

Is the annual budget really dead?

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ABSTRACT

In recent years the traditional, annual budget has been accused of being incapable of meeting the demands of the competitive environment in the information age. Seeing that some of the most ardent critics are management consultants, with a vested interest in trying to persuade companies to change their management models, part of the criticism may perhaps be classified as hyperbole. Be this as it may, the criticism has resulted in more than just talk. Some real action can also be observed – especially in Sweden, where several large companies have abandoned the traditional budget altogether. To date, academic researchers have shown very little interest in this phenomenon. The present study aims to investigate the validity of the criticism as perceived by chief financial officers and other high-ranking officers in large Finnish companies. The results of a postal survey indicate that relatively few companies are planning to abandon the annual budget completely. Even so, a considerable number of respondents who represent companies that intend to hold on to the annual budget indicate strong agreement with the main elements of the criticism. Comments made by several respondents also indicate that alternative, or rather, complementary, systems, such as rolling forecasts and monitoring systems similar to the Balanced Scorecard already exist, running parallel with the annual budget. Apparently, the latter still has a role to play as a means of maintaining internal effectiveness and communicating information to shareholders and other interested parties.

INTRODUCTION

In recent years the traditional, annual budget has been the subject of much adverse criticism, the core of which seems to be that the budget is seen as being incapable of meeting the demands of the competitive environment in the information age (Hope and Fraser, 1999a). Using eye-catching titles, such as ‘Is it time to replace traditional budgeting?’ (Schmidt, 1992), ‘Out with the old, in with the new’ (Newing, 1994a), ‘The budget – an unnecessary evil’ (Wallander, 1994, 1999), ‘Bye bye budget . . . the annual budget is dead’ (Gurton, 1999), and ‘Take it away’ (Hope and Fraser, 1999b), some critics seem to be actively waging a campaign against the traditional budget. This may be understandable seeing that

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some of the most active critics are management consultants, with a vested interest in trying to persuade companies to change their management models. Is this the only possible explanation? Should the criticism be dismissed as easily as Horngren *et al.* (1997: 194) do when they contend that it is often a question of exaggeration of 'current worst practices'. Be this as it may, it deserves to be noted that the critics have received powerful backing by the Consortium for Advanced Manufacturing – International (CAM-I), and that the criticism has resulted in more than just talk (Newing, 1994b; Hope and Fraser, 1999c). According to Hope and Fraser (1999a: 17), a number of big European and American companies have dismantled the budget or are about to do so. In this respect some well-known Swedish companies have taken the lead (e.g., Handelsbanken, Volvo, IKEA, Ericsson). Reference can be made to Sieradzki (1995) as well as Hope and Fraser (1999c) for a description of the case of Volvo.

Although budgeting still is a very popular subject for academic research, very few academic researchers have publicly addressed the criticism emanating from practitioners and management consultants. Two Swedish studies can be mentioned: Glader *et al.* (1996) and Gafvelin and Kamola (1996). Nevertheless, considering the fact that several world-class companies have abandoned annual budgeting, it is high time the academic community paid more attention to the criticism.

The purpose of the present study is to make an attempt to investigate the validity of the criticism levelled at the traditional budget by confronting chief financial officers (CFOs) and highly placed controllers in big companies with some of the most central tenets of this criticism. Since the literature on this subject is rather limited, we will, in an exploratory fashion, advance research questions rather than hypotheses.

