Budget – a perfect management tool?

A case study of AstraZeneca

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Abstract
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Background and discussion of the problem: It can be argued that, today, traditional budgeting has come under criticism for being overly time consuming, rigid and to an extent, encouraging of number games to fit the demands of the present high-paced business environment. Lately, a variety of optional management control systems have emerged, notably among them the system labelled Beyond Budgeting. However, even though there exist strong disparagement with regard to the classical budgeting approach, the system is still used to a great extent in business management. Are organisations moving towards using the Beyond Budgeting approach or are the classical budgeting methods still the preferred technique?

Questions: What purpose does the budget fulfil in a complex organization? What are the concerns with using the budget as a management control system? To what extent are the principles of Beyond Budgeting adopted?

Purpose: The purpose of this study is to examine the reasons why a complex organization uses the budget and what the concerns are with using the budget as a management control system. Furthermore, analysing if the principles of Beyond Budgeting concept are implemented in a complex organization.

Delimitations: The study analyses several departments (SET Areas) but only one company, AstraZeneca. The results are not aimed for generalizing as the authors have chosen to examine just one organization. The focus lies with the limitations associated with the budget.

Method: A qualitative case study, based on interviews with respondents that are responsible for and involved in the budget process in the departments, have been made.

Results: The study shows that budgeting fulfils several purposes; resource allocation, planning, communication, awareness and performance evaluation in a complex organization such as the one studied, although results differ among departments. A majority of criticism towards the budget can be seen to be proved valid. Four out of six principles of the Beyond Budgeting concept (advocated by the founders to the concept) are, to a large extent, adopted and utilised by the organization studied. Furthermore, the trend of improvements in management corresponds to the Beyond Budgeting concept and methods in many ways.

Suggestions for further research: Examine if the purposes and concerns with the budget are the same in other complex organizations. Further, if the Beyond Budgeting principles are
adopted in the same extent in other organizations, in order to make generalizations about the management control system. Are the additional management tools, such as the scorecard and forecast, enough to replace the budget in other complex organizations, or does the budget still fulfil an irreplaceable purpose?

**Glossary of terms**

**BBRT**
*Beyond Budgeting Round the Table*

**Business Case**
Functions and SET Areas can make proposals (Business Cases) to Corporation in order to receive additional money for a project

**Commercial Operation**
Marketing and sales

**Corporate**
The headquarter of the organization (AstraZeneca) studied

**FMC**
Full Manufacturing Cost (Manufacturing SET Area)

**Functions**
Divisions within the SET Areas

**Manufacturing**
Sweden Operation

**R1**
Respondent 1 (Commercial Operation)

**R2**
Respondent 2 (Research and development)

**R3**
Respondent 3 (Support SET Area)

**R4**
Respondents 4 (Manufacturing) (Sweden Operation)

**SET Area**
Departments within the organization AstraZeneca (R&D, Support SET Area, Manufacturing, Commercial Operation)

**Support SET Area**
Support functions to the other three main SET Areas in the organization, responsible for e.g. facilities and supply chain.

**Phased budget**
Monthly operating budget
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1. **INTRODUCTION**

The initial phase of this dissertation discusses the budget and its functions. The budget has been accused for causing several problems in organizations. The authors present scholars that state that organizations would benefit from abandoning the budget and instead use additional management tools. However, studies prove that in reality a majority of firms are keeping the budget.

1.1 **Background**

The budgeting system is a traditional way of managing and controlling companies (Bergstrand & Olve, 1996). Organizations use the budget to plan and coordinate the following year (Arwidi, 1991). To motivate employees, allocate resources and coordinate operations within an organization are, and have been, the primary purposes of the budget. Budgeting is aimed to facilitate responsibility distribution and is used to evaluate performance (Libby & Lindsay part 1, 2003).

Although a widespread use, the budget is far from being an optimal management control system (Hansen, Otley & Van der Stede, 2003). Severe criticism and dissatisfaction towards the budget have grown during the last decades (Libby & Lindsay, part 1, 2003). Companies that operate under rapidly shifting market conditions can make little use of the budget. The budget is slow to detect problems and since unpredictable circumstances cannot be included in the budget, it tends to already be out of date when it is supposed to be used. Further, the budget is accused of being too time-consuming to establish in relation to the benefits it is aimed to contribute with (Hansen et al 2003).

A drawback associated with the budget is that annual financial budget targets encourage short time perspective and cost savings in order to meet the objectives (Libby and Lindsay, part 1, 2003). Short term goals prevent organizations to emphasize on long term value adding strategies, which can be harmful in the long run. Employees’ fear of not meeting the objectives, encourages bad behavior such as manipulating and gaming with numbers (Hope & Fraser, 2003).

A survey made by Libby and Lindsay (2010) confirms that the budget does not facilitate adaption to changes in unpredictable environments. Hence, spending time on forecasting and planning the future can be completely useless (Hansen et al 2003). The research indicates that firms tend to adjust and improve the budget processes and targets when meeting new challenges. In the article “Practice developments in budgeting: an overview and research perspective” by Hansen et al (2003) they refer to Bescos et al (2003) who describes that according to a survey of French companies, organizations that operate under unpredictable circumstances are most dissatisfied with budgets. Although budgets can be a useful control-tool for companies operating in stable environments, Hansen et al (2003) state that for most businesses budgets are not useful.

Scholars claim that organizations adapt new management tools with ambition to improve their management and budget process (Åkesson & Siverbo, 2009). In order to stay competitive,
organizations try to emphasize on strategy goals instead of short term budget targets. Therefore additional tools, such as the Balance scorecard, have been frequently adopted and implemented in organizations (Fraser & Hope, 2003). When a new model is added by the organization, the company tends to keep the old models as well. New models are based on different philosophies about how organizations are supposed to act, but the models are often used in the same context simultaneously (Åkesson & Siverbo, 2009). In the end, uncritically adding new management tools can rather lead to an overdose of managing and cause high costs and time consuming activities. Additional management tools are often measured on an annual basis, like the budget, and similar problems that are associated with the budget can be the outcome (Fraser & Hope, 2003).

Wallander, former executive for Handelsbanken in Sweden, criticized and abandoned the budget in the 1970’s. He states in his work “Budget-an unnecessary evil”, that organization could do better without budgeting. First, Wallander claims that the budget is based on the principle; “same weather tomorrow as today” (Wallander, 1999). The budget indicates an ongoing normal and continuous trend, thus the budget has no effect as a tool for forecasting. Secondly, if something unexpected occurs, the budget would be at no help either (Wallander, 1995). The budget rather stops people from taking actions. According to Wallander, budgets are summaries based on guesses and assumptions about the future and exclude unpredictable events. In best case scenarios budgets are only a waste of resources, and in worst-case scenarios they are dangerous because they give deceitful information about where firms are heading.

Not only Wallander has criticized the budget for being inadequate and useless, several managers have acknowledged his statements. An optional management model called Beyond Budgeting is advocated by e.g. Hope and Fraser (Hope & Fraser 2003, BBRT). In 1997 the organization Beyond Budgeting Round the Table (BBRT) was established by the scholars Hope and Fraser, authors of the book “Beyond Budgeting - How Managers Can Break Free from the Annual Performance Trap”. Hope and Fraser state that it must be common dissatisfaction with the traditional budget in order to implement the Beyond Budgeting concept. The BBRT organization has established principles according to the concept Beyond Budgeting (BBRT). Multinational organizations such as Statoil and Borealis are firms that have abandoned the traditional budget and instead are managing successfully with the Beyond Budgeting concept (Bogsnes, 2009, Fraser & Hope, 2003). Today more than 100 companies have joined the organization since it started and they can be found widespread around the world. The members represent a wide range of industries and both smaller and multinational companies are participants (Bogsnes, 2009).

1.2 Problem discussion
The criticism towards the budget has been severe and optional models exist, for example the Beyond Budgeting concept, but the use of budget is still extensive in organizations today (Ekholm & Wallin, 2000, Libby & Lindsay, 2010). A survey presented by Libby and Lindsay (2007), made in 212 organizations in 2007, shows that a majority of managers agree that management through budgets is needed. The research verifies that managers have experienced negative effects caused by the budget. The negative effects could be; that necessary
investments are delayed to next year in order to reach a current budget target and negotiation to get lower budget targets are common. The respondents to the survey agree with that budgets are not facilitating to evaluate performance true and fair. Even though the study verified that problems associated with the budget are common, the main part of the respondents simultaneously agreed that budgets are irreplaceable. The managers stated that they could not manage without a budget; they would rather improve the budget process than going Beyond Budgeting (Libby & Lindsay, 2007). Other studies that have been made indicate the same, few corporations are planning to abandon the budget (Ekholm & Wallin, 2000). Libby and Lindsay (2010) presented an additional study made on North American companies in 2010 and the results indicated that drawbacks with the budget do exist, but the criticism stated by Hope and Fraser is over-generalized on firms. Furthermore the survey showed that the budget still play a key role in most organizations.

With reference to the arguments stated above, it can be argued that budgeting is a discussed subject. Improvements of budget and management systems have been made and are of great interest to companies. New methods are established because the traditional budget is no longer sufficient to satisfy complex firms’ needs (Montezemolo & Tardivo, 2009). The facts presented in the background indicate that businesses rather add new management tools and complementary models to the traditional way of budgeting instead of substituting the budget.

Other dissertations have discussed the purposes and problems associated with the budget, and the use of budgets among organizations (Stolt, 2003, Lindoff & Montgomery, 2004). A quantitative research was made in 2003 and showed that 84% of the largest organizations, listed in Sweden still use a fixed annual budget. The survey also proved that a majority of the budgets and forecasts were based on uncertain assumptions about the following year (Stolt, 2003). The facts correspond to the arguments mentioned by Wallander (1995, 1999) and Hansen et al (2003).

The subject interesting to analyse in this thesis is the functions and aims of the budget in complex organizations. In complex organizations, the purpose of the budget and the management control system might vary among different departments. Considering the criticism towards the budget, it is relevant to analyse what the concerns with the budget can be. The discussion of potential improvements of the management control system and especially budgeting processes, is essential since it consumes a great amount of resources and time in organizations yearly. Spending time on value adding activities is, arguably, crucial in order to stay competitive in a rapidly changing market. Are organizations managing less with traditional methods and heading towards a Beyond Budgeting approach? An actual subject to discuss is if the budget is seen as an irreplaceable management tool, or if it is largely being used out of habit, or the lack of an attractive alternative.
1.3 Questions

* What purpose does the budget fulfil in a complex organization?
- What are the concerns with using the budget as a management control system?
- To what extent are the principles of Beyond Budgeting adopted?

1.4 Purpose

Based on the facts presented in the background, the purpose and emphasis of this thesis is to answer the questions asked above. To extend the understanding of the management control system, various departments will be analysed within a complex organization. The purpose is to examine what the reasons are to why complex organizations use the budget as a management control system and what the concerns with the budget can be. The authors intention is to find out if the Beyond Budgeting phenomenon or any of the Beyond Budgeting principles are being, or have been, implemented.

1.5 Delimitations

In order to contribute to a deeper understanding of the purpose, function and limitation of the budget, the study analyses several departments (SET Areas) but only one company, AstraZeneca. The results are not aimed for generalizing. The focus is not on the budget process but rather on the purpose, function and limitation of the budget.

In the section Beyond Budgeting under reference of literature, a selection of the Beyond Budgeting principles and management tools are presented. The selection is based on what the authors found most relevant and applicable at AstraZeneca.

1.6 Scope and structure

The method used when analyzing and studying the subject of this dissertation is explained in the following section. Basic facts about the traditional budget and problems associated with it are presented in order to give a theoretical and comprehensive understanding. The concept Beyond Budgeting is explained under reference of literature, management tools associated with the Beyond Budgeting phenomenon are presented here as well.

To compare how well literature and research correspond to reality, a case study made on AstraZeneca is presented in the empiric part of this dissertation. A comparison between the literature review and case study is made in order to find possible agreements or disagreements, which is presented under analysis. Finally, under conclusions, the results are presented.
2. **METHOD**

The method is aimed to give an overview of how the work process has been exercised. This dissertation is based on a case study of AstraZeneca and a qualitative method has been used. Accountable executives that represent different departments have been interviewed, in order to contribute to a deeper understanding of the issue discussed.

