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DIPLOMA THESIS

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THE UNIVERSITY OF ECONOMICS, PRAGUE

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PROGRAMME: FINANCE AND ACCOUNTING FOR COMMON EUROPE

PLANNING AND BUDGETING SYSTEM WITH A FOCUS ON P&L STATEMENT WITHIN ABB, S.R.O

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Declaration of Authorship

I hereby declare that I have written this thesis on my own. The sources I have used are featured in the enclosed bibliography.

In Prague,

...……………………..

Luboš Procházka

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I would like to thank my supervisor doc. Ing. Jaroslav Wagner, Ph.D. for his inspiring guidance and valuable advice during the compilation of this final project. In addition, I wish to express my sincere gratitude to Ing. Markéta Novotná, Ph.D. for her kind interest as well as for giving me the opportunity to establish the thesis on real data of a specific company.

Abstract:

The final project focuses on the budgeting system with special emphasis on the income statement. The first part of the thesis provides a theoretical background of planning and budgeting processes and their main characteristics. It is particularly budgeting that is elaborated on in greater detail. The end of the theoretical part presents the master budget, the key budget in an organization, and gives special attention to budgeted income statement.

In the practical part of the thesis, the theoretical background is employed to analyze, discuss and assess the budget system of a specific company, together with its financial and managerial income statements.

Key words: budget process, budgets, income statement

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INTRODUCTION

My thesis is conceived as a diploma thesis within the study program "Finance and Accounting for Common Europe" provided by the Faculty of Finance and Accounting. With my academic, we have defined the topic as "Planning and budgeting system with a focus on P&L statement within ABB, s.r.o.".

Deciding what field I should choose my topic from, I tried to take into consideration my bachelor's degree program Accounting and Corporate finance management and a subsequent number of subjects within my FINAC master's program, which gave me the opportunity to choose from a very large amount of topics.

Two reasons led me to select a topic from the area of managerial accounting. The first reason was my long-term interest in the subject Managerial Accounting itself. From the entire content covering the study of Managerial Accounting at the University of Economics in Prague, it was planning and budgeting process that impressed me the most. Firstly, I am used to planning activities a lot in general: I prepare well-arranged budgets for myself as I prefer to know (and control) how many non-essential things I can still buy in a given month after paying all the necessary ones. And secondly, I find that the planning and budgeting field has a great potential. It is gradually becoming a key tool for the business management. A thorough knowledge of budgets requires broad theoretical awareness of various financial fields as well as analytical skills, in order to correctly estimate the future development of a particular company.

It is possible to find more and more literature regarding budgeting and planning, but probably the greatest source of information is a real-life, practical experience. My second reason for selecting this topic is linked to that fact. I had the opportunity to work for the IBM company, precisely in the Planning and consolidation team for Central and Eastern Europe: the manager was a CEE Controller. Although I was in a student position, I had the chance to look into the workload intended for such a team, where working with budgets meant a daily routine. At that time, already, I said to myself that one day I would like to become a member of a similar department. Moreover, at the same time it firstly occurred to me that I should write my diploma thesis on budgets and plans.

This diploma thesis is divided into two major parts.

The first part is the methodical one. In this section, divided into numerous chapters and subchapters, I will try to define the differences between strategic plans and budgets, further on, I will be presenting the methodology of the budgeting and planning process through particular stages, I will be also mentioning the reasons for using plans and budgets, their basic characteristics, different types, goals and functions. I will introduce the notion of master budget as well, followed by a more in-depth description of budgeted income statement. At the end of this section, the control process will be explained.

For the methodical part purposes I will draw from professional and scientific literature of both Czech, and foreign authorship.

The second part of this thesis is the practical one. In this part I will try to apply the knowledge gained from the methodical section in practice that is to the chosen company ABB, s.r.o. It. is a large manufacturing corporation producing power and automation technologies. For the practical part purposes I will draw the information directly from a company's employee holding the Local Division and local business unit controller position.

The goal of my diploma thesis is to confront findings from the scientific literature elaborated in the theoretical part with a specific company’s approach on the chosen scope discussed in the practical part and then assess the potential differences to make recommendations for the company in terms of planning and budgeting system and all the associated processes. As a secondary goal I set to analyze the differences between the income statement from the two perspectives, of management accounting and financial accounting. I will focus both on content differences and differences in structure.

Finally, I would like to mention my strategy to writing my thesis in the English language. The management accounting’s matters are rich in terminology that is unique to this field. The correct translation of certain words from the English language will be based on the Anglo-Saxon terminology that was partially translated according to the document "Glosář finančních pojmů: Základní koncepty a pojmy", which was provided to me by the Department of Management Accounting at University of Economics in Prague. As a second source of the Czech words translated from English by the experts I used the publication "Management Accounting: Official Terminology" by CIMA. Both sources are listed in the bibliography at the end of this thesis. I would like to point out that Czech accounting terminology, unlike the English one, uses synonyms for some terms. For example, *“in English only the terms direct* *cost and indirect cost are used. Czech terminology uses in addition to that the terms "per-unit cost" (jednicové náklady) and "non-per-unit cost" (režijní náklady). These two terms are not based on official English terminology. They are only proposals of translation of Czech terms, which are not used in English."*[1] In cases will feel unable to find a particular word or phrase in literature, I will use my own translation, so that it will correspond the English term as accurately as possible.

[1] Department of Management accounting, Controller Institut. Glosář finančních pojmů: Základní koncepty a pojmy. University of Economics, Prague.

METHODICAL PART

1. CONTROLLING

Controlling represents a relatively independent, young scientific discipline. Its origins date back to the seventies of the 20th century, when the term was introduced in German-speaking countries. Its basic goal was to provide all areas of management with information not only dealing with the actual conditions, but also the planned conditions and their reciprocal comparisons, evaluation of deviations and which, consequently, might have led to updating of goals. Because of its place of origin, I am selecting one definition of controlling from German author: *"Controlling is a management tool that goes beyond number of functions and that supports business process management, decision making and goal-oriented information processing."*[2]

The today's field of controlling activities are especially two relatively distinct areas: firstly, it is the management process itself (planning and control) and secondly, it is the information support of the management process. Moreover, besides the **natural controlling**, which is related directly to the natural manner of the business process management (production controlling, sales controlling, inventory controlling, etc.), the **financial** and the **cost controlling** (which is close to what is called managerial accounting in Anglo-Saxon world) both play important roles as the subject of interest here is the value management.

In the previous two paragraphs I introduced controlling as an autonomous discipline that is the case typically for the German-speaking countries where it originated. However, interestingly, controlling as a function within the company (i.e. **controller**) and the controlling department were used in practice already in the thirties of the 20th century, in America, from where these "terms" penetrated through their subsidiaries to Europe approximately at the end of the fifties.

Unlike the manager, who, as the notion already implies, has the competence to manage, the controller is responsible for ensuring an information support for the value management of the company. The controller has the power to define the content of value categories (assets and liabilities, expenses, revenues, income and expenditure) and

[2] PREIßLER, Peter. Controlling: Lehrbuch und Intensivkurs. Vienna: Verlag Linde, 1994

consequently decide how these values will be measured. The controller is an equal partner to managers, to whom he provides comprehensive information support for their decision making, but he does not decide and nor does he participate on the economic strategy development of the company. This fact/position makes him independent of submission of both good and bad information to the superiors of the organization. Likewise with the definition of controlling, a great number of definitions of controllers' roles can be found. For example, according to International Group of Controlling[3], the controller´s duties are the following ones:

- *Controllers provide transparency in such areas as strategy, performance measurement, finance and processes, thus helping to achieve greater efficiency.*
- *Controllers coordinate various targets and plans. They organize enterprise-wide reporting with an eye to the future.*
- *Controllers moderate and design the controlling process of goal-finding, planning and management control so that decision makers can target their efforts.*
- *Controllers provide key data and information needed for business decisions.*
- *Controllers develop and maintain controlling systems.*

The role of the controller in relation to budgets is further elaborated in the chapter "The budgeting process and its administration".

2. PLANNING

Business planning is an integral part of the business process management from time immemorial. It is proved by the fact that it is an indispensable part of business economics. Over the years, however, different approaches were introduced to its application along with much varied opinions on its importance in the business process.

In our region, during the second half of the 20th century, planning was broadly applied in a centralized manner. This approach among other characteristics meant restricted access for many foreign companies to the Czechoslovak market, where companies often did not have to face strong competition, and thus sales of production were secured. As mentioned in the publication from Král (2006), corporate objectives were defined by National economic center

[3] INTERNATIONAL GROUP OF CONTROLLING. Mission of the Controller. [online]. [quot. 2013-06-15]. Available from: http://www.igc-controlling.org/img/pdf/controller_e.pdf

based on the needs of market. And this center was unable to create an effective motivation for and within a company. So then the use of information in the directive national management system raised a perception that *"planning and budgeting are solely tools of centrally planned management system, and therefore useless in market conditions."*[4] As a result, after the end of the communist period, businesses held a rather negative attitude against planning. Anyway, over the time an opinion prevailed that planning is actually a necessary tool for business management. Currently it holds a very important position in the whole management system.

What exactly is covered by the term “planning”? For example, Ackoff (1981) defined it as *“the design of a desired future and of effective ways of bringing it about.”*

A good starting ground for the company could be understanding the reason of its existence and knowing what it is trying to accomplish, i.e. its mission, **goals** and **objectives**. Therefore, initially, a thorough understanding of the organization’s long-term and short-term planning methods, related budgeting and control processes must be attained. Emphasis should be especially on the approach to planning and its integration within the budgeting process. These two techniques are the key devices to achieving improved organizational effectiveness, whereas the planning process ought to be the initial step leading to the preparation of an effective budget for the organization, department, function, etc. In other words, planning is used in the meantime, until the time organization has formulated its goals and objectives. Then budgeting process comes with a precise knowledge of where to allocate the available resources.

- Goals – are statements of broad directions toward which it is desired to approximate the organization. Usually, they are achievable only in the long run.
- Objectives – are measurable, explicit results related to one or more goals and they can be achieved within a specified time frame.

2.1. CLASSIFICATION ACCORDING TO TIME PERIODS

From the temporal point of view, plans are divided into **strategic**, **tactical** and **operational**. There is a difference between a so-called short-term (budgeting) and long-range (strategic, corporate) planning. Sizer (1989) then elaborates those two time perspectives. He defines the **long-range** planning as *“a systematic and formalized process for purposely*

[4] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

directing and controlling the future operations toward desired objectives for periods extending beyond one year." However, as stated by Král (2006), this period cannot be exactly determined. It is influenced by several factors such as *"economic life of products for a customer, the length of the business cycle, economic life of profiling tangible as well as intangible fixed assets, the stability of the market environment in the segment."*

Medium-term plans and budgets are an interlink between the long-term and short-term horizon. The length of its period is again very individual according to various business sectors, but in general, most publications indicate it is three years. These plans and budgets are needed for a tactical control.

On the other hand, **short-term** planning[5] *"must accept the environment of today and the physical, human and financial resources at present available to the firm."* These are determined by the quality of the firm's long-range planning efforts. Budgets are usually created for one year or less time periods. Král (2006) further states that the length of short-term plans and budgets may not always be the calendar year but may be also associated with the business cycle period. This approach is more common across the world, while in the Czech Republic, short-term plans are mostly tied to the calendar year. This is caused, among others, by the legislative requirements of commercial law and financial accounting.

2.2. FRAMEWORK FOR PLANNING PROCESS

Figure 1 shows how a framework of planning process can look like. Basically, it consists of agreed actions that are to be implemented in the short/long-term future and whereby an organization can get closer to its specified goals and objectives. If it is implemented effectively, the company is able to easily determine its present and future needs as well as to review and analyze its previous accomplishments. Furthermore, when designing effective long-range or short-range plans, i.e. development of detailed plans and related budgets, combination of top-down and bottom-up approaches[6] should be used. Personnel at all organizational levels (top management, operations management and staff) must be involved and must interact. Results then lie in agreed systems of organizational plans

[5] For my diploma thesis I have accepted underlying approach that short-term planning = budgeting, i.e. planning within period up to one year. Further elaboration on budgeting is contained in Chapter 3

[6] More about these two processes used in budgeting is mentioned in Chapter – Stages in the budgeting process

(strategic plans, corporate goals and corporate objectives) and segment goals, objectives, detailed plans and, of course, budgets.

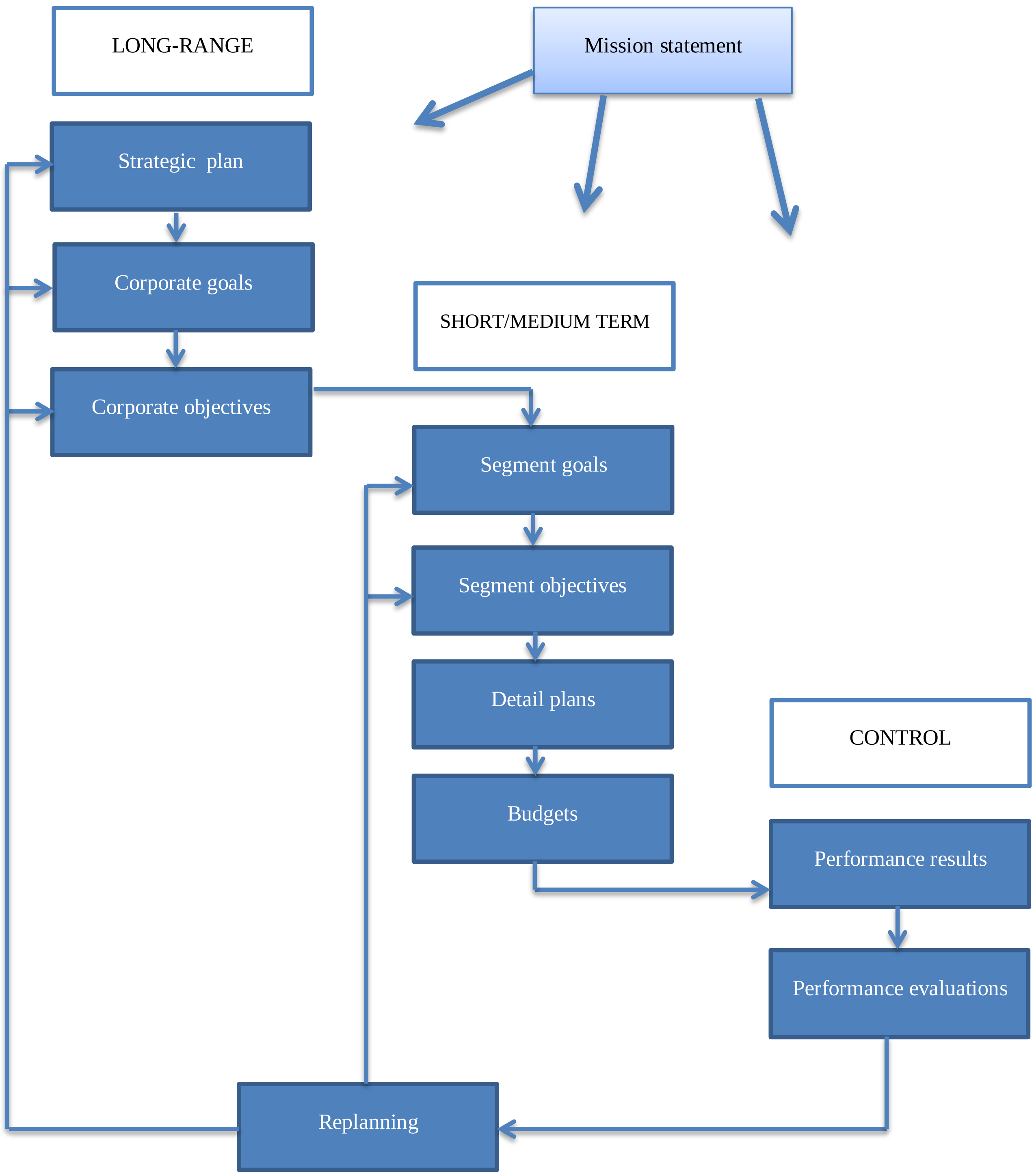
Below, I would like to illustrate two frameworks for planning processes that are based on specialized literature. Framework 1 comes from Reider and Heyler (2003), and framework 2 from Drury (2005):

1. Framework based on Reider and Heyler (2003):
    - Strategy identification and selection – in this first step two basic questions should be answered. They are "why" and "what" to do.
    - Strategic alternatives identification – this step deals among others with already mentioned competitive advantage strategies.
    - Strategy selection
    - Strategy implementation – within the fourth step it is recommended to convert chosen strategies into operations and their budgets. For better illustration we can see this planning part in Figure 1 under short/medium term steps beginning with segment/departmental goals and objectives and ending with budgeting.
    - Strategy review and re-plan if required – the last step is here to control and measure implemented strategic plan and related operating plans and budgets.

2. Framework based on Drury (2005):
    - Long-range planning process
        - Establishing objectives – specification of those objectives towards which future operations should be directed. In the ideal way reaching objectives are measurable and people are motivated by them.
        - Identify potential strategies (course of actions) – before developing strategies, it is essential to prepare a strategic analysis (SWOT). The next two steps are to identify the generic strategy to be pursued, i.e. the basis on which the organization will complete/sustain superior level of performance and determine the alternative directions in which the company may wish to develop
        - Evaluating of (alternative) strategic options – The alternative strategies should be examined basing on suitability (finding out whether chosen

    strategies fit the situation identified in the strategic analysis), feasibility (finding out whether the strategy is in line with available resources) and acceptability (finding out whether the strategy is acceptable from various point of views)
  - Select (alternative) course of action – after evaluating strategic options and selecting those with the highest potential to achieve company's objectives, long-range plan (a statement with preliminary targets and activities whereby company can achieve strategic plans as well as estimates of required resources for each year) ought to be composed
- Annual budgeting process
  - Implementation of the long-term plans into budgets
  - Monitor actual results and respond to divergences from planned results – the last stage within planning process represents the control process that helps to compare planned and actual results as well as to respond to any differences from the plan.

Figure 1 - Planning process



Source: own elaboration based on REIDER, Rob, Peter B. HEYLER. Managing Cash Flow: An Operational Focus. New Jersey: John Wiley & Sons, 2003.

2.2.1. STRATEGIC PLAN

As it is shown in Figure 1, the strategic plan is the very first step in the whole organizational planning process, because it basically ensures that the people in the company will understand what to do.

A strategic planning is related to long-term development of the company and its surroundings - techniques, technologies and changing economic environment. It looks into the future for several years ahead, so logically those plans tend to be rather general in nature, uncertain and not very detailed. Strategic planning refers to the process whereby managers select the firm's overall objectives and tactics to achieving these. It involves deciding what markets to be in, what products to produce, and what price-quality combinations to offer. Strategic planning also addresses questions such as what the organization's future structure must be to support the strategy including the future R&D, the capital spending and the financial structure.

I would also like to mention that a large number of companies use SWOT analysis (consisting of external and internal factors) to help them analyze and evaluate the current situation before determining the strategic plan itself. External analysis is intended to review various elements aiming at opportunities, threats and strategic questions. Generally, everyone has to perform it within reasonable boundaries as too much leads to high costs of time and resources. On the other hand, an internal analysis is focusing solely on understanding of critical strategic zones within the organization, i.e. strengths, weaknesses and again the strategic questions.

In the unstable market environment it is recommended to establish a flexible plan and consequently follow up with flexible budget. Even in relatively stable markets would be better and more appropriate to assemble at least two versions due to the dynamic development of economy and the strong competition.

3. BUDGETING (SHORT-TERM PLANNING)

3.1. BUDGETING VS BUDGET

Budgeting is a concept that is closely linked to planning. Král (2006) states that *"budgeting is the process of formulating valuable quantified objectives."* Budgeting thus transforms goals, established in the planning, into value variables. Furthermore, as mentioned by Fibírová, Šoljaková and Wagner (2007), *"its focus is the preparation and evaluation of budgets."*

Budgeting represents a system demanding information, technical resources and skills requiring discipline when assembling budgets. It is the monetary expression of what has already been decided:

- for the specified period of time,
- for planned volume and structure of outputs,
- given anticipated changes of conditions in the process of production and process of sales of products to customers.

Also, it is a monetary expression of possibilities how to achieve goals if having more options to choose from.

The output of budgeting is the budget. It can be a **strategically, tactically** or **operationally** oriented tool of specification of objectives expressed in the form of measures, which are focused on the economic (financial) “side” of the business process.

Before the main functions of budgets will be introduced, I would like to mention some of the advantages of budgeting as per Zimmerman (2011):

- Coordination of sales, production, marketing, finance, and so forth.
- Formulation of a profitable sales and production program.
- Coordination of sales and production with finances.
- Proper control of expenditures.
- Formulation of a financial program including investment and financing.
- Coordination of all the activities of the business.

3.2. MAIN FUNCTIONS

The Budget should fulfill several basic functions such as the device that specifies goals of the organization as the whole, as well as the targets of each centers and personnel with the decision rights throughout the entire in-house management system. These functions, according to Drury (2005) and Fibírová, Šoljaková and Wagner (2007), are:

- **Planning** annual operations;
- **Coordinating** the activities of various parts of organizations and ensuring they are in line with each other;
- **Communicating** plans to the responsibility centers managers;
- **Motivating** managers for achieving organizational goals;
- **Controlling** activities;
- **Evaluating** performance of managers.

Now, please let me elaborate on each of the introduced functions.

1. PLANNING

The most important decisions such as essential changes in supply of the final products, the structure of customers, etc. have already been made within the strategic plans. We are now talking about the short-term (annual) process that requires a detailed elaboration of these strategic plans. In other words, the strategic plans have to be implemented through budgets. If they are not, managers would be focusing only on daily operation and would disregard the future. One of the assumptions/key factors is to closely interlock strategic goals with the tactical and operational management.

Beside the implementation of strategic plans, budgeting also ensures an evaluation of how conditions in next periods might be changed and what steps should be consequently taken to respond these new, modified conditions.

2. COORDINATING

The quality of an assembled budget greatly depends on the communication between the company´s managers. Therefore, the managers within the process of budgeting, (and all personnel participating) should communicate and cooperate adequately and continuously across the individual departments of the whole organization in order to identify and avoid potential conflicts. This global, mutual communication can also help to initiate other possible variants of development of the company. Moreover, it can help to prevent activities that do not correspond with the chosen strategy.

A model situation of this case is a company where marketing department plans promotional action leading to large increase in sales of products, but the production department is unable to fabricate it.

3. COMMUNICATING

Resulting from the budget data, the top management communicates the requirements of shareholders (owners) to the middle management and they forward them to the rest of the accountable personnel in the organization, in order to ensure that all employees are fully aware of the expectations in question and can conform their activities to accomplish them. The purpose of this function is to have everyone understood how to contribute and act towards achieving the budgets.

4. MOTIVATING

Budgets motivate managers to acting that is in accordance with the organizational objectives. Under certain circumstances, meeting the budget could be a target, which managers strive to achieve. However, it can sometimes lead to conflicts and inefficiency. Especially, if managers are actively involved in assembling budgets: then, it is likely that they will tend to determine the easiest targets for themselves. On the other hand, if they take active part in the preparation of budgets (instead of being dictated from "the above"), then they might consider them rather as a good and consequently might try to comply with them – this is the so-called bottom-up method.

5. CONTROLLING

The comparison of the actual financial performances with the budgeted ones is utterly beneficial for the company. The business units, responsible for particular items, may, according to the variances found, ascertain which items require special attention and which do not. This process is sometimes linked to an operation called **management by exception** meaning that managers look deeply only into the significant variances from budgeted results and thus may promptly intervene with remedial actions.

6. EVALUATING

Managers are often evaluated according to whether they followed the budget or not. Meeting the budgets is often awarded with various bonuses, in order to materially motivate the managers – see Motivating function above.

Plans and budgets constitute of many functions; being various, these may sometimes be even in contradiction. For instance, conflict may arise between the planning function on the one side and the motivational functions along with performance evaluating on the other. The point is that there is always an effort to establish a budget showing the most realistic outlook of organizational opportunities, but at the same time, there is an aspiration to ensure that the management and other personnel will achieve the best results, regardless of the plan and the budget. In order to reduce this conflict of interests, *"it is important to pay attention to communication within the company, information of managers, transparency of tools in use and management methods."*[7]

3.3. THE BUDGETING PROCESS AND ITS ADMINISTRATION

3.3.1. ROLLING VS FIXED BUDGETS

In terms of time period, assembling of budgets could result in several budget-types. Král (2006) mentions two of them – the Rolling budgets and the Fixed ones.

A budget for the **fixed period**[8] shows us only the development “from – to” of a certain period; what will happen afterwards is explained no sooner than during the drafting of a new budget. For example, in case of the short-term budget, the fixed budget is prepared once a year; divided into a 12 month or a 13 four-week period.

The **rolling budgeting** excels in terms of practicality. Its principle lies in forecasting firstly the first three months of the (still in the frame of the short budget) annual budget, and then the remaining three quarters of the year. In the first quarter, then, are further specified monthly budgets of the second quarter. And so it continues until the end of the year.