THE CRITICISM FROM A THEORETICAL PERSPECTIVE

According to the critics, the annual budget suffers from many ailments. The adjectives 'inefficient, ineffective and incomprehensible' used by Arterian (1998) seem to provide a good picture of what many critics feel about the budget. According to Hope and Fraser (1997: 20), the functionally-based budget was a useful management accounting model, with its focus on command, hierarchy and control, during the industrial age (the second wave). Now, however, it has become incapable of meeting the challenges of the information age (also known as the third wave; see Hope and Hope (1997) for a discussion of what this entails for the firm's competitiveness). They claim that a process-based management model is called for instead, which, among other things, means devolving power (empowerment) to the front-line people so that they can cope with the new competitive climate, with innovation, service, speed, quality, knowledge-sharing and meeting the needs of the customers as crucial factors. Citing compelling statistics indicating that intellectual capital or knowledge now stands for an overwhelmingly dominant part of the market capitalization of many big multinational

firms – occasioned partly by the current trend of share buy-backs – Hope and Fraser make a strong case for dismantling the annual budget and replacing it with a system focusing on strategic performance, value-adding processes and knowledge management.

A closer look at how different critics view the annual budget reveals that they see it as encouraging rigid planning and incremental thinking (Hope and Fraser, 1999a: 19; Schmidt, 1992: 103); as being time-consuming (Schmidt, 1992: 103); as being unable to reflect changes in the company's organization and processes (Schmidt, 1992: 103); as producing inadequate variance reports leaving 'how' and 'why' questions unanswered (Hope and Fraser, 1997: 23); as ignoring key drivers of shareholder value by focusing too much attention on short-term financial numbers; as creating a culture that is risk-averse leading to a false sense of security (Hope and Fraser, 1997: 21); as being a yearly, rigid ritual; as being the accounting departments' toy; as being unable to signal changes in the competitive environment (Vuorinen, 1998); and as tying the company to a twelve-month commitment, which is risky since it is based on uncertain forecasts. The consequence of such a commitment could also be that the budget risks being viewed as a constraint and a barrier to competitiveness (Hope and Fraser, 1997: 22; Gurton, 1999: 60). This litany could be extended by adding the well-known suspicion that budgeting leads to thinking in terms of appropriations: allotted cost budget amounts are spent in full, otherwise next year's amount might be reduced. The catalogue of complaints could be made longer, but this may suffice as a résumé of the main points. The sum total of the criticism levelled at the annual budget seems to be that what is needed is more anticipation, monitoring and empowerment, and less rigid planning and control.

Rolling forecasts, produced on a monthly or quarterly basis, are suggested as the main alternative to the annual budget (Arterian, 1998; Hope and Fraser, 1999a: 20). Focusing on a key set of business drivers (the balanced scorecard), and coupled with an exception-based monitoring and benchmarking system, with a capacity for answering 'why' questions, rolling forecasts or budgets are expected to live up to the promise of increasing shareholder value in the information age. As such the rolling forecast or budget is not a new concept; many companies use such a budget alongside the annual twelve-month budget. The main advantages of the rolling forecast are obvious: it does not have the same mandatory and stifling image about it as the annual budget; it is flexible; and it does not rely on obsolete figures, which should lead to more timely allocation of resources (Gurton, 1999: 60). The drawbacks are said to be that the rolling forecasts can introduce a feeling of uncertainty among managers due to its being changed constantly. This may also make it difficult to design a fair system for determining bonus remuneration (Gurton, 1999: 60).

Against the background of the emerging criticism of the annual budget, and assuming that the main objective of a management system, such as the budget, is to make a contribution towards creating value for shareholders, we shall now briefly discuss the role of the budget from a theoretical perspective. According to

Ohlson's residual earnings model (Ohlson, 1995; cf. Lee, 1999), the value of the company is equal to the asset (net) value of the company plus the present value of the capability for a return on equity exceeding the required rate of return with regard to company-specific, systematic risk. The book value of a company can be seen as the equilibrium value of the utilities of the company; that is, the present value of the net return companies in general can earn on those utilities. This value is of interest with regard to maintaining the resources that the shareholders have put into the company. The interesting part for shareholders is the second part of Ohlson's formula; that is, the present value of a company's expected capacity to earn returns exceeding the required rate of return. This concept, also known as 'market value-added', is an expression of the present value of those market imperfections that the company can be expected to exploit in the future. Inefficient production factor/product markets is a prerequisite of market value-added. Otherwise the value of the assets (on the market) would immediately be adjusted until it would no longer be possible to receive any residual income. This is directly analogous to the capital market theory's efficient market concept, within the framework of which Fama (1970) packaged the studies published in the 1960s on the reaction of share prices to new information. If the market is efficient, the prices of the utilities (shares) will immediately adjust to all new information until the expected rate of return equals the required rate of return.