As a first step, the authors did a background research of the relevant concepts. A study of the budget and the Beyond Budgeting phenomenon was made, mainly from academic literature and articles. The study resulted in a problem formulation with the ambition to contribute to an additional perspective of the budget and Beyond Budgeting discussion, through a case study of a complex organization. An organization that suited the problem formulation was chosen, and later a case study was made. The empirical findings from the case study was compiled and later analysed and compared with the reference of literature. Last, the authors summarized the dissertation with their thoughts and reflections concerning the problem formulation, reference of literature and empirical findings.

2.1 **Choice of method - a qualitative study**

In order to answer the questions stated above, the authors have to understand and analyse; what purposes the budget fulfils, what drawbacks that are experienced and to what extent the Beyond Budgeting methods can be used in a complex organization. The first decision to be made was deciding what method would be most suitable for answering the questions.

According to Trost (2005), the choice of method should be based on which questions being asked and the theoretical perspective. A quantitative study is aimed to be used when the questions are how many, how often, or how common something is (Trost J, 2005). The method is suitable and mainly used when the data is easily quantifiable and measured. Trost states (2005), that if you are interested in understanding people’s behaviour, how they are affected and to clarify varied reactions, a qualitative study is appropriate. A qualitative method gives an opportunity to receive more detailed, specified and unique answers (Jacobsen, 1993). The discussion about the budget phenomenon is aimed to contribute to a better and deeper understanding; therefore a qualitative method was chosen.

A qualitative method makes the research process flexible. The method is interactive which enables a change of the questions asked and the survey along with the process (Jacobsen, 2002). A qualitative study demands a great deal of resources and time. Therefore the number of respondents in a qualitative study is often lower compared to a quantitative study (Trost,
As stated in the purpose, the objective of this thesis is not to generalize but to contribute to a better understanding.

The budget phenomenon, advantages and disadvantages associated with it is, certainly, a complex and frequently discussed subject. An explorative approach (Jacobsen, 2002) means that writers are learning about the topic during the working procedure, have been the case for this thesis. As a first step the authors found inspiration, understanding and knowledge about the issue from previous dissertations and literature. This research was needed before the final questions and delimitations were made. The problem formulation discussed in this thesis was neither clear nor final at the outset; it has been developed and improved gradually. The most essential variables subject to analysis were found during the work process.

2.2 Secondary data
In the initial stage of the work process, information and knowledge about traditional budgeting, additional management tools and the Beyond Budgeting concept were collected. At this stage the authors used secondary data (Jacobsen, 2002). The secondary data selected is presented in the reference of literature. Both recently published, and older literature, are used. Literature is complemented with scientific articles and online research. The combination intends to show a traditional and historical perspective of the subject, but also the latest updates and new trends. Well-known institutions, authors and universities have published most of the articles and books that are being used.

To the Beyond Budgeting concept, presented in the reference of literature, the access of literature is limited since the phenomenon is relative new compared to the traditional budget (Wallin & Ekholm, 2000). The website related to the organization Beyond Budgeting Round the Table is used, although it is published by an organization. However additional sources are used as well, in order to give a credible approach.

2.3 Case study - AstraZeneca
As mentioned above, a qualitative study was chosen in order to answer the questions. The authors decided to make a case study on AstraZeneca. A case study means that you examine a few objects (e.g. patients, organizations, industries) in a number of aspects (Eriksson & Wiedersheim-Paul, 2006). The authors have chosen to make a case study of AstraZeneca because it is a multinational company that operates in a competitive market with shifting conditions (R1, Commercial Operation). It is a complex organization with different, independent SET Areas and therefore the authors found it to be a relevant object to analyse. AstraZeneca’s headquarter and Corporate are located in London. The organization below Corporate is divided into three main SET Areas; R&D, Marketing and Sales and Operations. In addition to these three set areas the organization contains of a Support SET Area, which for instance is responsible for real estates, finance and IT support.

2.4 Respondents
One (or two) executive from each of the three set areas have been interviewed. The executive from a Support SET Area has been interviewed as well. The selection of respondents is based on relevance and in consultation with the director of “R&D finance, business and analysis,
strategy and planning”, at AstraZeneca. All respondents are responsible for the budget process in their SET Area, which is necessary in order to get relevant information about the management control system, the budgets and to connect them to the Beyond Budgeting principles. The respondents have been contacted a few weeks before the interviews and the tables of questions were sent in advance, in order to give the respondents an opportunity to prepare and overlook the questions. The people being interviewed are the following: the CFO for Commercial Operation, “Director of R&D finance business and analyse, strategy and planning” for Research and development, the “Director of Business Control and Change Management” and the “Business Controller” for Manufacturing (Sweden Operation). The “Business Controller” for the finance support of Corporate functions and Central supply at AstraZeneca is being interviewed as well.

2.5 Interviews
Two interviews have been held in person and two through TV conferences. Apart from this, the conditions have been consistent and every interview lasted for about one hour.

Trost (2005) claims that qualitative interviews are characterized by a high degree of structure and low degree of standardizing. Low degree of standardizing means that the questions are not asked in a strict order. The order of the questions is adapted to the situation and the answers of the respondents. High degree of structure means that the questions asked are detailed or/and that the survey as a whole is structured. The orders of the questions asked to the respondents have varied. The respondents have had the possibility to answer the question in the way they found most appropriate. New perspectives and approaches during the interview are encouraged and allowed (Jacobsen, 2002). Though, in order to keep focus and avoid confusing, no general questions were asked (Trost, 2005).

Reliability means that the result is supposed to be the same regardless of who has made the research (Eriksson and Wiedersheim-Paul, 2006). The outcome should be reliable and consistent. Reliability can be a problem since it is the authors’ task to read the information. When making interviews it is of great importance that the opinions of the interviewers do not influence the respondents (Trost, 2005). In order to represent credible results from the survey, the elements stated above have been considered by the authors (Trost, 2005).

2.6 Primary data
Primary data is information that has been collected for a specific purpose and is often qualitative data (Eriksson & Wiedersheim-Paul, 2006). The data received from the interviews is primary data. To ensure that all information from the interviews was taken into consideration and to facilitate the work process for the authors, the interviews were recorded. After the interviews were held, the information collected was written down and e-mailed to the respondents in order to ensure that the information was correct reviewed.
3. REFERENCE OF LITERATURE

In the following part the purpose that the budget is aimed to fulfil, the drawbacks associated with it and finally the Beyond Budgeting concept is presented. A selection of information and sources has been made in order to give an extended and comprehensive view.

3.1 The budget

Purposes of the budget

In firms the budget has historically had a control function (Libby & Lindsay, part 1, 2003), but today there are several objectives and purposes of the budget and the purposes vary among organizations. The reasons to why organizations have a budget are discussed by several authors such as: Arwidi (1991), Smith (2007), Ax et al (2009) and Bergstrand and Olve (1996). Drury (2004) describes the main purposes of budgeting and this summarizes the common purposes stated from the earlier mentioned authors. The main purposes of budgeting are according to Drury (2004):

Planning

Budgets are used to plan the future activities for organizations: they are aimed to ensure that companies act in the best way in order to reach their goals. The planning purpose of budgets is used to plan for e.g. sales, purchase of material and for financial issues. Budgets contain information about how much resources that are needed, which makes it possible to plan inflows and outflows of liquidity. When setting a budget, managers must predict the future and consider what changes and problems that may occur. This encourages managers to take actions before problems become reality. When plans are made in advance, the numbers of ad hoc decisions are reduced.

Coordination

All units within an organization are, more or less, dependent on each other. By using a budget the units have to cooperate and compromise when it concerns limited resources. Every unit has their own budget and when these budgets are compiled, defects and inaccuracies are revealed. The budgets can be a way to discover coordination and cooperation problems. The budget is meant to make it possible to see the organization as a whole and try to solve conflicts. If departments have different ways of doing things, the budget makes the departments’ compromise and work together, in order to make the budget for the whole organization complete. To reduce the risk of overcapacity within the company it is important to dimension the organization. By comparing budgets from departments they contribute to coordinate the size of production.

Communication

Budgets contribute to good communication through the exchange of information that takes place during the budgetary process. The budget process enables employees to communicate and share their ideas with other workers within the organization. Through discussions, employees can share their opinions and ideas with each other. For managers, the budget can be used to communicate and explain strategies and goals within the company to the
employees. Furthermore it connects departments and gives insight and understanding for each other.

Resource allocation
Budgets are aimed to facilitate resource allocation within companies, secure that the resources are being used effectively and that the right amount is distributed to the departments, which is crucial. Units in the organization get different priorities. By distributing resources to units, resource allocation could be seen as a control tool. However, this sort of management requires that the managers take an active part in the budgetary process. They need to be well informed about the factual questions and have all concerning facts and details.

Performance evaluation
The budget functions as a control system for performance evaluation. By setting budget targets the accountable are held responsible for reaching the objectives. Through a follow up of the budget, which means when the budget is being compared with the actual outcome, managers can be evaluated. When follow-ups are made it is possible to discover variations from plan. Focusing and putting effort into deviations from plan is called “management by exception”. By investigating the reasons to why the variations occur, actions can be taken. When budgets are made for shorter periods than a year, it can be valuable to make follow-ups every month and this enables changes if the actual outcomes vary from plan. Hence, this requires that the original budgets are distributed correctly over the year and that managers have made an effort to make budgets as realistic as possible for every month. Analyzing the budget every year and examine if there are any large variations can facilitate to more usable budgets in the future.

Responsibility distribution
Budgets are often used for distribution of responsibility. A study proved that using a budget for distributing accountability is more important than using it as a control tool. During the budget process, responsibility is assigned to employees and it is vital that the managers clarify what is expected from the employees. A follow-up is being made to guarantee that the managers/employees have lived up to their commitment. It is a mutual commitment between the company and the accountable. The company contributes with the resources needed and the accountable are responsible for doing what they said they would do. Further, the budget is a tool to make managers responsible for their actions and to work in the best interest of the organization.

Establishing objectives
In organizations the budget is used for setting targets for managers. It is common that managers receive a bonus if they are able to “stick to the budget” and reach the goals. The objectives indicate what is important in the organization and what it is trying to achieve. Different targets for each unit within the organization are aimed to show what is expected of them. The objectives for the organization are being divided into goals for every department. When setting a budget for a decentralized organization it is a prerequisite that the main budget is divided into budgets for every unit. Drury (2004) states that there are three different kinds of targets for an organization: mission, corporate objectives and unit objectives. The mission
of an organization is the reason to why the company exists; it describes in general terms, which the customers are, and what the concept of the company is. Corporate objectives are specific goals for an organization and the board of directors often establish them, e.g. return on equity, market share etc. Unit objectives are the goals for the units in the company. While corporate objectives are seen as goals for the organization as a whole, unit objectives are made for different parts of the organization.

**Motivation**

Budgets are used as a motivation tool. When employees are involved in the budget and target setting-process, they are often more motivated to try to achieve the goals. By setting clear and defined targets based on the budget, employees understand what is expected of them and can therefore feel more motivated. Though, this requires that targets are set on an appropriate level and that they are challenging but realistic. Meanwhile, if the targets are too difficult to achieve they could instead be de-motivating.

The main purposes stated above are complemented with two purposes by Ax et al (2009):

**Awareness**

The budget creates awareness about the organizations goals and to make workers understand the “big picture”. Personnel can understand how their work is contributing to the organization as a whole instead of just seeing their own unit (Ax et al, 2009).

**Incitement**

Commonly, organizations use the budget as an incitement for the employees. The budget becomes a benchmark for what is a sufficient level to reach. By comparing the budget with the actual outcome, a reward for the accountable can be made (Ax et al, 2009).

