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de With, E.; IJskes, E.

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Faculteit der Economische Wetenschappen en Econometrie

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# Serie Research Memoranda

## Current Dutch Budgeting Practice in Dutch Industry

Elbert de With  
Esther Ijskes

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## **CURRENT BUDGETING PRACTICES IN DUTCH INDUSTRY**

Paper presented at the 15th Annual Congress of the European Accounting Association, Madrid 1992

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Elbert de With and Esther Ijskes<sup>1</sup>

### **Abstract**

Budgeting is a well known subject. Most organizations use budgets for the planning and control of their activities. Although a lot has been written about budgeting in the literature, empirical research on this subject is limited. In the winter of 1991 a research project concerning budgeting practices was conducted among Dutch companies. The findings of this survey are presented in this paper. Based on 95 responses the current budgeting practice of large companies in manufacturing, retail/wholesale and transportation industries are described and compared to literature.

The results indicate that Dutch practice is generally conform theoretical insights. Dutch companies use cyclical budgeting. The budgets cover one year and are broken down by months. Budgets function as a tool for planning, communication, coordination, motivation and evaluation. Budgets are based on environmental forecasts and standards. These forecasts are mainly based on managers' opinions. The standards are established through subordinate participation; they are tight but attainable.

Although Dutch practice is generally conform the literature, the study shows some remarkable results. First, only a minority of the respondent uses continuous budgeting, although literature expresses preference for this system. For planning purposes companies use revised forecasts. Second, Dutch companies are long-term oriented, as indicated by the profit-conscious budget style they use for the measurement of management performance. Budget games are not played frequently. Also many companies feel that slack does not exist or is not a problem. These last two points might be related to the same cause: the companies are not short-term oriented, as indicated before.

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<sup>1</sup> The authors welcome any comments or queries. Please send them to: Vrije Universiteit, Faculty of Economics, Department of Accounting, De Boelelaan 1105, 1081 HV Amsterdam.

## **1. Introduction**

Budgeting is an important part of the management control process of a company. Much has been written about this subject, but empirical research is limited. This induced the idea to perform an empirical research project on this subject in the Netherlands. The purpose of the study is two-fold. First, we want to investigate whether Dutch budgeting practice differs from the theory. Another objective of this study is to compare the budgeting practices of Dutch and American companies. The research was conducted in the winter of 1991.

In this paper we will present the findings of the first part of this research project. The budgeting practice in large and medium-sized companies in the Netherlands will be described and compared with theory. No attention will be paid to the comparison with the American budgeting practice. In the first section of the paper a description of the research design is given. Subsequently, the research findings will be presented. The final section contains a summary of the results and conclusions.

## **2. Research design**

The purpose of this paper is to describe the current budgeting practice in Dutch industry and to investigate whether Dutch practice differs from theory or not<sup>2</sup>. We restricted the research to operational budgets. Investment and cash budgets were not taken into consideration. A mail survey was selected as the most efficient way to include a large number of companies in the sample at low costs. However, the use of a mail survey is limited. Only general conclusions can be drawn from the results.

The investigation was conducted among the 200 Dutch companies listed on the Amsterdam Stock Exchange in 1990. This implies that non-profit organizations are not included in the survey. Financial companies, like banks and insurance companies, were excluded from the sample because of their different orientation towards budgeting.

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<sup>2</sup> Many books and articles are written about budgeting. For the theory of this subject we used the standard books, like Horngren and Foster: Cost Accounting, Welsch: Budgeting, and Anthony and Reece: Accounting. See for other books our list of literature.

In the end, the sample contained 153 firms in manufacturing, retail/wholesale and transportation industries. The questionnaire was mailed to the corporate controller of the selected firms, with an accompanying letter. One month after the first mailing a reminder was sent. The response rate was 66.0%. The results of this study are based on the 95 usable answers received, resulting in a usable response rate of 62.1%. See the following figures:

- Number of questionnaires mailed		153 (100.0%)
- Number of returned and completed questionnaires	95 (62.1%)	
- Number of other reactions possible with returning of uncompleted questionnaires	5 (3.3%)	
- No budgeting used	1 (0.6%)	
- Total response		101 (66.0%)
- No reaction		52 (34.0%)

The sales level in 1990 of the companies in the sample varies from \$ 1 million to \$ 100 billion a year, with half of the firms having a sales level of more than \$ 160 million.