Market inefficiencies can be divided into three types which correspond – from a company's point of view – to three types of effectiveness (Ekholm, 1984). First, a company may be able to develop and possibly maintain a superior internal effectiveness. Second, the company may be successful in developing a superior external effectiveness in relation to its customers and/or suppliers. This means that the company is more successful than its competitors in providing net benefits to customers and suppliers. Third, the production factor/product market may itself be in a state of imbalance. This type of inefficiency seems to occur most frequently when new technology gains ground; that is, when the growth in demand exceeds the growth in supply for an extended period of time. Examples are the introduction of electronic calculators at the beginning of the 1970s, the introduction of personal computers at the beginning of the 1980s and the introduction of mobile telephones during the 1990s.

In his book *Competitive Strategy* Michael E. Porter (1985) introduced the concept 'generic strategies' – cost leadership (internal effectiveness), differentiation and focus (external effectiveness) – to represent the alternative strategic positions occurring in an industry. Porter seems to have revised his view on these basic concepts to some extent in an article published in *Harvard Business Review* in 1996. In this article he maintains that operational effectiveness is necessary but not sufficient, and that the endeavour to achieve superior operational effectiveness cannot be included in the strategy concept (Porter, 1996: 62): 'Operational effectiveness (OE) means performing similar activities better than rivals perform them. . . . In contrast, strategic positioning means performing different activities from rivals' or performing similar activities in different ways.'

Porter points out that it was the Japanese who triggered a global revolution in operational effectiveness in the 1970s and 1980s, pioneering such concepts as total quality management and continuous improvement, the result of which was that Japanese manufacturers enjoyed substantial cost and quality advantages for many years. Today, however, markets have become much more efficient in terms of operational effectiveness thanks to the rapid diffusion of best practices. Porter (1996: 63) puts this as follows: 'Competitors can quickly imitate management techniques, input improvements, and superior ways of meeting customers' needs.'

The gist of Porter's article is that it is necessary for each company to maintain its position on the efficient productivity frontier, but this is not enough. Seen from the residual earnings-based valuation perspective of Ohlson, this means that continual efforts focused on internal effectiveness can only result in maintaining a company's net asset value, but not in producing any value-added. This shift in thought concerning the fundamentals of generic strategies has taken place during the same time period as the criticism of the traditional, annual budget has emerged.

Thus, the situation seems to be dualistic. One could argue that, on the one hand, traditional budgeting is needed as a tool for maintaining internal effectiveness, which in the long run only results in maintaining the company's equilibrium value. On the other hand, traditional budgeting seems to fall short in its ability to aid in value creation based on superior external effectiveness. As the evolution of market efficiency, especially during the 1990s, has led to a situation in which strategies based on superior internal effectiveness no longer systematically result in value-added, the budget has apparently lost its active strategic role. What remains is the role it has as an instrument for maintaining internal effectiveness, and a position of status quo with regard to the company's asset value.

VARIABLES AND RESEARCH QUESTIONS

The gist of the above discussion is that the criticism of the annual budget has grown gradually during the last decade or so, a phenomenon that seems to coincide with the growing effectiveness of the product markets. This means that superior operational (internal) effectiveness can no longer be expected to serve as a strategic instrument. Nevertheless, a prerequisite of survival is that a company should continuously endeavour to maintain its competitive edge in terms of operational effectiveness, otherwise it risks losing the competitive edge it can achieve through external effectiveness on the product markets.