**Practical findings - Purposes of budgeting**

Hansen and Van der Stede (2004) have examined the reasons to why organizations make budgets in practice. In the article “Multiple facets of budgeting: an exploratory analysis” the writers have analysed the purposes to why organizations use a budget. They found four purposes, which correspond to the traditional reasons. In the article, data from a survey made on 57 managers that are responsible for setting the budget have been analysed. The authors conclude that the four main purposes of budgeting are: (1) operational planning, (2) performance evaluation, (3) communication of goals, and (4) strategy formation.

The four purposes found by Hansen and Van der Stede (2004) contain short term as well as long term planning (operational planning and strategy formation), they include communicating the budgets to the employees in order to ensure that everybody understand the organization’s objectives (communications of goals). Through the last purpose it covers performance evaluation.

Hansen and Van der Stede (2004) describe how the “qualities” for an organization determines the purposes of budgeting. Hansen and Van der Stede conclude that performance evaluation often is used in large organizations and in organizations with clear and traceable resources.
For organizations, which appear in a competitive environment, the purpose of having budgets, as a way to communicate goals and strategies, is more significant than the other three reasons. Companies tend to put less importance on having the budget as performance evaluation in a competitive environment. However it is vital to consider that these are just trends and that no generalizations can be made. Hansen and Van der Stede state that the importance of the purposes varies among organizations, for instance it depends on the size of the organization, the environment and the culture of the company. There is no single successful way of budgeting that can be used in order to fulfil each of the four purposes stated above. Every budget demands its own certain level of budget participation, level of “difficulty” to reach targets and strategy formulation etc. to be effective.

**Top down and bottom up approaches**

Making employees participative in the budget process is called bottom up budget setting (Ax et al 2009). Top down budget settings are situations when employees are not participating in the budget process. The top management sets the budget, without any participation from employees. The budgets and goals are being imposed and employees have little influence (Drury, 2004). There is a debate about which way is the most effective to make a budget. Authors have advocated that the most efficient way to make a budget is to let employees participate in the budget process. Thus, this has been challenged. There is conflicting evidence of the importance of participation in the budgeting process. Empiric studies show positive effects with budget participation, but there are also studies that indicate the opposite. (Drury, 2004).

### 3.2 Concerns about the budget

Traditionally the budget has been the obvious tool for management control, but recently the budget has been a debated and criticized subject (Libby & Lindsay, 2010). The original objective for companies is to deliver a high return on equity rate compared to other organisations in order to receive invested capital and to survive (Wallander, 1999). Therefore, Wallander claims, that the budget provides irrelevant information in a larger context, since it shows a fixed target represented in absolute terms (money).

The most loud and severe critic towards the budget comes from consultants (Ekholm & Wallin, 2000) and might be exaggerated. Though, reality proves that multinational companies, such as Statoil and Borealis, have abandoned the traditional way of budgeting and are managing without budgets (Ekholm & Wallin, 2000, Bogsnes, 2009). Recently made researches confirm that the general opinion among executives is that the budget has several drawbacks (Libby & Lindsay, 2007) For instance that it is too time consuming compared to the value it contributes with, it is based on unsupported assumptions and guesswork and already out of date when it is used (Libby & Lindsay, 2007, Hansen al et. 2003).

**Conflicting objectives**

Bogsnes (2009) states that organizations make budgets which are aimed to fulfil different purposes, for instance setting appropriate targets, making reliable forecasts and make effective resource allocation. They are all objectives for companies but can easily conflict when they are compiled together in a budget. Lindvall (1997) agrees that budgets are often used to serve
several purposes and these can conflict with each other. For example planning can be in conflict with performance evaluation and motivation. If the budget is supposed to be motivating it is important that the targets are set at a challenging level, for planning purposes the budget needs to be set at a realistic level (Smith, 2007). When doing a budget for planning purposes, certain conditions are being assumed (Wallander, 1999). When using the budget to evaluate performance the budget is often used as a base for evaluation, it is being compared to the actual outcome to measure performance. If the conditions change after the budget was set, there can be a conflict between the purpose of planning and evaluation (Smith, 2007).

Not only can the purposes of the budget be conflicting. Libby and Lindsay (2003) explain that the budget can create a gap between organizations’ long term strategies and short term goals, when these are not linked together. Personnel try to achieve annual targets, which is often correlated to rewards. Detailed costs and short term objectives are not linked to the strategy. Expenditures that contribute and are necessary for achieving strategy goals can be unacceptable in order to achieve the annual goal. Further, the budget does not take enough variables into consideration to cope with organizations’ long term strategies (Kaplan & Norton, part 2, 1996).

**Performance evaluation and budget as a fixed contract**

A majority of organizations today use the budget targets for evaluation of performance (Libby & Lindsay 2007), although the outcome of fixed targets can cause undesirable behaviours (Smith, 2007, Libby & Lindsay, 2010).

Libby and Lindsay (2003, part 1) discuss the budget and the problems associated with it. They claim that when budgets are used for evaluation of performance it becomes a fixed performance contract that workers are supposed to be committed to. Libby and Lindsay state that fixed contracts can lead to budgetary gaming. For instance units tend to spend the remaining part of the budget in the end of the year, although it is not necessary, just because they do not want to receive less money the next period. The current year’s sales can be held back until the next fiscal year if there is a risk that the current goal is going to be exceeded.

Employees’ fear of not meeting short term targets, make firms concentrate on cost-reduction rather than value-creation (Hope & Fraser, 2003). Avoiding potential investments in order to meet short fixed targets can be harmful for companies in the long run (Hansen et al 2003, Smith, 2007).

When using the budget for performance evaluation, firms need to operate under stable conditions in order to set targets that are achievable. If this is the case, the plan can later be compared to the outcome (Hansen et al 2003). When the environment is turbulent it is harder to make a valid budget (Wallander, 1999). Hence, less budgetary control and evaluation should be based on the budget (Samuelsson, 1999). To maintain employees’ motivation when budgets are actually used for performance evaluation in unsustainable conditions, employees are not supposed to be held responsible for incidents they cannot control. Controllable and uncontrollable events are suggested to be separated (Libby & Lindsay, part 1, 2003).
Planning and forecasting

When market conditions are stable there is an ability to plan output and coordination of resources in advance. With hindsight the outcome can be compared with plans, and evaluation and control of employees can easily be made (Samuelsson, 1999). Due to growing competition and shorter life cycles, the future is harder to predict and longer plans are based on uncertain assumptions (Lindvall, 1997). Wallander (1999) states that when making a budget, data from the past is collected and used to forecast the future. There is a limit of variables that can be taken into consideration when making a budget and therefore assumptions must be made. Assumptions that sometimes turn out to be right and other times wrong. According to Wallander the budget can make managers feel secure and give an indication of where they are heading, although this is inaccurate.

Further, Wallander claims that unexpected events are not able to be foreseen and are consequently not included in the budget. The budget cannot predict disruptions in trend and when unpredictable incidents occur the budget is no help for the organization. When the trend continues as normal the budget turns out to be right. But regardless if the trend continues as predicted or if the trend is disrupted with unpredictable incidents, the budget is for no help and a waste of resources for the company in both cases (Wallander, 1999).

Uncertain and competitive environment

When market demands and conditions are unstable and cannot be determined in advance, there is neither possible nor necessary to make accurate plans, since they will anyhow not be useful as control tools (Samuelsson, 1999). A budget is already out of date when it is used and it does not provide helpful information for managers to make decisions (Daum, 2002). Organizations need to be prepared for changes instead of emphasizing on following up the budget (Daum, 2002, Samuelsson, 1999).

The traditional budget is accused of supporting centralized decision making and that it does not enable rapid adoptions to new circumstances in today’s changing environment (Hansen et al 2003). Contrary, budgets rather stop executives from reacting to new conditions due to inflexible systems (Wallander, 1999) and new opportunities are missed out. Under fluctuating conditions a decentralized organisation is more favourable, employees that work near the market can adapt faster to changes. Hence, it is harder to have strict control in changing environments (Samuelsson, 1999). Better educated people are desired since they are expected to take more responsibility.

The conditions are more uncertain and the environment is more competitive today than before, consequently budgets no longer meet executives’ need of information, in order to manage under these circumstances (Hope & Fraser, 2003). Obsolete guidelines prevent managers from taking actions (Daum, 2002). Companies that want to survive in today’s competitive circumstances need continuous improvement and flexibility. “Change-leaders”, leaders that are always open to changes and react fast to shifting conditions in the market, are desirable (Daum, 2002).
Fraser and Hope - Advocators to the Beyond Budgeting concept

The budget is supposed to facilitate coordination, planning and performance evaluation for organizations (Libby & Lindsay, part 1, 2003, Hansen et al 2003). Hope and Fraser, founders of the organization Beyond Budgeting Round the Table (BBRT, see below) state three main reasons to why there is extended dissatisfaction with budgeting among executives. First, they point out that the budget process is expensive because much time is spent on negotiations for creating a budget even though the benefits are uncertain. Budgeting is neither a value adding activity, nor provides necessary information for making decisions about the future.

Secondly, according to Hope and Fraser (2003) the future has become more unpredictable and changes faster. The budget concentrates on internal activities, Hope and Fraser claim that firms must emphasize on adapting to changes in the environment, for instance changing preferences in customer demands and meeting customer needs. But on the contrary, companies spend even more time on budgeting processes, although it does not manage to cope. Hope and Fraser declare that organizations, that try to improve their management processes with additional tools, e.g. Balanced scorecard, proved to have limited success when combining them with the budget.

Finally Hope and Fraser state that the budget is only used for evaluation of performance once a year and as a control function for managers. According to Hope and Fraser, fixed “contracts” based on a fiscal year leads to less focus on customers’ demand, instead it encourages game playing with budget numbers in order to meet the targets. Budgets can rather give executives wrong conceptions of reality; they believe they have control even if this is not the case (Hope & Fraser, 2003). However, there is of great importance to consider how the budget is used.

3.3 Beyond Budgeting

What is Beyond Budgeting?

Several scholars and executives, e.g. Hope, Fraser and Wallander, blame the budget for causing problems. There is nothing new about companies striving to improve their management control systems in order to save time and costs. Wallander, former executive at Handelsbanken, abandoned the budget in 1970 and the bank has been a storied successful case ever since (Fraser and Hope, 2003, Wallander 1999).

To abandon the traditional budget and replace it with the Beyond Budgeting concept is not about adding another management tool (Hope & Fraser, 2003), it is about re-thinking the way of managing a whole organization and implement new ways of doing things (Bognes, 2009, Hope & Fraser, 2003). Hope and Fraser introduced the concept Beyond Budgeting 1997 when they established the organization Beyond Budgeting Round the Table (BBRT) (Bogsnes, 2009).

The characterizing principles and qualities associated with the concept are results from case studies, made during a period of five years, by Hope and Fraser (2003). Hope and Fraser studied a numerous of companies that were all troubled with the budget process. The mutual solution, for the organizations studied, was to abandon the annual budget process and the
Budget – a perfect management tool?

Budgets, car manufactures and a range of different types and sizes of companies were represented in the case study (Hope & Fraser, 2003).

The study made by Hope and Fraser showed that before top managers abandoned the budget, they made action plans once a year and revising plans due to new conditions during the year were unusual. After they abandoned the budget, predominant fixed plans were abolised. It enabled companies to adapt to customers shifts in demands and preferences. In summary, control was more decentralized and more responsibility was given to employees in different departments. Achieving short term fixed contracts and targets were no longer the primary goal, instead relative targets in a longer perspective became more important. The front line workers were empowered and involved in decisions in order to create high performance organizations (Hope & Fraser, 2003).

Beyond Budgeting is not a clear concept that easily can be implemented in organizations,” It is more of a journey than it is buying an instant new management box ” (Bogsnes, 2009, p. 56) The journey includes a reform of the organization and new principles for leadership.

Management principles according to Beyond Budgeting
Common principles and patterns for the organizations who abandoned the budget have been indentified (Hope & Fraser, 2003) and six principles symbolize how the Beyond Budgeting management system works. The following part explains what the concept infers for an organization according to Hope and Fraser:

1. Set stretch goals aimed at relative improvement. The main purpose is to set targets based on both short and long term perspectives rather than on an annual view. Targets such as “relative to external benchmarks” and “relative to internal peers” are frequently used for evaluation of employees’ performance. External benchmarks consist for instance of “best in class” performance and key performance indicators (KPI). Internal peers are set up in order to continuously improve the operations and achieve the external benchmarks. (Libby & Lindsay, part 2, 2003, Hope & Fraser, 2003) When evaluations are done with hindsight and relative goals, there is an ability to adjust to unpredictable events (Hansen & Van der Stede, 2004).