This method ensures a considerably higher preciseness than a budget prepared only once a year. This one results in a continuous process that clarifies the future plans constantly. As Král (2006) further claims, Rolling budgets *"have a significant advantage: they are rational compromise between*

a) the danger that comes from not updating sooner assembled budgets based on changes that have occurred inside and outside the company, and

[7] FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

[8] Sometimes called “Fixed budget”. However, this term also refers to budgets used in control process (see Chapter 6 – Control).

b) *attempt to adjust the budget, whenever there comes up doubt about its fulfillment."*

3.3.2. ADMINISTRATION

Prior to the budgeting process and its stages, it feels convenient to mention also the administrative side of the process. In order to ensure that budgeting within the organization works effectively, it is necessary to have certain (appropriate) procedures in place,. Further on, the budgeting should be entrusted to specific staff (the controlling department) that assists the responsible managers of the individual departments/functions in the process of preparing their budgets.

At the senior management level of a company, it is advisable that the **budget committee** is established. It should consist of high-level executives representing major segments of the business (financial management, marketing, production management, logistics, sales, etc.). The main task is to make sure that budgets are realistically designed, well assembled and that they are sufficiently coordinated.

Generally, the budget committee authorizes a concrete employee (the **budget officer**) from a particular segment - usually an accountant or a chief controlling officer - to coordinate the budget of his/her section into the budget of the whole organization.

Accounting staff or the controlling department, if in the role of budget officers, assist managers during preparation of their budgets, they describe the procedures, methods and objectives relevant to the process; they provide past data and information that may be useful and so on. These activities are usually grouped to a so-called **budget manual**. What they also do is that they ensure that budgets are submitted on time (before deadline). This is achieved by including the timetable that specifies the order in which budgets are to be finalized and prepared as well as the deadlines the employees should be respectful of. Finally, the whole budget concept is presented to the budget committee. These people, however, do not determine the content of the budgets, they provide solely the advisory and administrative services for the line managers.

Regarding the methodological procedures, the usual policy among the functional managers is to firstly present their budget concept to the committee before it is approved officially and brought into effect. If it proves insufficient guarantee to achieve a reasonable level of performance for whole organization, if the committee will turn the project down: it then needs to be adjusted and re-submitted for a new consideration. At this stage it is quite important that manager in the position of the one responsible for the future budget agrees with its final version. If not so (i.e. he considers it as impossible to achieve), the concept will not operate with motivational function (as described in the chapter dealing with functions of budgets).

3.3.3. STAGES IN THE BUDGETING PROCESS

The specialized literature (Drury, 2005) states the following stages in the preparation of budgets:

1. communicating details and concrete specification of budget policy, basic directions of business development and guidelines to those people responsible for the preparation of budgets;
2. defining factors that restrict corporate performance;
3. preparation of the sales budget;
4. initial stage of preparation of centers' budgets;
5. negotiation of initial centers' budgets with superiors;
6. coordination, review and revision of centers' budgets, their acceptance;
7. final acceptance of centers' budgets and master budget;
8. ongoing review of budgets.

After the initial introduction, I am going to further elaborate on each stage.

1. COMMUNICATING DETAILS, CONCRETE SPECIFICATION

The actual budget policy is influenced namely by the planned changes in sales mix (i.e. what products will be selling, for which prices, in which distribution channels and with which sale support) and expansion or contraction of certain activities. The top management should communicate to managers accountable for the budget preparation especially the anticipated changes in the industry demand and the sale of products. The managers responsible for the budget preparation ought to be well acquainted with the top management´s policy on implementing the long-term plan into current year's budget, in order to set up suitable budget guidelines for their employees. Also, basic directions of business development should be specified, that are fundamental for the budgets preparation (e.g. planned technological changes including their impact on costs, competitive environment and its impact on price and wages increases, etc.).

This process enables to unify the decision making of the managers on lower levels and show them how they should respond to eventual (expected) market environmental changes.

2. DEFINING FACTORS RESTRICTING PERFORMANCE

In every company exist factors that restrict its performance in a given period of time. These can be of various nature, nevertheless, most frequently, it appears to be the sales demand (the extension and structure of selling outputs). However, if sales demand excesses the available capacity, then it is for a change the production capacity that restricts performance. Other restricting factors feature for example the qualification structure and adaptability of employees, the time when organization responds to customers' needs, etc.

This being said, it is crucial for the top management to determine the factors which restrict performance of their company and which therefore should embody a starting point for the annual budgeting process.

3. SALES BUDGET PREPARATION

If the sales demand is the factor that restricts the output, then the amount of sales and sales mix determines the volume and structure of the produced outputs (i.e. the level of capacity utilization). Because of this, the sales budget is the crucial budget that needs to be assembled. The sales budget being unrealistic, the other budgets are misleading. The total sales revenue is influenced not only by the customer demand, but also by the state of the economy and/or competitiveness of the company in question.

The sales budget is built on sales plan of particular products (groups of products) and their planned selling prices.

4. THE INITIAL STAGE OF PREPARATION OF BUDGETS

Following the established guidelines relating to the budgeting policy for a given period and prepared sales budget, the managers responsible for reaching the budgeted targets ought to prepare the budget for areas (centers) they are liable for. This preparation of budgets should be done based on a so-called "**bottom-up**" process. In this system, *"the planning process starts at the lowest levels at which the organization operates. The theory is that operating people are closer, more responsive, and more knowledgeable about the immediate needs and* *are thus in a better position to develop plans. Since they are totally involved in the planning process, they will be more committed and motivated to make the plans succeed."*[9]

Naturally, there are more ways to determine the appropriate quantity for a particular budget item. As the starting point for assembling the budgets it is recommendable to make use of the past data along with taking into consideration the changes of the future conditions.

5. NEGOTIATION OF THE INITIAL BUDGETS WITH SUPERIORS

Assuming that a company employs the participative approach (bottom-up) for budgeting, the managers at the lowest levels submit their prepared budget to their superiors for approval. The superiors then tie this budget in with the others they are responsible for and then the new aggregated budget is submitted to again, their superiors for approval. This process continues until it ends at the highest level involved into the budgeting process within the company. It is important to mention that the superiors do not approve the budgets automatically. On the contrary, approval of each budget at each stage, is preceded by a profound bargaining process between the manager and his/her superior. The final figures should present the outcome of negotiating of both sides.

According to Sizer (1989), budgeting process is a "two-way" process – "top-down" and "bottom-up". During the "**top-down**" phase, the organization targets are laid out, specifying the guidelines and policy for the assembling of budgets as well as the statement of objectives and long-term strategies. Shortly, by the „bottom-up" process the budgets are prepared and by the "top-down" process the budgets are approved by the senior management.

Contrary to the "bottom-up" system used in the initial stage of the preparation of budgets stands the notion of pitfalls in the "top-down" system. Here, *"top management creates strategy as well as departmental goals and objectives that they consider necessary to achieve their strategies. Although this procedure provides the resources to achieve the strategies across the organization, it is seen many times by department managers, supervisors, and staff as management by directive. Since the operating personnel have no*

[9] REIDER, Rob, Peter B. HEYLER. Managing Cash Flow: An Operational Focus. New Jersey: John Wiley & Sons, 2003.

input into the planning process, the resulting plans are seen as top management's, and there is little motivation for the operating people to achieve success."[10]

Overall, the whole process of negotiating of budgets has a decisive impact on whether the budgets will become important tools for the management or solely a time consuming exercise without any added value to it.

6. COORDINATION, REVIEW AND ACCEPTANCE OF RESPONSIBILITY CENTERS' BUDGETS

During the negotiation process at the senior level management are, among others, examined the relations between the individual budgets. This should result in meeting the organization´s strategic goals successfully and in an indication whether the budgets are balanced and in accordance with the constraints and conditions of the others budgets as one manager does not have the knowledge necessarily about the other budgets´ conditions.

If any modifications in budgets are required, the „bottom-up" system should be maintained, so the changes are to be made by the responsible manager. As already mentioned in the preceding stage, the budget can be adjusted more than once if necessary to meet all the acceptance criteria.

Furthermore, during this process the master budget[11] starts to be prepared. The reason for this timing is that it can be verified whether the undergoing adjustments in budgets are acceptable from the whole organizational perspective.

7. ACCEPTANCE OF CENTERS' BUDGETS AND MASTER BUDGET

When the coordinating stage is completed and all the budgets are successfully mutually incorporated, the **master budget** can be finalized as it is based on summarizing of all budgets. The master budget consists of a budgeted income statement, a balance sheet and a cash flow statement. Once the master budget is approved, the managers responsible each for their budget get a "green light" for working with the figures in their budgets.

[10] REIDER, Rob, Peter B. HEYLER. Managing Cash Flow: An Operational Focus. New Jersey: John Wiley & Sons, 2003.

[11] Devoted in Chapter 4

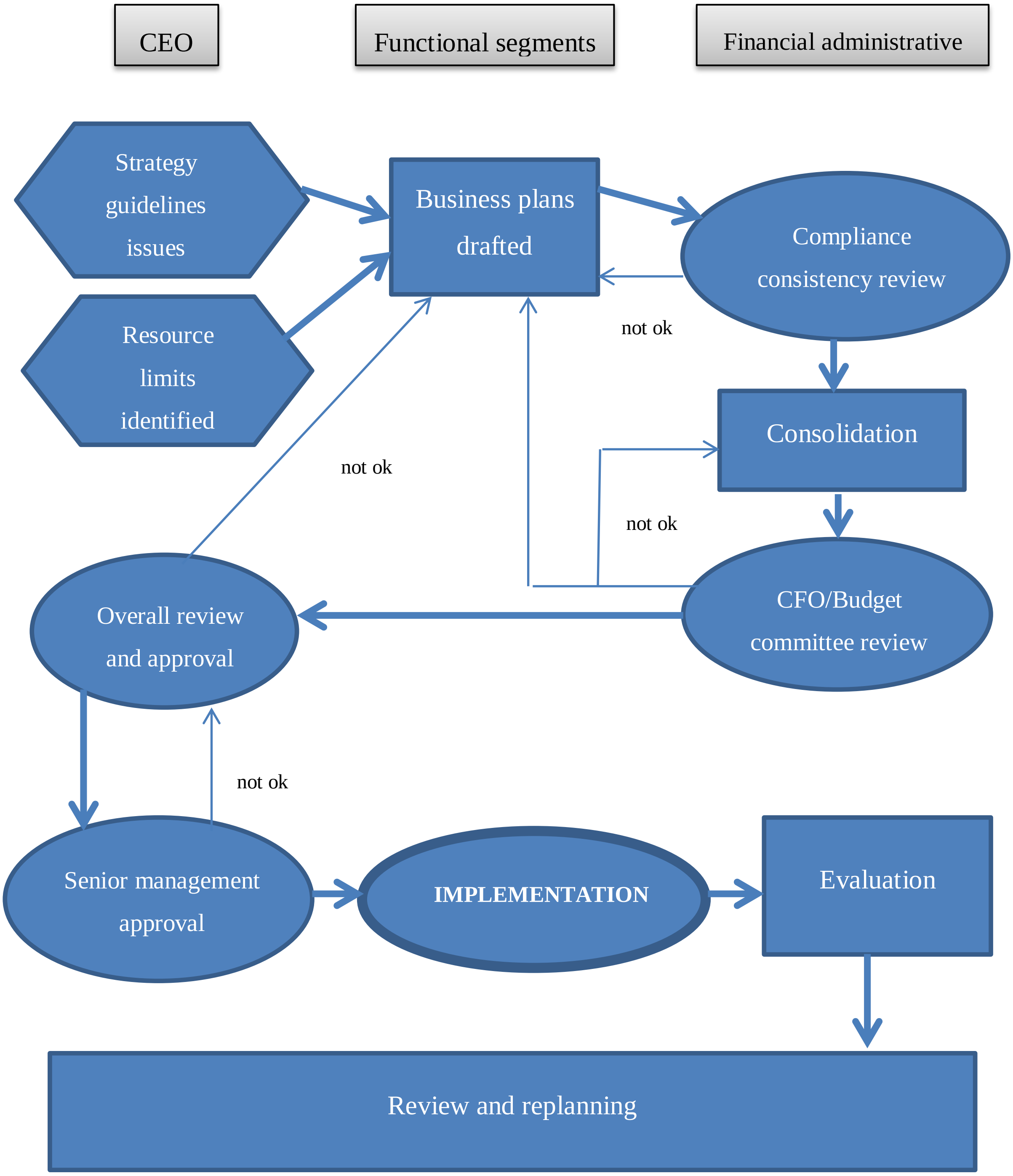
8. BUDGETS REVIEW AND MAINTENANCE

There is no ending point to the budgeting process. Once the budgets are approved at all the levels of an organization, the review process begins that is taken on periodic bases. The actual figures are compared with the budgeted ones and reports are sent to the competent superiors. The review process monitors the differences and if necessary, the remedial actions are taken.

If not so, the budget was probably assembled based on unrealistic assumptions and does not provide proper information value until the end of the budgeting period when it has to be revised.

The above mentioned stages of the budgeting process combining developing, approving, and implementing the short-term planning activities are generally demonstrated in Figure 2. This exhibit shows the roles of the CEO, the functional managers, and the administrative (financial) personnel acting in the process. The process is based on cooperation between the senior and functional management. Resulting in an implemented working budget, which is a compromise of the “bottom-up” and “top-down” internal negotiating processes.

Figure 2 - Short-term budgeting process



Source: own elaboration based on REIDER, Rob, Peter B. HEYLER. Managing Cash Flow: An Operational Focus. New Jersey: John Wiley & Sons, 2003.

3.4. BUDGET DEVICES

This section introduces various budgeting devices commonly used in organizations within their budgeting processes.

1. SHORT-RUN VERSUS LONG-RUN BUDGETS

These two devices were introduced in the foregoing section “Classification according to time periods”.

The short-run budgets are usually annual budgets in the sense that they are projected only for one year. With short-run budgets, the key planning assumptions involve quantities and prices. On the other hand, the long-run budgets are in most firms projected for 2, 5, and sometimes even 10 years in advance. They are the key feature of the organization’s strategic planning process.

2. FIXED VERSUS ROLLING BUDGETS

Likewise the short-run and long-run budgets, this was already mentioned in this thesis in the section entitled “The budgeting process and its administration”.

3. LINE-ITEM BUDGETS

The line-item budgets refer to those budgets allowing the manager to spend only up to a specified amount on each line item. As an example we can think of a manager who is authorized to spend the sum of 10 000 CZK on office supplies for a particular year. Now, if the supplies can be purchased for 8 000 CZK, the manager with a line-item budget cannot spend the saved 2 000 CZK on any other category such as salaries, etc. This appears to be a disadvantage. The manager has less motivation to look for savings as he cannot spend the savings from one line item on another line item without prior approval of his superiors. In order to preserve the manager’s motivation to still use budgeted resources widely, a good idea might be to reward him by a certain percentage of the resources saved from the given budget.

4. BUDGET LAPSING

Lapsing is sometime used as a budget device. It says that the unspent funds are not to be carried over to the next year period, on the contrary, they should be spent in the current budget period. The budget lapsing creates an incentive for managers to spend all their budget, otherwise it can be taken as a sign for his/her superiors to reduce the budget for the next period. Without the budget lapsing, the managers could save significant balances in their budgets. Thus, for example, typically at the end of their contracts they tend to make very large expenditures on rather unnecessary things.

5. STATIC VERSUS FLEXIBLE BUDGETS

Basically, the static budgets do not vary as far as the volume is concerned. Each line item is conceived at a fixed amount. Contrary to the static one, the flexible budget is stated as a function of a certain volume measure and is adjusted according to the volume changes.

The best way to demonstrate is to provide an easy example. Let us think of a dance music party. The DJ is hired for 110 000 CZK plus 20 % of each sold ticket. The club premises with the related facilities are rented for 100 000 CZK plus 10 % of each sold ticket. Then club staff costing 8 000 CZK per person are hired, one to every 100 guests. The remaining fixed costs totally equal 140 000 CZK. One ticket costs 400 CZK. In result, such music party can be thrown on the following flexible budget:

Figure 3 - Flexible budget example

		Ticket sales		
	Formula	*1 500*	*2 000*	*2 500*
Revenues	CZK 400*N**	600 000	800 000	1 000 000
DJ	CZK 110 000 + 0.20(400*N*)	230 000	270 000	310 000
Club premises and facilities	100 000 + 0.10(400*N*)	160 000	180 000	200 000
Club staff	CZK 8 000(*N*/100)	120 000	160 000	200 000
Other costs	CZK 140 000	140 000	140 000	140 000
Profit/loss		-50 000	50 000	150 000

* *N* is the number of tickets sold

Source: own elaboration based on ZIMMERMAN, Jerold L. Accounting for decision making and control. 7th edition. New York: McGraw-Hill, 2011.

Except for the other fixed costs, each line item in the budget is stated in terms of how it varies with volume (ticket sales). The budgets are then prepared at different volume levels. At ticket sales of 1 500, a 50 000 CZK loss is estimated. At sales of 2 000 and 2 500 tickets, 50 000 CZK and 150 000 CZK of profits are forecasted.

Thanks to the new information technologies, the technique of flexible budgeting is markedly simplified by automatized processing of data. Generally, the information technologies are significant help with controlling activities, as, thanks to them, it can be approached simply, easily and accurately.

6. INCREMENTAL VERSUS ZERO-BASED BUDGETS

The contemporary organizations tend to prefer the incremental budgeting to the Zero-based budgeting (ZBB) technique, also known as the priority based budgeting. This is due to the fact that the ZBB is without any doubt much more challenging to prepare.

The Incremental budgeting consists in assembling the next year’s budget starting with the current year’s budget and adjusting each line item according to the incremental changes, these can be for instance inflation and any incremental expenditures for volume changes and new programs. Furthermore, they are cleared of the occasional or one-time cost increases from the past that are not expected to re-occur in the future. The main disadvantage of this approach arises from this factor, namely maintaining a given amount of costs from the past, taken to the next budgeting period. Consequently, this approach hardly ensures the reduction of costs in the forthcoming years. The incremental budgets are reviewed at higher levels in an organization, but usually only the incremental changes are examined in detail. The core budget (i.e., last year’s base budget) is taken as given, which is another disadvantage of this technique.

The principle of the ZBB lies in the fact that during the budgeting process, the data is not projected based on the past period’s budgeted values, but on the list of activities that a department will be required to carry out in the assessed future period. Already at this moment, it indirectly forces the managers to identify and defend the necessary costs the department will have to spend. This approach requires that all activities being justified and prioritized before decisions made relating to the amount of resources allocated to each activity. Under the ZBB, every line item must be justified and reviewed annually. Every single one is reset to zero annually and must be then justified generally. The departments have to defend the expenditure totality each year, not just the changes made.

Because the Incremental budgeting fixates the past condition and, using of the ZBB is rather time consuming, an economical compromise between the Incremental budgeting and the ZBB could lie in the Priority-based incremental budgets[12]. As Drury (2008) writes, *“priority incremental budgets require managers to specify what incremental activities or changes would occur if their budgets were increased or decreased by a specified percentage.*

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[12] DRURY, Colin. Management and Cost Accounting. London: Cengage Learning, 2008.

Budgets allocations are made by comparing the change in costs with the change in benefits."[13]

4. TACTICALLY ORIENTED SYSTEM OF BUDGETS IN AN ORGANIZATION

This system is traditionally linked to one turnaround of the business cycle. According to Král (2006), the purpose of a tactically oriented system of budgets is the concretization of the corporate's objectives formulated in quantifiable outputs that represent goals and devices to achieving them. Within the frame of this system, plans and budgets are structured into concrete activities and functions primarily in terms of the impact on the core operation of the company. *"At the same time, tactically oriented system of plans and budgets focuses on information support for decision-making tasks at existing capacity."*[14] Therefore it differs from the strategic system of plans and budgets, as the objectives of that one are focused on information allowing investment decisions on future capacity.

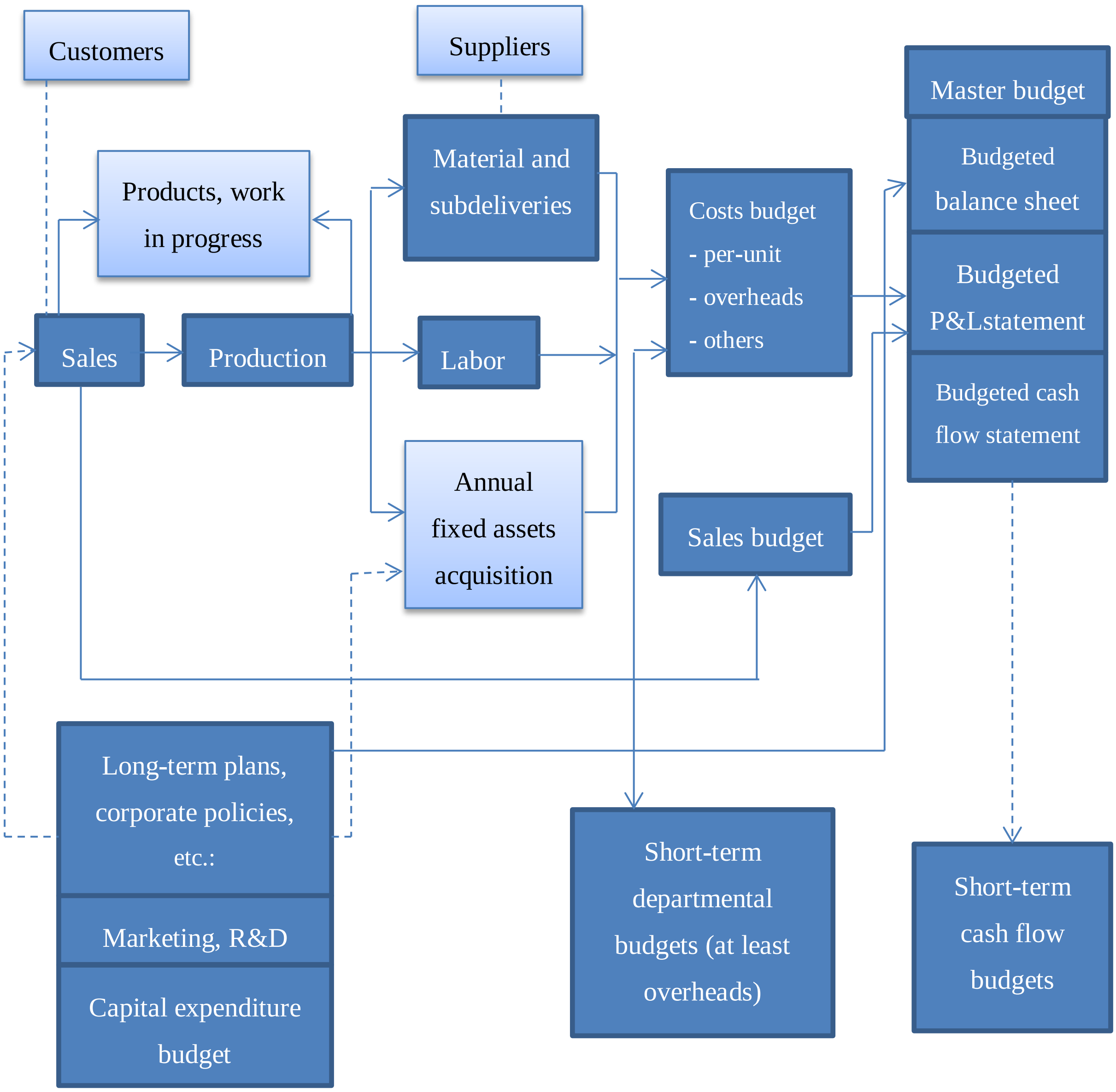
The back-bone of this tactically oriented system are the value targets of the company represented by the **Master budget,** comprising the budgeted profit and loss statement, budgeted balance sheet and budgeted cash flow statement.

Fulfilling the system functions and at the same time embodying a useful management tool requires firm connections and relationships between the individual budgets. Such system, with an emphasis on the core operation, is graphically illustrated in Figure 4. In this figure the relationships between the particular elements of the system can be detected as it shows what elements enter into the master budget. Furthermore, before I will be discussing the master budget itself, some of the elements of the system will be elaborated on in detail in the subchapters following the figure.

[13] DRURY, Colin. Management and Cost Accounting. London: Cengage Learning, 2008.

[14] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

Figure 4 - System of budgets in the organization



Source: KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

1. SALES BUDGET

As was already defined in the chapter "Stages in the budgeting process", the sales budget affects either directly or indirectly all the other budgets in the system. The standard procedure is to set the volume of sales based on the sales forecast firstly (i.e. the expected volume of future sales of products / services). A trustworthy forecast of the future sales is a key input as well as a fundamental element of the budgeting process, subsequent controls and planning procedures.

2. PRODUCTION BUDGET

It is the stage that comes after completing the sales budget. In literature, it is defined as *"a schedule showing how many units the company should produce during each budget period both to satisfy expected sales (from the sales budget) for that period and to end each period with a desired finished goods inventory level."*[15]

According to Drury (2005) and Petřík (2009), the production budget is usually assembled from the following cost items: material, labor and production overhead, provided a separate budget is prepared for each of them. The material and labor estimates are indispensable to build up the production budget. All manufacturing companies incur overheads when they convert direct material into the finished products. Figures to be stated in the overhead budget *"depend on behavior of the costs of the individual overhead items in relation to the anticipated level of the production."*[16] Regarding the factory overhead budget, Drury adds: *"The overheads must also be analyzed according to whether they are controllable or non-controllable for the purpose of cost control."*[17]

3. SELLING AND ADMINISTRATION BUDGET

Usually, it is prepared as an incremental and flexible budget, derived from the past performance. In smaller companies this budget is treated as a general overhead budget. The reason for this is that the volume of the expense items is not as large and its structure is quite stable. In larger companies, however, there is a habit to group and describe expenses by function (e.g. accounting, legal, research and development...), in order *"to give managers an opportunity to review the commitment of resources to each function during the planning process. The groupings also provide a standard of comparison against which managers can evaluate the actual costs incurred in each activity or function."*[18]

[15] CUNNINGHAM, Billie M., Loren A. NIKOLAI, John D. BAZLEY. Accounting: Information for Business Decisions. USA: Dryden Press, 2000.

