**-8**
Income from fin. assets			1,273	x	1,493	117	2,000	72
Interest revenues	1,234	386	968	62	114	5	-892	-34
Interest expenses	4,678	230	-10	0	-2,375	-35	-851	-20
Other financial revenues	14,766	67	19,103	52	-41,955	-75	5,065	36
Other financial expenses	6	0	26,335	78	-42,996	-72	3,055	18
Profit / loss from financial operations (transactions)	**11,316**	**86**	**-4,981**	**-264**	**5,023**	**-73,16**	**3,969**	**-215**
Income tax on ordinary income	-6,066	-73	10,421	457	-5,904	-46	17,779	262
Profit / loss of current accounting period (+/-)	**-37,517**	**-87**	**88,708**	**1,520**	**24,923**	**26**	**-23,481**	**-20**

Source: Financial statements of selected company 2011 - 2015

Attachment 5: Vertical Analysis of Balance Sheets 2011 - 2015

Vertical Analysis	2011	2012	2013	2014	2015
TOTAL ASSETS	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**
Fixed Assets	57.26%	50.62%	44.00%	53.38%	38.61%
Intangible fixed assets	0.27%	0.35%	0.23%	0.19%	0.04%
Tangible fixed assets	56.20%	49.59%	34.16%	42.85%	30.71%
Long-term financial assets	0.79%	0.68%	9.60%	10.34%	7.86%
Current assets	42.68%	49.36%	82.37%	46.61%	61.37%
Inventory	12.14%	12.37%	24.73%	9.33%	7.89%
Long-term receivables	0.00%	19.48%	15.84%	16.22%	11.44%
Short-term receivables	25.37%	14.09%	10.53%	19.87%	32.21%
Receivables Total	25.37%	33.56%	26.37%	36.09%	43.65%
Short-term financial assets	5.18%	3.43%	4.89%	1.19%	9.84%
Accruals	0.06%	0.02%	0.01%	0.00%	0.01%
TOTAL LIABILITIES	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Equity	37.31%	32.67%	33.19%	41.36%	30.40%
Registered capital	35.10%	30.25%	24.42%	26.30%	19.99%
Capital funds	0.00%	0.00%	0.00%	0.00%	0.00%
Reserve funds, etc.	1.34%	1.35%	1.11%	1.56%	1.54%
Profit / loss of previous years	-3.62%	0.55%	0.85%	4.23%	3.22%
Profit / loss of current period (+/-)	4.49%	0.61%	6.81%	9.27%	5.66%
Liabilities	62.69%	67.33%	66.81%	58.64%	69.60%
Reserves	10.67%	8.34%	7.61%	9.25%	7.01%
Long-term payables	27.13%	0.00%	15.81%	17.21%	0.00%
Short-term payables	24.89%	45.52%	31.55%	32.18%	62.58%
Bank loans and financial assistance	0.00%	13.47%	11.85%	0.00%	0.00%
Accruals	0.00%	0.00%	0.00%	0.00%	0.00%