2. Base evaluation and rewards on relative improvement contracts with hindsight. The mutual concept for companies that have adopted the Beyond Budgeting concept is that evaluation of performance is not strictly correlated to fixed targets. Normally the evaluation depends on a range of relative KPI numbers and is team based rather than individual based. However the KPI numbers are relative evaluated against the previous period and towards competitors, hence the workers do not know how well they have performed in advance. The aim is to evaluate improvements and avoid that workers play games with numbers (Hope & Fraser, 2003). Although financial incentives can motivate workers (Libby & Lindsay part 2, 2003), commitment and responsibility can only be achieved when visions and values are shared within an organizations. Relative targets are aimed to increase motivation.

3. Make action planning a continuous and inclusive process. Creating value for customers and shareholders are the primary goals according to the Beyond Budgeting concept. In the contrary to the traditional way of managing, where companies keep to a predominant plan, the
plans can change during the year. The processes improve continuously and enable a faster adaptation to new possibilities and changes in the market. Principle guidelines for strategy, directions and boundaries are set up by executives but with few details in order to save time and resources. However there is no annual perspective, rather an ongoing process for constant improvement.

4. Make resources available as required. Guidelines for financial ratios are based on KPI’s and guidelines in order to utilize resources where they are needed. Operational managers have more authority in order to make resources available faster. It is common to have internal markets with financial resources available, which are distributed when needed.

5. Coordinate cross-company actions according to prevailing customer demand. The traditional budget is a financial commitment and is supposed to facilitate coordination. When using a budget the volume produced is often determined in advance, when managed without a budget no such plans are made. Instead the production volume is adapted after customer demands, personnel strength their relations and the communication are of great importance in order to produce right volumes, when a budget is not used. The “Beyond Budgeting” concept is aimed to meet customers’ decisions and preferences faster. Employees need to be informed of the costs and profitability caused by the customers. Thus an open information system is required.

6. Base controls on effective governance and on a range of relative performance indicators. Traditional central control means that fixed performance contracts are compared with the outcome. According to the Beyond Budgeting concept another approach, multilevel control, is advocated. “Multilevel controls means knowing what is going on and only interfering when absolutely necessary“ (Hope & Fraser, 2003, p. 85). The information provided consists of a range of KPI’s, performance rankings and forecasts.

Financial reports show trends and are compared with previous periods, only the most essential information is presented in order to be relevant. Rolling forecasts are established to satisfy shareholders need of information, overview the future and to determinate cash-flow needed the following period. Thus few details are included in order to save time. KPI’s are used to follow up medium term goals and to make sure that activities are done according to guidelines set by the managers and within these boundaries. Managers are looking for unusual patterns in order to react and change plans if needed.

Longer strategic plans are communicated to lower levels and they are accountable for creating their own key performance indicators in order to achieve the targets (Libby & Lindsay, part 2, 2003).

Why Beyond Budgeting is beneficial
According to the study made by Hope and Fraser (2003), there have been several reasons to why, and how, the Beyond Budget concept has been implemented in organizations. Some have had problems because the budget process were too costly, time consuming and bureaucratic. Others have seen opportunities to change behaviors and encourage more responsibility distributions among employees. However the results have been the same,
companies are successful and do no longer spend time on creating an annual budget (Hope & Fraser, 2003).

According to the organization Beyond Budgeting Round the Table (BBRT), companies will benefit in several ways when adopting the Beyond Budgeting concept. It enables firms to react faster to conditions in both market and customers-changes. Furthermore the concept is aimed to avoid constrained plans and instead encourage an endless improving process, a dynamic environment is supposed to allocate resources to the best opportunities. Moreover a creative atmosphere at workplaces will attract, and keep, employees (BBRT).

Time consuming bureaucracy and complexity is reduced when front line personnel have authority to react (Hansen et al. 2003), though within clear principles. Long term relationships with suppliers and stakeholders are beneficial and enable cost reductions. Beyond Budgeting place customers value in center of everything, satisfying customers needs will contribute to more loyal relationships and overall strengthen an organization position towards competitors (BBRT). With ambition to succeed, mid level managers and employees are provided with more authority and organizations are empowered (Libby & Lindsay, part 2, 2003). Workers close to the customers have the most crucial information about market conditions and they face daily problems, thus knowledge is needed for making progress.

In summary, there must be a common dissatisfaction with the current situation in order to implement something new and drastic like the Beyond Budgeting concept and principles. Clear purposes with the change must be stated in an initial phase (Bogsnes, 2009). Thus influencing behaviors, convincing a broad range of stakeholders and educate people include time, costs and resources (Hope & Fraser, 2003). However, as a first step, risks have to be taken into consideration and people must commit to the changing processes in order for an organization to succeed.

3.4 Additional management tools

Kaplan (1994), one of the founders of the balanced scorecard (see below), stated in 1994 that there had been several innovations in the framework for management accounting during the last decade. Although several of unique methods have come into existence, there are some common ones that are indentified (Ax et al 2009). The progress in management tools are a reaction to the previous obsolete cost and performance measure systems (Kaplan, 1994). The traditional budget is no longer sufficient to satisfy complex firms needs (Tardivo & Cordero di Montezemolo, 2009). Due to more unpredictable environment, it is sometimes impossible to plan the future and improvements in management control system are needed (Ax et al 2009).

Hope and Fraser (2003) state that organizations can benefit from additional management tools “(…) if they are implemented in the right way” (Hope & Fraser, 2003, p.179). Management tools, such as the Balanced scorecard, are for instance aimed to provide employees with information in order to facilitate decisions- making and to focus on longer goals and employees have to be committed. According to Hope and Fraser, few tools have met their objectives when the budget is used simultaneously. When combining additional management
systems with budget, most effort remains to be put on achieving the budget targets because they are often the most crucial for performance evaluation and rewards, Hope and Fraser state.

A selection of additional management tools, that are helpful and beneficial when manage according to the Beyond Budgeting concept, and not with a budget, are presented below.

**Key Performance Indicator (KPI)**

Key performance indicators (KPI’s) measure efficiency in organizations, for instance productivity and return on equity. The measures are aimed to reflect the business goals and for help to evaluate how well they have achieved their targets (Ax et al 2009). KPI’s can be both financial and non financial, they can replace the control function of the budget and are frequently used among firms for evaluation (Hope & Fraser, 2003). KPI’s have to be measurable and definable. In order to compare firms’ performance towards other organizations, KPI’s are used as complements (Bergstrand, 2003). Measures such as free cash-flows and cost-to-income ratios are estimated and used for both internal and external comparisons (Hope & Fraser, 2003). KPI’s are beneficial since they do not indicate a single state; they show a trend.

According to the Beyond Budgeting concept KPI’s are helpful when allocating resources and evaluate performance (Bogsnes, 2009). KPI’s provide employees with information about their own performance. Instead of using the budget to measure how much money that are supposed to be needed, KPIs should indicate this (Hope & Fraser, 2003).

**Balanced scorecard (BSC)**

Managers are frequently expected to deliver high financial performance and to achieve short term financial targets. To do so activities that are value added and beneficial for organizations in the long run are sometimes avoided and cancelled (Kaplan and Norton, part1, 1996). In order to meet challenging conditions and to facilitate decision makings for managers in a global market place (Chavan, 2009). An additional management tool, called the Balance scorecard (BSC), introduced an alternative way of management with the intention to focus on long term goals and value drivers in order to succeed. The concept was created by Kaplan and Norton in 1992 and suggested to look beyond the financial measures (Norton and Kaplan, part 2, 1996, Bergstrand, 2003).

Kaplan and Norton (part 1, 1996) argue that the traditional budget and accounting measures give information about the past and does not show the drivers of performance, which would be helpful for common decisions. To stay competitive, companies’ purposes and long term goals must therefore be translated and measured from four perspectives; financial, customers, internal business processed and learning and growth. Moreover this combination enables businesses to achieve, and to focus on both short and long term goals (Chavan, 2009, Kaplan & Norton, part 1, 1996). The four dimensions are suggested to be measured with specific KPI’s in order to evaluate the progress and performance (Bergstrand, 2003).

The BSC is intended to be used for planning, set targets and to give feedback. By using a BSC corporations will have a balance between external and internal activities (Kaplan Norton, part
The BSC is not a control tool, it is meant to be used for in order to inform and achieve common goals (Kaplan & Norton, part 2, 1996). Several elements within organizations are linked together when using the BSC; individual targets, annual budgets and updating strategies (Kaplan & Norton, part 2, 1996).

Hope and Fraser (2003) refer that the scorecard facilitates communicating strategies between managers and their employees within organizations. The scorecard makes employees feel committed to their goals. Though, when combining budget and balanced scorecard, fixed targets set in advance are still being used and can cause undesirable behaviours. When BSCs are used in large organizations it can be necessary to have several scorecards within the departments. Otherwise the scorecard is often less prioritized and the budget remains to be the primary goal (Bogsnes, 2009).

Rolling forecasts
According to the Beyond Budgeting concept, rolling forecasts are used to indentify disruptions in trends and the forecasts are often updated quarterly (Libby & Lindsay, part 2, 2003). Targets are supposed to be ambitious, while forecasts are aimed to give a realistic picture about the future in order to make as suitable agreements as possible (Bogsnes, 2009). Hope and Fraser (2003) state that managers not tend to report totally honest information if rewards are linked with the forecasts or if the information can be used against them. The forecasts should be unbiased in order to be useful and therefore disconnected from rewards and targets (Libby & Lindsay, part 2, 2003).

Forecasts are, in most firms, used in combination with the budget (Wallin & Ekholm 2000, Bergstrand, 2003). However, they do not strictly follow the fiscal year, instead they indicate the estimated need of cash flow in a near future and compare strategies continuously. Fewer details are added and fewer managers are involved when forecasts are established compared to the budget. Hence, they are less time consuming to create (Bergstrand 2003). Wallin and Ekholm (2000) conclude that rolling forecasts are not as rigid as budgets; forecasts are aimed to allocate resources more timely and effective and can be revised on a regular basis. The model is intended to facilitate the interaction between employees, organizations strategies and the ability to adapt to changes (Bergstrand, 2003). In contrary to the budget, Wallin and Ekholm note, rolling forecasts are frequently updated and therefore these changes can make managers feel unsecure. Using rolling forecasts can obstruct follow up processes and managers that are not committed to make a good job can be hard to detect (Bergstrand, 2003).
4. EMPIRICS

Four interviews with respondents from AstraZeneca are resumed and presented in the empirics. The respondents are accountable for different SET Areas (departments) in the organization and are not correlated to each other in a significant extent.

4.1 Case study - AstraZeneca

AstraZeneca is a pharmaceutical organisation which operates in 16 countries with 20 production factories. Their ambition is to contribute to making a significant difference for the health of the patients, through medicine (AstraZeneca). AstraZeneca has its focus on research and development, manufacturing and marketing medicine on prescription.

The organization has six main areas that they are focusing on: cancer, heart/vessel, stomach/gut, infection, neuroscience, respiratory ways and inflammation and operates in over 100 countries. AstraZeneca has more than 62000 co-workers all around the world; almost half of them are in Europe. During 2009, sales for the corporate group were 32.8 billion USD. Ten of the most popular products had sales of over 1 billon each USD (AstraZeneca).

AstraZeneca’s structure

At AstraZeneca the main departments are called SET Areas. The authors have chosen to interview executives from the three main SET Areas: Research and development (R&D), Commercial Operation and Manufacturing (Sweden Operation). One person responsible for Corporate Functions and Central Supply which belongs to SET Area Operations has been interviewed as well. SET Area Operation is referred to as Support SET Area in this thesis.