[16] DRURY, Colin. Management Accounting for Business. 3rd edition. London: Thomson Learning, 2005.

[17] DRURY, Colin. Management Accounting for Business. 3rd edition. London: Thomson Learning, 2005.

[18] CUNNINGHAM, Billie M., Loren A. NIKOLAI, John D. BAZLEY. Accounting: Information for Business Decisions. USA: Dryden Press, 2000.

According to literature[19], the selling budget distinguishes two types of expenses – the **sales-determined** and the **sales-determining**. The sales-determined expenses are linked to activities that are necessary to actually make sales happen. The estimates of these expenses are prepared no sooner than the sales budget is assembled. For instance, the sales commissions or shipping charges belong to the sales-determined expenses. On the other hand, the sales-determining expenses derive from activities that more or less influence the sales. In this case, the estimates of expenses are not directly driven by the sales volume. They can be prepared as a parallel to the sales budget. For example, the advertising expenses can be considered as sales-determining.

4. CAPITAL EXPENDITURE AND R&D BUDGET

These two budgets are typical examples of budgets mostly independent on sales of the current period and are not planned according to the sales development in the past periods. Their formation, structure and volume depend on long-term strategic investment and research corporate policy, on its size and economic strength.

5. MASTER BUDGET

As illustrated on the Figure 4, the master budget is a budget into which all the subsidiary budgets are consolidated when they have been prepared. Normally, it comprises a budgeted balance sheet, a profit and loss statement and a budgeted cash flow statement. My main focus (especially in the practical part of this thesis) will be the profit and loss statement.

5.1. BUDGETED BALANCE SHEET

Generally, budgeted balance sheet is on one side represented by the resources that an organization anticipates to have at its disposal and, on the other side of the sheet, it is the loans it expects to owe to creditors at the end of a given period (supposing that planned budget is followed and no unexpected circumstances occur).

A budgeted balance sheet used in managerial accounting is significantly different from the balance sheet used in financial accounting. A budgeted balance sheet is normally intended only for internal use. According to Král (2006), it is not compiled so thoroughly as the

[19] CUNNINGHAM, Billie M., Loren A. NIKOLAI, John D. BAZLEY. Accounting: Information for Business Decisions. USA: Dryden Press, 2000.

balance sheet used in financial accounting. This is actually evoked by a so-called **dual principle**[20]. Even the turnovers are often not budgeted only changes in the individual groups of assets or liabilities are. The current assets are budgeted according to the budgeted cash flows and tend to clarify the working capital (= current assets - current liabilities). The working capital links information between the budgeted balance sheet and the budgeted cash flow. The long-term assets and equity are budgeted in more detailed, especially from the funding point of view and they are based on the capital and investment plan.

Differences in both, the content and the structure can be observed between the balance sheet in managerial and financial accounting.

The content differentiation in the Czech Republic is, according to Král (2006), mainly driven by the need to adapt the financial accounting to the tax needs as well as to the harmonization pressures. Král (2006) enumerates the following basic differences:

- Alternative valuation of fixed assets
  - There is an effort in managerial accounting to determine the amount of assets consumption from reproductive rather than historical purchase price.
- Alternative valuation of products from own activities
  - Managerial accounting prefers to use variable costing products valuation.
- Alternative view of leasing transactions
  - In managerial accounting (similar to the requirements of IAS and US GAAP) leased long-term assets are recognized, valuated and depreciated by lessees.

In terms of structure differences between the two types of balance sheets, again according to Král (2006), the managerial balance sheet is less detailed and it distinguishes assets and liabilities required to achieve the results from the core business and those that are needed to show results emerging from the investment and financial activities. Furthermore, it strives to separate the funding sources requiring paying for capital from those that do not. This approach allows to assess separately the effectiveness of the results from the core business, for which is responsible the management of the company, and those from the

[20] By a dual principle is meant a different approach to content of certain aspects of the accounting view by financial and managerial accounting. Especially, these include a different definition of assets and liabilities or a different application of valuation principles

investment and financial activities, for which it is usually the owner of the company to take the responsibility.

5.2. BUDGETED CASH FLOW STATEMENT

The second of the three key budgets is the budgeted cash flow statement. Král (2006) defines the budgeted cash flow statement as *"a tool for managing solvency and liquidity and as an information base for managing coordinative relations between the basic activities (operating, investing and financing activities), which are a source of making money and their rational allocation."*[21]

Now, I would like to further elaborate on each of the two main functions:

1) Solvency and liquidity management tool

The Information base for managing solvency and liquidity consists of the two following components:

a) A so-called budget of permanent funding need, which determines the level of working capital;

b) A budget of cash flow from core business activities.

When creating the budget of cash flow from core business activities, the direct method is used far more often than in financial accounting. In terms of direct linkage to the system, this budget is based on four sub-budgets - budgeted revenues, budgeted expenditures associated with the purchase of materials, budgeted payroll and other personnel costs and budgeted overheads and other costs.

2) The information base for managing coordinative relations between the basic activities

Like in the cash flow statement, the activities are distinguished at least as operating, investing and financing.

Assembling of the overall budgeted cash flow statement usually has two phases. Firstly, the preliminary budget is drawn up. It is then followed by the final budget taking into

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[21] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

account the eventual excess or lack of financial means. In case of an excess, the company invests cash for example in a favorable financial instrument. In the opposite situation, it is necessary to find an additional source, most often it is a loan from a bank.

5.3. BUDGETED INCOME STATEMENT

According to Král (2006), profit or loss is traditionally considered as the basic budgetary criterion. The process of preparing the budgeted income statement is similar to the one that has already been presented in the previous chapter "Stages in the budgeting process", i.e. the company should definitely have its budget policy clearly specified along with a precise definition of the factors that may restrict the corporate performance in the future. As the starting point for the preparation of budgeted income statement, it is necessary to have arranged the **sales budget** and the three relating types of costs budgets – the **per-unit costs budget, the direct costs budget related to specific nature of the output** and the **non-per-unit costs budget**.

Next, the separate parts of the budgeted income statement could be:

- The budgeted expenses and incomes resulting from the anticipated sales of the fixed assets and financial investments.
- The budgeted expenses and incomes resulting from the anticipated sales of other assets, the possession of which is unnecessary for undertaking the core business.
- The other budgeted expenses and incomes relating to the investment and financial activities of the company
- The budgeted profit distribution.

From the above classification it is obvious that the managerial income statement diametrically differs from the income statement in the financial accounting - both in content and structure.

The income statement is created either by applying the classification according to its **nature** or **function**. To begin with, I would like to identify the basic differences between these two approaches:

a) By nature – this one it shows what kinds of costs have incurred during the business activities (what has been consumed, i.e. costs of the goods sold, the production consumed, the personnel costs and expenses, etc.). The important fact is that in the classification of expenses by nature it is not possible to determine the immediate purpose of the "expended" costs that would have evaluated the effectiveness of the economic resources utilization. Also, the revenues are tracked accordingly in the classification by nature (i.e. the sales of goods, production, the sales of intangibles, tangibles and material, etc.).

b) By function - the main characteristic of the costs classification by function is the evidence of a specific purpose for which they were incurred. Within this approach the purpose can be detected for which the consumption was intended (e.g. the cost of sales, the selling expenses, the administrative expenses, the sold securities and interests, etc.). Likewise regarding the revenues traced by function (the sales of products, goods and services, the sales of securities and interests, etc.).

The classification of costs by function depends on their relation to the respective process. Here we distinguish the **technological** costs, the **direct** and **indirect** costs, the **per-unit** and **non-per-unit** costs (**overheads**).

As mentioned in literature (Fibírová, Šoljaková, Wagner, 2007), for the budgeted income statement classification by function it is more significant than for the classification by nature. It allows to display the relationship between costs and relevant departments, products and activities. It also identifies the costs of goods sold on one side and the period costs on the other (e.g. for the general administration, sale). Thus, managing of costs and related decision-making becomes easier[22].

Král (2006) adds: *"Unlike the profit and loss account in financial accounting, budgeting is based on classification of costs by function, combined with a classification of costs according to dependence on the volume of output."*[23] Fibírová, Šoljaková and Wagner (2007) also mention that for the complex structured companies it is then important to further

[22] Regardless of cost classification, firstly, before income statement budget itself is prepared, particular budgets of revenues and expenses are compiled. Therefore, internal budgets are not usually tied directly with the budgeted income statement, but with these partial budgets.

[23] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

distinguish the costs in the managerial income statement to the variable and the so-called **stepped classification of fixed costs**. It is highly recommendable because to the management it would appear rather insufficient and imprecise to express all fixed costs by one item only. This topic in presented in more detail in the following figure:

Figure 5 - Budgeted income statement based on stepped classification of fixed costs approach

Revenues from products (goods and services) sold
- Variable costs of products (goods and services) sold
Margin I (after payment of variable costs)
- Fixed costs of product
Margin II (margin of product)
- Fixed costs of group of products
Margin III
- Fixed costs of internal departments
Maring IV
- joint fixed costs of company
Company profit / loss

Source: own translation based on FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

Below, the main parts of the budgeted income statement are presented.

1. SALES (AND DEBTORS COLLECTION) BUDGET

The sales budget represents a starting point that has to be included within the preparation of the budgeted income statement. The introductory information on this theme was already written in the chapter “Stages in the budgeting process”.

The basis for the sales budget is the sales plan. The debtors collection budget is based on invoicing, and it takes into consideration various ways of payments as well as possible problems related to the collection. These problems are represented either by provisions budgeting or by making bad debts adjustments. The structure of revenues in the budget can be broken down to specific products, market segments (by regions, customer groups), responsibility centers and divisions, distribution methods or sales methods. Furthermore, the budgeted revenues can be taken into account via more-dimensional views - what is the product like, what is customer like, how did the product get into market, etc. The more detailed description provided for each item of sales, the easier it will be to identify the source of variation. For example, if the sale is not as successful with the customer A[24] as expected, after a thorough analysis of the possible causes, the company can either cut down or even decline the selling of that particular product completely according to current demand and thus prevent getting into unnecessary losses.

While preparing the sales budget, we should also take into account the terms and conditions negotiated by the individual customers, e.g. various quantity discounts and other negotiated benefits.

2. PER-UNIT COSTS BUDGET

These costs along with the non per-unit production costs incur during the production, therefore if looking back at the Figure 4 (System of budgets in the organization), it is possible to state that they are a part of the production budget (as described in the section dealing with the Production budget below Figure 4).

These are the costs for setting the exact amount of resources (that is mainly material and labor) entering the product and valuating their standard. This standard is then multiplied by the planned cost of resources, which results in the per-unit costs budget.

The per-unit costs budget is closely linked to the data from the **costing system**[25] that an organization prepares. Also, it is related to the information extracted from the production budget. The per-unit costs budget (or the direct material usage budget) is in fact based on that information. Subsequently, the direct material usage budget is adjusted toward the direct material purchase budget, taking into account the quantity necessary to meet the production requirements as per the material usage budget. Then, it adds the planned closing stock level and finally, it subtracts the planned opening stock level, giving the totality of the material units to be purchased.

In addition to the direct material usage budget, the direct labor budget is handled in a similar way.

[24] Supposing that customer B, to whom we can sell, exists.

[25] Costing of products belongs among basic tools for managing. It performs a support function for various tasks including the preparation of plans and budgets (further e.g. the economy managing, the creation of transfer pricing, etc.). Because all tasks cannot be fulfilled by one costing scheme, thus it is created so-called costing system. Individual elements of the costing system differ in content and structure on the one hand and the time horizon (preliminary and final costing) on the other.

3. NON-PER-UNIT COSTS (OVERHEADS) BUDGET

The non-per-unit costs are the indirect costs that cannot be specifically and exclusively identified and measured with respect to only one unit of a particular cost object.

Specialized literature (Král, 2006) describes a significant increase in the proportion of the overhead costs to the totality of the company costs compared to the previous decades. In case of the manufacturing businesses it is mainly caused by the growing use of modern technologies that require either sufficiently skilled workers or production automatization, associated with depreciation of the fixed assets. Therefore, the non-per-unit costs are receiving higher attention today.

The budget is here a tool for both, the managing development and economy of overheads. It is understood as *"a cost-task defined for respective* ***responsibility centers*** *for a fixed period and for their anticipated range of activities."*[26] These budgets are providing the answers to questions such as “who is responsible for the occurrence of overhead costs”, and “who influences their level”. In order to ensure that motivation for reduction of the overhead costs comes into effect, only the costs that a responsibility center answers for should be measured / monitored / budgeted.

A responsibility center is an identifiable segment of a company’s operations, the activities of which are the responsibility of a particular manager. Depending on the decision-making authority of the manager, a responsibility center may be evaluated as a cost center, a profit center, or even an investment center.

a) **Cost center** – is established whenever a subunit is assigned the decision rights to produce a certain amount of output. The unit’s efficiency in achieving this objective is to be measured and rewarded. The cost center managers are assigned the decision rights for determining the mix of inputs used to produce the output.
b) **Profit center** – is often composed of several cost centers. The profit center managers are given a fixed capital budget and dispose of decision rights on the input mix, the product mix, and the selling prices (or the output quantities).

[26] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

c) **Investment center** – resembles to the profit center. However, it has additional decision rights to the capital expenditures and it is evaluated according to measures such as the return on investment.

The preparation of the non-per-unit costs budgets of centers is based on detailed guidelines established by the controlling department, featuring the following points[27] (Král, 2006):

- Structure of the budgeted non-per-unit costs
- Compilation method of the budgeted non-per-unit costs
- Time horizon of the budget
- Method of the budget compliance control

1) The content structure of the non-per-unit costs budget

The basic breakdown of the overhead costs should be at the level of their variable and fixed parts, which should come once the determination of classification by nature or function has been made. Next, a clear distinction should be made between the **primary costs** (associated with the external suppliers) and the **secondary costs** (associated with usage of the internal product from other departments). Furthermore, the sunk costs from the previous investment decisions should be taken into consideration, that are no longer recognized as a cost in the current period.

2) The compilation method of the non-per-unit costs budget

Due to their diversity, the cost items included in the overhead costs require various methods of budgeting. These methods are often combined, and therefore it appears to be rather difficult to classify them systematically. However, Král (2006) defines their general distinguishing features, which are **primary inputs**, **technique used for inputs processing** and **technique used for determining the output (cost task)**.

[27] It is assumed that the points regarding stages in the budgeting process as presented in section 3.3.3. are already defined.

a. Primary inputs

In order to gather the primary inputs, the incremental and the zero-based budgeting methods are usually employed. Both methods are introduced in the chapter 3.4 Budget devices.

b. Technique used for inputs processing

The simplest and the most common technique used for inputs processing is the **index method**. The indices mark the growth or decline in the volume of outputs in the current budgeting period compared to the previous one. Particular overhead costs are multiplied by these indices. These are expected to be dependent on the volume of output. This technique appears to be used the most frequently. In many cases it also helps to determine the cost tasks at the fixed overheads independent on the utilization of the volume of outputs. In order to eliminate mistakes (mainly due to ignoring the differences between the fixed and variable overheads), a number of other methods was introduced, focusing on the separation of these two kinds of overhead costs.

The peer-review analysis embodies the nucleus of these methods. It is based on the identification of a cost driver to a given non-per-unit cost according to nature. Generally, it tends to be applied rather in the short-term management. For example, in case of the fixed overhead, it can manifest as a depreciation of tangible and intangible assets or rent. In case of the variable overhead, it can be repair and maintenance of machines. Other methods can be also applied based on the peer-review analysis. Literature (Král, 2006) mentions especially the **mathematical and statistical methods**, the subjects of which are mutual, causal (correlational) relationships between the measurable activities and the outputs (independent variables) and costs (dependent variables), rising as a consequence of their realization. The mathematical and statistical methods are of great contribution to determining the likely development of these cost items as both, a projection of the past relationship in the future and an expression of strong, mutual dependence between the two variables using the correlation coefficient. Reversely, such methods will not be helpful determining the future level of the irregular or occasional overhead costs. **The method of least squares** features among the most familiar mathematical and statistical methods. It is highly advisable to combine these methods with graphical analysis. Unlike the subject analysis, mathematical and statistical methods are to be used rather in the strategic cost management.

c. Technique used for determining the output (cost task)

The technique used for determining the cost task represents the top stage in assembling an overheads budget. The determining itself is most significantly affected by the dependence of costs on factors that influence their occurrence and level[28]. According to Král (2006), the **normative technique** is used as a tool for managing variable overheads, **the limit one** is used as a tool for determining the cost task for fixed overheads and the **variator** is used as an instrument for expressing the cost task for mixed costs.

A normative is based on closer specification of those factors that have a significant impact on the development of variable costs. The specification allows to determinate or track either the **individual** or the **universal** cost driver. With regard to the complexity of the cost task determination provided by the analysis of dependence of costs in relation to individual cost drivers, the universal cost drivers appear to be opted for more often, i.e. the natural technical units (e.g. km, t), the time units (e.g. machine hour), or the value indicators (e.g. standardized wage, the acquiring cost).

The limits for overheads are used for individual components or fixed costs groups. In addition, it is useful to separate the fixed costs that cannot be saved in the given period (i.e. the sunk cost), and the fixed costs, allowing the insertion of the motivating limits for efficiency (i.e. the avoidable costs).

The variator represents a combination of the normative and the limit technique in the overheads managing process.

5.3.1. INCOME STATEMENT ON A BASIS OF COSTS OF PRODUCTS SOLD AND PRODUCTS PRODUCED

Specialized literature (Fibírová, Šoljaková, Wagner, 2007) recognizes two approaches to classifying the budgeted income statement for the purposes of managerial accounting. The authors describe two ways to calculate the profit (loss) by using two different structures of costs. The income statement in the product's classification is prepared on the basis of the cost

[28] Example: Supply department provides following activities: a) ordering of material, b) handling complaints c) weighting. Factors influencing incurrence of overhead costs relating to these activities are a) a number of orders and their complexity, b) a number of complaints and their complexity c) a number of tons.

of products sold, whereas the income statement in the center's classification is prepared on the basis of the costs of products produced.

1. INCOME STATEMENT IN THE PRODUCT CLASSIFICATION

The principle of this income statement lies in the fact that the costs of products sold (the variable costs) and the period costs (the fixed costs) are all covered by the sale revenues. The income statement in the product classification provides detailed information about the contribution of products, as it is arranged into sections by different kinds of products, customers and distribution channels.

Figure 6 - Budgeted income statement in the product classification

Budgeted income statement based on costs of products sold
(product classification)

Revenues from products sold
- per-unit costs of products sold

Margin I
- variable non-per-unit costs of products sold

Margin II
- fixed production costs

Margin III
- fixed selling expenses
- fixed administrative expenses

Profit / Loss

Source: FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

2. INCOME STATEMENT IN THE CENTER CLASSIFICATION

The second method of classifying the income statement allows a connection of the business management with the management of the cost centers. The income statement in the center classification is proper to prepare in a form that is directly linked to the cost centers budgets.

Figure 7 - Budgeted income statement in the center classification

Budgeted income statement based on costs of products produced *(center classification)*
Revenues from products sold
Changes in inventory of finished products
Production
- per-unit costs of products produced
Margin I
- variable non-per-unit costs of products produced
Margin II
- fixed production costs
Margin III
- fixed selling expenses
- fixed administrative expenses
Profit / Loss

Source: FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

6. CONTROL

The control is closely associated with the planning process and in fact, it closes the whole management process. It forms an integral part of the planning, enabling not only to monitor the goal fulfilling within the whole organization, but the individual tasks of the lower management levels as well. If deviation from the set goals and tasks is discovered, it enables the competent employee / department to take actions leading to mitigation or even elimination of the negative development, and vice versa, in case of positive deviations, it empowers the competent person / department to take actions supporting the future development of given goals and tasks.

The purpose of control is to quantify and analyze the differences, i.e. the **variances** of the actual and the budgeted figures (also called the **CBA** = Comparison of Budgeted and Actual Figures). The most interesting feedback is provided by the short-term budget control, as it is carried out at least once a month. The two important characteristics of variances - cause and responsibility – are becoming complicated with the extension of the time horizon.

MASTER BUDGET CONTROL

In the short term, the most important for an organization is an operational control of the budgeted cash flow as an immediate intervention may be performed in case of any troubles. Through this operational control liquidity can be monitored and if a problem of whatever nature arises, the inflows and outflows are controlled on a daily basis. The budgeted income statement is controlled in the frame of a longer time period, especially monthly or quarterly. The budgeted balance sheet is then usually controlled every quarter or half year.

VARIANCES

The main cause of variances is either an unrealistically set plan or an unexpected development of conditions in the given period other than budget had anticipated. Throughout the year, therefore, the actual figures and the planned ones are compared and analyzed and in case of significant variances, the budgeted parameters are accordingly adjusted.

The variances that can be quantified and analyzed based on the cause and responsibility are divided as follows[29]:

1) **Qualitative variances** relating to the value substance (e.g. price, wages)
2) **Quantitative variances** relating to the natural substance (e.g. natural consumption, products sold)
3) **Sales mix variances** relating to the product mix of both purchasing and selling products
4) **Variances from savings and utilization** relating to use of the economic resources.

BUDGETS IN CONTROL

During the variances examining process the actual figures are compared with three basic types of budgets[30]:

1) Fixed budget

The fixed budget does not undergo any adjustments during the cost control process. Only the actual and the budgeted figures are compared. This means that no figures are recalculated. The fixed budget is very useful in cost control process at those centers that do not have assigned any performance or the performance is not measurable. *"Fixed budget is for example used in control of costs of administrative departments (accounting, financial*

[29] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

[30] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

management, etc.), research and development departments, strategic management, but also in some service centers such as IT."[31]

2) Flexible budget

This approach corresponds best to the current market conditions. The flexible budget recalculates its variable part to the actual volume of activities, so that the budgeted variable costs are multiplied by the actual volume of output. The fixed costs, however, are not recalculated and remain in the budgeted volume. *"It is a good tool for managing department, which have no direct contact with the market, they themselves do not affect the volume and structure of sold products, they themselves do not determine capacity utilization, they are not motivated to produce a higher volume of output, and their range of activities is developed according to the development of activities of other departments."*[32]

3) Linear flexed budget

In the linear flexed budget, according to the actual volume of outputs variable as well as the fixed portion of total budgeted costs are recalculated through planned absorption costing. This budget is used by departments, *"where it is rational to motivate them for higher capacity utilization. They are departments whose capacity is limited, and further those departments that transfer their outputs not only within the organization, but also have an authority to execute an external sale."*[33] These service centers are typically from fields like transport, education, etc.

7. SUMMARY OF THE METHODICAL PART

The first half of the methodical part provides an introduction of the concepts of budgeting processes used in contemporary organizations. It begins with a definition of planning, budgeting and their mutual differences, followed by a larger section dedicated to budgeting focusing namely on its functions, devices or stages.

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[31] FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

[32] FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

[33] FIBÍROVÁ, Jana, ŠOLJAKOVÁ, Libuše, WAGNER, Jaroslav. Nákladové a manažerské účetnictví. Praha: ASPI, 2007.

Nowadays, all organizations (manufacturing, retail, service, or even non-profit) make plans and budgets, but not all of them apply effective budgeting and planning methods. Although many companies consider planning and budgeting separate activities, the truth is that they should be perceived as a unified process if the desired goals and objectives are to be attained. It seem convenient to point out that it is not the budget that determines the plan, but the business environment and its needs do. Budgets can be understood as a clear indication of what is expected to be achieved within a certain budget period, whereas the long-range plans map out the broad directions that management wants to follow in terms of general steering of a company.

The second half of the methodical part deals with a tactically oriented system of budgets in an organization and its main part – the master budget. All three fragments of the master budget are presented. Here, the notion of the budgeted income statement, its main parts and types of costs classification are discussed.

Based on specified findings in terms of overall budgeting process with an emphasis on the budgeted income statement gathered in the methodical part, I will now confront the information provided by literature with a system in an existing company.

PRACTICAL PART

When I was deciding which company I should chose for the practical part of this thesis, my desire was to find some international, well-known company since I already had an opportunity to perform work in a global company that was leader in its sector. During this job I realized how all processes within a large organization are sophisticated. Fortunately, local division controller from ABB, s.r.o. accepted my request to interlock the thesis with their company and thanks to this opportunity I could find out more about established budget processes and tools for decision making within a one of a leader company in the sector it serves.

The text in the practical part contains several abbreviations related to frequent words. The list with explanation of all abbreviations used in the text is enclosed in the appendix at the end of this thesis.