### 3. Research results

The answers on the questionnaire of the research are presented in tables. Most of the results are presented in percentages. In some questions the answers are split up in categories and valued, allowing calculation of averages. The valuation is as follows: never = 1, sometimes = 2 and often = 3. Each table contains the number of respondents answering the question in parentheses.

#### 3.1 Budget period

A budget is a plan of action for a unit or activity covering a fixed time span, broken down by subperiods. In literature it is stated that budgets usually cover one year and are usually broken down by months or quarters. In our survey we asked the time span covered by the budget and how this is broken down by subperiods. Table 1 presents the answers of the respondents.

**Table 1 Budget period**

- Annually, broken down by quarters	14.7%
- Annually, broken down by months	69.4%
- Quarterly, broken down by months	0.0%
- Semi-annually, broken down by months	0.0%
- Other:	
- Annually, broken down by four-weekly periods	7.4%
- Annually, by four and five-weekly periods	2.1%
- Annually, broken down otherwise	3.2%
- not broken down by subperiods	3.2%
	<hr/>
	100.0% (95)

The findings show that companies use a budget period covering one year. The annual budget is broken down by months or four- or five-weekly periods by more than three-fourths of the firms. Quarters are less frequently used.

### **3.2 Budget description**

The second question addresses two matters. First, it focuses on the difference between cyclical and continuous budgeting. Drawing up a budget periodically is called cyclical budgeting. Continuous budgeting means that a full-year budget is always available by adding a month or quarter to the budget in the future as the month or quarter just ended is dropped. Theory expresses preference for continuous budgeting for planning purposes, although it is time consuming and more expensive. Second, the question addresses the possibility of revising the budget to changing conditions for planning purposes.

**Table 2 Budget description**

- The budget covers a fixed period and is usually not modified. After the period expires a new budget is made (cyclical budgeting).	66.3%
- The budget covers a fixed period, but can be revised during the budget period.	25.8%
- The budget is supplemented after a month/quarter for the same period of time, so a new budget for the standard period is developed (continuous or rolling budgeting).	5.8%
	<hr/>
	100.0% (95)

The table shows that almost all companies use cyclical budgeting. Usually the budgets are not revised. It is remarkable that only 6% uses continuous budgeting. These results also show that a majority of firms don't adjust budgets to changing environmental conditions. For this reason we asked the companies how they take uncertainty into account. Table 3 contains the answers to this question.

**Table 3 Uncertainty**

- Work out different scenarios which lead to various budgets (contingency budgeting).	38.9% (90)
- Modification of the original budget for the rest of the year.	25.6% (86)
- Set up of a revised forecast with the original budget.	83.3% (90)

The respondents were allowed to choose more than one alternative. Table 3 illustrates that the majority of respondents takes changing conditions into account by formulating revised forecasts. Contingency budgeting is used by almost 40% of the companies. Modification of budgets is the least popular method, although applied by one-quarter of the firms. This result affirms the answers on question 2.

### **3.3 Budget procedures**

The budget manual is an aid in the budgeting process. The literature states that it is wise to describe the budget procedures in the budget manual. Our investigation shows that 63% act according to this idea.

Description of budget procedures in the manual should be updated when the procedures change. In the questionnaire we inquired after recent major changes in budget procedures. The results are presented in table 4.

**Table 4 Changing budget procedures**

- Less than a year ago	37.0%
- One to three years ago	38.3%
- More than three years ago	24.7%
	<hr/>
	100.0% (81)

This table shows that budget procedures were changed relatively recently (less than three years ago) in three-fourths of the firms. It is remarkable that these procedures were modified so recently, while budgeting has been used for such a long time. A possible explanation for this may be found in the changes in organizational structures and the impact of information technology on budgeting.

### 3.4 Functions of budgets

Literature shows consensus on budget functions. The following functions are mentioned: planning, communication, coordination, motivation and evaluation. In our survey we asked to what extent the functions mentioned in table 5 are fulfilled. The results are presented by values.