The SET Areas are relatively independent. All SET Areas receive individual guidelines from Corporate annually. They make budgets and forecasts based on the guidelines, which are reported to Corporate. The guidelines mainly include deadlines for reporting, what information the Areas are expected to report and how it is supposed to be reported. The guidelines are the overall framework for the SET Areas and the information is mainly sent with a top down approach, which means that they are decided at Corporate level. Each SET Area is responsible for dividing the guidelines into functional goals and communicate this information to their teams. AstraZeneca has a common Balanced scorecard and all SET Areas have their own BSC as well. All SET Areas make forecasts and use KPI’s. In which extent the
SET Areas use the management tools vary. The total amount of bonuses paid out within AstraZeneca is determined by the result of the whole organization.

Commercial Operation is the only SET Area that has both revenues and costs, the other SET Areas have only costs. All SET Areas have the ability to question for additional money outside the budget if they have a suggestion for improvement in a function. The functions and SET Areas can make proposals, so called “Business cases”. If a proposal is accepted, additional money from Corporate can be distributed to the function, or the SET Area.

In the following part, all information presented is according to the respondents and the results of the interviews.

4.2 Respondent 1 - Commercial Operation

Background

Respondent 1 (R1) is the CFO for Commercial operation for AstraZeneca Nordic. Sales, customer relationships and marketing of products are included in R1’s sphere of responsibility. The respondent is a participant of the leadership team of the Nordic countries.

R1 receives guidelines from the corporate group, AstraZeneca Nordic, specific goals from the Marketing Company President and functional goals from the financial function. Commercial Operation compiles the guidelines and makes suggestions for appropriate goals. The targets are communicated to the Marketing Company President before they are finally confirmed. The turnover for AstraZeneca Nordic is nearly one billion dollars (2009) and there are about 400 employees.

The Budget

Commercial Operation plans for a period of ten years ahead. A budget is made for the first three years, a strategy plan for five years and for further five years they make a long term forecast. The budget is made in a combination of bottom up and top down approach. More personnel and details are included in the budget compared to the long term forecast.

There are three main elements that influence, and have to be taken into consideration, when the plans and budgets are being made. First, the lifecycles of the products have to be taken into consideration. The revenues for Commercial Operation fluctuate relative fast, depending on when new products are being launched and when patent on products are being lost. Second, government set restrictions for market conditions, for instance how much, and for which drugs governments are willing to subsidy. Last, competitors and their patents have to be observed in the market.

Purposes of the budget

For Commercial Operation the budget is mainly aimed to allocate resources. When new products are introduced to the market, a great amount of resources are needed compared to later stages of product’s lifecycles.

Because of the fluctuating lifecycles of products it is imperative to use the budget in a retrospective perspective, in order to plan following periods. Instead, Commercial Operation
needs to forecast the future in order to determine the distribution of resources. The information about the patent and lifecycles enables the organization to plan for a long period ahead and to overlook future revenues.

Further, the budget is aimed to be used for performance evaluation. For all employees, a part of the salary is based on individual goals, which include both nonfinancial and financial targets. With a higher position in the organization, a larger part of the salary is based on financial goals. All employees have individual goals and receive an individual percentage of the bonus.

**Concerns about the budget**

**Conflicting objectives**
The main problem for the management control system is that the forecast, strategy and budget are all used to serve many different purposes, such as planning and resource allocation. It is a fundamental conflict between these purposes. The forecast is aimed to show a realistic picture of the organization, while the budget is linked to the individual targets for employees. The budget targets, therefore, tend to be set at a lower level than the forecast, and thus “easier” to achieve, because it is used to evaluate the performance of management.

**Performance evaluation**

Performance evaluation that is based on sales targets can sometimes be misleading, since some products are more important to AstraZeneca than others and therefore have higher sale targets. Although the sellers of products with high sale targets perform well, it is not certain that they receive a bonus because of the high targets. Meanwhile, sellers of products with lower targets can receive bonuses more often. The SET Area is aware of the problem but does not intend to change the budget in order to solve the issue.

**Competitive environment**

It is easier and faster to adapt to today’s rapid changes in the environment when an organization is centralized. The budget has functioned well before when the conditions were more stable, but during the last years it has been harder to use the budget for management control purposes. The budget can prevent the SET Area from rapid adaption to changes because employees are supposed to reach financial targets. The budget is seldom revised, in rare cases it could be changed if approved by the Chief executive officer in Europe. Certain strictness and bureaucracy in the system can be favorable; it drives the organization to review all possibilities within the SET Area before they discuss the problem at a higher level. If something unexpected happens, the forecast is normally being changed and not the budget.

**Time consuming**

There are too many goals within the SET Area according to R1. The overall strategy goals are divided into functional targets and thereafter divided into individual goals, consequently the SET Areas has targets on three levels. The objectives are supposed to be easy to communicate to the employees, and therefore it would facilitate to have fewer targets. Removing the functional level in order to save time, and keep the strategy and individual level would be enough. Important issues are included in the strategic plans and in the individual goals,
therefore the functional level is redundant. R1 points out the importance of simplifying the communication within the organization and the goal setting process.

“The more goals the harder it gets to communicate between functions” (R1)

Historically the organization has been decentralized, but during the last years the trend has gone towards being more centralized. The decentralization has been a strength, it has encouraged entrepreneurship, commitment and motivation. But using the bottom up approach in the budget process has been, and is, time consuming.

“We plan 13 months per year” (R1)

When using a bottom up approach employees tend to forecast an ongoing trend. A top down approach can make it possible to foresee disruptions in trends. Commercial Operation needs to have a balance between decentralized and centralized activities. According to R1 the budget process would be more efficient if the process were more centralized. Thus, activities such as marketing, sales and customer relations are preferable to be decentralized in Commercial Operation. Meanwhile support, security, financial planning and environment are suitable to be centralized in order to be effective.

Additional management tools

Key Performance Indicator (KPI)

Commercial Operation uses benchmarking for evaluation. Market share is measured and a large market share is essential, because significant costs have already been incurred when the products are launched (R&D and clinical trials). To recoup those costs and be able to sustain the significant R&D investments, each product that is launched needs to gain significant sales. Cost structures are compared with organizations within the industry but also with other business-areas. AstraZeneca has a high profit margin and therefore comparable objects are difficult to find. R1 wishes to have less financial goals and that the KPI’s are forward looking as the pace of change in the industry is accelerating, being able to adapt to the future is critical for sustained success.

Scorecard

The strategy plan is made 3-5 years ahead and includes financial goals, products, customers, organization and employees. The strategy plan includes objectives, and the plan is followed up with the scorecard, in order to evaluate the SET Area. The foundation of the management system and Commercial Operation’s strategy is based on three elements. First, the SET Area’s basic value is of great importance, the personnel have to have common basic principles when it concerns goals etc. Teamwork, caring for people you work with and not act selfishly are crucial. Second, the SET area has to consider restrictions and rules on the market as the pharmacy business is a strictly regulated industry. Last, corporate responsibility and internal policies are part of the organization’s management control system.

Forecast

Personnel in the SET Area know when patents are going to be lost and when new drugs are supposed to be launched; therefore there is an ability to plan for a long period of time. It is
necessary to make long term plans in order to adapt to new conditions. The forecasts focus on sales and the three elements stated above. Environmental analysis is made to examine competitors and macro trends, for instance diseases and government restrictions.

4.3 Respondent 2 - Research and development (R&D)

Background
Respondent 2 (R2) is Director for “R&D finance, business and analysis, strategy and planning” at AstraZeneca, Mölndal. R&D is divided into project groups (functions) that are aimed at developing new drugs. Corporate determines the overall strategy for what disease areas that AstraZeneca is supposed to focus on. R&D has only costs and no revenues. The guidelines that the set area receives from Corporate include the amount of money that is available for the next year. In 2010 the budget was 3.6 billion USD.

The Budget
The budgets for the functions within R&D are made with guidelines from R&D finance and with mix of a top down and bottom up approach. The financial function receives requirements, wishes and demands from managers responsible for the R&D projects (functions). The information collected is fundamental for the first budget and the first meetings, so called review meetings. At the review meetings managers in the R&D functions and senior managers for finance discuss the budgets and strategies. The R&D functions present their plans about their budget desires. Few people participate at these meetings, strategies are discussed at a high level, and the quality of the meetings is better thanks to that according to R2. The financial function establishes challenging targets for the functions based on the discussions. The final budgets are then made and targets are distributed to each function. The R&D finance makes, at a high level, a long term business plan for the ten following years as well.

Purposes of the budget
The main purpose with the budget for R&D is to set challenging targets, the forecasts are aimed to determine how much money that will be spent in the end of the year. In the R&D function, the budgets can be used for allocating resources, but, according to R2, the activities are not mainly managed with the budget.

“I think R&D governance quite little with the budget” (R2)

The critical issue for R&D is to deliver new drugs, achieving the budget target is one goal of several but not the main purpose. For R&D finance the crucial part with the budget is to understand why numbers varies, if they do. Essential to the cost structure in the long run is to determine project costs.

“What I have to understand better is how our projects are going, what is happening in them and how fast they proceed. Because it is there (in the projects) that we can have variances of 100 million compared to the forecasts.” (R2)
Concerns about the budget

Conflicting objectives

The traditional budget links targets, forecasts and resource allocation together. Targets are something that personnel are supposed to be evaluated towards. Meanwhile, forecasts are aimed to indicate where the organization is heading. If targets are the same as forecasts, forecast will always be a target. In order to avoid similar problems to the one explained above, forecasts and targets have to be separated. Performance evaluation of employees at R&D is based on both financial and non financial targets. Within the financial objectives, both the forecast and the budget are taken into consideration. It needs to be a balance between these two, so that personnel are responsible for both, although the forecast does not have to be linked to the targets.

“It is important that the divisions are committed and take responsible for their budgets and forecasts, it is their budgets and forecasts and not ours (the financials divisions).” (R2)

Performance evaluation

Problems with the budget are experienced in the R&D SET Area and in AstraZeneca as a whole. A few years ago, managers in different departments were not honest about the information reported in the forecasts to Corporate. SET Areas presented low sale numbers for the three first quarters, and in the last quarter they showed a significant sale growth. The guidelines and targets, for the SET Areas, are set by corporate in September and the forecasts tended to be held lower in order to receive relative “low” level of targets the following year.

The misleading forecasts affected the whole organization. For R&D, that according to the forecasts exceeded their budget target, received cost-saving instructions from Corporate in the middle of the year. Due to low results reported from sales departments R&D were not allowed to exceed their budget target. In order to save money and improve the result for the whole organization, projects were delayed and cancelled in the R&D SET Area. Although, after quarter four, the results from the sales department (and therefore also the total result for AstraZeneca) turned out to be significant higher than expected and the cost savings would not have been necessary. The cancellations that R&D had to make resulted in negative and remaining consequences.

Furthermore, in R&D a so-called “December effect” is experienced, which means that expenditures increase in the end of the year. Functions tend to spend the last part of the budget although not necessary.

Targets would preferable be relatively measured, for instance with KPI’s, and be ambitious. Targets are aimed to be challenging and not always suppose to be achievable; therefore it does not have to be negative if people do not reach the objectives. If not all financial measures were linked with targets, middle management would almost certainly be more honest and inform the financial department, and interventions could prevent or reduce negative effects.
Uncertain and competitive environment
External conditions are more stable for R&D compared to other businesses. The government provides the organization with new instructions about the test process. The government tends to focus on the side effects caused by the drugs instead of the advantages with the drugs. Therefore more people are needed for the test processes. Instructions and guidelines affect the cost structure for R&D, but this does not happen “over night”, R2 states.

Time consuming
Workers within the functions have less freedom compared to a couple of years ago. Fewer accounts and details are used in the divisions in order to save time with the budget work. In the R&D functions the managers have authority to make decisions. For instance, fewer employees are responsible for specific cost accounts, managers are responsible for this instead.

Although budgets are needed, the budget could be decided at a much higher level compared to how it is currently produced. Managers within the R&D divisions are likely to keep to their budgets in order to have, or feel that they have, control. Some managers think that budgets are needed for cost-awareness and making things effective, but it is not needed to have budgets in order to achieve this. It is rather about the culture and the atmosphere in the organization.