8. ABB GROUP PROFILE[34]

8.1. COMPANY INTRODUCTION

The ABB Group is a leader in power and automation technologies that enable the utility and industry customers to improve their performance while lowering the environmental impact. Their portfolio ranges from the light switches to robots, and from enormous electrical transformers to control systems that are capable of managing the entire power networks and factories. The ABB provides solutions for transmission and distribution of electricity that is secure as well as energy-efficient, and for increasing productivity in the industrial, commercial and utility spheres. The ABB Group operates in approximately 100 countries and employs approximately 150 000 people.

The ABB's motto is "Power and productivity for a better world".

Merging the Swedish company Asea and the Swiss company BBC Brown Boveri, the ABB Group was established in 1988. The history of the Asea company dates back to 1883. The BBC Brown Boveri was founded in 1891. Headquarters is located in Zurich, Switzerland.

[34] ABB Group. [online]. [quot. 2013-04-27]. Available from: www.abb.com

The ABB Ltd, Switzerland, is the ultimate parent company of the ABB Group, which to the date of December 31 2012, principally comprised 380 of consolidated operating and holding subsidiaries worldwide. The ABB Ltd's shares are listed on the SIX Swiss Exchange, the NASDAQ OMX Stockholm Exchange and the New York Stock Exchange. On the day of December 31 2012, the ABB Ltd had a market capitalization of CHF 43 billion.

8.2. GROUP STRUCTURE

Beside of its worldwide diversification into eight regions (Northern Europe (NEU), Central Europe (CEU), Mediterranean (MED), North America (NAM), South America (SAM), India, Middle East & Africa (IMA), North Asia (NAS), South Asia (SAS)), the ABB is organized into five divisions according to the customers and industries they serve. Each division is then subdivided into business units (BU), which are then again further segmented into product groups (PG).

ABB is composed the following divisions:

- Power Products

The Power Products division produces the key components to transmitting and distributing electricity. This division incorporates the ABB's manufacturing network for transformers, switchgear, circuit breakers, cables and the associated equipment. It also offers all the services needed to ensure the products' performance and the prolongation of their lifespan. The division consists of three business units.

Its clientele typically features the electric and other infrastructure utilities, industries across the spectrum and commercial enterprises.

Interesting fact: the ABB is the world's largest supplier of transformers and recently, it has developed the highest-voltage direct current transformer ever.

- Power Systems

The Power Systems offer turnkey systems and services for both, the power transmission and distribution grids, as well as for the power plants. The substations

and the substation automation systems are their major areas. Their additional highlights include flexible alternating current transmission systems (FACTS), high-voltage direct current (HVDC) systems and network management systems. For the field of power generation, the Power Systems offer instrumentation, control and electrification of power plants. The section is further subdivided into four business units.

Its customers are chiefly power generation, transmission and distribution utilities, and various industries across the spectrum and commercial enterprises.

Interesting fact: The ABB pioneered the High Voltage Direct Current (HVDC) technology nearly 60 years ago and has more than half of the world's installed base.

- Discrete Automation and Motion

This division provides products, solutions and related services increasing both, the industrial productivity and energy efficiency. Its motors, generators, drives, programmable logic controllers (PLCs), power electronics and robotics provide power, motion and control for a wide range of automation applications. The leading position in wind generators and a growing offering in solar complement the industrial focus, leveraging joint technology, channels and operations platforms.

Among its clientele are mostly manufacturers, OEMs in great variety of industries and end users coming from a number of diverse process industries.

Interesting fact: The ABB is the world's largest supplier of industrial electric motors and drives.

- Low Voltage Products

The Low Voltage Products division manufactures (self-evidently) low-voltage circuit breakers, switches, control products, wiring accessories, various enclosures and cable systems to protect people as well as numerous installations and electronic equipment from the electrical overload. The division further produces the KNX systems integrating and automating a building's electrical installations, ventilation systems and security and data communication networks.

The customers of this section are mainly distributors, installers, panel builders, OEMs, system integrators, contractors, architects and end users.

Interesting fact: The ABB ships over 1 million products to customers worldwide every day.

- Process Automation

The main focus of this division is to provide customers with products and solutions for instrumentation, automation and optimization of industrial processes. The industries served include oil and gas, power, chemicals and pharmaceuticals, pulp and paper, metals and minerals, marine and turbocharging. The key customer benefits include improved asset productivity and remarkable energy savings.

Interesting Fact: The ABB introduced the world's first power-from-shore solution for an offshore rig.

8.3. GROUP FINANCIAL KEY DATA

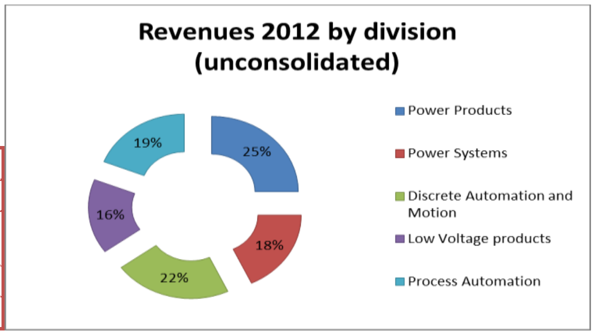
Figure 8 - ABB Group - key financial data

ABB Group - key financial data ($ in millions)			
	2010	2011	2012
Orders	32 681	40 210	40 232
Revenues	31 589	37 990	39 336
Income from operations	3 818	4 667	4 058
% revenues	12,1%	12,3%	10,3%
Operational EBITDA	4 846	6 014	5 555
% operational revenues	15,3%	15,8%	14,2%
Net income (attributable to ABB)	2 561	3 168	2 704
Basic EPS ($)	1,12	1,38	1,18
Dividend (CHF)	0,60	0,65	0,68
Cash flow from operating activities	4 197	3 612	3 779
Free cash flow	3 397	2 593	2 555
% of net income	133%	82%	94%
Cash return on invested capital	21%	14%	12%
Employees (000s)	116,5	133,6	146,1

Source: own preparation based on ABB Group Annual report 2012

Figure 9 - ABB Group - Revenues 2012 by division

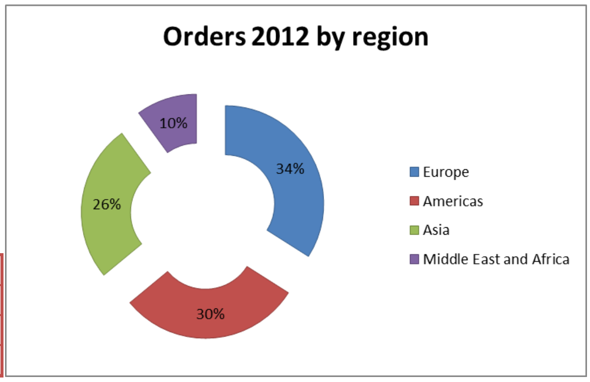
Power Products	25%
Power Systems	18%
Discrete Automation and Motion	22%
Low Voltage products	16%
Process Automation	19%



Source: own preparation based on ABB Group Annual report 2012

Figure 10 - ABB Group - Orders 2012 by region

Europe	34%
Americas	30%
Asia	26%
Middle East and Africa	10%



Source: own preparation based on ABB Group Annual report 2012

The global financial crisis striking in years 2008 and 2009 had a serious impact on the ABB Group all around the world, and therefore the financial results between from this period were not very favorable. As illustrated in Figure 8, an increase in orders since 2010 (and thus revenues) had a healing effect on other essential financial indicators.

Figures 9 and 10 show that (according to unconsolidated revenues) the ABB Group has neither a weak nor strong a strong division. The highest percentage of orders was recorded in Europe and America (64%) in 2012.

9. ABB IN THE CZECH REPUBLIC

I would now like to present the ABB, s.r.o., the Czech daughter company of the ABB Group. Personally, I had the opportunity to get acquainted with this company during several meetings with its employee performing a controlling position in Discrete Automation and Motion (DM) local division (LDiv).

9.1. ABB CZECH REPUBLIC PROFILE

Basic information from Commercial register:

- Record date: July 20, 1993 at City court in Prague
- Business name: ABB s.r.o.
- Registered address: Štětkova 1638/18, Prague 4, 140 00
- Registration number: 496 82 563
- Legal form: Limited liability company (s.r.o.)
- Statutory representative: Hannu Juhani Kristian Kasi (since 1.8.2010)
- Owner: ABB Asea Brown Boveri Ltd (100% share)
- Basic capital: 400 000 000 CZK

The ABB started the distribution of their products and services to the Czech Republic back the in 1970s. Later on, during the 1990s, the ABB Group acquired the (at that time) leading Czech companies in the power and automation sector such as the Elektro-Praga Jablonec, Elektrotechnické závody Julia Fučíka or Závody průmyslové automatizace . On the day of 31 December 2000, this holding has changed its name to the ABB, s.r.o.

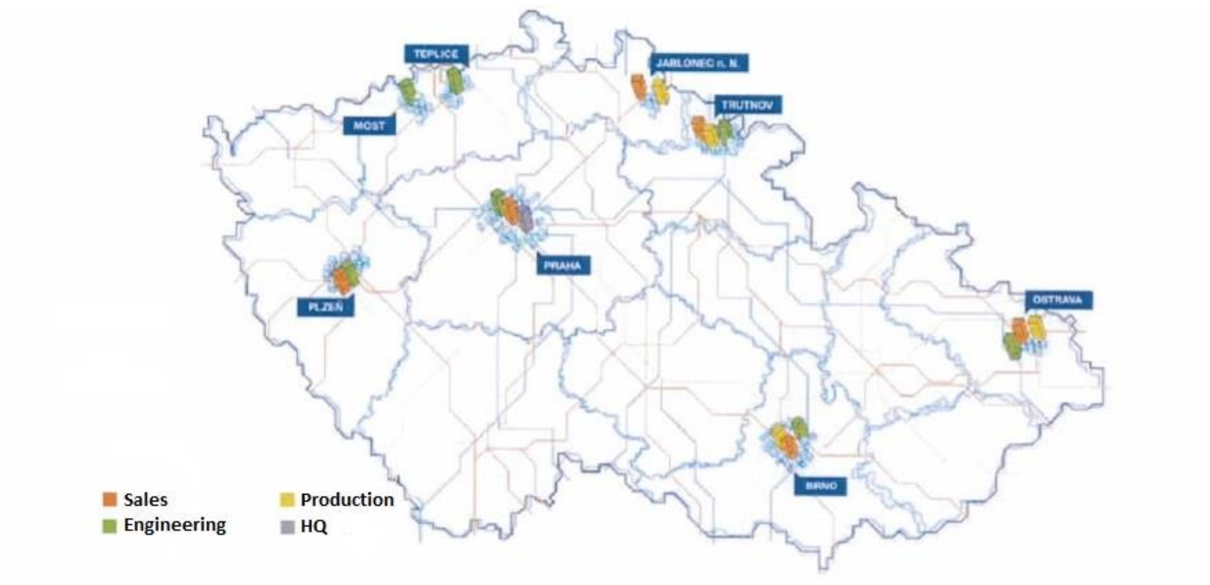
In terms of regional diversification, the ABB, s.r.o. belongs to the Central Europe region.

Based on the annual reports made between 2010 and 2012, I would like to point out some of the significant successes tied with the ABB in the Czech Republic:

- The ABB, s.r.o. equipped the world's tallest building in Dubai Burdj Chalifa within only the last two years of the construction by 48 air-insulated high-voltage switchgears.
- The ABB, s.r.o. helped to create a giant artificial lake located near to Most in place of an extracted coal mine. This three-year project (completed in 2011) consisted in moving a large volume of water. Because there was not enough water to be used for flooding in the region, the ABB contributed by delivering frequency drives to a pump station located 24 km to enable water transition through industrial pipelines.
- The ABB, s.r.o. has been chosen as a supplier for the Facebook site that will build a giant data center in Sweden.

- The ABB, s.r.o. supplied the technologies for the first wind tunnel in the Central Europe, in Prague.
- The ABB, s.r.o. has become a supplier of power technologies for the deepest diamond mine in the world located in Russia.
- The ABB, s.r.o. was the first in the Czech and European market to have a fast charging station for electric vehicles.

Figure 11 – ABB branches in Czech Republic



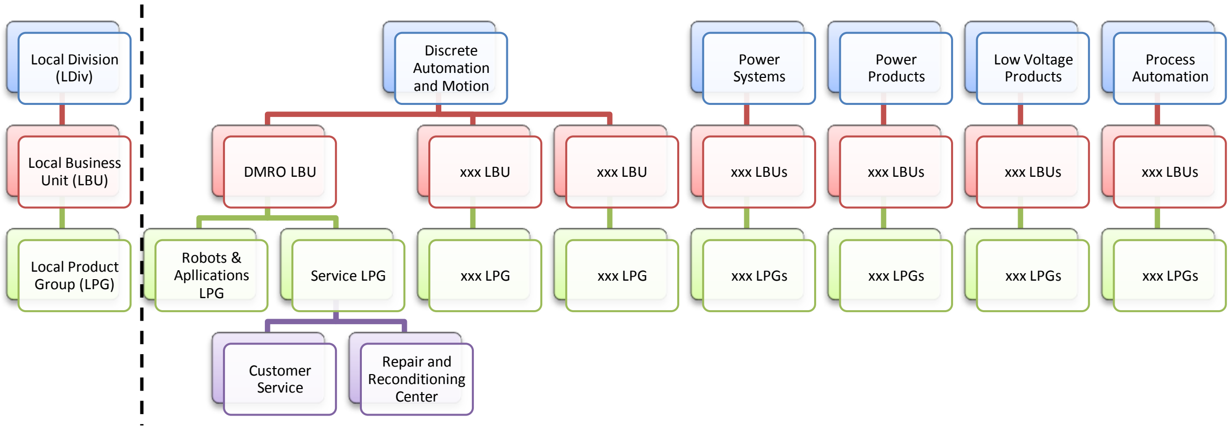
Source: ABB s.r.o. - Annual report 2011

9.2. ORGANIZATIONAL STRUCTURE

The following Figure 12 shows the basic organizational structure of the ABB, s.r.o. in terms of units. Basically, the local organization structure copies the organizational division setting for the founding ABB Group.

An employee with whom I discussed the planning and budgeting process in this company holds the position of a controller for local Discrete Automation and Motion division. She is also responsible for the Robotics business unit (DMRO). Therefore, for the purposes of this thesis, only this organizational line is to be specified in detail in Figure 12.

Figure 12 - ABB, s.r.o. - Organizational structure



Source: own preparation based on internal materials

9.3. FINANCIAL KEY DATA AND RATIOS

The tables below refer to the key financial data of the ABB, s.r.o. based on audited financial statements for the period 2010 – 2012. The related graphs as well as the graphs containing the basic financial ratios are enclosed in the Appendix of this thesis.

Figure 13 - ABB, s.r.o. - Total assets – horizontal analysis 2010 - 2012

Balance sheet - ABB, s.r.o. (in thousand CZK)				Absolut change		Chain index		Basis index	
	2010	2011	2012	2011/2010	2012/2011	2011/2010	2012/2011	2011/2010	2012/2010
Long-term intanigble assets	82 876	60 133	40 799	-22 743	-19 334	-27,4%	-32,2%	-27,4%	-50,8%
Long-term tangible assets	1 363 855	1 509 363	1 854 021	145 508	344 658	10,7%	22,8%	10,7%	35,9%
Long-term financial assets	0	0	0	0	0	0,0%	0,0%	0,0%	0,0%
Long-term assets	**1 446 733**	**1 569 496**	**1 894 820**	**122 763**	**325 324**	**8,5%**	**20,7%**	**8,5%**	**31,0%**
Inventories	1 724 254	1 765 259	1 927 158	41 005	161 899	2,4%	9,2%	2,4%	11,8%
Long-term receivables	112 827	95 376	110 704	-17 451	15 328	-15,5%	16,1%	-15,5%	-1,9%
Short-term receivables	2 140 267	2 535 469	2 658 768	395 202	123 299	18,5%	4,9%	18,5%	24,2%
Short-term financial assets	36 121	28 536	41 438	-7 585	12 902	-21,0%	45,2%	-21,0%	14,7%
Current assets	**4 013 469**	**4 424 640**	**4 738 068**	**411 171**	**313 428**	**10,2%**	**7,1%**	**10,2%**	**18,1%**
Accruals and deferrals	**64 466**	**55 989**	**70 136**	**-8 477**	**14 147**	**-13,1%**	**25,3%**	**-13,1%**	**8,8%**
TOTAL ASSETS	**5 524 668**	**6 050 125**	**6 703 024**	**525 457**	**652 899**	**9,5%**	**10,8%**	**9,5%**	**21,3%**

Source: own preparation based on Financial statements 2010 - 2012

Figure 14 - ABB, s.r.o. - Total assets - vertical analysis 2010 - 2012

Balance sheet - ABB, s.r.o. (in thousand CZK)	2010		2011		2012	
Long-term intanigble assets	82 876	1,5%	60 133	1,0%	40 799	0,6%
Long-term tangible assets	1 363 855	24,7%	1 509 363	24,9%	1 854 021	27,7%
Long-term financial assets	0	0,0%	0	0,0%	0	0,0%
Long-term assets	**1 446 733**	**26,2%**	**1 569 496**	**25,9%**	**1 894 820**	**28,3%**
Inventories	1 724 254	31,2%	1 765 259	29,2%	1 927 158	28,8%
Long-term receivables	112 827	2,0%	95 376	1,6%	110 704	1,7%
Short-term receivables	2 140 267	38,7%	2 535 469	41,9%	2 658 768	39,7%
Short-term financial assets	36 121	0,7%	28 536	0,5%	41 438	0,6%
Current assets	**4 013 469**	**72,6%**	**4 424 640**	**73,1%**	**4 738 068**	**70,7%**
Accruals and deferrals	**64 466**	**1,2%**	**55 989**	**0,9%**	**70 136**	**1,0%**
TOTAL ASSETS	**5 524 668**	**100,0%**	**6 050 125**	**100,0%**	**6 703 024**	**100,0%**

Source: own preparation based on Financial statements 2010 – 2012

The tables above show that the total assets had increased every year from 2010 to 2012 approximately by 10 %. Between 2010 and 2011, it was due to a significant increase in the short-term receivables: by 19 % and between 2011 and 2012, it was caused especially by the increase in the long-term tangible assets as the ABB, s.r.o. bought new lands and opened new premises (e.g. a headquarter in Prague). From the vertical analysis of the company's assets it is obvious that the short-term receivables, inventories and also the long-term tangible assets have the highest proportion of total assets (quite a common phenomenon in production companies).

Figure 15 – ABB, s.r.o. - Liabilities and equity - horizontal analysis 2010 - 2012

Balance sheet - ABB, s.r.o. (in thousand CZK)				Absolut change		Chain index		Basis index	
	2010	2011	2012	2011/2010	2012/2011	2011/2010	2012/2011	2011/2010	2012/2010
Registered capital	400 000	400 000	400 000	0	0	0,0%	0,0%	0,0%	0,0%
Capital funds	0	0	0	0	0	0,0%	0,0%	0,0%	0,0%
Reserve funds, indivisible fund and other funds from profit	40 000	40 000	40 000	0	0	0,0%	0,0%	0,0%	0,0%
Net income from previous years	379 548	231 180	231 180	-148 368	0	-39,1%	0,0%	-39,1%	-39,1%
Net income	851 632	705 381	1 185 882	-146 251	480 501	-17,2%	68,1%	-17,2%	39,2%
Equity	**1 671 180**	**1 376 561**	**1 857 062**	**-294 619**	**480 501**	**-17,6%**	**34,9%**	**-17,6%**	**11,1%**
Reserves	695 824	737 291	859 584	41 467	122 293	6,0%	16,6%	6,0%	23,5%
Long-term payables	372 638	372 606	372 821	-32	215	0,0%	0,1%	0,0%	0,0%
Short-term payables	2 766 573	3 560 922	3 611 666	794 349	50 744	28,7%	1,4%	28,7%	30,5%
Bank loans	0	0	0	0	0	0,0%	0,0%	0,0%	0,0%
Debts	**3 835 035**	**4 570 879**	**4 844 071**	**735 844**	**273 192**	**19,2%**	**6,0%**	**19,2%**	**26,3%**
Accruals and deferrals	**18 453**	**2 685**	**1 891**	**-15 768**	**-794**	**-85,4%**	**-29,6%**	**-85,4%**	**-89,8%**
LIABILITIES AND EQUITY	**5 524 668**	**6 050 125**	**6 703 024**	**525 457**	**652 899**	**9,5%**	**10,8%**	**9,5%**	**21,3%**

Source: own preparation based on Financial statements 2010 - 2012

Figure 16 – ABB, s.r.o. - Liabilities and equity - vertical analysis 2010 - 2012

Balance sheet - ABB, s.r.o. (in thousand CZK)	2010		2011		2012	
Registered capital	400 000	7,2%	400 000	6,6%	400 000	6,0%
Capital funds	0	0,0%	0	0,0%	0	0,0%
Reserve funds, indivisible fund and other funds from profit	40 000	0,7%	40 000	0,7%	40 000	0,6%
Net income from previous years	379 548	6,9%	231 180	3,8%	231 180	3,4%
Net income	851 632	15,4%	705 381	11,7%	1 185 882	17,7%
Equity	**1 671 180**	**30,2%**	**1 376 561**	**22,8%**	**1 857 062**	**27,7%**
Reserves	695 824	12,6%	737 291	12,2%	859 584	12,8%
Long-term payables	372 638	6,7%	372 606	6,2%	372 821	5,6%
Short-term payables	2 766 573	50,1%	3 560 922	58,9%	3 611 666	53,9%
Bank loans	0	0,0%	0	0,0%	0	0,0%
Debts	**3 835 035**	**69,4%**	**4 570 879**	**75,6%**	**4 844 071**	**72,3%**
Accruals and deferrals	**18 453**	**0,3%**	**2 685**	**0,0%**	**1 891**	**0,0%**
LIABILITIES AND EQUITY	**5 524 668**	**100,0%**	**6 050 125**	**100,0%**	**6 703 024**	**100,0%**

Source: own preparation based on Financial statements 2010 – 2012

The increase in liabilities and equity between the years 2010 and 2011 was driven namely by the increase in the short-term payables: by 794 thousand CZK (29 %). This was the result of having received a revolving loan from a related party. Between the years 2011 and 2012, the trend of total liabilities and equity growth was supported by the increase in the net income by almost 70 %. Undoubtedly prevailing in the vertical structure of liabilities and equity are the short-term payables with more than 50 % portion of total liabilities and equity. From this portion more or less a half comprises the revolving loan.

Figure 17 - ABB, s.r.o. - Income statement - horizontal analysis 2010 - 2012

Income statement - ABB, s.r.o. (in thousand CZK)				Absolut change		Chain index		Basis index	
	2010	2011	2012	2011/2010	2012/2011	2011/2010	2012/2011	2011/2010	2012/2010
Sales of goods	1 641 017	1 186 257	1 271 656	-454 760	85 399	-27,7%	7,2%	-27,7%	-22,5%
Costs of goods sold	1 186 117	939 940	1 069 077	-246 177	129 137	-20,8%	13,7%	-20,8%	-9,9%
Margin of goods sold	**454 900**	**246 317**	**202 579**	**-208 583**	**-43 738**	**-45,9%**	**-17,8%**	**-45,9%**	**-55,5%**
Production	7 888 590	9 732 741	11 139 756	1 844 151	1 407 015	23,4%	14,5%	23,4%	41,2%
Production consumed	5 495 643	7 060 642	7 807 275	1 564 999	746 633	28,5%	10,6%	28,5%	42,1%
Value added	**2 847 847**	**2 918 416**	**3 535 060**	**70 569**	**616 644**	**2,5%**	**21,1%**	**2,5%**	**24,1%**
Personnel costs and expenses	1 631 608	1 596 595	1 899 124	-35 013	302 529	-2,1%	18,9%	-2,1%	16,4%
Taxes and fees	3 033	3 679	3 981	646	302	21,3%	8,2%	21,3%	31,3%
Amortization of intangibles and depreciation of tangibles	197 268	214 611	225 672	17 343	11 061	8,8%	5,2%	8,8%	14,4%
Operating income	**952 942**	**1 074 351**	**1 400 475**	**121 409**	**326 124**	**12,7%**	**30,4%**	**12,7%**	**47,0%**
Income from financial operations	**86 771**	**-178 044**	**53 819**	**-264 815**	**231 863**	**-305,2%**	**-130,2%**	**-305,2%**	**-38,0%**
Net extraordinary income	-514	-3 563	-1 341	-3 049	2 222	593,2%	-62,4%	593,2%	160,9%
EARNINGS BEFORE INTERESTS AND TAXES	**1 051 237**	**910 671**	**1 491 153**	**-140 566**	**580 482**	**-13,4%**	**63,7%**	**-13,4%**	**41,8%**
Interest expenses	12 038	17 927	38 200	5 889	20 273	48,9%	113,1%	48,9%	217,3%
EARNINGS BEFORE TAXES	**1 039 199**	**892 744**	**1 452 953**	**-146 455**	**560 209**	**-14,1%**	**62,8%**	**-14,1%**	**39,8%**
Income tax on ordinary activity	187 597	187 363	267 071	-234	79 708	-0,1%	42,5%	-0,1%	42,4%
EARNINGS AFTER TAXES	**851 602**	**705 381**	**1 185 882**	**-146 221**	**480 501**	**-17,2%**	**68,1%**	**-17,2%**	**39,3%**

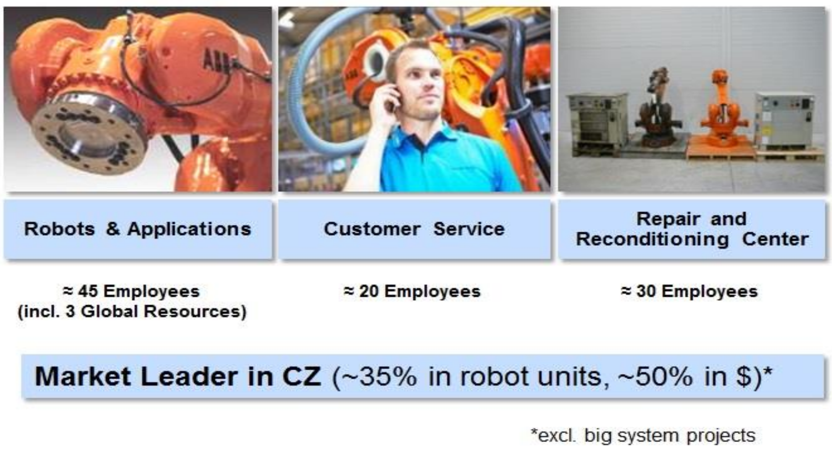
Source: own preparation based on Financial statements 2010 – 2012

During the period between 2010 and 2011, the ABB, s.r.o. noted a decrease in sales of goods by 28 % compensated by the next year's slight increase of 7 %. However, the main part of company's income comes from production, which grew continuously, by two digits every year. Despite the annual double-digit increase in production from 2010 to 2012, this was probably caused by the negative income from the financial operations (– 178 thousand CZK). Overall, the ABB, s.r.o. is a highly profitable company with net incomes estimated over 700 million CZK every year.