**Table 5 Functions of budgets**

- Planning	2.7 (94)
- Communication	2.6 (94)
- Coordinating various activities	2.5 (95)
- Motivating managers	2.6 (93)
- Evaluating managers	2.5 (95)
- Compensating managers	1.9 (95)
- Educating and developing managers	1.7 (94)
- Evaluating activities	2.6 (95)

This table shows that budgets are mainly used for planning, communication, coordinating activities, motivation and evaluation of managers and activities. Budgets are less frequently used for compensating and educating managers.

### 3.5 Relationship between budget and long-range plan

Literature states that budgets are based on long-range plans. The budget is a detailed plan for the first year of the long-term plan. Our questionnaire contained a question concerning the relationship between the budget and the long-range plan. An overview of the results is presented in table 6.

**Table 6 Relationship budget and long-range plan**

- No relation	24.2%
- The budget is derived from the long-range plan.	33.7%
- The budget is the same as the first year of the long-range plan.	42.1%
	<hr/>
	100.0% (95)

The majority of the respondents indicate that the budget is based on or equal to the first year of the long-range plan. It is surprising that more than one-fifth of the companies indicate that no relationship exists between the budget and the long-term plan. A possible explanation is that some companies may not have such a plan and only use budgets, because they operate in stable environments.



### **3.6 Forecasts**

In preparing the budget it is necessary to use forecasts about the environment as a starting-point. We inquired after the kind of developments that are included in the forecasts used in the budget-process. In table 7 the answers are presented.

**Table 7 Types of forecasts**

- General economic conditions	83.2% (95)
- Developments of industry	88.4% (95)
- Development of own company	97.8% (92)

From these answers we can conclude that almost all companies use forecasts to prepare the budget. These forecasts serve as a basis for the budget preparation process.

Regarding these forecasts we also asked which sources are being used to produce these forecasts. Table 8 presents the results of this question.

**Table 8 Sources of forecasts**

- Analysis of historical data	2.7 (94)
- Opinions of company managers	2.9 (94)
- Industry analysis	2.4 (94)
- Outside consultants	1.6 (94)
- Economic models	1.5 (93)

The table indicates clearly that managers' opinions are the most popular source for preparing forecasts (2.9 on a scale of 1 up to 3). Analysis of historical data and industry analysis are also frequently used. Outside consultants and economic models are not often used. Thus, budgets reflect strongly the opinions of management.

### **3.7 Standards**

In addition to forecasts concerning environmental factors, standards are used in preparing the budget. The literature expresses a preference for participation of subordinate levels of management in the standard-setting process, based on motivational reasons. The standards are perceived as reasonable if they are established through participation of subordinate levels of management. Table 9 contains an overview of the responses.

**Table 9 Standard-setting**

- Standards are established exclusively by members of higher management without consultation with subordinate levels of management.	3.2%
- Standards are developed by higher levels of management and are presented to subordinate levels of management for their consideration and comment prior to final adoption.	14.9%
- Subordinate levels of management are requested to submit standards relating to their particular function for review and final approval by higher levels of management.	76.6%
- Combination of 2 and 3	5.3%
	<hr/>
	100.0% (94)

The survey shows that in most cases the standards are developed by lower level management and are reviewed and approved by higher levels of management. Only in a few number of cases the standards are established by top-management. Generally, a bottom-up process is being used to establish the standards.

We also asked whose opinions usually turn the scales in case of disagreement about the standards. Our investigation shows that in 83.9% of the cases disagreements are settled by top-management. The opinions of lower level management are decisive in 12.9% of the cases and the other 3.2% are solved in cooperation.

Finally, we asked for the attainability of these standards. Since the tightness of standards may influence the extent to which employees are motivated, this factor must be carefully considered in establishing standards. Literature states that standards that are tight but attainable are preferred because of motivational reasons. Table 10 gives an overview of the answers on this question.

**Table 10 Attainability of standards**

- Relatively easy	0.0%
- Attainable under normal circumstances	36.2%
- Tight but attainable	54.8%
- Attainable with much effort	9.0%
- Perfect/ideal standards	0.0%
	<hr/>
	100.0% (94)

As this table indicates a majority of the enterprises use standards that are tight but attainable. This is in accordance with literature. About one-third of the companies use standards that employees most probably can fulfil.

### 3.8 Performance measurement

Periodically the performance of responsibility centers is measured. We asked in the questionnaire to what extent the performance of the organizational subunits is judged on quantitative and qualitative measurements. The answers are shown in table 11.