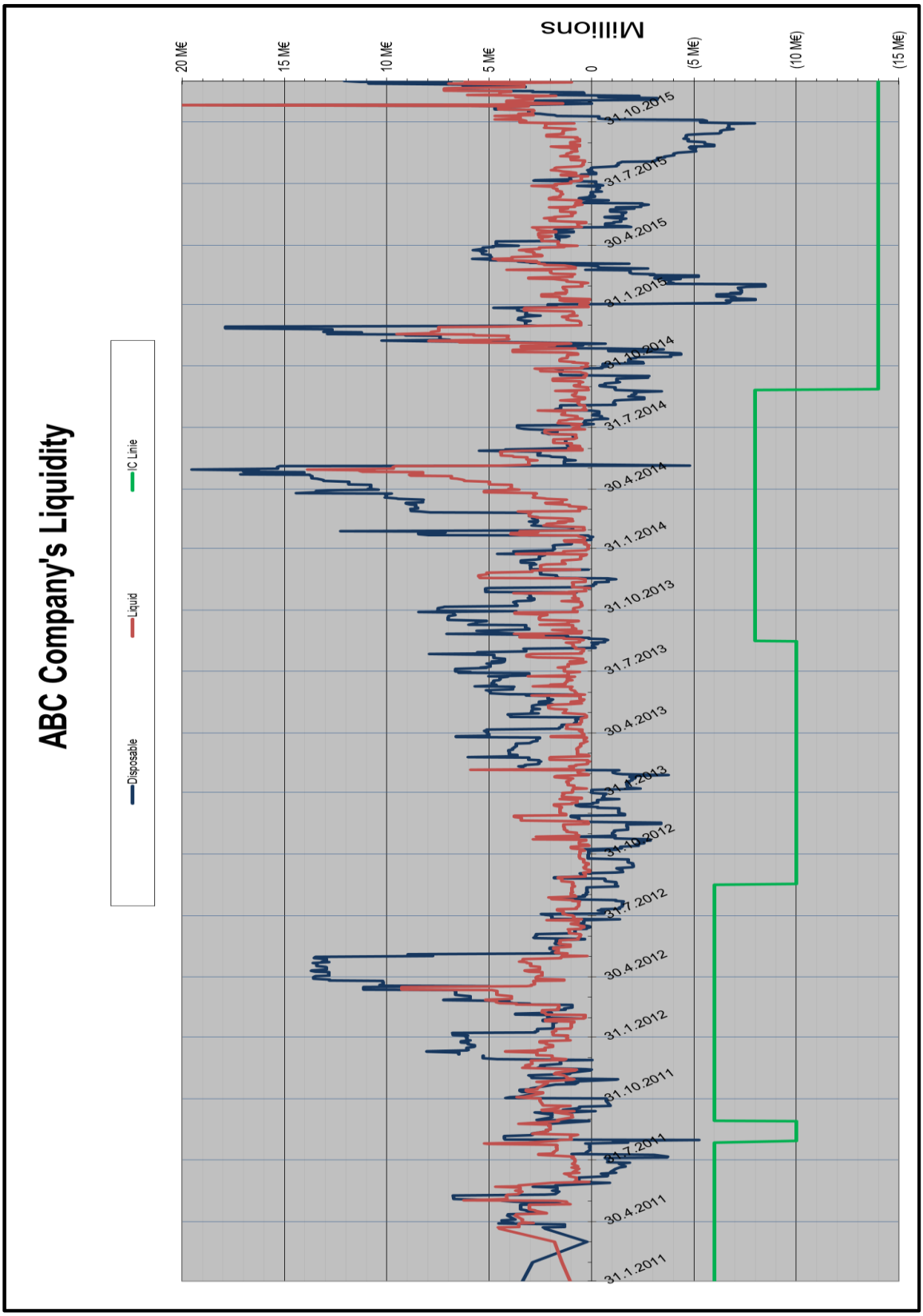
Source: Financial statements of selected company 2011 - 2015

Attachment 6: Vertical Analysis of Income Statements 2011 - 2015

Vertical Analysis	2011	2012	2013	2014	2015
Revenues from merchandise	35.54%	35.10%	43.80%	54.13%	54.94%
Costs of sold goods	32.86%	32.43%	38.98%	51.63%	52.35%
Sales margin	2.69%	2.68%	4.82%	2.51%	2.59%
Production	65.24%	64.37%	56.68%	45.49%	45.23%
Revenues from own products and services	64.46%	64.90%	56.20%	45.87%	45.06%
Change in inventory of the company´s own production	0.79%	-0.52%	0.48%	-0.37%	0.17%
Capitalization	0.00%	0.00%	0.00%	0.00%	0.00%
Production consumption	47.03%	45.44%	40.79%	31.48%	31.37%
Consumption of material and energy	32.67%	32.26%	29.21%	21.10%	21.74%
Services	14.37%	13.17%	11.58%	10.38%	9.63%
Added value	20.90%	21.61%	20.71%	16.52%	16.45%
Personnel expenses	14.12%	15.07%	11.37%	8.32%	9.89%
Taxes and fees	0.04%	0.04%	0.04%	0.03%	0.06%
Depreciation of tangible and intangible fixed assets	3.80%	5.28%	4.25%	3.06%	3.99%
Revenues from disposals of fixed assets and materials	4.25%	3.98%	3.77%	2.32%	2.53%
Net book value of disposed fixed assets and materials	2.97%	2.83%	2.56%	1.55%	1.70%
Change in operating reserves and adjustments and complex deferred costs	-0.58%	0.54%	0.02%	0.94%	-0.68%
Other operating revenues	0.09%	0.54%	0.13%	0.01%	0.21%
Other operating expenses	0.67%	0.72%	0.44%	0.68%	0.28%
Operating profit / loss	**4.21%**	**0.69%**	**5.93%**	**4.28%**	**3.96%**
Income from financial assets			0.07%	0.09%	0.16%
Interest revenues	0.02%	0.11%	0.13%	0.09%	0.06%
Interest expenses	0.13%	0.46%	0.35%	0.14%	0.12%
Other financial revenues	1.44%	2.55%	2.91%	0.47%	0.64%
Other financial expenses	2.18%	2.32%	3.12%	0.57%	0.67%
Profit / loss from financial operations (transactions)	**-0.86%**	**-0.13%**	**-0.36%**	**-0.06%**	**0.07%**
Income tax on ordinary income	0.54%	0.16%	0.66%	0.23%	0.82%
Profit / loss of current accounting period	**2.81%**	**0.40%**	**4.91%**	**3.99%**	**3.21%**