Since the annual budget – via its controlling and co-ordinating function – can be expected to primarily serve as an instrument that helps a company achieve internal effectiveness but not to any large extent external effectiveness, it is understandable that some companies have actively begun to search for alternative management models. At the same time a certain degree of conservatism – expressed as unwillingness to abandon the annual budget completely – can be expected. The two Swedish surveys mentioned in the introduction, Gafvelin and Kamola (1996) – presented and commented on by Lindvall (1997) – as well as

Glader *et al.* (1996), support this expectation. The latter survey, which is larger in scope than the first one, showed that as many as 89% of the firms included in a sample of Swedish listed companies use budgets. However, a relatively large number, 40%, indicated that changes to the budgeting process are under way, the main change being that rolling forecasts will play a bigger role in the future.

Against this background the study focuses on one grouping variable, the present status of the annual budget within the responding companies, and four categories of test variables. The grouping variable initially comprises five groups of responding companies: companies that show a high degree of conservatism by stating (1) that they do not intend to abandon the budget, or (2) that they do not intend to abandon the budget, but that they intend to improve it as the need arises, or companies that show a low degree of conservatism, or a high degree of radicalism, by stating (3) that they are thinking about abandoning the budget, (4) are in the process of abandoning it, or (5) have already done so. Using the groups as separate items on a nominal scale results in a five-point scale. Given that the criticism of the budget is a relatively new phenomenon, it can be expected that the responses to the first two items to a considerable extent outnumber the responses to the last three items. In order to facilitate statistical analysis the grouping variable will therefore be compressed into two groups, group A comprising subgroups 1 and 2, and group B comprising subgroups 3, 4 and 5. The two main groups of companies will be referred to as conservative companies and radical companies, respectively. These labels are used for reasons of convenience to represent differences in the status of the annual budget occurring in the responding companies.

In order to get a better picture of the potentially changing situation concerning the status of the annual budget we selected the following four categories of test variables: (1) financial company characteristics; (2) alternative uses of the annual budget or the management model that has replaced it; (3) negative budget characteristics; that is, disadvantages pertaining to the budget itself; and (4) assertions concerning the rolling forecast, the main alternative to the annual budget, as suggested by many critics. The aims of the empirical study are (1) to find out the frequency of occurrence of separate items for each variable and (2) to look for potential relationships between the test variables and the grouping variable. In order to achieve these aims five research questions will be formulated.

Research question 1 addresses the status of the annual budget at present as signalled by the frequency of responses to each item (subgroup) on the scale. It can be expected that there is considerable resistance to change among the responding companies. This is based on the fact that resistance to change often occurs when a new management accounting method is considered for introduction into a company (Argyris and Kaplan, 1994). This expectation is also founded on the fact that the annual budget has had a strong position within big Finnish companies for a long time (cf. Kyläkoski, 1990). Moreover, there has not been any debate to speak of within the country about dismantling the budget, suggesting that there is no perceived need for radical change.

Research question 2 focuses on the potential relationship between the degree of conservatism (conservative companies versus radical companies) and the financial conditions of the company. As financial characteristics we selected turnover growth, capital intensity, capital structure, return on investment (ROI) and the difference between ROI and WACC, the weighted average cost of capital. The values of these, except turnover growth, were divided into several groups (six to eight) depending on the characteristic. In addition, industry was included as a potential explanatory variable.

Intuitively it can be expected that those companies for which abandonment of the annual budget is a thinkable alternative would tend to be highly profitable and financially secure. Here a parallel can be drawn to the use of other management accounting instruments, such as capital budgeting techniques. Studies have shown that rapid growth and, alternatively, high profitability, often seem to be correlated with infrequent use of theoretically correct methods (net present value and internal rate of return), whereas more slowly growing and less profitable companies tend to use the latter methods more frequently (Ekholm, 1983). The implicit logic behind this phenomenon could be that when companies are exploiting an apparent state of market imbalance, there is not the same perceived need for calculation as in a state of market balance – calculation itself does not create any value-added. An interpretation of this would be that if the company feels secure in terms of profitability, more attention will be paid to expansion and less to planning, monitoring and control. The same reasoning is possibly applicable to the case of the annual budget.