Additional management tools
Key Performance Indicator (KPI)
Discussing fewer details about the budget and instead emphasize on strategy plans at the review meetings would be value adding for R&D. The divisions could be managed and controlled better by using KPI’s compared to how it is today and instead of using budgets. The cost structure for the function is quite predictable, by knowing the number of employees the costs can be determined and therefore overall information is enough.

Balanced scorecard
The balanced scorecard is used during the review meetings and facilitates the communication of both short and long term strategies. Instead of focusing on detailed budget numbers in R&D, effort is put on what has to be done and what to focus on, in order to create value for the organization.

Forecast
It is crucial for stakeholders, Corporate and the market to know where the organization is heading, in order to give a truthful and fair picture. Forecasts are supposed to indicate the expected outcome for the organization for a year, and give a possibility to observe unusual trends and adapt to changes. Therefore, the forecasts need to be as correct as possible. If the forecasts would affect the targets less, or not at all, R2 claims that personnel would probably be more open and report information more honestly than today. With an open environment and more decentralized communication, forecasting is supposed to give valuable information.
4.4 Respondent 3 – Support SET Area (SET Area Operation)

Background
Respondent 3 (R3) is responsible for the finance Support SET Areas of Corporate functions and Central supply at AstraZeneca. This includes for example Facilities management, Supply Chain and other support organizations such as procurement, finance and human resources within the SET Area.

The Budget
The budget is often made for the following year and the year plus one for the Supply SET Area. The first year is usually made in more details than the second one. A ten years plan for their global function is made as well, although this is made in less detailed and has a more strategic focus. The budget for the coming year is phased by month. Global Operation (England and Sweden) get a yearly budget target, which thereafter is divided into targets for each function and later cascaded, to the lowest level. Budget targets also mirrors the estimated savings from ongoing restructuring projects, which runs over several years. Every SET Area is responsible for making decisions about how and where they are going to do the cost-savings, but major business decisions needs to go to the leadership team for approval.

R3 states that the budget targets and guidelines set by Corporate are signs of the organization being centralized. The SET Area is free to make their own decisions as long as it is within the framework and strategy of their function. The budget process in the functions could therefore be seen as a mix of both the top down and bottom up approach. From a finance point of view it is effective and easy to have a centralized budget process. But for the functions to feel responsibility and ownership, it is important to involve them in the process. It is a good mix in the organization today with a combination of a top down and bottom up approach.

Purposes of the Budget
For Support SET Area the purpose of the budget is control, motivation and above all resource allocation. It has been a problem for the organization to connect the SET Area budget to the Corporate budget. For example if 10 people have to leave the organization this should be reflected in both budgets.

“People and money have lived two separate lives” (R3)

Thus, the organization has improved in this area the latest years.

Concerns about the Budget
Conflicting objectives
The scorecard, forecasts and budget are all good management tools if they are linked together in the right way. The scorecard can make it easier to understand the meaning and aim with the budget. Sometimes the goals of the three management tools can be conflicting, but most of the time they function together in harmony.
Performance evaluation
A large number of people at AstraZeneca used to work at hospitals or similar workplaces, where the budget often is based on last year’s results. This means that employees can feel that they need to spend the money they got from the budget this year, in order to get the same or a larger amount next year. According to R3 this is not the case at AstraZeneca, and not in the Support SET Area. Budgets should be based on planned and approved activities. If the personnel have a “business case” for a project and can motivate why they need additional money it is likely that they receive it. But on the other hand, if activities are reduced compared to last year, the budgets should be reduced too. They are also expected to deliver efficiency savings. The organization does not want to see increased spending in December compared to the rest of the year because there is still space in the budget, a phenomenon R3 refers to as “the December effect”. It is hard to change the undesirable behaviours stated above but the latest years it has been less of this behaviour, due to effort from the managers. Though, R3 explains, that changing behaviours can be difficult.

“The first year we tried to avoid the December effect, we got a November effect instead” (R3)

The SET Areas’ financial performance is measured against the latest forecast and not towards the budget. The performance document is supposed to be a “living” document and always be up-to-date. To update the document the employees always have to consult their manager. Though, it is not the purpose to update the document in November in order to reach the targets.

In Support SET Area, employees also make individual development plans that are made for 3-5 years, which indicates how the personnel wish to develop within the organization in the future. An individual plan is supposed to be in line with the performance management document that is made in more details and for the current year.

Uncertain and competitive environment
The organization is affected to a great extent by the changing external environment. The whole industry is changing and it is important that the company continuously works to adapt to new market conditions. The role of the budget has changed due to the changing market conditions. Hence, there is a greater need for an effective flow of information in order to make the right decisions for the managers and for the organization to stay competitive, it is therefore decisive to achieve the most accurate forecasts possible.

Time consuming
In the Support SET Area the budget process is perceived to be too time consuming. It would be a desire to make the budget less detailed, but at the same time it is important that employees feel ownership of their budgets and budget targets. In order for employees to feel ownership on cost centre levels, the budget must usually be made more detailed. It is therefore important to find a balance between how detailed the budget has to be in order to keep the
employees motivated and feel proprietorship, and how much time and effort that is reasonable to put in the budget process. In Support SET Area less time could be put on the budget process and it could involve fewer people.

**Additional management tools**

It would be possible to manage without a budget if the Support SET Area instead uses the scorecard, rolling forecast and different “modellings”. This would give a more realistic and truthful picture of the future. R3 claims that not using a budget could be beneficial, although it could be difficult in reality to abandon it.

“The budget has always excised and the market expects a budget” (R3)

**Key Performance Indicator (KPI)**

The Support SET Area uses KPI’s, for example cleaning/square meter, maintenance/square meter, or cost per lunch. The KPI’s are compared to other similar organizations in Sweden. So far it has been difficult to compare internally within AstraZeneca between countries, due to differences in organization structure, local conditions and support models.

In order to improve the management system in the Support SET Area, the budget could be more connected to activities. For example have a target for how much it is going to cost to clean an area that is a certain size and cost a certain amount per square meter to clean. If the targets are not reached it is easy to explain why, either the area cleaned was different than expected or the price was incorrect. Employees should not focus on salary and journey cost etc., but on activities, they should put effort into making the activities as effective and cheap as possible. A few number of staff should be involved in making calculations for salaries, journeys etc. Instead of comparing results towards a budget the employees should be evaluated with the KPI’s.

“Today there are KPI’s on one side and the budget on the other” (R3)

There is no clear connection between the budget and the KPI’s. It would be favourable to focus at the lifetime of the projects when making plans, instead of making a yearlong budget.

**Forecast**

In the Support SET Area, rolling business updates (rolling forecasts) are established to update the budget. The SET Area used to compare the actual outcome to the budget, but today they compare it to the latest forecast.

“A budget gets old fast” (R3)
4.5 Respondents 4 - Manufacturing (Sweden Operation)

Background
Sweden Operation is the Manufacturing organization within AstraZeneca Sweden. The SET Area manufactures all sorts of drugs and consists of manufacturing, quality department, supply chain functions and other support departments. In total, Manufacturing has 2300 employees. Respondents 4 (R4) are responsible for the budget and forecast process at Manufacturing.

Manufacturing SET Area reports information to several stakeholders, for example to the management team for Sweden Operations and to the CEO for Operations and Operations Finance in the UK (that coordinate whole Operation).

The Budget
Manufacturing receives guidelines from the Corporate group before the budget process begins. If the budget for Operation as total seems to be too high, cost saving instructions can be reported in December from Corporate, before the final budget is determined.

The budget process begins in May and a first official cost budget draft is presented in June. This budget is set on cost centre level for each month, but is reported as an annual figure. In September the final budget is presented and submitted, also as an annual figure. In December this budget will be reported, phased on a monthly basis, after adjustments for organizational changes and budget contingencies.

All employees have both team and individual based targets. Part of the salary is determined by how well employees reach their individual goals. The team-based objectives are not taken into consideration for the rewards and no performance measures are linked to the budget. Most targets are non financial for employees in the function.

Purposes of the budget
For Manufacturing, the primary purpose with the budget is to calculate Full Manufacturing Costs (FMC’s) in order to provide Commercial Operation with information. Commercial Operation uses the product costs as the basis for setting market prices for the products. For Manufacturing, the budget helps to distribute and allocate resources to cost centers. The budget is a framework that indicates what cost the organization is allowed to have. Furthermore the budget encourages personnel to consider how they use the resources and to overlook what resources they have at their disposal.

Although the budget fulfils several purposes for Manufacturing, the SET Area could manage without the budget. The SET Area would be able to control and manage their organization with forecasts and key performance indicators. But the Area needs to deliver FMC’s to Commercial Operation in order for them to set prices.

Concerns about the budget
Conflicting objectives
To combine and unify the targets in the forecast, budget and KPI’s are not always easy. Trying hard to reach a certain KPI target is sometimes not necessary, because in the end it is
the total costs for manufacturing that is most crucial. It is important to see “the big picture” and try to combine the three management tools and not just focus on achieving a KPI objective.

Uncertain and competitive environment
In manufacturing, the volumes vary and most work processes are standardized. Although the processes are standardized, it is of great importance to AstraZeneca as a whole to improve the processes if it is possible. Personnel, that works in manufacturing, have the possibility and are encouraged to present suggestions if they have an idea about for example a work process that can be done better and different. All levels in the SET Area are free to present a “business case”. If the suggestion is accepted from higher levels, function could receive additional money for implementing the idea. Since “business cases” exist and additional money can be available, the budget does not prevent the SET Area from making progress and developing.

Time consuming
Some years ago the budget process consumed more time than it does today, for manufacturing. Thus, R4 state, they want to reduce the time spent in the budget process for manufacturing and make it even more efficient, in order to save time and resources. As mentioned above, manufacturing provides several of stakeholders with information. Stakeholders often demand similar information but they want it presented in different ways. Collecting and compiling information is time consuming and demands a great deal of work. It would be favorable to present one similar and standardized package of data to all stakeholders. Today, the information package demanded can change from year to year and the finance division has to adapt to new instructions. This process has potential to be reduced in time and made more efficient. The time could rather be spent on value adding activities, such as analyzing and understanding the data, instead of just collecting it.

The trend for manufacturing goes towards a more centralized organization, for the budget process this means more top down instructions than before. In manufacturing, the budget is made at a higher level and fewer personnel are involved in the budget process today compared to some years ago. Manufacturing rarely uses the bottom up approach. Functions seldom express their desires for the following year, instead they receive instructions and information directly from the management team and finance.

Additional management tools
Key Performance Indicators (KPI)
Insignificant focus in the manufacturing SET Area is put on the budget numbers, since the production volume can vary substantially. Therefore the budget numbers give poor information about performance. For manufacturing, KPI’s provide more useful information than the budget. KPI’s measure for instance unit costs, productivity and efficiency in the production and are frequently used.

For manufacturing, strategy plans and targets are set for a long period of time, normally a few years. Manufacturing benchmark their SET Area with external and comparable plants in Europe and evaluate the Area internally with previous years. The information that is collected
is the foundation of the strategy plan. The information is translated into, and communicated to, employees through key performance indicators. These indicators are the framework for both the budget and the strategy targets.

Although the targets are set and distributed on a central level, the operation divisions are free to decide how they want to distribute the money and work, in order to reach the objectives. Finance gives no, or few, instructions about the production processes, managers within production know best when it concerns production.

**Balanced scorecard**
R4 verify that AstraZeneca has a Balance scorecard but in Manufacturing it is not used to a great extent.

**Forecast**
Manufacturing has rolling forecasts and updates these quarterly. The planning function in Manufacturing can access the monthly volume forecasts from Commercial Operation. Before the budget process begins, Manufacturing receives a more comprehensive forecast and the volumes in the budget are based on the information from this forecast.
5. **ANALYSIS**

In the analysis, the authors have chosen to emphasize on the information from the interviews that they found most relevant in relation to the questions asked. The empirical material is compared with the references of literature in order to analyse if; the budget fulfils the purpose that it is supposed to, if the criticism associated with the budget is experienced and if the trend goes towards managing according to the principles of Beyond Budgeting.