9.4. ABB CZECH REPUBLIC – DMRO BUSINESS UNIT

As mentioned several pages earlier, during the compilation of my thesis, I was in touch with a controlling representative from DMRO Business Unit (= Division: Discrete Automation and Motion, Business Unit: Robotics), thus I feel that at least a brief introduction of this business unit in particular should be made.

Figure 18 - ABB, s.r.o., DMRO BU - Business unit structure



Source: ABB, s.r.o., DMRO BU, internal materials

Basically, the DMRO BU consists of a service and a project product group:

- Robots & Applications Local Product Group

This LPG addresses the local market and exports naked robots and solutions.

- Service Local Product Group
    - Customer Service ("front-end")

    It provides a service on hundreds of the ABB robots in the Czech Republic. Moreover, it provides a 24/7 hotline service.

- Repair and Reconditioning Center (“back-end”)

It assures reconditioning of used robots, a repair of parts for ABB units across Europe as well as the component production and repair for the ABB global robotic factory in Sweden.

9.4.1. LOCAL MARKET ENVIRONMENT

The main competitors at the local market:

- FANUC Robotics Czech s.r.o.
- KUKA Roboter CEE GmbH, organizační složka
- Yaskawa Czech s.r.o. (division Robotics)

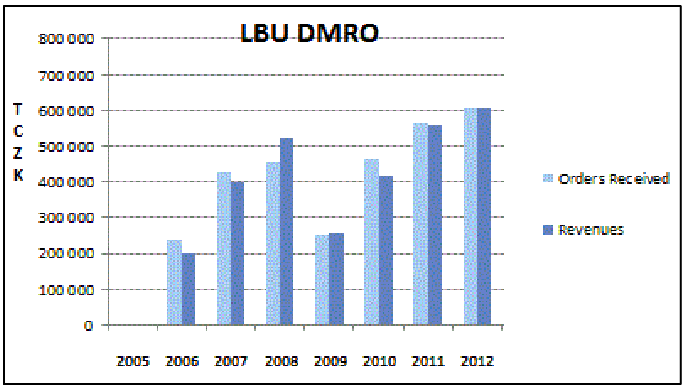
The level of automation is a key part to keep the local economy competitive. Robotics benefits from a good setup driven by the automotive sector.

The impact of the global financial crisis on the local industry caused higher demand for productivity and lower dependence on manual labor force. Consequently, the year 2010 shows a rapid growth of the ABB volume on the Czech market as demonstrated in Figure 23.

The dominating segments are Metal Fabrication, Plastics & Rubber, and Foundry & Forging.

9.4.2. FINANCIAL KEY DATA

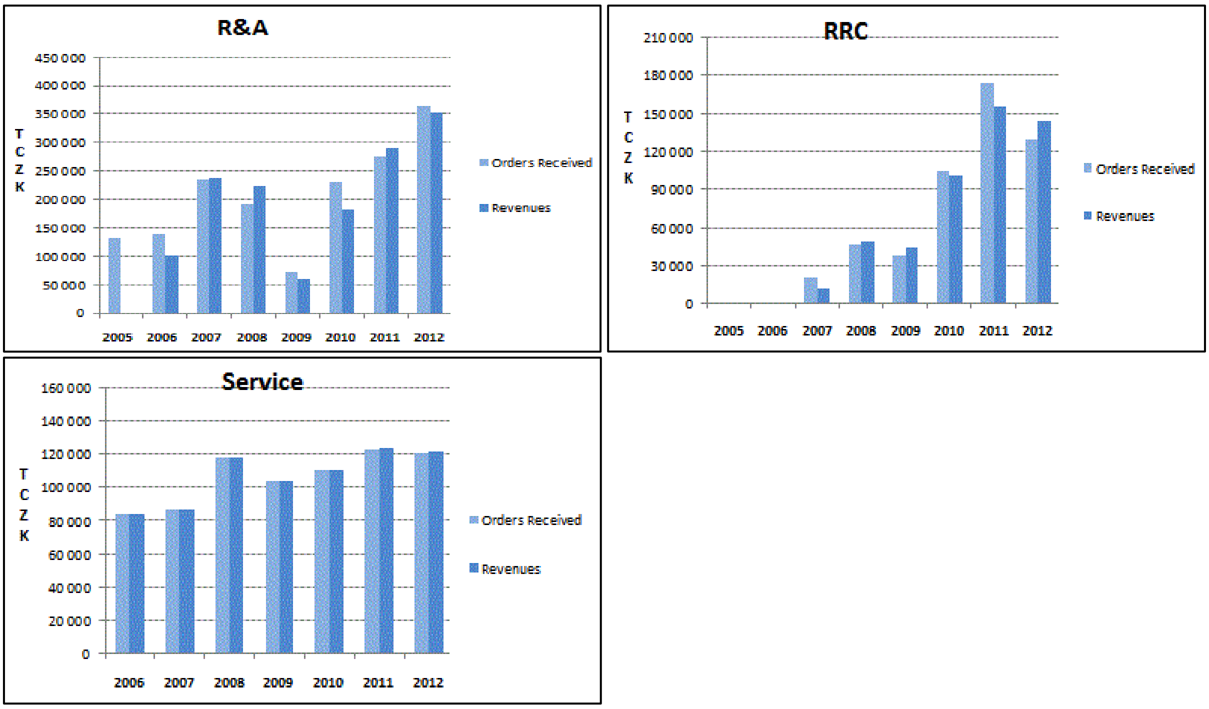
Figure 19 - ABB, s.r.o., DMRO BU - Orders received, revenues 2006-2012



Source: ABB, s.r.o., DMRO BU, internal materials

Figure 19 visualizes the development of the Orders received and the Revenues from 2006 to 2012 in DMRO BU in the ABB, s.r.o. As it will be explained in the following chapters, the orders received and the revenues are one of the essential performance indicators and reporting elements. The orders received are counted once an order is signed whereas the revenues have to be recognized according to the accounting standards, i.e. when a product or service is delivered to a customer. Figure 20 then shows developments of those two reporting elements in the local product groups in the DMRO BU. It is evident that in the service business orders are received in the same accounting period they are finished and thus these revenues are booked. In the project business, however, this is not the case because projects usually take several months.

Figure 20 - ABB, s.r.o., LPGs in DMRO BU, Orders received, revenues 2005-2012



Source: ABB, s.r.o., DMRO BU, internal materials

10. PLANNING AND BUDGETING SYSTEM IN ABB

This chapter deals with planning and budgeting process within the company ABB, s.r.o.. To begin with, it is important to mention that this section is based on information gathered during several meetings with the division and business unit controller supported by the general budgeting process overview and a few other charts related to the structure of costs at cost centers and the structure of the managerial income statement. Provided limited data it seems rather impossible to prepare an in-depth analysis of planning and budgeting system, however, it allows to create an overview of how does the budgeting process and the managerial income statement look like in a world´s leading company.

The process of planning and budgeting in the company is regulated by the “ABB Group Budget Guidance” guidelines (the related Table of Contents is enclosed in Figure 21) prepared by the Corporate Controlling & Planning team. The guidelines contain a precise timetable for the budget process and define the assumptions and instructions. Easily guessed from the title, these guidelines are valid for the whole corporation, i.e. for every region, country and all the related local divisions and business units. No individual, local budget process guidelines are allowed. In these guidelines, the company uses only to the notion of "budget"; the term “plan”, as it was defined in the chapter 2.1., is not used here. This is due to the budgeting period for which the budgets are assembled: the calendar year.

Beside of the “budget”, one more term is used within the ABB. Confusing as it may seem, in other companies it has a similar meaning as budget. This term is **“forecast”**. But unlike a budget that is assembled and given as fixed for the entire calendar year, the forecast is compiled on a monthly basis. Its purpose is to estimate the budgets’ figures for the remaining quarters more precisely (e.g. in March, the forecast for 2Q – 4Q is compiled). The forecast’s function is to present more accurate estimates of the business development than those provided during the budget process. Once a year, always before the budget process, a detailed forecast is assembled in the structure of managerial income statement (i.e. it includes all key reporting elements). This forecast is then used for an orientation in the preliminary results on one hand and as a base for the next year’s budget on the other, because the significant performance indicators are estimated with quite high probability of occurrence at this time. This being explained, a detailed forecast enters as the third stage into the 2014 budget process (illustrated in Figure 26).

Releasing the Group Budget Guidance require fulfilling several tasks aiming at the appointed outcomes. These are relevant assumptions, instructions, analyses as well as macroeconomic forecasts and estimates of commodity prices for the upcoming year. The list of these tasks and outcomes is presented in Figure 22.

Figure 21 - ABB Group Budget Guidance

Table of Contents

Source: ABB, s.r.o., DMRO BU, internal materials

Figure 22 – Actions & Outcomes before Group budget guidance is released

Topic	Actions	Expected Outcome
Macroeconomic forecast by country	Corporate Controlling & Planning team aligns Strategy to provide updated global macroeconomic forecast	Country 2014 Forecast, *incl.:* - *GDP* - *CAPEX and OPEX* - *Population and Unemployment* - *Inflation* - *Industrial Production* - *Exports & Imports*
Commodity Price for 2014	Corporate Controlling & Planning team aligns SCM to provide commodity price forecast, and update later this year.	Commodity price slides
Reporting instructions on functional cost and others, *incl.:* - *Information Systém* - *Supply Chain Management* - *Shared Accounting Services* - *HR* - *others*	Corporate Controlling & Planning team aligns with related departmerns/functions to update the instruction on how to do Budget 2014	Group guideline on the functional cost and etc.
Group defined key assumptions, *incl.:* - *SG&A cost target %* - *Travel & Entertainment expense target %* - *CAPEX target* - *Bonuse expense* - *Exchange rates*	Corporate Controlling & Planning team aligns with related management/departments to provide the group assumptions on how much to budget	Update in Group Budget Guidance upon discussion in EC outlook
Divisional Scenario Analysis for Budget 2014	Corporate Controlling & Planning team supports divisions on the target settings with scenario models	Recommendations for Division Target based on various models/scenario, *incl.:* - *Divisions' view* - *Strategic plan inputs* - *Market view (Analyst expectations)* - *GDP model*

Source: ABB, s.r.o., DMRO BU, internal materials

According to my consultant from the ABB, s.r.o., the company does not prepare more variants of the long-term planning as outlined by Král (2006), i.e. it does not apply the flexible plan (allowing modifications according to either the optimistic or pessimistic variant). As she said, it would be rather difficult to manage and plan on the operational level if several variants were drafted. In addition to this, we discussed the definition of factors, which, according to Král (2006) have influence on the form of the long-term plans. The employee was not aware that in local ABB long-term plans are prepared based on *"the stability of the market environment in the segment"*[35] factor. On the contrary, she found relevant factors such as *"economic life of products for a customer, the length of the business cycle and economic life of profiling tangible as well as the intangible fixed assets."*[36]

The company uses the Microsoft Office Excel program to prepare the report inputs. Once the budgets are approved, they are loaded into the Hyperion software, which is used for further reporting. For evaluating, measuring and monitoring of the budget fulfillment the company employs a number of other software tools (e.g. ABACUS). It also uses the SAP software for recording and reporting of the actual financial data. Furthermore, this one is used for the bookkeeping work as well.

10.1. KEY REPORTING ELEMENTS, KEY PERFORMANCE INDICATORS

The ABB Group has established its elements for performance measurement, which are set, monitored, measured and evaluated within the budget process. These elements serve to internal measurement of whether the company has achieved the intended results, they are the so-called **Key reporting elements** (an overview is illustrated in Figure 23). Basically, it is a combination of the turnover values found in the financial accounting (revenues, costs, expenses,…), the financial analysis indicators (net working capital) and the non-financial information (number of employees). These Key reporting elements are subject to budgeting because they are reported and evaluated in the structure that is shown in Figure 23. The same Figure demonstrates that at some stages of the budget process feature more of these elements (e.g. Forecast). At other stage, the top management requires a less comprehensive report (e.g.

[35] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

[36] KRÁL, Bohumil & kol. Manažerské účetnictví. 2. rozšířené vydání. Praha: Management Press, 2006.

EC Outlook, CEO target). However, in every stage the **Key performance indicators** are always being reported, which in the ABB Group include the **Orders received, Revenues, Operational EBITDA, Capital Expenditure, Net working capital** and **Operating cash flow**. These KPIs are also subject to monthly Forecasts that were explained in the previous section. Last but not least, the KPIs measure the annual performance of employees and represent the base for bonus scorecards.

Figure 23 - Overview of Key reporting elements

Step	1	3	4	5	6	7
Reported items	**EC outlook** (Sep 2)	**Forecast** (Sep 5-17)	**EC Review** (Sep 19)	**CEO Target** (Sep 23)	**Budget Targets** (Oct 11)	**Budget Input** (Oct 14- Nov 1)
Orders Received	√	√	√	√	√	√
Demand and supply view		Supply only			Supply only	√
Base and large orders		√			√ *	√
Gross profit on base & Large		√			√ *	√
Consolidation		√				√
Revenues	√	√	√	√	√	√
Demand and supply view		Supply only			Supply only	Supply only
Consolidation		√				√
Cost of sales / Gross profit		√			√ *	√
SG&A		√			√ *	√
R&D		√				√
G&A functional cost						√
Other income / expense, net		√				√
EBIT		√				√
Operational EBITDA		√	√	√	√	√
Net income		√				√
Capital expenditure		√	√	√	√	√
Fixed assets						√
Restructuring costs		√				√
Net working capital (NWC)		√	√	√	√	√
Inventories, net					√ *	√
Overdues 3rd party					√ *	√
Operating cash flow (OCF)		√	√	√	√ *	√
Total employees / workforce		√			√	√

* at discretion of Division / BU

Source: ABB, s.r.o., DMRO BU, internal materials; own adjustments

10.2. BUDGET PROCESS, STAGES AND ADMINISTRATION

With my consultant in the ABB, s.r.o., we discussed the budget process for 2014 (the process in 2013 will serve to assemble the budgets for 2014). The 2014 budget process has undergone some changes compared to the 2013 budget process. The main modification arranged by the Corporate Controlling & Planning team was to shorten it from a six month (June – November) to only a two month (September - October) time horizon. The main reason was to make it simpler and lean.

The company prepares budgets on a short-term basis: one the calendar year. All deadlines for particular stages are given by a timetable (shown in further Figures). The product group is the lowest subunit level at which the budget is assembled.

As I was informed by my consultant, the Group CEO’s targets are in fact sent to each business unit and even the budgets are negotiated on the local business units’ levels, instead of the divisions’ ones, since the business units within one division usually follow different goals. The role of the divisions comprises mainly advisory, strategy implementation and leading of the business units. Business units are here for the operation and realization of the key targets.

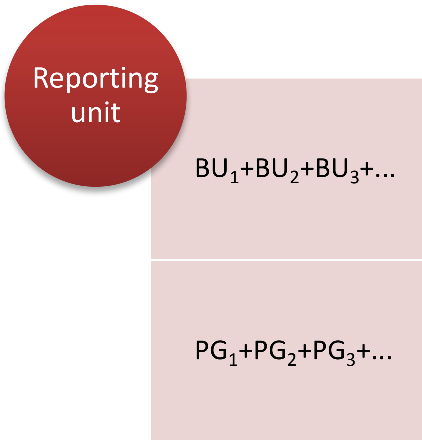
10.2.1. ADMINISTRATION

Each stage within a budget process is supported by the Corporate Controlling & Planning team, which is the top level of the controlling function in this organization. Moreover, each business unit has the headquarter level controllers at their disposal. Another levels are formed by the local divisions, local business units and local product groups’ controllers. However, in case a product group or even a business unit in a certain country has become insignificant in terms of global volume of orders, revenues, productions, etc., one associated controller is designated for more units. For instance, in the ABB, s.r.o., one controller is in charge of the local division (Discrete Automation and Motion division), the business unit (Robotics) and the corresponding product groups.

The local controllers play an important role in the whole budgeting process and can be called “budget officers”. They assist managers during the preparation of their budgets in correspondence with the Budget Guidance and they ensure that the budgets are submitted on time. They are responsible for the completeness and accuracy of inputs. And once the inputs are prepared, the accounting function (in the ABB, s.r.o. it relates to shared accounting services) gathers the outputs and makes sure that they are properly inserted to the Budget process. From this point of view they also act as “budget officers”.

Besides the organizational classification according to divisions, business units and product groups, in the ABB there are units called **reporting**. Basically, one reporting unit is a consolidated unit mostly defined on a country level (exceptions with more than one unit are to be found in Germany, Sweden and Switzerland). This is illustrated in Figure 24. The lowest unit for data input is therefore a local product group and the lowest unit for data submission to the Hyperion is a reporting unit.

Figure 24 - ABB Group - Reporting unit



Source: own preparation based on discussion with the employee

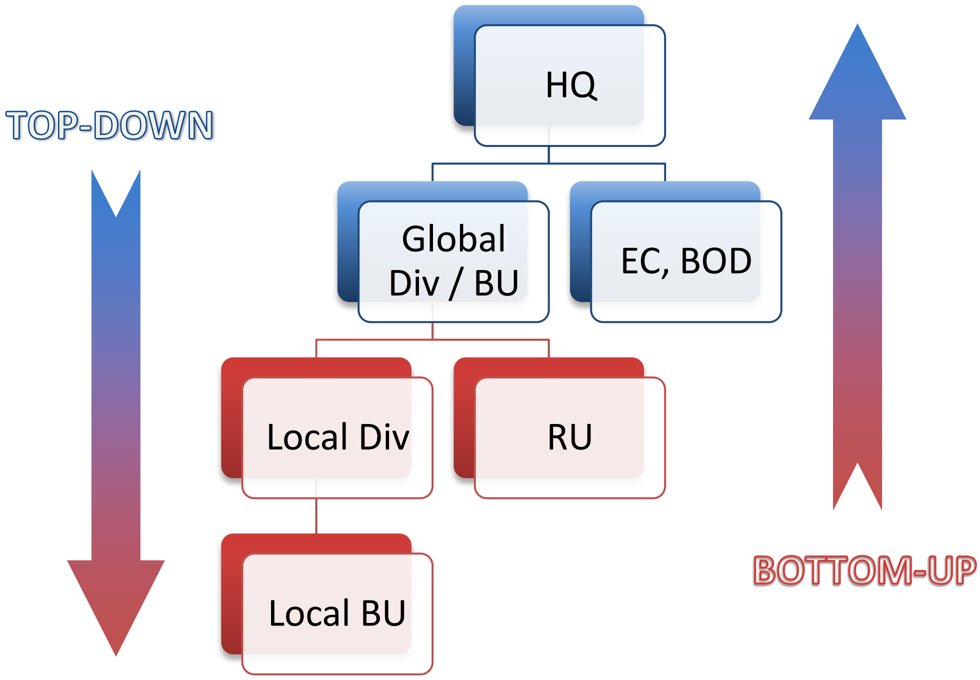
10.2.2. STAGES

Figure 25 shows the position of the individual hierarchical levels in the Budget process. On the top position is the headquarters, namely the Board of Directors and Executive Committee. The executive committee comprises the CEO, the CFO, the General Counsel and the leaders for Human resources, the Global markets, the Business integration and all the five divisions. As I will describe further in this chapter, the executive committee elaborates reviews of the important stages in the budget process. The board of directors then approves the final version of the budget.

The ABB Group, led by its headquarters, uses a "top-down" approach of communication during the budget process when setting the next period’s targets and KPIs. Of course, everything proceeds in perfect accordance with the strategic direction of the ABB Group, but it also takes into consideration the achieved results in the previous budget period and based on the outlooks of the individual local divisions. For example, if some local product group does not derive benefit from its potential, the headquarters will impose their order targets for the next period for them. On the contrary, if some local business unit does not have a potential to increase its market share any longer, or if it has achieved favorable results in the previous period, then the global leaders, within the limits of the Group strategy, provide a space for discussion, the outcome of which is a trade-off with particular KPIs for the upcoming budget period. As for Budget process, except for a determination of the KPIs and the targets from the headquarters, a “top-down” approach is no longer applied.

The local divisions work on budgets assembling in the frame of the “bottom-up” approach, i.e. the local products groups first discuss the budget with the local business units and those again with the leaders of the individual divisions (naturally in accordance with the targets announced by headquarters). The local division controller I was in touch with estimates that about 90% of the budget communication works within the "bottom–up” approach and about 10 % by the “top–down” one (i.e. setting the KPIs and the targets from headquarters). Those 10 % have the highest influence on the whole process since it concerns the Group targets.

Figure 25 - ABB Group - levels in Budget process



Source: own preparations based on information from ABB, s.r.o.

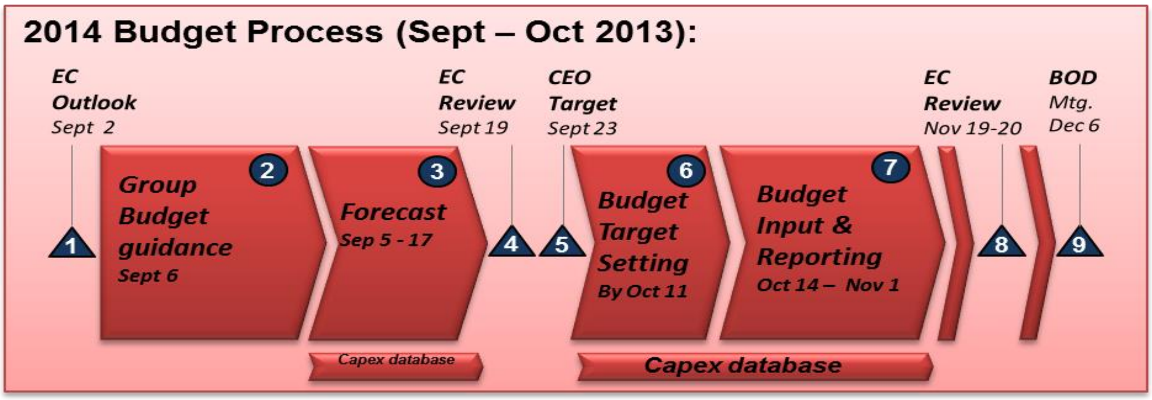
Now, please let me explain the 2014 Budget process stage by stage. To begin with, Figure 26 features the 2013 Budget process - that solely for the reasons of better understanding of how the whole process has become simpler and shorter.

Figure 26 - ABB Group - 2013 Budget process

Source: ABB, s.r.o., DMRO BU, internal materials; own adjustments

Then, the individual stages of the 2014 Budget process were modified as showed in Figure 27 (see the explanation below). The 2014 Budget process comprises nine stages including the five milestones.

Figure 27 - ABB Group - 2014 Budget process



Source: ABB, s.r.o., DMRO BU, internal materials; own adjustments

Figure 28 - ABB Group - 2014 Budget process - participants and time

Step		1	3	5	6	7
Participants & Time		**EC outlook**	**Forecast**	**CEO Target**	**Budget Targets**	**Budget Input**
Participants	Prepared by	Divisions & related parties as agreed in agenda	Reporting Units	CEO & CFO	Divisions/BUs	Reporting Units
	Supported by	GF-FCC	GF-FC	GF-FCC, Divisions and other parties as required	GF-FCC	GF-FC
	Reviewed by	EC	Divisions/BUs			Division/BUs
	Receipient		EC	Divisions	LD/LBU/LPGs	EC
Time	Preparation	Jun - Aug	Sep 05 - 17	Aug - Sep	Sep - Oct 10	Oct 14 – Oct 31
	Publish/Present	Sep 02	Sep 19	Sep 23	Oct 11	Nov 01

Source: ABB, s.r.o., DMRO BU, internal materials; own adjustments

1) **EC Outlook Meeting – milestone (2 September 2013)**

The executive committee discusses the 2014 market drivers, trends, initiatives as well as the 2014 orders outlook.