Research question 3 is concerned with uses of the annual budget or the alternative system employed by the respondent company. The traditional budget has been criticized for being too much focused on planning and control and too little on serving as an information base for the employees of the company. The latter use will be referred to as empowerment. Responses to other potential uses, such as allocation of funds, co-ordinating operations, internal communication, implementation of strategies and motivation of employees, will also be solicited.

Research question 3 is divided into two sub-questions. The first one addresses the issue whether there is a difference between companies that hold on to the annual budget and companies that are at least thinking about getting rid of it in terms of importance ratings of the various uses of the budget or its replacement. Here the expectation is that the latter group of companies would rate empowerment and strategy implementation as more important than the former group. A sub-question that will also be investigated is whether respondents who represent conservative companies indicate extensive usage of other budget purposes than respondents representing radical companies.

Research question 4 is concerned with the extent to which respondents agree or disagree with some of the most central claims the critics have made. Among other things, it is of interest to investigate whether there is a relationship between agreement with the criticism and the degree of conservatism. This will be referred to as research question 4a, with the expected answer being that radical companies

will tend to agree with the criticism to a larger extent than conservative companies. This may seem rather trivial, but it is nevertheless important to find out which of the different critical claims are seen as most relevant. Research question 4b is: to what extent do respondents who represent conservative companies strongly agree with the criticism levelled at the annual budget? This may provide a picture of the willingness of conservative companies to change steering mechanisms in the future.

Research question 5 concerns attitudes towards the rolling forecast. The first sub-question is concerned with the potential relationship between degree of conservatism and attitudes towards the rolling forecast. In keeping with the case of agreements with the criticism, radical companies are expected to have a more favourable attitude than conservative companies to the rolling forecast, seeing that this is viewed as the main remedy against the annual budgets' purported ailments. The second sub-question concerns the extent to which respondents representing conservative companies strongly agree with assertions about the rolling forecast.

DATA COLLECTION

A postal survey questionnaire including 33 questions, with judgements and attitudes measured on five-point Likert scales, was sent to 650 Finnish companies with a turnover of more than FIM100 million (16.7 million euros). The population of companies that meet this criterion consists of close to 1,300 entities, including some world-class companies such as Nokia (mobile telephones), UPM-Kymmene (paper and pulp), Stora Enso (paper and pulp) and Wärtsilä NSD (diesel engines for power plants and ships). Thus approximately 50% of the population received the questionnaire.

A letter accompanying the questionnaire indicated that this was meant to be completed by chief financial officers. Replies were mostly received from this group (56.5%), but other important categories, such as managing directors (14.9%), business controllers (10.1%), heads of administration (6%) and heads of the accounting department (4.8%) were also represented. Those not mentioned here were also top-level people such as assistant managing directors, etc. A total of 168 completed questionnaires were returned between 3 May and 18 June 1999 – a response rate of 25.8%. Even if the questionnaire was returned, all questions were not always answered, which means that the response rate varies from question to question.

FINDINGS

The status of the annual budget at present

Before confronting the respondents with critical assertions about the annual budget we wanted to know the status of the annual budget as expressed by

responses to five items on a nominal scale (research question 1). The results for each item on the scale are shown in Figure 1. If responding companies are divided into two main groups based on two levels of conservatism, conservative and radical, respectively, the former group comprising those who circled items 1 and 2 on the scale, and the latter group comprising those who circled items 3, 4 and 5 on the scale, the result is that 144 responding companies belong to the conservative group, whereas 24 responding companies belong to the radical group.