Table 11 Performance measurement of organizational subunits

- Focus primarily on quantitative data; focus on qualitative data is marginal.	13.7%
- Focus on both quantitative and qualitative data, more importance is given to quantitative data.	45.2%
- Focus almost equally on quantitative and qualitative data.	30.5%
- Focus on both quantitative and qualitative data, more importance is given to qualitative data.	7.4%
- Focus primarily on qualitative data; focus on quantitative data is marginal.	3.2%
	<hr/>
	100.0% (95)

It appears that the majority of the companies emphasize the quantitative measurements. Well over 30% of the enterprises pay equal attention to quantitative and qualitative measurements.

We devoted a question to the reaction of top-management to significant deviations from the budget. In the literature a meeting with the supervising manager is presented as the most important reaction to significant deviations. At this meeting a written or oral explanation for the deviations is required which has to give insight in the corrective actions taken. The results of this question are given in table 12.

Table 12 Reaction to significant deviations

- Oral explanation of the causes of the variances	25.3% (95)
- Written explanation of the causes of such variances	34.7% (95)
- Asking insight in corrective actions taken	50.5% (95)
- A discussion of the deviation with the immediate supervisor	52.6% (95)
- Immediate reaction to a budget variance is not a rule.	5.3% (95)

The respondents were allowed to choose more than one answer. The table indicates that in most of the cases management wants an oral or written explanation of the significant budget variances. In half of the cases management wants to acquire insight in the corrective actions taken.

### 3.9 Budget style

Within the measurement of management performance three budget styles are distinguished<sup>3</sup>. The 'budget-constrained style' is focused on accounting measures; a manager's performance is evaluated on basis of the ability to meet the short-term budget. The 'profit-conscious style' of budgeting is aimed at improving the general effectiveness of the unit's operations; budgetary information is used in evaluation, often supplemented with other information. In the 'non-accounting style' budgetary data play a minor role, while non-financial information is important in the managerial evaluation. Table 13 gives an overview of the budget styles companies use to evaluate their managers.

Table 13 Budget style

- We pay special attention to the degree to which the responsible manager meets the budget, without considering other things (long-range aspects, causes).	16.7%
- We pay special attention to the degree to which the responsible manager realizes the long-range goals of the enterprise. Budget overruns are evaluated.	81.1%
- We pay special attention to the degree to which the responsible manager realizes the long-range goals of the enterprise. Budget overruns will not be evaluated.	2.2%
	<hr/> 100.0% (93)

It appears that in most cases performance measurement is evaluated against long-term goals. This is the 'profit conscious style' of budgeting. We see that Dutch companies are long-term oriented.

### 3.10 Alternative budgeting techniques

Discretionary expense budgets are usually established by incremental budgeting. The literature has developed alternative budgeting techniques to control discretionary costs, such as zero base budgeting, overhead value analysis and core task budgeting. In practice the equal reduction method is also used. In our survey we asked if one of the four methods mentioned were used during the last three years. More than one answer was possible. The results are presented in two tables. The first table indicates if companies used one or more of the alternative budgeting methods. The second table shows how frequently the methods are used.

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<sup>3</sup> Hopwood (1973), p 19.

**Table 14a Frequency of use of alternative budgeting techniques**

- Not one of the methods is used.	34.7%
- One method is used.	42.1%
- Two methods are used.	16.8%
- Three methods are used.	5.3%
- Four methods are used.	1.1%
	<hr/>
	100.0% (95)

**Table 14b Alternative budgeting techniques used**

- Zero Base budgeting	24.2% (95)
- Overhead value analysis	20.0% (95)
- Core task budgeting	22.1% (95)
- Equal reduction method	25.3% (95)
- Other	4.2% (95)

Table 14a indicates that one-third of the companies did not use an alternative budgeting technique in the past three years. Two-thirds of the firms used one or more alternative methods. Table 14b suggests that all techniques mentioned in the questionnaire are used with almost equal frequency. It is surprising that the equal reduction method is used most frequently, because it is an arbitrary method to control costs and it is not explicitly mentioned in the literature.