2) **Group Budget Guidance (6 September 2013)**

On 6 September, the Corporate Controlling & Planning team releases the Group Budget 2014 Guidance – a comprehensive and structured guideline for the budgeting process. Apart from the process instructions, it contains economic data, external view, market outlook and gaps within the Strategic Plan (as specified in Figure 22), settled in the few month period before the Group Budget Guidance release date.

3) **Forecast (5 – 17 September 2013)**

Within this period, the reporting units are responsible for loading the inputs related to the Q3 & Q4 2013 forecast including Orders, Revenues, Profitability and other KPIs as demonstrated in Figure 23 (Overview of Key Reporting Elements).

4) **EC Forecast Review – milestone (19 September 2013)**

Once the 2013 Q3 & Q4 forecasts are prepared and loaded into the system by the reporting units, the EC reviews the division's forecast and updates the outlook for 2014.

5) **CEO Target – milestone (23 September 2013)**

This is a milestone of a considerable importance even among the milestones, as on this date the CEO announced the division targets (the announcing itself is top-down process). The CEO provides the KPIs targets that are declared in coherence with the ABB Group strategy, the latest forecasts by reporting units (stage 3) and the Budget meetings attended by the global business unit manager, the global controller, the local division and business unit manager and also the local controller. Together they discuss the last year's performance, market share, outlook and other key elements of the local business unit. As a result of this budget meeting, the CEO targets, decide which business unit will grow and which product group the growth will be realized. This one is also a bottom-up process (however, it is not always the case, as explained in section "Stages").

6) **Budget Target Setting (11 October 2013)**

At this stage, according to the released CEO targets on 23 September, the global divisions and business units set targets to lower levels, i.e. the local divisions/local business units and local product groups. The key target elements include Orders, Revenues, Profitability and other KPIs as illustrated in Figure 23.

7) **Budget Input & Reporting (14 October – 1 November 2013)**

Each reporting unit inserts its budget into the reporting software, ABACUS. The budget input reflects the targets agreed on with the Divisions/Business units including Orders, Revenues, Profitability and other KPIs as well as the Functional costs (G&A and others), Employees, External personnel, Capital expenditure, Depreciation & Amortization, Restructuring, etc. as shown in Figure 23 .

8) **EC Budget Review – milestone (19 – 20 November 2013)**

The budget process is completed with only two milestones left. At this stage the EC reviews the 2014 Budget 2014 as loaded by the Reporting units in line with the Divisions/Business units targets.

9) **BOD Meeting – milestone (6 December 2013)**

The end of the process. The board of Directors of the ABB Group approves the 2014 Budget. The budget for the year 2014 now contains all the final figures that have been reported and communicated across the whole organization. This Budget remains the same over the year 2014 and each of its months will be evaluated according to the forecasts until the 2015 Budget process begins.

In addition, in parallel with the Budget process runs the CAPEX (Capital expenditure) budget process. This process consists of the following stages:

1) Reporting Unit / LBU / Function provide an input based on discussed projects with the Global BU / Global Function.
2) Corporate Controlling & Planning team prepares a preliminary report from the Capex database with projects for the??? Global Divisions / Global BUs.
3) Global Divisions / Global BUs set targets to the Reporting Units / LBUs.
4) Reporting Units / LBUs adjust the Capex database based on the approved Capex projects.

5) Executive committee approves the final output for the budget on the Capex database projects.
6) Capex database is closed for input and a Final report to EC and the Global Divisions / Global BUs is prepared by the Corporate Controlling & Planning team.

10.3. PERFORMANCE MEASUREMENT AND BUDGET CONTROL

The ABB Group measures performance by the Key performance indicators - orders received, revenues, operational EBITDA, capital expenditure, net working capital and operating cash flow. As already mentioned, these are the “building blocks” of the annually assembled fixed budgets.

Since it does not seem balanced to monitor only the fixed budget throughout the year, the current conditions are taken into account every single month and the budget for the remaining period (divided into quarters) is being adjusted via the forecasts, i.e. the figures stated in budgets are adjusted according to actual estimates. The data from the forecasts are prepared especially for the global BU managers and the global controller and planning team. In case a significant variance occurs, it is addressed to the responsible division.

The annual budget is divided into four parts (quarters) that are being compared to the actual forecast. Due to this even dissociation of the budget totality to four quarters, taking into account all the sales targets throughout the year, in some quarter can occur lower results than expected (that according to one fourth of the annual budget – especially in the project oriented business). In such situation the responsible controller has to provide an explanation (that for example more orders received are to be carried out in the next quarter or so).

Figure 29 - ABB Group - structure of forecast vs budget evaluation

KPI	Forecast 4Q2013	Budget 4Q2013	Diff
Orders received	25 000	20 200	4 800
Revenues	30 000	30 500	-500
...	...	...	...
...	...	...	...
...	...	...	...

Source: own preparation based on discussion with ABB, s.r.o. employee

At the beginning of the year, the employees receive a bonus scorecard. It is always standardized for the whole ABB Group. The bonus scorecard contains a combination of financial and non-financial factors and targets that are tied with values contained in the budget. On their basis, the employees are evaluated at the end of the year, once the final figures are known and reported. The evaluation is divided into several levels. An example of a simplified bonus scorecard is the following:

- Budget fulfilled from x %, paid +- 75 % of the total bonus

- Budget fulfilled from x %, paid +- 90 % of the total bonus

- Budget fulfilled from 100 %, paid +- 100 % of the total bonus

Out of interest, I asked my consultant what happens if a manager exceeds the targets and if they get higher than 100 % of amount of total possible bonus. Based on the answer I got from this discussion, in general terms, it is almost impossible to surpass the targets set after long discussions between a numbers of managers regarding broad range of factors that can somehow influence the results. Usually, the targets are chosen as challenging already, thus the responsible personnel are not really motivated to exceed it. However, if such situation happened, it would mean that the last year's final forecasts (for 3Q, 4Q) on which basis the current budget was assembled, were inaccurate (underestimated), raising a suspicion that somebody willfully falsified the data in order to reach the goals easily. Nevertheless, such situation is very unlikely. It would be detected immediately, during regular, monthly forecasts.

I have also discussed with my consultant the last months'[37] issue concerning the currency depreciation of the CZK against the EUR by approximately 2 CZK/EUR. My question was whether this unexpected intervention of the Czech National Bank had any impact on variances within the budget control. The answer was that the impact was not of any greater significance. The ABB, s.r.o. buys and sells in EUR, so possible variances caused by this particular change in currency exchange rate were eliminated. Moreover, the budgets are assembled in the USD currency that did not change as rapidly against the EUR. In addition, the ABB Group has guidelines in place focusing solely on unexpected changes in currency exchange rates. They are relevant namely for countries endangered by hyperinflations. In

[37] On 7 November 2013 Czech National Bank unexpectedly approved an intervention against CZK leading to depreciate CZK currency by approximately 2 CZK/EUR.

these countries, if the exchange rate fluctuates more than 10 %, then it is considered a serious problem.

10.4. CONCLUSION OF THE CHAPTER

The budget process in the ABB is carefully designed and described according to the internal guidelines allowing a coordinated and fluent assembling of budgets without any obstacles. This is supported by a clear definition of responsibilities and accountabilities of managers and particular divisions/business units divided into several organizational levels.

The final budget specifies the actual budgeted Key reporting elements of which the KPIs are the most important.

The managers of individual organizational units, whose responsibility is set out in the budget process schedule, participate on both, assembling and approving of budgets. The process of assembling the next year's budgets proceeds from the top down (setting targets) and then, it is replaced by the bottom-up approach. When the senior management announces the budget's goals in the "top-down" sense, it is often perceived by the lower level's managers as directive management. The operating personnel have little or no input into the creating of targets/goals itself, the resulting budget is understood as the top management's creation, leaving little motivation for the operating people to achieve success. In other words, the sense negatively affects the motivating aspect.

The company prepares the annual fixed budget and the business development is specified through monthly forecasts. It is therefore a combination of both, fixed and rolling budget. Once in a year the bonus scorecards are evaluated against the achieved targets of the operational personnel.

The ABB Group is a large corporation with a complicated organizational structure, so there higher susceptibility to problems may occur in the communicating function of budgets. The managers communicate with each other mostly "at distance" and often, they do not know each other personally. A large number of various (remote) meetings can cause that a less competent manager insufficiently forwards the requests from the owners and the senior management of the company to the other accountable personnel in his managing line and therefore those employees may not be fully aware of the corporate expectations and thus cannot conform their activities to accomplishing targets efficiently. These misunderstandings (misleading guidance) can be partially eliminated by using the responsibility accounting or binding bonuses together with the budget targets. I have discussed this issue with my consultant and the ABB has established both of these tools.

11. INCOME STATEMENT IN ABB

As a second goal in the practical part of this diploma thesis I would like to analyze the differences between the income statement from the perspective of the management accounting and the financial accounting. I will focus both on the content differences and differences in structure.

To begin with, it is necessary to mention that the income statements compiled for the purposes of the financial accounting are strictly regulated and determined by the local legislation. In the Czech Republic, the classification and identification of items in the statutory profit and loss statement is determined in the Annexes No. 2 (for classification by nature) and No. 3 (for classification by function) of Decree No. 500/2002 Coll – both are attached as appendixes at the end of this thesis.

The ABB, ,s.r.o. following the CZ GAAP uses the classification by nature[38] for the disclosure and presentation of the profit and loss statement. Therefore, the section dealing with the examination of the income statement applied in financial accounting will be based on this classification. The structure of the managerial income statement designed to the ABB Group is similar to the classification by function. Therefore, the section dealing with the income statement applied in management accounting will be based on this arrangement.

11.1. INCOME STATEMENT APPLIED IN MANAGERIAL ACCOUNTING

For the whole ABB Group, one scheme is defined of the income statement used for internal needs. This is presented in Figure 30. In fact, this scheme does not concern purely the income statement but it contains all the key reporting elements as presented in the previous chapter (Figure 23). So this is the underlying reporting scheme used for reporting throughout the whole ABB Group.

[38] ABB Group accounts per US GAAP. Group reporting currency is USD.

The lowest subunit that is supposed to report these elements is the Product group. During the budget process it works in the following way: once all the product groups from a particular business unit provide their inputs (i.e. uploaded data in a required template), then reporting software is automatically able to consolidate all of the product groups' inputs into one output representing whole business unit. And so forth. Of course, the controllers always cross-checks the data calculated by the software against their own sheets and calculations. Moreover, they ought to check the figures inserted manually to the reporting template again against the supportive sheets prepared by the controlling teams.

As it is obvious from Figure 30, each item (element) in the reporting template has a unique code assigned to it. Based on this code elements are linked to the Chart of accounts (in SAP).

Some of the elements are announced as targets from the Group CEO (what precedes and what succeeds this announcement was described in detail in the chapter dealing with stages within the budget process), namely Revenues, Orders received, EBITDA and OCF. The rest is up to the responsible unit. In any case, the task is simple – all remaining elements have to be in line with the announced targets.

Now, I would like to discuss the content and structure of the reporting template below in Figure 30. The income statement itself is the theme of the next chapter, therefore in the following paragraphs; I will only be focusing on the non-financial accounting items:

- Orders received

Seemingly, it has the same structure as revenues, but instead of "revenues" it is entitled "orders received". This is the supplemental element to revenues. While revenues are usually recognized once the invoice is issued (depending on the policy for revenue recognition), the amount of orders received depend on the signed contracts. So this is an exact example of an element that can be measured in the managerial income statement since in the financial accounting it would be irrelevant to the Act and thus inapplicable.

In services, it is common practice that the accounting period in which an order is signed equals the accounting period in which the revenue is recognized, as most of services are performed within one or a few days. But for project business it usually takes months from the day when contract is signed and project is finalized.

- One time items, total restructuring and related costs

These particular data are important as both, a part of the OCF calculation and for notes to the financial statements of the ABB Group.

- Information about employees

The information on how many employees are permanent, temporary or external along with the personnel expenses is useful for example when calculating the productivity of workforce (e.g. personnel expenses on one employee, etc.).

Figure 30 - ABB - Structure of income statement and other key reporting elements

Revenues		-	
	Third party / Rel. party - sales		UU0600
	Third party / Rel. party - other oper.income		UU0630
	Third party / Rel. Party - rental/leasing income		UU0640
	Revenues, ABB Group, same PG (order related)		UU0860
	Revenues, ABB Group, same BU, other PG (order related)		UU0870
	Revenues, internal, same BU, other PG (order related)		UU0930
	Revenues, ABB Group, other (order related)		UU0960
	Revenues, ABB Group, same PG (non-order related)		UU0880
	Revenues, ABB Group, same BU, other PG (non-order related)		UU0890
	Revenues, internal, same BU, other (non-order related)		UU0950
	Revenues, ABB Group, other (non-order related)		UU0980
	REVENUES		**UU0990**
	Cost of sales incl. calculated interest		UU1570
+/-	Reversal of calculated interest		UU1760
	Gross profit		**UU1990**
	Selling, general and admin. expenses		UU2790
	Net non-order related R+D expenses		UU2760
	Net profit		**UU2990**
	Earnings before interest and taxes		UU3990
Orders received		+	
	Orders booked, Third/Related parties		UZ0100
	Real-estate rental/leasing income		UZ0140
	Orders, ABB Group, same PG (order related)		UZ0361
	Orders, ABB Group, same BU, other PG (order related)		UZ0371
	Orders, internal, same BU, other PG (order related)		UZ0431
	Orders, ABB Group, other (order related)		UZ0461
	Orders, ABB Group, same PG (non-order related)		UZ0380
	Orders, ABB Group, same BU, other PG (non-order related)		UZ0390
	Orders, internal, same BU, other PG (non-order related)		UZ0450
	Orders, ABB Group, other (non-order related)		UZ0480
	ORDERS RECEIVED		UZ0490
	Cost of sales incl. calculated interest		UZ0570
+/-	Reversal of calculated interest		UZ0670
	Gross profit		UZ0690
	Large orders received (year-to-date) 3rd/rel. party		UZ0910
	Revenues; Sales Commission and Sales expense charge-out, ABB Group, same PG		UZ2720
	Break down of SG&A (related to income statement)		
	ABB Group internal fees (incl. MIP & ESAP)		UZ2730
	Sales expenses		UZ2770
	General and administrative expenses		UZ2780
	Selling, general and administrative expenses		**UZ2791**
+/-	One time items in Depreciation & Amortization		UZ7001
+/-	One time items in income statement other		UZ7000
+/-	Total Restructuring and related costs - Expenses		UZ3941
-	Total Restructuring and related costs - Cash payments		UZ3942
+	Reversal of Depreciation		UZ5021
+	Reversal of Amortization (incl. Software, licence depr.)		UZ5022
	Operating cash flow before interest and taxes (OCF)		UZ5490
	Non-order related R+D (gross, only own and third/rel.parties expenses)		UZ6700
	Non-order rel R+D (license fees CHTET and other ABB co)		UZ6750
	Refunds received for non-order related R+D (Third/Rel. Parties)		UZ6800
-	Refunds received for non-order related R+D (ABB Group)		UZ6840
	Net non-order related R+D expenses		**UZ6890**
	Total permanent employees		UZ7322
	Total temporary employees		UZ7342
	Total employees		**UZ7380**
	Total number of external personnel		UZ7450
	Personnel expenses		UZ7400
+/-	Unusual Items		UZ3950
	Net working capital		UZ9040
	Total Capital expenditure tangible and intangible		UZ9085

Source: ABB, s.r.o., DMRO BU, internal materials

11.1.1. CLASSIFICATION OF REVENUES, COSTS AND EXPENSES

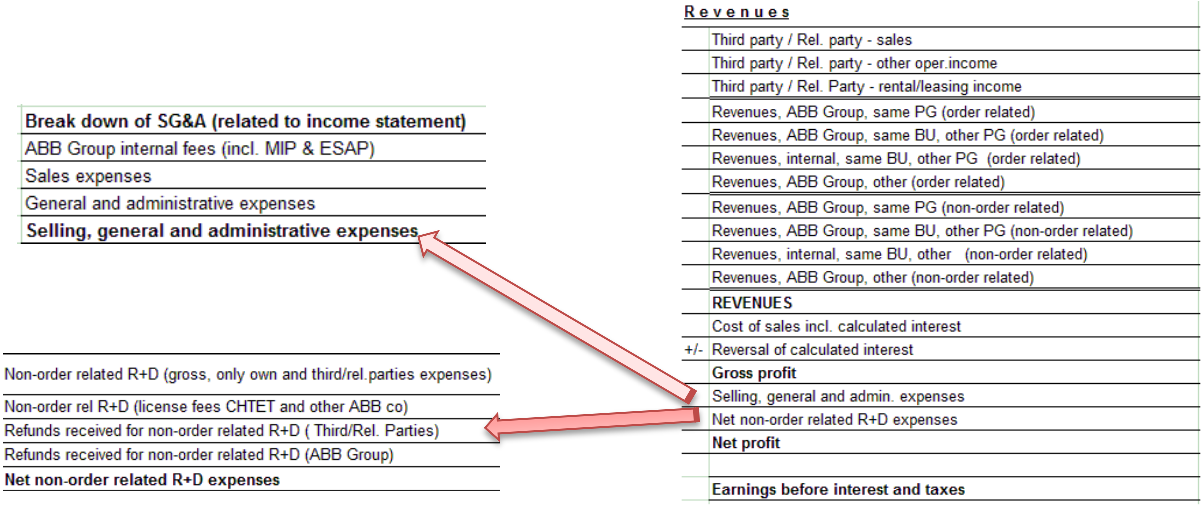
This section elaborates on the income statement prepared in accordance with the managerial and reporting requirements. The structure and break down of some of the items are shown in Figure 31. Firstly, the classification by function should be noted. It is composed solely for internal purposes as it makes the consumption or revenues intentions transparent.

The vertical classification of revenues is quite detailed as many items are included in it. In general, they can be divided according to order and non-order related and then according to the revenues from third parties, internal revenues within the Group (abroad) and internal revenues within a legal entity (the ABB, s.r.o.). This diversification is made in line with the users' requirements. The "order related" revenues are all that can be directly connected with the projects for customers. The "non-order related" revenues coming for example from internal services between units, "borrowing" of employees between units or selling of assets. From the Czech accounting legislation point of view all the revenues that are internal within the ABB, s.r.o. have to be eliminated. On the other hand, the revenues from activities within the ABB Group abroad (i.e. sales to different entities) are considered as "third-parties" according to the Czech legislation and thus can remain included. From the reporting group´s perspective only those revenues which are internal within the same BU and PG need to be eliminated. The rest remains unchanged. The cost of sales and selling, the general and administrative expenses are assigned from the cost centers to the reporting income statement (further elaborated in the following sections).

"The calculated interest" is a purely managerial item because it is always eliminated from the statements made in the frame of financial accounting. It represents the costs of money tied in the inventory (at the time product is finished it is not known whether/ when it will be sold) or receivables. However, this item is not the case for the DMRO BU in the ABB, s.r.o.

The last notion that should be explained is the "non-ordered related R+D expenses". In an international company it is on daily basis to research and develop for purposes of the organizational units in order to become more competitive on the market. These researches and developments indirectly related to the projects for customers are considered to be "non-ordered related" and the costs incurred are charged out to the responsible unit. The research and developments costs directly related to orders are part of the costs of goods sold (further elaborated in section dealing with the cost centers).

Figure 31 - ABB Group - Budgeted income statement analysis



Source: own preparation based on internal materials

11.1.2. RESPONSIBILITY CENTERS AND THEIR BUDGETS

Being a large corporation, the ABB is divided into a number of subunits (divisions, business units, product groups), each of which is granted certain decision rights and then evaluated based on attaining the targets set for that particular subunit. These subunits are recognized as the responsibility centers. In case of the DMRO Czech Republic (local Business Unit) subunit, the one I had the chance to cooperate with, the decision rights assigned to it categorize the unit as a cost or profit center[39].

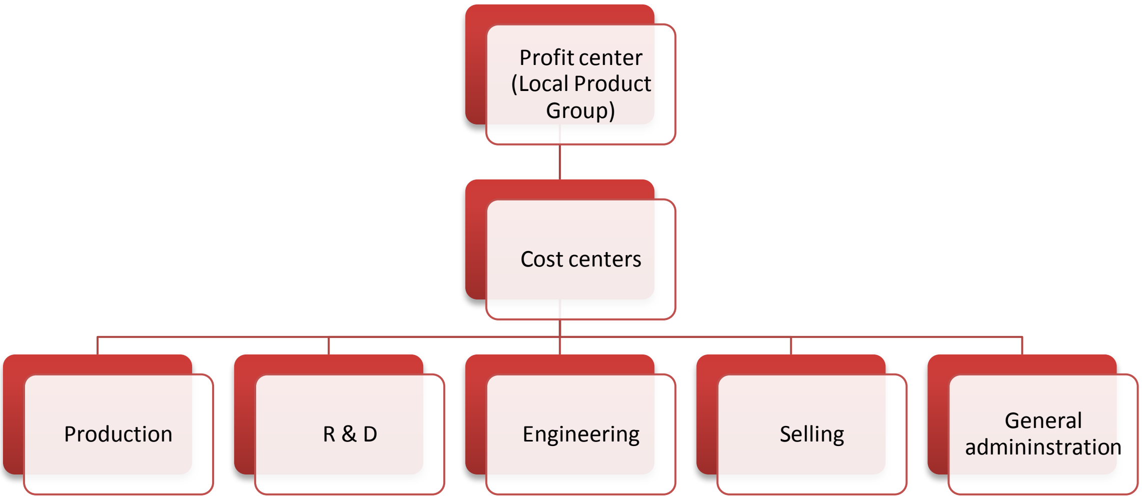
Figure 32 demonstrates how these two types of responsibility centers are linked together. The cost centers involve departments such as Production, Research and Development, Engineering, Selling or General administration.

Above the group of cost lies the profit center. The profit centers often comprise several cost centers. The particular decision rights assigned to each responsibility center are the key determinants of how the unit's performance is evaluated and rewarded. In the

[39] Of course that the ABB, s.r.o. also categorizes some subunits as investment centers. However, this is not case of DMRO BU, but rather larger local divisions having plants.

following sections a position, content and structure of each of the two responsibility centers will be explained.

Figure 32 - Relationship between profit and cost centers in ABB, s.r.o., DMRO BU



Source: own preparation based on discussion with ABB, s.r.o. employee

11.1.2.1. COST CENTERS' BUDGETS

Such subunit can be categorized as a cost center, that has been assigned the decision rights to produce a certain level of output (its managers' efficiency in pursuing the set goals is measured and rewarded). Managers have been assigned the decision rights for determining the mix of inputs used to produce the output.

The default structure of the cost items used for measuring the total costs attached to a particular cost center is shown in Figure 33. Each cost center has to adhere it and to assemble a budget of the total costs based on the limits/targets given by the controllers. Obviously, this structure is customized for the managerial accounting purposes. At the same time, each group of the costs/expenses matches an expense/a cost item located in the statement used in the financial accounting.

The total costs consist of the Direct employees costs, the Fixed costs and the Variable costs. The direct employees costs are estimated as follows: the number of headcounts multiplied by the average amount of each item, e.g. salaries expenses are estimated according to the Collective agreement containing the salaries' growth rate for the current year. Then the last year average salary is multiplied by the growth index which is then again multiplied by the number of headcounts. And so forth.

The costs of each cost center are assigned to the relevant profit center based on cost drivers.