It can be seen from Figure 1 that 85.7% of the responding companies (the conservative group) intend to hold on to the annual budget either unchanged or adjusted to meet new demands. The rest (14.3%) of the responding companies (the radical group) consider getting rid of the budget; are in the process of getting rid of it; or have already got rid of it. The last subgroup comprises 10 companies (6%). The conclusion is that there seems to be a considerable resistance to radical change, the case being either that there is no need for change, or that the annual budget is perceived to be so important that it cannot be abandoned altogether. This was also reflected in the responses to a separate item occurring in the questionnaire: 'Without the annual budget no targets can be set for people and no control, nor evaluation, of performance is possible'. Points 4 and 5 on a five-point scale, with point 5 representing 'agree completely', were circled by 36% of

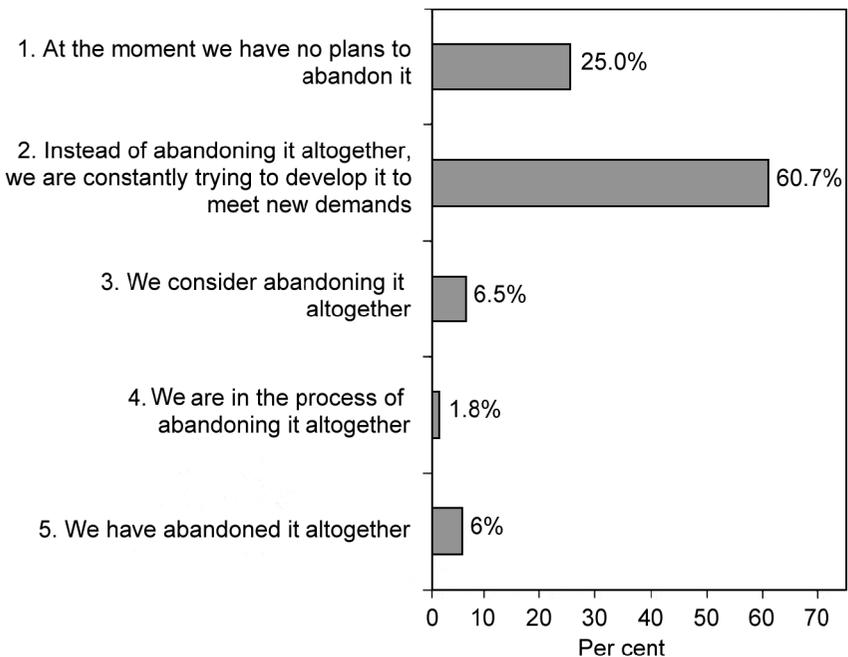


Figure 1 The status of the annual budget at present ($n = 168$)

respondents from conservative companies and only 4% of respondents from radical companies. Moreover, a Mann–Whitney *U*-test indicates a significant difference between the two groups in terms of overall responses to this question.

Comments to the effect that many companies see no reason for replacing the annual budget could be found on some of the returned questionnaires. Here are two typical comments:

A correctly implemented budgeting process provides a good framework for the operations of a traditional manufacturing company. The situation may be different in the electronics industry where growth is very rapid. If the organization has confidence in the planning process, the system is good, regardless of whether it is called budget, Malcolm Baldrige, Balanced Scorecard, etc.

The annual budget fills a real need. It works well, and it also takes the demands of tomorrow into account. This applies to processes as well as projects.

These attitudes notwithstanding, the need for gradual improvement of the annual budget seems to be clearly acknowledged: 60.7% of all respondents state that although they do not plan to abandon the annual budget completely, they are continuously trying to improve it to meet new demands. This is in line with the central tenet propounded in the theoretical discussion.

Respondents representing radical companies, a group displaying a higher proneness to change than conservative companies, were asked why they have decided to abandon or consider abandoning the budget, and what they use or plan to use instead. The following written comments made by two respondents indicate that rolling forecasts have replaced the annual budget:

The annual budget demanded much work, and it was felt that its benefits did not exceed its costs. Instead we use rolling forecasts. And a change index is computed continuously.

Instead we use a system constantly kept up-to-date that makes it possible to monitor single activities and products.