5.1 **Purpose of the budget**

**Planning and resource allocation**

In all SET Areas the budget is used to allocate resources. In R&D, the budget is used for planning and gives an apprehension of how much money that is going to be spent in the end of the year. The lifecycles and patents of the products make it possible to use the budget for planning, in Commercial Operation. The findings correspond to the literature (Drury, 2004), which describes that planning is one of the purposes to why organizations make budgets.

**Communication**

For Manufacturing, the main purpose of the budget is to calculate FMC’s in order to provide Commercial Operation with cost information. Commercial Operation uses the information for setting prices, which makes it possible to plan revenues and costs. This corresponds to Drury (2004) who states that the budget connects departments and gives insight about each other’s operations.

**Performance evaluation**

The literature (e.g. Drury, 2004) refers that by setting targets, the responsible are held accountable for reaching the objectives. The budget is used for performance evaluation and through a follow up of the budget (or sometimes the forecast) the employees are evaluated (Drury, 2004). In R&D, performance evaluation is based on both the budget and the forecast.

Hansen and Van der Stede (2004) claim that organizations tend to put less importance on having the budget for performance evaluation in a competitive environment. The statement agrees with AstraZeneca, which operates in a competitive environment (R1, Commercial Operation). The targets used in the organization are both financial and non financial. For employees in R&D and Support SET Area the budget target is just one target among several, and in Manufacturing financial targets are not used for most of their workers.

Further, for R&D the budget is used to evaluate and to understand why the outcome varies from the plan. This compiles with Drury’s (2004) statement that a purpose of the budget is to evaluate disruptions from plan. Drury (2004) refers to this as “management by exception”.

**Awareness**

In Manufacturing, the budget is used in order to make the SET Area aware of what resources are at disposal and how they are being used. Ax et al (2009) explain that the budget creates awareness about the organization and enables employees to see the “big picture”. The concept
awareness concerning resources is used in a slightly different way by Manufacturing compared to Ax et al (2009) but is still considered to be applicable.

**Top down and bottom up approaches**

The approach of the budget processes in the organization is more top down than bottom up today, compared to before. In R&D, a combination of the approaches is used, since it is vital that employees in the functions feel committed and that they take responsible for their budgets. According to Ax et al (2009) employees are more likely to feel committed when a bottom up approach is used and employees are involved in the budget process. Drury (2004) claims that top down budgeting can lead to negative attitudes among workers. Although, Drury (2004) states that there have been studies that have showed the opposite, there is therefore conflicting evidence on how top down and bottom up approaches affect the employees and organizations.

**Summary**

In summary, the budgets at AstraZeneca fulfil several purposes stated by Drury (2004), Ax et al (2009), further the objectives agree to Hansen and Van der Stede (2004) as well. Though, not all of the purposes stated by the authors above are fulfilled and the purposes vary among the SET Areas.

**5.2 Concerns about the budget**

**Budget as a fixed contract**

Libby and Lindsay (part 1, 2003) state that when having the budget as a fixed contract, organizations tend to spend the remaining part of the budget in the end of the year, even if not necessary, because functions do not want to receive less money next year. This statement corresponds to the Support SET Area and R&D. Although the budget is not directly linked with rewards for employees in the Support SET Area, employees believe that the money spent the previous year determines the amount of money available next year.

**Performance evaluation**

Drury (2004) states that a main purpose in budgeting is performance evaluation. Libby and Lindsay (part 1, 2003) note that gaming with budget numbers is common when targets are correlated to fixed performance contracts (budgets). The statements are applicable at Commercial Operation and R&D, where the budgets are used for performance evaluation and rewards. In order to receive relative low budget targets next year, R2 (R&D) declares that functions and SET Areas tend to report low numbers in the forecasts for the first three quarters compared with the last quarter. The budget targets and guidelines for the following year are set in September by Corporate. R2 (R&D) does not consider the pattern of how numbers are reported to be an accident.

Cost reduction instructions can be sent from Corporate to the SET Areas in order to achieve the current targets. Actions, such as cancelling and delaying value adding R&D projects can be the outcome, consequences that are harmful for the organization’s strategy in a longer perspective. The findings verify the statement that activities, which are aimed to support long-term strategies, are cancelled in order to meet the annually budget targets (Libby & Lindsay,
part 1, 2003). Focusing on short term targets can be costly in the long run and value-adding activities, in the longer perspective, are not prioritized. The budget can create a gap between short term goals and long term strategies (Hansen et al 2003). The budget is aimed to fulfil several purposes and targets, and these can conflict (Lindvall, 1997, Bogsnes, 2009).

Hansen et al (2003) and Samuelsson (1999) state, that when using the budget for performance evaluation, the conditions and circumstances must be stable in order to be capable to set realistic targets. This corresponds to the Support SET Area, which is supposed to reduce costs and the budget is not used for evaluation of performance. Commercial Operation does not correspond to the literature. In Commercial Operation the conditions are changing and the budget is used for performance evaluation of the employees.

**Time consuming**

The budget process for Manufacturing is too time consuming, especially the process of compiling information that later is reported. Although the time spent on the budget process in Manufacturing has been reduced during the last years, it still takes much time. For Support SET Area the budget is considered too time consuming as well. In Commercial Operation, the strategy plan is supposed to be divided into both functional and individual goals, which demands much time. The findings correspond to Hope & Fraser (2003) and Hansen et al (2003), that accuse the budget for being too time consuming and expensive due to the time spent on budget negotiations.

**Planning and forecasting**

The budget system is accused of being inflexible (Wallander, 1999) and that it prevents organization from adoption to changes (Hansen et al, 2003). AstraZeneca does not fully correspond to the literature. All SET Areas and functions can ask for additional money by making proposals for projects or improvements, so called “Business cases”. If a suggestion is accepted, supplementary resources are added from Corporate. Although it is an embedded strictness and bureaucracy when additional resources are needed, the budgets allow changes if it is necessary and beneficial.

Furthermore, the budget is accused of being unnecessary because it tends to forecast an ongoing trend (Wallander, 1999). The statements are partly applicable at Commercial Operations, who can make less use of the budget compared to before due to the current shifting business environment. Though, in Commercial Operations it is considered possible to foresee a disruption in a trend when a top down approach is used in the budget process. Market variables are analysed at higher levels, while employees at lower levels seem to forecast an ongoing trend.

**Uncertain and competitive environment**

Hope and Fraser (2003) state that today’s environment changes rapidly and therefore the budgets do no longer provide managers with sufficient information. The statement is applicable on the Support SET Area. The role of the budget has changed, and frequently updated forecasts are needed in the Area due to the changing environment. Simultaneously,
for R&D, the conditions do not change that fast and the costs are slightly predictable, since much costs consists of salaries.

Samuelsson (1999) states that when conditions are stable it is possible to plan in advance, but on the contrary, when the environment is fluctuating, it is neither possible nor necessary to make plans. Further, Hansen et al. (2003) explains that centralized decision making correlated to the budget prevents organizations to adapt fast to changing conditions. This does not correspond to Commercial Operation. Although it is harder for Commercial Operation to use the budget for management control purposes because today’s environment is unstable, the patents and lifecycles enable the SET Area to make plans and forecasts. AstraZeneca has historically been a decentralized organization but in later years the organization has become more centralized (R1, Commercial Operation). Commercial Operation considers that centralized decision-making for some operations, e.g. financial planning and support functions, facilitate fast adoptions to changes.

**Summary**

In conclusion, all SET Areas agree that the budget is overly time consuming. In Commercial Operation, time could be reduced by removing the functional level. R&D needs a budget for setting targets, but the forecast would favorable be decoupled from targets since forecasts must be realistic and are aimed to show were the organization is heading. In Support SET Area it would be possible and beneficial not to have a budget. KPI’s and forecasts would be sufficient as management tools. Manufacturing does not need a budget for their own operations, but the SET Area needs to provide product prices for Commercial Operation.

The concerns associated with the budget that are mentioned in the literature review, are experienced at AstraZeneca. Though, all concerns are not represented in all SET Areas.

**5.3 Beyond Budgeting**

The Beyond Budgeting principles are compared to AstraZeneca’s management control system in order to analyse if any of the principles are adopted in the organization. The principles refer to Hope and Fraser (2003).

**Principles**

1. *Set stretch goals aimed at relative improvement*. Principle 1 means that benchmarking is supposed to be the tool for evaluation, when not using a budget. Manufacturing uses benchmarking for setting targets. Support SET Area benchmarks their SET Area towards other firms that operates in the same industry and Commercial Operation benchmarks their cost structure to comparable objects. Though, for Commercial Operation it is hard to find comparable objects since the revenues are fluctuating and their profit margin is, compared to external organizations, high. Consequently, it is hard to make use of benchmarking.

According to principle 1, targets are supposed to be set by using KPI’s and both short and long term targets should be considered. In all SET Areas KPI’s are used to evaluate improvement of performance. In R&D, the scorecard is of great importance and it includes both short and long term plans and goals.
2. Base evaluation and rewards on relative improvement contracts with hindsight. Principle 2 refers that evaluation of performance is supposed be team based rather than individually based. It varies in the SET Areas if performance is team or individually evaluated. In Support SET Area the targets for employees are compared with the latest updated forecast. Workers do not receive a fixed target once a year, rather a realistic and flexible goal that is being updated regularly. Manufacturing has team based targets too, but these are not taken into consideration when rewards are determined. In Commercial Operation, sales representatives have individually and predetermined sales targets. In R&D, whole project teams are evaluated. However the rewards for employees in AstraZeneca are based on individual targets, both financial and non financial, and are not team based.

Further, principle 2 means that targets are not supposed to be determined in advance in order to avoid “game-playing” with numbers. Goals are suggested to be established with hindsight, measured relative with KPI’s and compared internally and externally. In AstraZeneca the sum, that constitutes the total bonus for the workers, is not determined in advance. It is determined with hindsight when the result for the year is presented and consequently the size of bonus is dependent on the whole organization. Otherwise, individual goals are determined in advance.

3. Make action planning a continuous and inclusive process. Principle 3 refers that planning is a continuous process, and not a happening once a year. This does not agree to AstraZeneca, all SET Areas make budgets annually and the budgets are not changed during the year. Although the SET Areas make plans once a year through the budgets, they all make updated forecasts continuously as well.

Further, principle 3 refers that clear guidelines should be determined by corporate or/and managers. The guidelines are supposed to include few details in order to save time and to enable operation teams to decide how to manage their processes best. The statement corresponds to AstraZeneca. All SET Areas receive guidelines from corporate, which mainly include dates and overall formal instructions, but few details. The targets and framework are clearly set, but within the boundaries the accountable for the SET Areas have freedom to decide over their functions. R&D and Manufacturing finance give few instructions to their projects and operation teams about how they are supposed to reach the targets. In Commercial Operation customer relationship, marketing and sales activities are decentralized; employees have authority to make their own decisions concerning these areas.

4. Make resources available as required. According to principle 4, operational managers should have resources available when required. Internal markets within the organization, where resources are available, should be established. Resources are distributed to functions based on how well they achieve their KPI targets. The statement is applicable on AstraZeneca. All SET Areas and functions can make suggestions of improvements, so called “Business cases” during the year and additional money can be distributed.

5. Coordinate cross-company actions according to prevailing customer demand. When not using a budget, communication among departments is important in order to meet customer needs and to determine production volume. The SET Areas at AstraZeneca are independent
and not correlated to each other to a great extent. Hence, in Manufacturing, the production volume and the plans are regularly updated during the year according to the monthly forecasts they receive from Commercial Operation.

6. **Base controls on effective governance and on a range of relative performance indicators.** According to principle 6, forecasts and cash flow reports are aimed to satisfy shareholders information. All SET Areas make forecasts continuously during the year and they report these to Corporate, which agrees with the principle.

R&D finance encourages the managers for the functions and projects to add fewer details in their reports in order to make governance more efficient. For R&D finance, it is vital to understand *how* the projects are going and *why* numbers varies in reports, instead of analyzing every detail. Corporate does not demand detailed reports either.