### 3.11 Slack

In many cases evaluation of performance is measured against budgets. To improve the measurement of performance managers try to create slack in the budget. Slack involves consumption of resources in excess of what is required. Participation in the budgeting process provides subordinate management a good opportunity to influence budgets. According to the answers of the respondents the participation of subordinate levels of management in the budgeting process has different effects on the perceived existence of slack. The results are summarized in table 15.

**Table 15 Perceived effect of participation on slack**

- Participation creates more slack in the budget.	28.6%
- No influence	30.9%
- Participation creates less slack in the budget.	40.5%
	<hr/>
	100.0% (84)

Table 15 suggests that more than one-fourth of the company controllers think more slack will result from participation of subordinate levels of management. About 40% believe that the amount of slack will decrease as a result of participation, while almost one-third thinks it will not be affected by participation. One should keep in mind that the questionnaire is answered by company controllers. It is possible that subordinate management would indicate a more frequent occurrence of slack.

In addition we also asked which measures the firms take to avoid budgetary slack. Table 16 contains the answers to this question.

**Table 16 Measures against slack**

- Premiums in case of not using the budget completely	2.1%
- Keep savings one or more years	13.7%
- Other:	
- other measures	28.4%
- not applied/not answered	55.8%
	<hr/>
	100.0% (95)

Many companies did not answer this question or did not mention the use of any measures against slack. This confirms that slack is not perceived as a problem or does not exist at all. The firms indicating the use of other measures against slack report a wide variety of measures.

### *3.12 Budget games*

Managers of responsibility centers whose performances are measured against the budgets try to perform as well as possible compared to the budget. For this reason many budget games are described in the literature. Budget games influence the appearance of the performance without improving the performance itself. In table 17 the results of our survey concerning this matter are expressed by values.

**Table 17 Budget games**

- Shifting funds between accounts to avoid budget over-	
runs.	1.85 (91)
- Drawing up the budget at the end of the year.	1.47 (89)
- Get required approvals after money is spent in order	
to speed up the process.	1.16 (91)
- Leading and lagging of revenues and costs to meet the	
budget.	1.73 (90)

This table shows that budget games are played but not to a great extent. It is possible that this is related to the profit-conscious style of budgeting (performance is measured against long term objectives, with less importance attached to short-term budget variances). The most popular budget game is shifting funds between accounts.

#### **4. Summary and conclusions**

In this paper we presented the results of an empirical research project on current budgeting practices in Dutch industry. An important question is whether Dutch budgeting practice deviates from theory.

Our investigation indicates that the "average" budgeting practice of Dutch industry is as follows:

- The budget covers one year, broken down by months.
- Budgets are set up by cyclical budgeting. Continuous budgeting is rarely used.
- Budgets are usually not modified. Companies take uncertainty into account by using revised forecasts.
- Budget procedures are described in the budget manual. The budget procedures are changed recently.
- Budgets are aimed at planning, communication, coordination, motivation and evaluation.
- Budgets are related to the long-term plan.
- Forecasts of environmental developments are used in the budgeting preparation. These forecasts are mainly based on managers' opinions.
- In the budgeting process standards are used. These standards are developed through participation of subordinate levels of management. The standards are tight but attainable.
- The performance measurement is mainly based on quantitative data. Significant deviations lead to an explanation of the responsible manager and the provision of information about the corrective actions taken.
- The measurement of management performance is focused on long-term goals (profit conscious style).
- Alternative budgeting techniques to control discretionary costs are applied regularly.
- Slack in budgets is thought to be absent or is not perceived as a major problem.
- Managers are not involved in budget games to a great extent.

The conclusion of our research is that budgeting practices in Dutch industry generally are conform the theoretical insights expressed in literature. However, the study also shows some remarkable results.

First, a small minority of firms uses continuous budgeting, while this is preferred for planning purposes above cyclical budgeting. From the planning point of view it is also remarkable that only one quarter of the firms modify budgets to changing conditions. Our research shows that for planning purposes Dutch companies use revised forecasts.

Second, in evaluating performance Dutch companies use the 'profit conscious style'. This means they stress the realization of long-term goals. The results show that quantitative data are the most important factor in performance evaluation, but almost all firms also pay attention to qualitative data. The finding that budget games are not played to a great extent and the finding that slack is not a problem, affirms the long-term orientation.



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