It seems that rolling forecasts also are used by conservative companies alongside the annual budget. The following comment bears this out:

In addition to the annual budget we continuously produce a latest estimate on a quarterly basis, or on a shorter-term basis, if the need for this arises.

It could also be observed that the balanced scorecard is gaining ground as an essential part of the budgeting and strategic planning process:

We have chosen a solution according to which a balanced scorecard is made part of the budgeting and strategic planning process. For six key measures we set targets for the next budget year and the next five-year period. These are followed up for 5 to 10 years. Thus the budget and the strategy are brought together within the framework of the yearly measurement of performance.

As a point of interest, it can be mentioned here that in another recent survey we found that 75 out of 142 respondents (52.8%) representing firms that belong to the 500 largest companies in Finland indicate that the balanced scorecard has

been in use for at least one year and that its usefulness is rated as average or better than average. (Ekholm and Wallin, 2000).

The status of the annual budget versus financial company characteristics

Research question 2 is: is there a difference between conservative and radical companies in terms of financial characteristics? Cross-tabulation showed that the observations per item on the status (degree of conservatism) scale were relatively evenly spread among the classes of the financial company characteristics, indicating a negative answer to the research question. The Mann–Whitney test for two independent samples was also used to determine if test variable values were statistically different for the two groups of companies. No clear-cut indication of a statistically significant difference was found; the significance levels (*p*-values) for all financial characteristics exceed 0.05, suggesting that the statistical null hypothesis of equality between the two groups of companies cannot be rejected. This contradicts the expectation stated earlier in connection with the formulation of research question 2 that proneness to abandon the budget would be associated with higher profitability and a more solid financial position. Contrary to what was expected, the means of all financial characteristics were found to be higher in absolute terms for conservative companies. The single biggest difference could be observed for turnover growth, with a negative mean percentage for radical companies, suggesting possibly that the traditional budget is seen as a scapegoat, or a burden, that must be removed before financial performance can be improved.

It could also be observed that six out of ten companies which responded to a question about industry in the returned questionnaire, and which reported having completely abandoned the annual budget, were non-manufacturing companies belonging to the public utility and wholesale trade industries.

The status of the annual budget versus different purposes of the annual budget or its alternative

As noted earlier in the theoretical framework, the annual budget has been accused of being focused too much on control and too little on empowerment and implementation of strategies. Then the interesting question is: is empowerment and implementation of strategies more important than the traditional budget purposes planning and control? Research question 3 is divided into two parts: (a) is there a difference between conservative and radical companies in terms of usage of the annual budget, or its alternative, for different purposes; and (b) do conservative companies indicate extensive usage of the annual budget, or its alternative, for other purposes than radical companies? The label ‘extensive’ was selected as representative of points 4 and 5 on five-point Likert scales, with point 5 signifying ‘agree completely’.

Table 1 Mean ratings and Mann–Whitney significance levels (*p*-values) for purposes of the annual budget or its alternative

<i>Purpose of the annual budget or its alternative</i>	<i>Mean ratings</i>		<i>Mann–Whitney p-values</i>
	<i>Conservative companies</i>	<i>Radical companies</i>	
a. Planning	3.86 (<i>n</i> = 144)	3.52 (<i>n</i> = 21)	0.210
b. Control and evaluation	4.16 (<i>n</i> = 144)	4.00 (<i>n</i> = 21)	0.917
c. Implementing strategies	3.31 (<i>n</i> = 140)	3.05 (<i>n</i> = 21)	0.376
d. Empowerment	3.62 (<i>n</i> = 143)	3.29 (<i>n</i> = 21)	0.178
e. Motivating employees	3.10 (<i>n</i> = 144)	2.76 (<i>n</i> = 21)	0.219

As is evident from Table 1, the Mann–Whitney test indicates no significant differences between the two groups of companies; all of the *p*-values exceed 0.05. The answer to research question 3a therefore seems to be negative: there is no relationship between degree of conservatism and usage of the annual budget or its alternative. In order to answer research question 3b, cross-tabulation was used to produce data for calculating the relative frequencies of respondents who circled points 4 and 5 on the scales, indicating extensive usage of the budget, or its alternative, for each given purpose. The results are shown in Table 2.