Source: Financial statements of selected company 2011 - 2015

Attachment 7: ABC Company's Liquidity



Source: Own processing based on information provided by the financial department

Attachment 8: Aging Schedule of Account Receivables as to the 31st December 2015

Receivable Aging Schedule	IC Transactions	External Customers	Total
Total	256,941,283	103 564 316	360 505 599
- due in 90 days	215,566	1,736	217,302
- due in 60 days	78,880,509	23,308,802	102,189,311
- due in 30 days	177,446,697	79,355,951	256,802,647
- overdue up to 30 days	166,222	117,753	283,976
- overdue up to 60 days	223,357	81,133	304,490
- overdue up to 90 days	0	-234,197	-234,197
- overdue up to 120 days	0	-1,379	-1,379
- overdue more than 120 days	8,933	934,516	943,449

Source: Own processing based on information provided by the financial department

Attachment 9: Aging Schedule of Account Payables as to the 31st December 2015

Payables Aging Schedule	IC Transactions	External Suppliers	Total
Total	677,950,891	30,831,500	708,782,392
- due in 180 days	2,627,085	0	2,627,085
- due in 60 days	232,240,455	0	232,240,455
- due in 30 days	442,753,309	30,677,211	473,430,520
- overdue up to 30 days	129,345	90,742	220,087
- overdue up to 60 days	4,727	-171,509	-166,781
- overdue more than 120 days	191,226	0	191,226
- overdue up to 180 days	4,743	235,057	239,800

Source: Own processing based on information provided by the financial department

Attachment 10: NPV of New Production Hall

NPV-Calculation (in ths CZK)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Number of vehicles produced	0	0	1,500	2,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	26,000
Cash outflow	**0**	**0**	**247,766**	**422,044**	**568,704**	**598,067**	**628,400**	**660,454**	**694,354**	**729,451**	**765,788**	**803,409**	**842,361**	**6,960,797**
- Personal costs (4% growth)	0	0	111,537	226,708	317,670	329,685	342,149	355,799	370,743	386,314	402,539	419,445	437,062	3,699,650
- Production costs (material + transportation)	0	0	317,520	449,143	578,271	595,619	613,488	631,892	650,849	670,375	690,486	711,201	732,537	6,641,380
- Opportunity costs	0	0	-233,131	-310,831	-388,538	-388,538	-388,538	-388,538	-388,538	-388,538	-388,538	-388,538	-388,538	-4,040,805
- Overheads	0	0	51,840	57,024	61,301	61,301	61,301	61,301	61,301	61,301	61,301	61,301	61,301	660,571
Project : New production hall	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**Total**
Depreciation- 20 years	0	0	-15,080	-120,551	-125,434	-125,434	-125,434	-119,354	-106,124	-63,374	-58,874	-58,874	-58,874	-977,403
Cash outflow	0	0	-247,766	-422,044	-568,704	-598,067	-628,400	-660,454	-694,354	-729,451	-765,788	-803,409	-842,361	-6,960,797
Cash inflow	0	0	708,087	972,440	1,252,016	1,289,576	1,328,264	1,368,112	1,409,155	1,451,430	1,494,973	1,539,822	1,586,016	14,399,890
Cash inflow	**0**	**0**	**708,087**	**972,440**	**1,252,016**	**1,289,576**	**1,328,264**	**1,368,112**	**1,409,155**	**1,451,430**	**1,494,973**	**1,539,822**	**1,080,000**	**1,068,760**
- Exchange rate (CZK/EUR)	27	27	27	27	27	27	27	27	27	27	27	27	27	
- Inflation rate	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
- Number of vehicles produced	0	0	1,500	2,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	
Operating profit before taxes	**0**	**0**	**445,241**	**429,845**	**557,879**	**566,076**	**574,431**	**588,304**	**608,677**	**658,605**	**670,312**	**677,540**	**684,781**	**6,461,691**
Taxes (19%)	0.0	0	84,596	81,671	105,997	107,554	109,142	111,778	115,649	125,135	127,359	128,733	130,108	1,227,721
Investition	**-229,500**	**-797,193**	**-624,787**	**-52,380**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-1,703,860**
Cash before taxes	**-229,500**	**-797,193**	**-164,466**	**498,016**	**683,312**	**691,510**	**699,864**	**707,658**	**714,801**	**721,979**	**729,185**	**736,413**	**743,655**	**5,964,733**
Cash after taxes	**-229,500**	**-797,193**	**-249,062**	**416,345**	**577,315**	**583,955**	**590,722**	**595,880**	**599,152**	**596,844**	**601,826**	**607,681**	**613,546**	**4,737,012**
Discount factor	1.00	0.93	0.86	0.79	0.74	0.68	0.63	0.58	0.54	0.50	0.46	0.43	0.40	
NPV	**-229,500**	**-738,142**	**-213,530**	**330,508**	**424,344**	**397,430**	**372,255**	**347,690**	**323,703**	**298,570**	**278,762**	**260,624**	**243,648**	**2,096,363**

Source: Own processing based on information provided by the financial department