Figure 33 - Structure of Cost center budget

Personal expenses	Salaries
	Overtimes
	Sickness
	Restructuring
	Basic bonuses
	Extraordinary bonuses
	Social insurance
	Pension
	Expat housing included in salary
	Other benefits (e.g. lunch vouchers)
	Personal Expenses
Car expenses	Leasing
	Gasoline
	Car Insurance
	Car Repairs
	Other
	Car expenses
Communication	Post
	Mobile phones
	Office phones (incl. Genesis Telco)
	Communication
Expat expenses	Housing
	School Fees
	Relocation
	Other
	Expat expenses
IS, IT (personal)	PC Hardware (leasing, depreciation)
	SAP fees (per HC)
	IS CZ (per PC user)
	DirChar.soft.lic.
	Group Licence and user fee - charged in
	Global IS server and network - charged in
	IS, IT (personal)
Direct employee costs	
Rent, Tenure	Rent Office Prague (incl. fix line phones)
	Prague Support Services - charged in
	Training Center, Stock Prague
	CTP Ostrava
	DMRO Appartment Prague
	Cleaning Services
	Leasing Crane
	Other
	Repair Building
	Rent, Tenure
Energy, Fuel	Heating, Electricity
	other Utilities
	Energy, Fuel
IS, IT	Software Purchase (below 60 KCZK)
	Software Depreciation
	External IT Services (programming)
	Services connected with SW maintenance
	IS, IT

Office Supplies	Office Supplies
	Office Equipment
	Office Supplies
Depreciation	Depr. Buildings
	Depr. Machines and Equipment
	Depr. Hardware
	Depr. Test Equipment
	US Depr.
	US Depr. Computer
	Depreciation
Deficit, Damages	Damage on Inventory/Assets
	Deficit, Damages
Insurance	Insurance
	Insurance
Allocated	Shared Services
	Shared Services
	Shared Services
	Shared Services
	Shared Services
	.
	.
	.
	Allocated costs
Fixed Costs	
Material	Material expenses
	Tools and equipment (indirect)
	Material
Transport, Freight	Transport, Freight
	Transport, Freight
Advertising, Publishing	Printing and copying
	Industrial Fairs
	Advertising, marketing
	Country marketing
	Advertising, Publishing
Repairs, Maintenance	Repairs, Maintenance
	Repairs, Maintenance
External services	External Blue Collars
	Other Service (Project Work)
	Other Service (Installation, Erection, Assembly)
	Reallocation
	Consulting
	External services
Travelling, Entertainment	Travel expenses
	Entertainment
	Travelling, Entertainment
Training	Language courses
	Training
	Travel expenses
	Training
Variable Costs	
TOTAL COSTS	

Source: own preparation based on internal materials

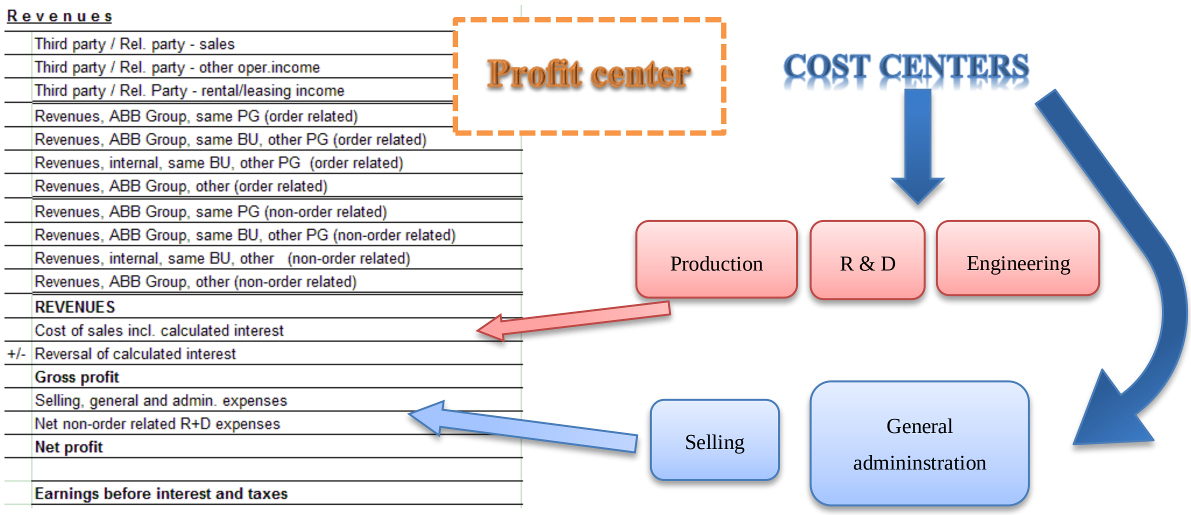
11.1.2.2. PROFIT CENTERS' BUDGETS

In the ABB, a profit center usually equals a product group because at the level of a product group a manager is given a fixed capital budget and has the decision rights to the input mix, product mix, and selling prices (or output quantities). The profit center is a unit where revenues are generated and consequently costs and expenses are consumed. So each profit center is connected to relevant cost center. The DMRO LBU comprises three product groups, therefore three profit centers are distinguished.

11.1.2.3. SYNTHESIS OF RESPONSIBILITY CENTERS AND BUDGETED INCOME STATEMENT

As defined in the preceding section, a profit center is a unit that is able to generate revenues. Furthermore, costs and expenses incurred in a particular cost centers have to be assigned. In Figure 34 the position of a profit center and particular cost centers is illustrated in the budgeted income statement as well as their relationship. Let us take the Robots & Applications product group – one of the three products groups within the DMRO BU in the ABB, s.r.o. This product group is considered to be a profit center. When assembling a budget, at the beginning the targets for revenues are known and the EBIT is provided by the upper level, that is a business unit. Consequently, they can calculate the profit margin and thus the required volume of costs that are to be assigned from the relevant cost centers (based on the cost drivers). In Figure 32, the cost center(s) with red background enters the income statement as the "Cost of sales" since production, research and development and engineering are directly revenue related, i.e. they are the so-called "product costs". The remaining cost centers (the Selling and General administration) are indirectly related to revenues and thus enter the income statement as the Selling, general and administration expenses, which means they represent the "period costs".

Figure 34 - ABB, s.r.o., DMRO BU - Relationship between responsibility centers and budgeted income statement



Source: own preparation based on internal materials

11.2. INCOME STATEMENT APPLIED IN FINANCIAL ACCOUNTING

The income statements for purposes of the financial accounting are classified by nature in the ABB, s.r.o.. The legal structure of such statutory statement is enclosed in the Appendix of this diploma thesis.

11.2.1. CLASSIFICATION OF REVENUES, COSTS AND EXPENSES

The revenues are never analyzed in detail within the statutory profit and loss statement in the frame of financial accounting in accordance with the classification by nature. This is understandable, because in the financial accounting, statutory statements are intended for external users. Those external users are interested in the volume of revenues can be divided in two groups.

To the first group is formed by the external users who do not insist on any detailed breakdown. Their only interest is in revenues as a whole. These include the public administration entities, companies cooperating with the ABB, s.r.o., or the employees at lower positions who do not have access to detailed information intended for management of the company only. Generally, these external users are interested rather in the income. The public entities want to see the levy of a corresponding tax liability or relevant information for statistical data. The employees know that if the company profits, they do not need to worry about their job, on the contrary, they may even require a salary raise. And the companies cooperating with the ABB, s.r.o do not need to worry about the corporation being is jeopardized by insolvency.

The second group of external users comprises competitors. Should a competitive struggle occur, they like to get detailed information about the structure of sales. However, they are not allowed to. No company provides information beyond the requirements of the Act unless it has a benefit from it.

In the statutory income statement classified by nature, the costs and expenses are not examined in detail either. But a general classification remains depending on how they entered the company. For instance, in financial accounting, the costs of staff working in departments directly associated with production and making profit are ranked under the Personnel costs and expenses without any further diversification. Or, in financial accounting, the costs of product promotions are to be found under the Production Consumed, in the item Services.

In the statutory income statements classified by nature, the individual costs and expenses are not separated from each other by function. It is caused among others by the target group the income statements are intended. The external users want to know how much a particular product/service costs and they are not especially interested in how many costs were incurred on the market research or newspaper advertising. Consequently, these costs are being combined together.

11.3. CONCLUSION OF THE CHAPTER

For the managerial purposes, the ABB company prefers to classify the income statement by function. For the purposes and needs of reporting it was decided to organize the revenues to categories based on whether the sales were to third parties (external) or to the ABB (internal). The internal channel is further divided to the ABB Group and the local ABB.

The advantage of classification by function is reflected also in costs. The main characteristic of this classification is evidence of a concrete item for which the costs were incurred. Within this approach the intended purpose (justification) of the consumption can be detected easily, revealing whether or not they are directly related to the revenues.

CONCLUSION

My diploma thesis is discussing the theme of planning and budgeting systems with a special emphasis on the income statement. At the beginning of this thesis I set the following objectives:

1) To confront the findings from scientific literature (elaborated in the theoretical part) with a real company’s approach on the chosen scope (discussed in the practical part) and assess the potential differences.
2) To make recommendations for the selected company in terms of planning and budgeting system and the associated processes.
3) As a secondary goal, I chose to analyze the differences in both the content and structure between the income statement from the two different perspectives, of the managerial and the financial accounting.

In the theoretical part, general findings were examined, related to the planning and budgeting system as a part of controlling. I used literature from authors of both, the Czech and foreign origin as a scientific basis to my project. In case of budgeting, the ABB Group, the ABB, s.r.o. or even the DMRO local Business Unit have their own peculiarities designed over the years by their controlling professionals. Consequently, my initial expectations were rather realistic: from my own experience, pure theory is never fully applicable into practice, especially when considering the large number of companies, each of them unique in its own way. However, some features matching the theoretical background could be observed indeed: these I identified in the ABB Group as a whole and also in the practice of the local Business Unit in the Czech Republic.

An example such feature (first presented in the methodical part and then found in the real company data) are the main functions of budgets, described in chapter 3.2. During this examination it was proved that functions such as planning, coordinating, controlling and evaluating are not only easily recognizable in the ABB, but even applied to the full extend. The remaining communicating and motivating functions have been recognized as well. However, personally, I have come to the conclusion that they do not work up to the expectations especially given the size of the company. That is namely in the motivation sphere – in 2013 the corporate budget process was remarkably shortened. Consequently, more targets are set for the business units by the "top" and fewer discussions concerning the budget are held. From the headquarters' perspective this is a more effective approach as the strategic goals are easily distributed among several units. Nevertheless, it brings less motivation to the local Business Units as they have less space to influence the goal setting. Furthermore, it can fail the fulfillment of the target if the local conditions are neglected.

The next point, where the practice in the ABB meets the academic basis, is the use of the budget devices as elaborated in chapter 3.4. From various devices the ABB's budget system works with a combination of fixed and rolling budgets. The chosen combination seems to be perfectly suitable given the size and business structure of the company. Scientific literature does not point out one specific type of device to be the best one. Combining is permitted in order to apply the most effective devices in practice while respecting the conditions and needs of a particular organization.

I find the whole budget administration designed for the ABB very efficient and sophisticated. It matches almost all of the academic recommendations as examined in chapter 3.3.2. As an example, the ABB Group has created the Budget guidelines globally applicable.

The budgeted income statement plays the key role within the whole budget process as targets are being set for the income statement's items. Its assembling stages follow the approaches described in the theoretical part next to entirely (chapter 5.3). Even though the literature offers a broad range of specifications, I was surprised by the complexity delivered by the budgeted income statement used in the ABB.

Generally, all the observed budget processes have been validated during the practice used. During my research, I have discovered several areas where, even within the ABB, s.r.o, that could use an improvement. For instance, the flexibility of the process, the motivating function in budgeting or the method for variances evaluation. However, there is a risk that the costs necessary for implementation of such large changes exceed the achieved benefits. This would be a subject for the senior management's for discussion and further investigation.

In addition to the goals listed above, I wanted to examine the differences between the income statements classified by nature (used in the ABB, s.r.o. for purposes of the financial accounting) and by function (used in the ABB for purposes of the managerial accounting) mainly regarding its information value. As expected, it differs significantly due to the variety of users. Personally, I find the classification by function used by the ABB for the reporting and managerial purposes, more reasonable. This approach brings considerable advantages such as proper expression of the revenue related and non-related costs/expenses. It also suits the company's businesses because it provides a transparent classification of the product (e.g. production, research and development, engineering) and periodic costs (e.g. selling, general and administration).

This diploma thesis deepened my knowledge of the budgeting processes and assembling of the budgeted income statement. It also developed my insight into the controlling workload in a large, international company operating on the field of power industry.

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Rules of law:

[24] **Act No. 563/1991 Coll.** On Accounting

[25] **Decree No. 500/2002 Coll.,** implementing certain provisions of Act No. 563/1991 Coll. On Accounting

Others:

[26] Internal materials related to ABB Group

[27] Internal materials related to DMRO Business unit at ABB, s.r.o.

[28] Notes from meetings with ABB employee

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APPENDIX

Figure 35 - ABB, s.r.o. – Financial statements - Assets 2010-2012

			ABB, s.r.o. ASSETS netto (in thousand CZK)	2010	2011	2012
			TOTAL ASSETS	**5 524 668**	**6 050 125**	**6 703 024**
A.			Receivables for subscribed registered capital	0	0	0
B.			**Long-term assets**	**1 446 733**	**1 569 496**	**1 894 820**
B.	I.		**Long-term intanigble assets**	**82 876**	**60 133**	**40 799**
B.	I.	1	Formation expenses	0	0	0
		2	Research and development	57	17	51
		3	Software	11 122	7 940	7 064
		4	Valuable rights	69 708	48 779	27 874
		5	Goodwill	0	0	0
		6	Other long-term intangible assets	0	0	0
		7	Long-term intanigble assets in progress	1 991	3 397	5 810
		8	Advance payments for long-term intanigble assets	0	0	0
B.	II.		**Long-term tangible assets**	**1 363 855**	**1 509 363**	**1 854 021**
B.	II.	1	Land	46 235	46 235	132 793
		2	Structures	624 064	644 286	772 577
		3	Individual movable assets and sets of movable assets	597 812	600 686	656 827
		4	Permanent growth	0	0	0
		5	Breeding and draught animals	0	0	0
		6	Other long-term tangible assets	0	0	0
		7	Long-term tangible assets in progress	87 845	209 943	267 853
		8	Advance payments for long-term tanigble assets	7 899	8 213	23 971
		9	Revaluation of acquired assets	0	0	0
B.	III.		**Long-term financial assets**	**0**	**0**	**0**
B.	III.	1	Interests in controlled and managed entities	0	0	0
		2	Interests in accounting entities with substantial influence	0	0	0
		3	Other long-term securities and interests	0	0	0
		4	Loans - controlling and managing entities, substantial influence	0	0	0
		5	Other long-term financial assets	0	0	0
		6	Long-term financial assets acquired	0	0	0
		7	Advance payments for long-term financial assets	0	0	0
C.			**Current assets**	**4 013 469**	**4 424 640**	**4 738 068**
C.	I.		**Inventories**	**1 724 254**	**1 765 259**	**1 927 158**
C.	I.	1	Material	841 297	773 299	717 611
		2	Work in progress and sem-finished products	626 237	666 088	940 157
		3	Finished products	108 884	140 050	113 355
		4	Livestock	0	0	0
		5	Goods	147 836	185 822	156 035
		6	Advance payments for inventories	0	0	0
C.	II.		**Long-term receivables**	**112 827**	**95 376**	**110 704**
C.	II.	1	Receivables from business relations	7 026	5 387	486
		2	Receivables - controlling and managing entities	0	0	0
		3	Receivables - substantial influence	0	0	0
		4	Receivables from partners, members of co-operatives and members in association	0	0	0
		5	Long-term advance payments	0	0	0
		6	Estimated receivables	0	0	0
		7	Other receivables	0	0	0
		8	Deferred tax asset	105 801	89 989	110 218
C.	III.		**Short-term receivables**	**2 140 267**	**2 535 469**	**2 658 768**
C.	III.	1	Receivables from business relations	2 093 379	2 416 968	2 521 201
		2	Receivables - controlling and managing entities	0	60 000	0
		3	Receivables - substantial influence	0	0	0
		4	Receivables from partners, members of co-operatives and members in association	0	0	0
		5	Social security and health insurance	0	0	0
		6	State - tax receivables	0	14 971	0
		7	Short-term advance payments	43 609	40 495	108 334
		8	Estimated receivables	31	1 966	3 880
		9	Other receivables	3 248	1 069	25 353
C.	IV.		**Short-term financial assets**	**36 121**	**28 536**	**41 438**
C.	IV.	1	Cash	3 267	2 429	1 462
		2	Bank accounts	32 854	26 107	39 976
		3	Short-term securities and interests	0	0	0
		4	Short-term financial assets acquired	0	0	0
D.	I.		**Accruals and deferrals**	**64 466**	**55 989**	**70 136**
D.	I.	1	Prepaid expenses	61 138	49 025	50 440
		2	Complex prepaid expenses	0	0	0
		3	Accrued revenues	3 328	6 964	19 969

Source: own preparation based on Financial statements 2010 – 2012

Figure 36 - ABB, s.r.o. - Financial statements - Liabilities and equity 2010-2012

ABB, s.r.o. LIABILITIES AND EQUITY (thousand CZK)			2010	2011	2012
		LIABILITIES AND EQUITY	5 524 668	6 050 125	6 703 024
A.		Equity	1 671 180	1 376 561	1 857 062
A. I.		Registered capital	400 000	400 000	400 000
	1	Registered capital	400 000	400 000	400 000
	2	Own shares and own interests held(-)	0	0	0
	3	Changes in registered capital	0	0	0
A. II.		Capital funds	0	0	0
A. II.	1	Share premium	0	0	0
	2	Other capital funds	0	0	0
	3	Profit or loss from revaluation of assets and liabilities	0	0	0
	4	Profit or loss from revaluation of conversion	0	0	0
A. III.		Reserve funds, indivisible fund and other funds from profit	40 000	40 000	40 000
A. III.	1	Legal reserve fund / indivisible fund	40 000	40 000	40 000
	2	Statutory and other funds from profit	0	0	0
A. IV.		Net income from previous years	379 548	231 180	231 180
A. IV.	1	Retained profit from rpevious years	379 548	231 180	231 180
	2	Accumulated losses from previous years	0	0	0
A. V.		Net income	851 632	705 381	1 185 882
B.		Debts	3 835 035	4 570 879	4 844 071
B. I.		Reserves	695 824	737 291	859 584
B. I.	1	Reserves under special regulation	0	0	0
	2	Reserves for pensions and similar activities	0	0	0
	3	Reserves for incoem tax	0	0	0
	4	Other reserves	695 824	737 291	859 584
B. II.		Long-term payables	372 638	372 606	372 821
B. II.	1	Payables from business relations	23	51	206
	2	Payables - controlling and managing entities	372 615	372 615	372 615
	3	Payables - subsantial influence	0	0	0
	4	Payables to partners, members of co-operatives and members in association	0	0	0
	5	Long-term advance payments received	0	0	0
	6	Bond issues	0	0	0
	7	Long-term notes (bills of exchange) to be paid	0	0	0
	8	Estimated payables	0	0	0
	9	Other long-term payables	0	0	0
	10	Deferred tax liability	0	0	0
B. III.		Short-term payables	2 766 573	3 560 922	3 611 666
B. III.	1	Payables from business relations	1 435 557	1 393 864	1 177 419
	2	Payables - controlling and managing entities	550 000	1 370 000	1 370 000
	3	Payables - subsantial influence	0	0	0
	4	Payables to partners, members of co-operatives and members in association	0	0	0
	5	Payables to employees	80 096	77 180	89 544
	6	Payables to social security and health insurance	43 921	43 447	45 628
	7	State - tax due and subsidies	51 523	13 963	155 110
	8	Short-term advance payments received	122 584	177 877	304 804
	9	Bond issued	0	0	0
	10	Estimated payables	457 634	287 623	451 078
	11	Other payables	25 258	197 068	18 083
B. IV.		Bank loans	0	0	0
B. IV.	1	Long-term bank loans	0	0	0
	2	Short-term bank loans	0	0	0
	3	Short-term financial assistance	0	0	0
C. I.		Accruals and deferrals	18 453	2 685	1 891
C. I.	1	Accrued expenses	18 313	2 685	1 111
	2	Deferred revenues	140	0	780

Source: own preparation based on Financial statements 2010 – 2012

Figure 37 - ABB, s.r.o. - Financial statements - Income statement 2010-2012

	ABB, s.r.o. INCOME STATEMENT (thousand CZK)	2010	2011	2012
I.	Sales of goods	1 641 017	1 186 257	1 271 656
A.	Costs of goods sold	1 186 117	939 940	1 069 077
+	**Margin of goods sold**	**454 900**	**246 317**	**202 579**
II.	**Production**	**7 888 590**	**9 732 741**	**11 139 756**
II. 1	Sales of finished products and services	7 741 295	9 615 440	10 881 302
2	Change in inventory and own production	113 914	85 118	231 831
3	Capitalization	33 381	32 183	26 623
B.	**Production consumed**	**5 495 643**	**7 060 642**	**7 807 275**
B. 1	Consumption of material and energy	4 129 349	5 358 904	6 033 562
B. 2	Services	1 366 294	1 701 738	1 773 713
+	**Value added**	**2 847 847**	**2 918 416**	**3 535 060**
C.	**Personnel costs and expenses**	**1 631 608**	**1 596 595**	**1 899 124**
C. 1	Wages and salaries	1 177 941	1 159 118	1 386 793
C. 2	Remuneration for members of executive bodies	0	0	0
C. 3	Social security expenses and health insurance	388 727	389 115	459 722
C. 4	Social expenses	64 940	48 362	50 609
D.	Taxes and fees	3 033	3 679	3 981
E.	Amortization of intangibles and depreciation of tangibles	197 268	214 611	225 672
III.	**Sales of intangibles, tangibles and materials**	**141 827**	**225 025**	**149 381**
III. 1	Sales of intangibles and tangibles	1 590	3 137	8 406
2	Sales of materials	140 237	221 888	140 975
F.	**Net book value of intanigbles, tangibles and materials sold**	**101 398**	**144 747**	**71 483**
F. 1	Net book value of intangibles and tangibles sold	1 069	2 020	5 939
F. 2	Material sold	100 329	142 727	65 544
G.	Change in reserves and adjustments in operating field and complex prepaid expenes	52 455	-24 633	131 967
IV.	Other operating revenues	69 335	71 770	189 510
H.	Other operating expenses	120 305	205 861	141 249
V.	Transfer of operating revenues	0	0	0
I.	Transfer of operating costs and expenses	0	0	0
*	**Operating income**	**952 942**	**1 074 351**	**1 400 475**
VI	Sales of securities and interests	0	0	0
J.	Sold securities and interests	0	0	0
VII.	**Revenues from long-term financial assets**	**0**	**0**	**0**
VII. 1	Revenues from shares in controlled and managed entitites and in accounting entities with substantial infulence	0	0	0
VII. 2	Revenues from other long-term securities and interests	0	0	0
VII. 3	Revenues from other long-term financial assets	0	0	0
VIII.	Revenues from short-term financial assets	0	0	0
K.	Expenses of financial assets	0	0	0
IX.	Revenues from revaluation of securities and derivates	0	0	0
L.	Costs of revaluation of securities and derivates	0	0	0
M.	Change in reserves and adjustments in financial field	0	0	0
X.	Interest revenue	146	142	118
N.	Interest expenses	12 038	17 927	38 200
XI.	Other financial revenues	398 973	452 202	538 848
O.	Other financial expenses	300 310	612 461	446 947
XII.	Transfer of financial revenues	0	0	0
P.	Transfer of financial costs and expenses	0	0	0
*	**Income from financial operations**	**86 771**	**-178 044**	**53 819**
Q.	**Income tax on ordinary activity**	**187 597**	**187 363**	**267 071**
Q. 1	-due	203 749	171 551	287 300
Q. 2	-deferred	-16 182	15 812	-20 229
**	**Net income from ordinary activity**	**852 146**	**708 944**	**1 187 223**
XIII.	Extraordinary revenues	0	2	95
R.	Extraordinary expenses	514	3 565	1 436
S.	**Income tax on extraordinary activity**	**0**	**0**	**0**
S. 1	-due	0	0	0
S. 2	-deferred	0	0	0
*	**Net extraordinary income**	**-514**	**-3 563**	**-1 341**
T.	Transfer of profit or loss to partners	0	0	0
***	**Net income(+/-)**	**851 632**	**705 381**	**1 185 882**
****	**Income before taxes (+/-)**	**1 039 199**	**892 744**	**1 452 953**

Source: own preparation based on Financial statements 2010 – 2012

Figure 38 - Appendix No. 2 to Decree No. 500/2002 Coll.

Vyhláška č. 500/2002 Sb., kterou se provádějí některá ustanovení č. 563/1991 Sb., zákona o účetnictví...

Příloha č. 2
Uspořádání a označování položek výkazu zisku a ztráty – druhové členění

I.		Tržby za prodej zboží
A.		Náklady vynaložené na prodané zboží
+		Obchodní marže
II.		Výkony
II.	1.	Tržby za prodej vlastních výrobků a služeb
	2.	Změna stavu zásob vlastní činnosti
	3.	Aktivace
B.		Výkonová spotřeba
B.	1.	Spotřeba materiálu a energie
	2.	Služby
+		Přidaná hodnota
C.		Osobní náklady
C.	1.	Mzdové náklady
	2.	Odměny členům orgánů společnosti a družstva
	3.	Náklady na sociální zabezpečení a zdravotní pojištění
	4.	Sociální náklady
D.		Daně a poplatky
E.		Odpisy dlouhodobého nehmotného a hmotného majetku
III.		Tržby z prodeje dlouhodobého majetku a materiálu
III.	1.	Tržby z prodeje dlouhodobého majetku
	2.	Tržby z prodeje materiálu
F.		Zůstatková cena prodaného dlouhodobého majetku a materiálu
F.	1.	Zůstatková cena prodaného dlouhodobého majetku
	2.	Prodaný materiál
G.		Změna stavu rezerv a opravných položek v provozní oblasti a komplexních nákladů příštích období
IV.		Ostatní provozní výnosy
H.		Ostatní provozní náklady
V.		Převod provozních výnosů
I.		Převod provozních nákladů
*		Provozní výsledek hospodaření
VI.		Tržby z prodeje cenných papírů a podílů
J.		Prodané cenné papíry a podíly
VII.		Výnosy z dlouhodobého finančního majetku
VII.	1.	Výnosy z podílů v ovládaných osobách a v účetních jednotkách pod podstatným vlivem
	2.	Výnosy z ostatních dlouhodobých cenných papírů a podílů
	3.	Výnosy z ostatního dlouhodobého finančního majetku
VIII.		Výnosy z krátkodobého finančního majetku
		Náklady z finančního majetku
IX.		Výnosy z přecenění cenných papírů a derivátů
L.		Náklady z přecenění cenných papírů a derivátů
M.		Změna stavu rezerv a opravných položek ve finanční oblasti
X.		Výnosové úroky
N.		Nákladové úroky
XI.		Ostatní finanční výnosy
O.		Ostatní finanční náklady
XII.		Převod finančních výnosů
P.		Převod finančních nákladů
*		Finanční výsledek hospodaření
Q.		Daň z příjmů za běžnou činnost
Q.	1.	– splatná
	2.	– odložená
**		Výsledek hospodaření za běžnou činnost
XIII.		Mimořádné výnosy
R.		Mimořádné náklady
S.		Daň z příjmů z mimořádné činnosti
S.	1.	– splatná
	2.	– odložená
*		Mimořádný výsledek hospodaření
T.		Převod podílu na výsledku hospodaření společníkům (+/-)
***		Výsledek hospodaření za účetní období (+/-)
****		Výsledek hospodaření před zdaněním

Source: Decree No. 500/2002 Coll., implementing certain provisions of Act No. 563/1991 Coll. On Accounting: Appendix No. 2. In: Available from: http://business.center.cz/business/pravo/zakony/ucto-v2002-500/priloha2.aspx

Figure 39 - Appendix No. 3 to Decree No. 500/2002 Coll

Vyhláška č. 500/2002 Sb., kterou se provádějí některá ustanovení č. 563/1991 Sb., zákona o účetnictví...