**Summary**

In conclusion, a majority of the Beyond Budgeting principles are adopted by AstraZeneca. Though, *Coordinate cross-company actions according to prevailing customer demand* and *base evaluation and rewards on relative improvement contracts with hindsight* do not correspond in a significant extent to the way of managing in the organization. Although AstraZeneca is one organization, the management systems do not coincide among the SET Areas.

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<th>Principles</th>
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5.4 **Additional management tools**

**Key performance indicator (KPI)**

According to the Beyond Budgeting concept, an organization can be controlled and performance can be evaluated through key performance indicators. Ax et al (2009) state that KPI’s are aimed to evaluate and reflect the organization’s goals, and to measure efficiency and productivity in organizations. Bergstrand (2003) explains that KPI’s are used to compare
performance of organizations toward others. The arguments correspond with the findings in the case study, KPI’s are used for evaluation of performance in all SET Areas.

In R&D and Support SET Area, KPI’s are of great importance. KPI’s measure productivity and provide more relevant and useful information about performance than the budget does. KPI’s in Manufacturing measure unit costs, productivity and efficiency in the production.

**Scorecard**

Hope and Fraser (2003), explain that the balanced scorecard can be helpful to organizations if it is not combined with fixed contracts (budgets). Further, they state that it can be necessary to have different scorecards for different departments, if employees should feel committed to it. The scorecard is aimed to communicate strategies among departments (Kaplan & Norton, 1996).

Scorecards are used at AstraZeneca, the organization has a common scorecard for all SET Areas (R1, Commercial Operation). In R&D the scorecard is discussed during the review meetings and strategies are communicated to the functions. For R&D the scorecard is beneficial and crucial, because it includes both short and long term strategies. Support SET Area and Manufacturing confirm that they have a scorecard.

**Rolling forecasts**

In order to identify and foresee variations or disruptions in trends, quarterly updated forecasts are supposed to be used according to the Beyond Budgeting concept (Libby & Lindsay, part 2, 2003). Hope and Fraser (2003) state that the information system should be open, and provide faster information, so that negative news can be observed faster. Forecasts do not have to be based on an annual basis (Bergstrand, 2003). This agrees to all SET Areas, they use forecasts and update them either monthly or quarterly.

**Summary**

Additional management tools that according to the Beyond Budgeting concept can facilitate management and replace the budget, are adopted by the organization studied. Though, the tools are used in a combination with budgets. KPI’s and rolling forecast are of significant importance when managing the SET Areas.
6. CONCLUSIONS

In the following part the authors summarize the results of the questions stated in this thesis. Further, the authors share their own observations and conclusions concerning the issue discussed. Last, suggestions for further research are presented.

In the initial part of this thesis the authors stated that the purpose was to:

“(…) examine what the reasons are to why complex organizations use the budget as a management control system and what the concerns with the budget can be. The authors intention is to find out if the Beyond Budgeting phenomenon or any of the Beyond Budgeting principles are being, or have been, implemented.”

In the following part the intention is to fulfil the purpose mentioned above and therefore answer the three questions stated in this dissertation. The results are based on a case study made on one complex organization and the outcome may therefore not be applicable on complex companies in general.

6.1 Results

What purpose does the budget fulfil in a complex organization?

The main purposes with the budget in the complex organization studied are: resource allocation, planning, communication, awareness and performance evaluation, but the purposes vary among the SET Areas. All SET Areas use the budget for allocating resources. In Commercial operation and in R&D the budget is used for planning. Commercial Operation plan their revenues and costs while R&D wants to get an apprehension on how much that is going to be spent in the end of the year. Furthermore the budget is aimed to be used for performance evaluation in Commercial operation and R&D. The main purpose with the budget for Manufacturing is communication. They provide full manufacturing cost information to Commercial Operation. An additional purpose that the budget fulfil for Manufacturing is to create awareness of what resources they have and how they are being used.

What are the concerns with using the budget as a management control system?

Concerns with having the budget as a management control system are experienced in the organization studied. The side effects experienced differ among the SET Areas, although all Areas agree that the budget is too time consuming. In Commercial Operation the strategy is divided into both functional and individual goals, which is time consuming. Manufacturing considers the process of compiling information to be too time consuming.

In Support SET Area the budget is considered to get old fast and that it is not sufficient to fulfil the need of information for decision-making and for planning.

Undesirable behavior is experienced in R&D and Support SET Area when the budget is used for allocating resources and when it is used as a fixed contract. Functions tend to spend the
remaining part of the budget in the end of the year, even if not necessary. Commercial Operation tends to report lower forecasts before the budget targets for the following year are determined, because the SET Area wants to receive lower targets than if they had indicated higher sales. Cost saving instructions, in order to meet annual targets, can result in delays and cancelled R&D projects.

To which extent are the principles of Beyond Budgeting adopted?

The complex organization studied uses budgets in all SET Areas, consequently the budget is not abandoned and the whole Beyond Budgeting concept is not adopted. Although the organization has a budget, the Beyond Budgeting principles of management are implemented in certain extent. Four out of six of the Beyond Budgeting principles, advocated by the founders to the concept, are adopted by the company in a larger extent than the other two.

The principle Set stretch goals aimed at relative improvement, is adopted by the organization studied. In order to evaluate performance, KPI’s are used.

Although the organization makes annual plans through the budget, the SET Areas update the operations with forecasts continuously during the year, which corresponds to, Make action planning a continuous and inclusive process.

Make resources available as required agrees with the organization studied. All SET Areas can make suggestions (so called “Business cases”) of improvements. If a proposal is accepted additional money (outside the budget) from corporate can be received. If the R&D functions can prove progress, supplementary resources can be distributed from R&D finance to the functions.

Base controls on effective governance and on a range of relative performance indicators, KPI’s and forecast are used in all SET Areas in the organization. The forecast are updated regularly and reported to Corporate.

Coordinate cross-company actions according to prevailing costumer demand and base evaluation and rewards on relative improvement contracts with hindsight, do not agree to the organization studied in a significant extent.

In summary, all SET Areas have some features of the Beyond Budgeting concept, although the features vary among them.

6.2 Thoughts and reflections of the authors

In order to sum up this dissertation the authors want to share their own reflections that they have, concerning the observations they have made, during the work process.

Limited information was found concerning which industries or in which organizations the Beyond Budgeting concept would be most appropriate. The founders of the concept, Hope and Fraser (2003), seem to advocate that the concept is suitable for all organizations. Simultaneously they state that there must be common dissatisfactions with the current
management system in order to implement something new and different, such as the Beyond Budgeting concept.

In a complex organization, like the one studied, there are departments that work with completely different operations. The SET Areas could almost be seen as independent firms. The side effects caused by the budget vary among the SET Areas and some Areas state that it would be possible to manage without a budget. However, internal and external benchmarking is a fundamental element of the Beyond Budgeting concept. In Commercial Operation it is severe to use benchmarking because there are few similar, relevant organizations to compare with. Although, benchmarking works for three out of four SET Areas, how is the fourth Area supposed to set targets and be evaluated?

Several scholars advocate that firms need to adapt to the competitive environment. This study has shown that SET Areas in an organization are affected differently and are not having the same needs concerning management. Hence, the issue to discuss might rather be if the way of managing needs to be adapted individually to the departments and not be the same within an organization.

The budget fulfils several purposes. Some of the people interviewed emphasize that the budget is needed; it is e.g. used for evaluation of performance and for distributing resources. Hope and Fraser give the impression that everything associated with the budget is negative and they make a significant difference between budgets and other management tools (e.g. forecasts). The Beyond Budgeting concept explains that the budget prevent the additional tools to fulfil their purposes if they are combined with the budget. Perhaps the budget is aimed to fulfil too many purposes?

Even though the SET Areas agree that the budget is too time consuming and that it is not alone enough as a management control system, the problem does not seem to be just the budget neither the additional management tools that are used. It rather seems to be that they are used in order to fulfil the same purposes and that they are not correctly correlated to each other. All respondents agree that the purposes of the budget and the additional management tool sometimes conflict.

As mentioned, about 100 firms are participants of the organization Beyond Budgeting Round the Table today, which is a vast minority of organizations that exists. Simultaneously, surveys made by Libby and Lindsay indicate that managers agree with the criticism towards the budget, but even so, few organizations are planning to abandon it. This dissertation shows that a majority of the principles that are related to the Beyond Budgeting are adopted and the criticism towards the budget is experienced. The authors of this thesis have considered the empirical findings, where the people being interviewed, do not make an obvious distinction between the budgets and the forecasts. The budget and the additional management tools do not seem to exclude each other, they rather work as complements to each other. The budget is regularly updated with the forecasts. In order to make time savings, facilitate communication and fast adoptions to a changing environment, the authors believe that it would be beneficial to replace the budget with updated forecasts.
Hence, the budget is used for several purposes as discussed in this thesis, but also because of traditional reasons. It has to be taken into consideration that abandoning the budget is a drastic change for an organization and basic values have to be reconsidered. Organisations can be intimidated to go in a completely opposite direction compared to other companies. Perhaps it can be concluded that the Beyond Budgeting concept is not a one-size-fits-all magic formula but rather an outline of a new approach that organisations and managers can utilise in order to adapt control systems to an increasingly high-paced market.

6.3 Suggestions for further research

During the work process new questions have been raised. In order to complement the findings in this thesis the authors have suggestions for further research. An issue interesting to analyse, in order to make generalizations about the management control system, is if the purpose and side effects concerning the budget are the same in other complex organizations. Furthermore, examine if the principles of Beyond Budgeting are adapted to the same extent.

A question that the authors have been considering is if the additional management tools that organizations use, could be enough to replace the budget, in some departments, or in whole complex organizations? Or has the budget a purpose that other management tools cannot fulfil? These are suggestions for subjects that the authors of this thesis find interesting to examine in future dissertations.
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AstraZeneca. www.astrazeneca.com (080410)

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Budget – a perfect management tool?


Respondents

Jansson, Camilla. Business Controller (Support SET Area, Corporate Functions & Central Supply which belong to SET area Operations) 27th April 2010

Adolfsson, Charlotte. Business Controller (Manufacturing/ Sweden Operation) 28th April

Warnholtz, Daniel. Chief Financial Officer (CFO) (Commercial Operation) 26th April 2010

Fischer, Jennie. Director of Business Control and Change Management (Manufacturing/ Sweden Operation) 28th April

Olsson, Rikard. Director of R&D finance business and analyse, strategy and planning (R&D) 27th April 2010
**ATTACHMENT - TABLE OF QUESTIONS**

**Background**
- Do you have a budget in your division?

- If yes: Do you receive a budget or/and budget targets? If yes; from whom do you experience that the budget and the budget targets come from?

- Do you have a time limit to achieve the targets? If yes; how long is the time-plan?

- Are you involved and allowed to have significant influence in the main budget process?

- Do you get any instructions about how to achieve the targets or are you free to make your own decisions? If you get instructions;

- What kind of instructions? For instance; do you get directions about which areas to focus on within the unit? Or to make cost reductions in certain sections?

**Purposes**
- What are the main purposes of the budget?

- Are the purposes communicated to the whole organization?

- What functions does the budget fulfil? (Coordination, motivation, resource allocation, communication to employees, setting targets or anything else) Which of the purposes is most crucial for you? How do you communicate this to the employees?

**Decentralized or centralized**
- Are only managers allowed to make decisions or are the workers allowed to be involved and influence the daily job and changes? How is the decision-making process in your organization? Why are the workers allowed to take so much/so little decisions?

- How is responsibility distributed within your organization? Are there differences between units in your function?

- Do you have a need of controlling your workers? If you have, why? In which parts of your department and why?

- Are you satisfied with the level of responsibility that your workers have? Would you prefer that they were held accountable for less or more?

- For objectives that workers/managers are hold accountable for, do they have authority to make decisions and take actions in order to achieve this targets?

**Additional management tools**
- Do you use any complements to the budget such as Balance score card, rolling forecasts, Key performance indicators?
- If you do, why do you use them, what purposes do they fulfil? Why is it not enough to just have a budget?