Příloha č. 3
Uspořádání a označování položek výkazu zisku a ztráty – účelové členění

I. Tržby z prodeje výrobků, zboží a služeb
A. Náklady prodeje
* Hrubý zisk nebo ztráta
B. Odbytové náklady
C. Správní režie
II. Jiné provozní výnosy
D. Jiné provozní náklady
* Provozní výsledek hospodaření
III. Tržby z prodeje cenných papírů a podílů
E. Prodané cenné papíry a podíly
IV. Výnosy z dlouhodobého finančního majetku
IV. 1. Výnosy z podílů v ovládaných osobách a v účetních jednotkách pod podstatným vlivem
2. Výnosy z ostatních dlouhodobých cenných papírů a podílů
3. Výnosy z ostatního dlouhodobého finančního majetku
V. Výnosy z krátkodobého finančního majetku
F. Náklady z finančního majetku
VI. Výnosy z přecenění cenných papírů a derivátů
G. Náklady z přecenění cenných papírů a derivátů
H. Změna stavu rezerv a opravných položek ve finanční oblasti
VII. Výnosové úroky
I. Nákladové úroky
VIII. Ostatní finanční výnosy
J. Ostatní finanční náklady
IX. Převod finančních výnosů
K. Převod finančních nákladů
* Finanční výsledek hospodaření
L. Daň z příjmů za běžnou činnost
L. 1. – splatná
2. – odložená
** Výsledek hospodaření za běžnou činnost
X. Mimořádné výnosy
M. Mimořádné náklady
N. Daň z příjmů z mimořádné činnosti
N. 1. – splatná
2. – odložená
* Mimořádný výsledek hospodaření
O. Převod podílu na výsledku hospodaření společníkům
*** Výsledek hospodaření za účetní období
**** Výsledek hospodaření před zdaněním

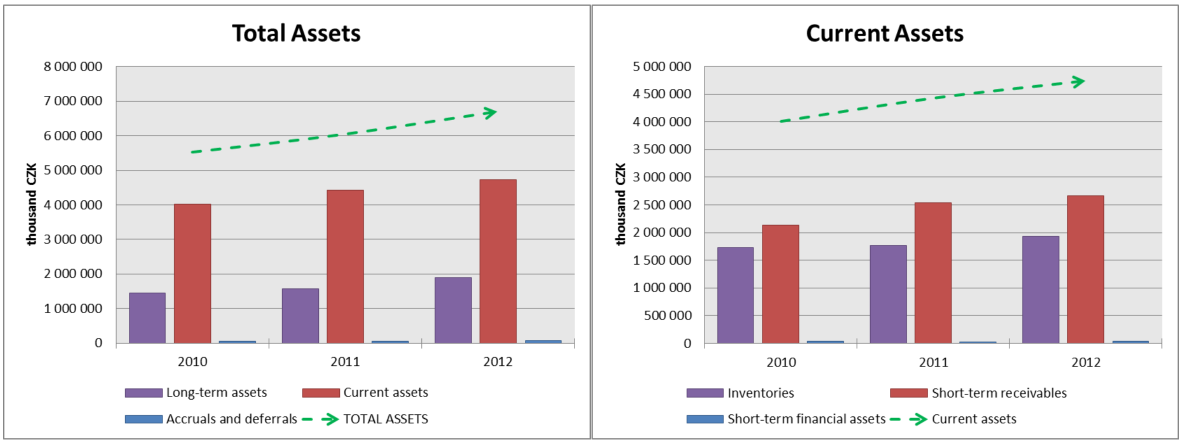
Source: Decree No. 500/2002 Coll., implementing certain provisions of Act No. 563/1991 Coll. On Accounting: Appendix No. 3. In: Available from: http://business.center.cz/business/pravo/zakony/ucto-v2002-500/priloha3.aspx

Figure 40 - List of shortcuts used and their meanings

Div	Division
Ldiv	Local Division
BU	Business Unit
LBU	Local Business Unit
PG	Product Group
LPG	Local Product Group
RU	Reporting Unit
DMRO	Discrete Automation and Motion division, Robotics business unit
EC	Executive committee
BOD	Board of Directors
CEO	Chief executive officer
CFO	Chief financial officer
KPI	Key Performance Indicator
SG&A	Selling, General & Administrative Expense
R&D	Research and development
G&A	General And Administrative Expense
EBIT	Earnings before interest and taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
NWC	Net working capital
OCF	Operating cash flow
GDP	Gross domestic product
CAPEX	Capital expenditure
OPEX	Operating Expense

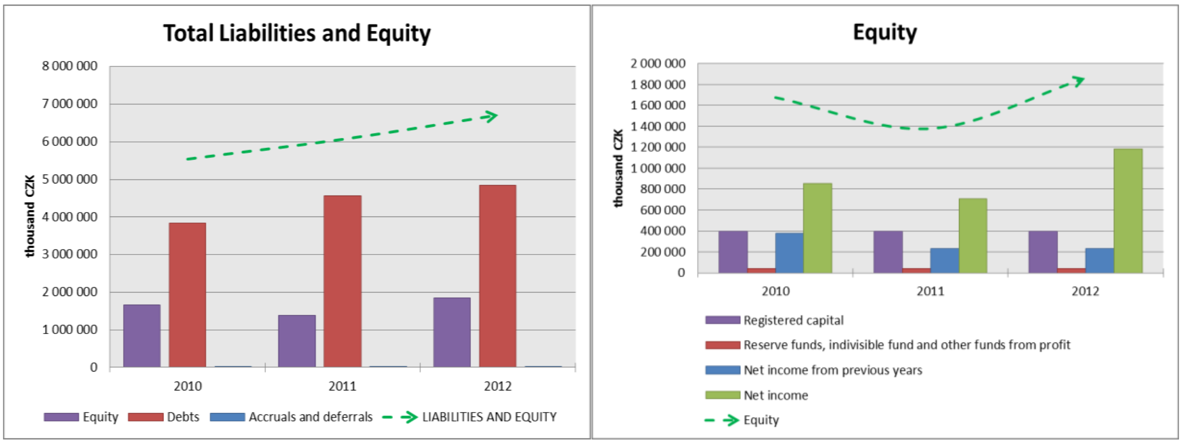
Source: own preparation

Figure 41 - ABB, s.r.o. - Assets - horizontal analysis 2010 - 2012 - charts



Source: own preparation based on Financial statements 2010 – 2012

Figure 42 - ABB, s.r.o. - Liabilities and equity - horizontal analysis 2010 - 2012 - charts

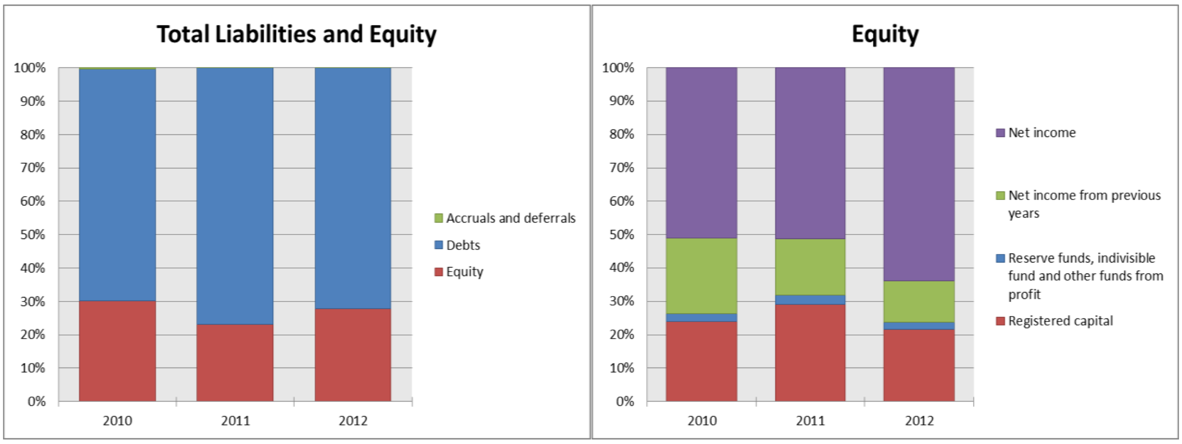


Source: own preparation based on Financial statements 2010 – 2012

Figure 43 - ABB, s.r.o. - Assets - vertical analysis 2010 - 2012 - charts

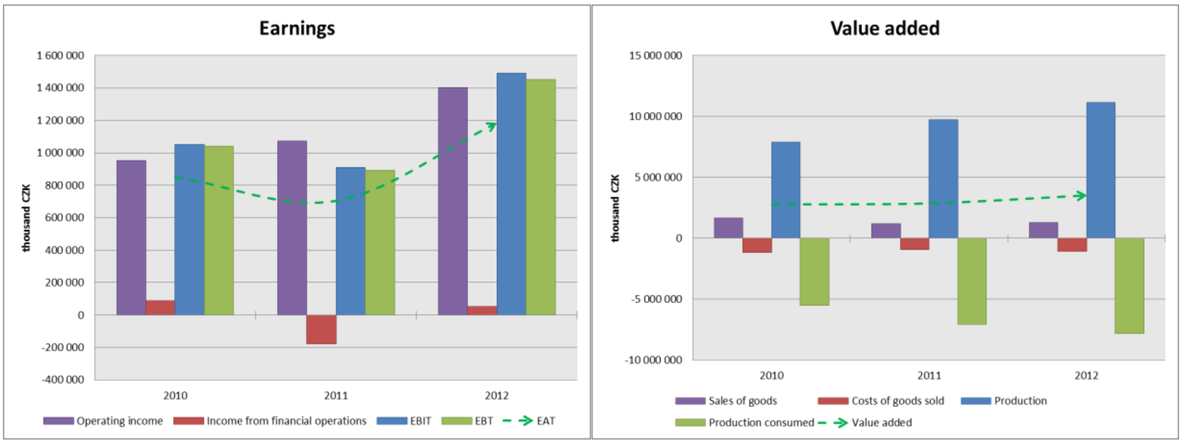
Source: own preparation based on Financial statements 2010 – 2012

Figure 44 - ABB, s.r.o. - Liabilities and equity - vertical analysis 2010 - 2012 - charts



Source: own preparation based on Financial statements 2010 – 2012

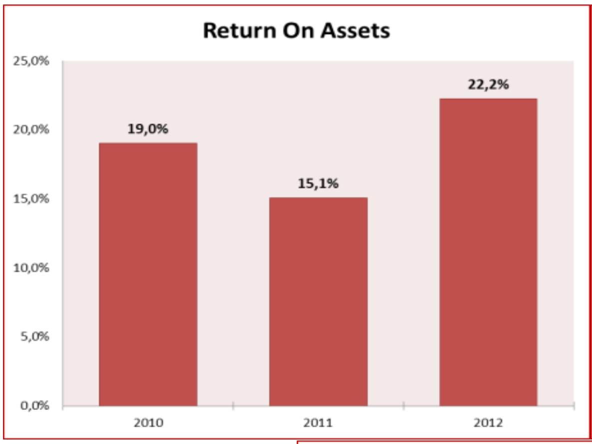
Figure 45 - ABB, s.r.o. - Income statement - horizontal analysis 2010 - 2012 - charts

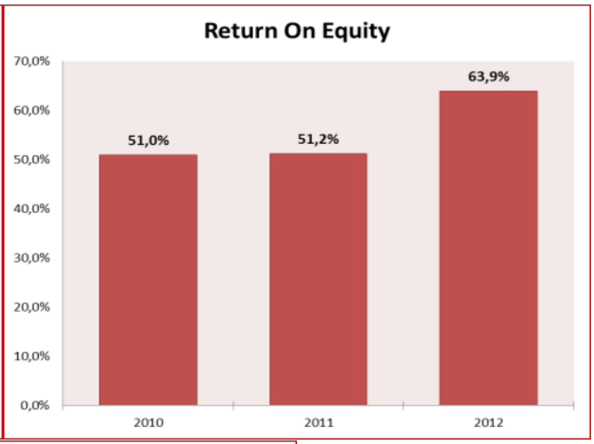


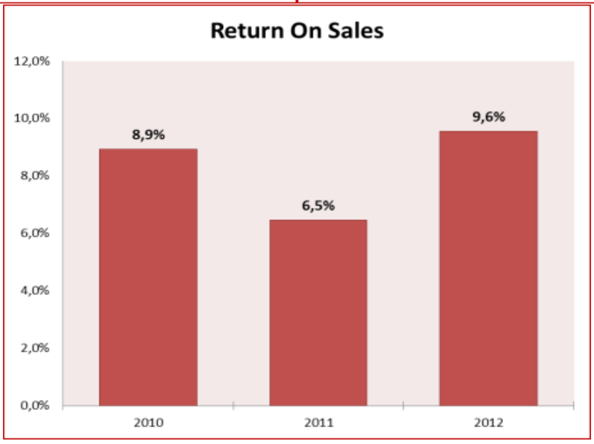
Source: own preparation based on Financial statements 2010 – 2012

Figure 46 - ABB, s.r.o. - Profitability ratios 2010 - 2012

PROFITABILITY RATIOS	Formula	2010	2011	2012
Return On Assets (ROA)	$\frac{EBIT}{Assets}$	**19,0%**	**15,1%**	**22,2%**
Return On Sales (ROS)	$\frac{EBIT}{Sales}$	11,0%	8,3%	12,0%
Asset Turnover	$\frac{Sales}{Assets}$	1,7	1,8	1,9
Return On Equity (ROE)	$\frac{EAT}{Equity}$	**51,0%**	**51,2%**	**63,9%**
Return On Sales (ROS)	$\frac{EAT}{Sales}$	8,9%	6,5%	9,6%
Asset Turnover	$\frac{Sales}{Assets}$	1,7	1,8	1,9
Financial Leverage	$\frac{Assets}{Equity}$	3,3	4,4	3,6
Return On Sales (ROS)	$\frac{EAT}{Sales}$	**8,9%**	**6,5%**	**9,6%**



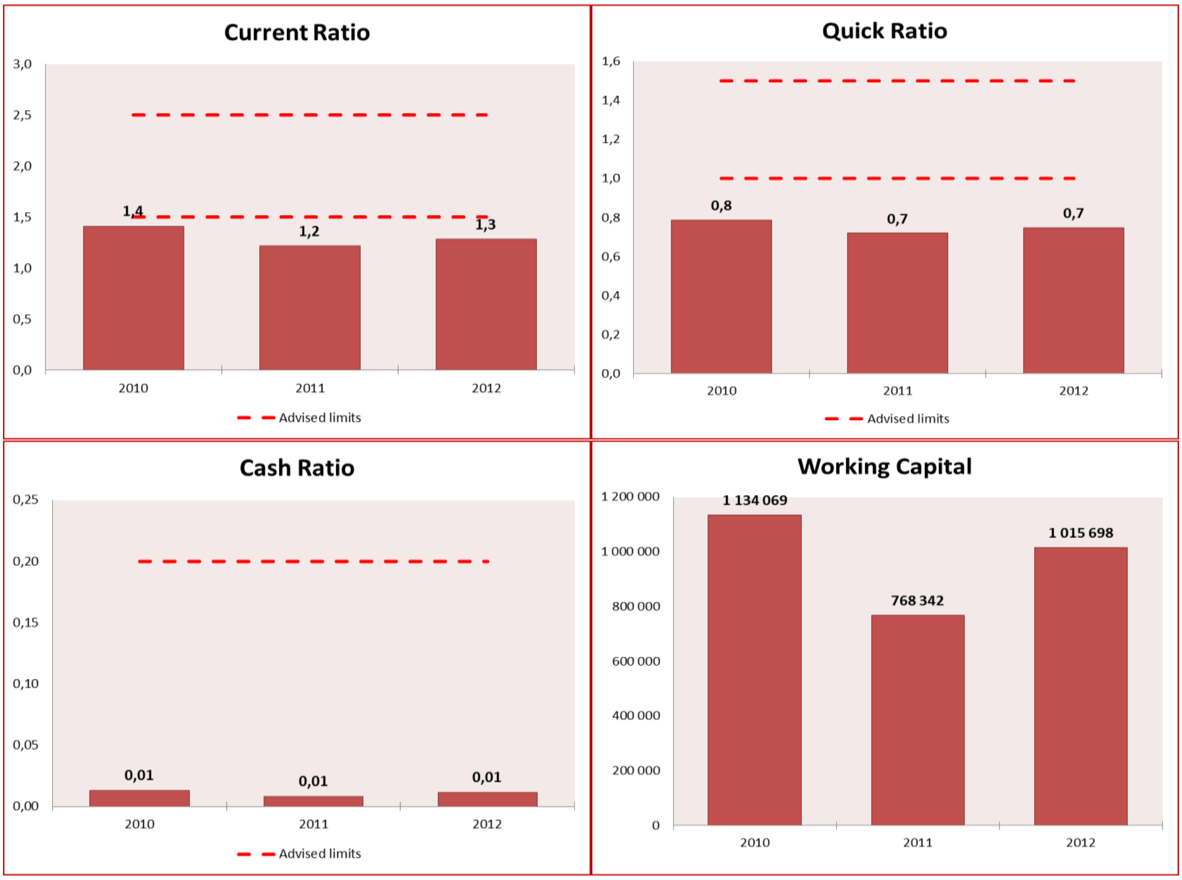




Source: own preparation based on Financial statements 2010 – 2012

Figure 47 - ABB, s.r.o. - Liquidity ratios 2010 - 2012

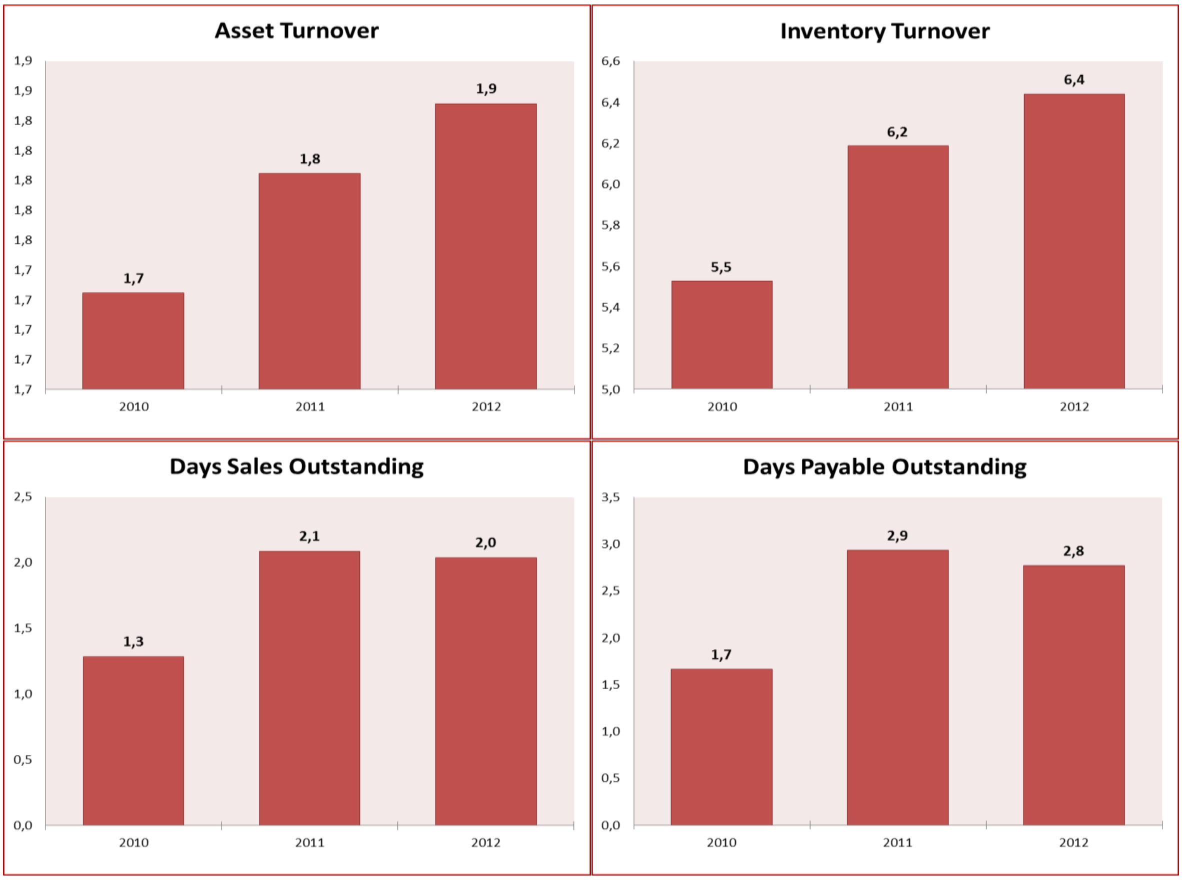
LIQUIDITY RATIOS	Formula	2010	2011	2012
Current Ratio	$\frac{Current\ Assets}{Short-term\ payables}$	1,4	1,2	1,3
Quick Ratio	$\frac{Short-term\ receivables + Short-term\ financial\ assets}{Short-term\ payables}$	0,8	0,7	0,7
Cash Ratio	$\frac{Short-term\ financial\ assets}{Short-term\ payables}$	0,01	0,01	0,01
Working Capital	$Current\ Assets - Short-term\ payables$	1 134 069	768 342	1 015 698



Source: own preparation based on Financial statements 2010 – 2012

Figure 48 - ABB, s.r.o. - Activity ratios 2010 - 2012

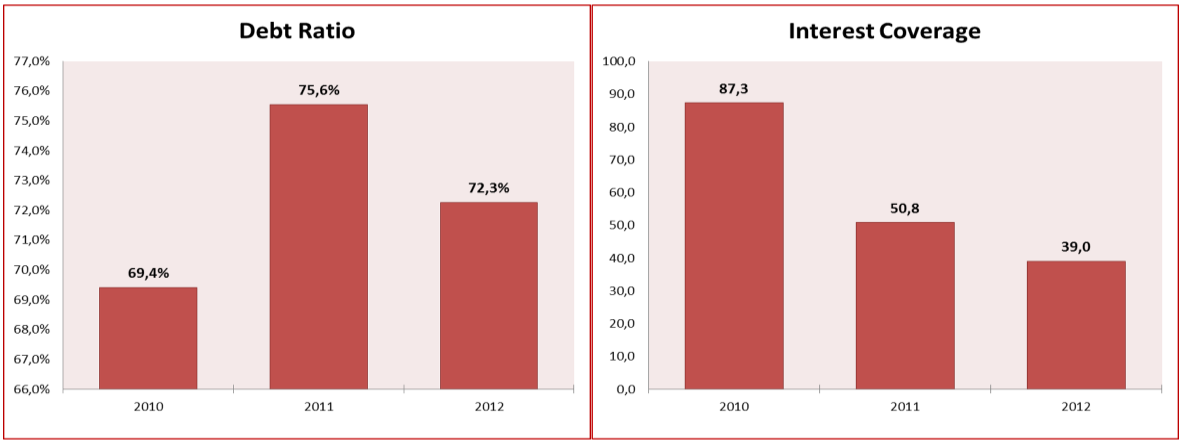
ACTIVITY RATIOS	Formula	2010	2011	2012
Asset Turnover	$\frac{Sales}{Assets}$	**1,7**	**1,8**	**1,9**
Inventory Turnover	$\frac{Sales}{Inventories}$	**5,5**	**6,2**	**6,4**
Days Sales Outstanding	$\frac{Account\ receivables}{\frac{Sales}{360}}$	**1,3**	**2,1**	**2,0**
Days Payable Outstanding	$\frac{Account\ payablles}{\frac{Sales}{360}}$	**1,7**	**2,9**	**2,8**



Source: own preparation based on Financial statements 2010 – 2012

Figure 49 - ABB, s.r.o. - Solvency ratios 2010 - 2012

SOLVENCY RATIOS	Formula	2010	2011	2012
Debt Ratio	$\frac{Debt}{Assets}$	**69,4%**	**75,6%**	**72,3%**
Interest Coverage	$\frac{EBIT}{Interests\ expenses}$	**87,3**	**50,8**	**39,0**



Source: own preparation based on Financial statements 2010 – 2012