It is evident from Table 2 that planning and control are important to both groups of companies. Surprisingly, and in contrast to what one would have expected based on the criticism levelled at the annual budget, relatively few respondents belonging to the radical group give empowerment a high rating. This tendency seems to pertain to the other purposes as well, except for planning and control. There is reason, of course, to view this observation with caution, since the number of respondents belonging to this group is rather low. Besides, the

Table 2 Frequency of respondents who indicated extensive usage of the annual budget or its alternative for different purposes (*n* = total number of respondents per group and purpose regardless of points circled)

<i>Purpose</i>	<i>Frequency of respondents who circled points 4 and 5 on the scales</i>	
	<i>Conservative companies</i>	<i>Radical companies</i>
a. Planning	74% (<i>n</i> = 144)	62% (<i>n</i> = 21)
b. Control and evaluation	83% (<i>n</i> = 144)	81% (<i>n</i> = 21)
c. Implementing strategies	46% (<i>n</i> = 140)	52% (<i>n</i> = 21)
d. Empowerment	59% (<i>n</i> = 143)	43% (<i>n</i> = 21)
e. Motivating employees	39% (<i>n</i> = 144)	24% (<i>n</i> = 21)

significance of this observation should not be exaggerated because – as shown in Table 1 – the difference between the two groups is not statistically significant.

The status of the annual budget versus respondents' agreement with the criticism

Research question 4 is concerned with the extent to which respondents agree with the criticism levelled at the annual budget. As examples of this criticism we chose 10 assertions found in the literature and asked the respondents to express to what extent they disagree or agree with these on five-point Likert scales, with point 5 denoting 'agree completely'. Research question 4 is divided into two sub-questions: (a) is there a difference between conservative and radical companies in terms of agreement with the criticism of the annual budget; and (b) to what extent do respondents who represent conservative and radical companies, respectively, indicate strong agreement with the criticism levelled at the budget? The results are shown in Table 3 as well as in Figures 2 and 3.

Table 3 Mean ratings and Mann–Whitney significance levels (*p*-values) for critical statements concerning the annual budget

<i>Critical statements concerning the annual budget</i>	<i>Mean ratings</i>		<i>Mann–Whitney p-values</i>
	<i>Conservative companies</i>	<i>Radical companies</i>	
a. It brings rigidity into the organization	3.04 (<i>n</i> = 143)	3.83 (<i>n</i> = 23)	0.001***
b. It is too time-consuming	3.09 (<i>n</i> = 143)	4.48 (<i>n</i> = 23)	0.000***
c. It is based on uncertain forecasts	3.27 (<i>n</i> = 143)	3.91 (<i>n</i> = 23)	0.007***
d. It is often based on the calendar year which is not necessarily the best time period	3.17 (<i>n</i> = 143)	4.05 (<i>n</i> = 22)	0.002***
e. It causes thinking in terms of appropriations	2.38 (<i>n</i> = 143)	4.00 (<i>n</i> = 23)	0.000***
f. It is too often based on incremental thinking	3.23 (<i>n</i> = 143)	4.04 (<i>n</i> = 23)	0.002***
g. It is the accounting departments' toy	2.18 (<i>n</i> = 143)	2.86 (<i>n</i> = 23)	0.010***
h. It is a yearly ritual	2.63 (<i>n</i> = 143)	3.96 (<i>n</i> = 23)	0.000***
i. It is too hierarchic	2.86 (<i>n</i> = 143)	3.61 (<i>n</i> = 23)	0.002***
j. It is incapable of signalling changes in the competitive environment	3.61 (<i>n</i> = 141)	4.22 (<i>n</i> = 23)	0.002***

*** Indicates significance at the 0.01 level.

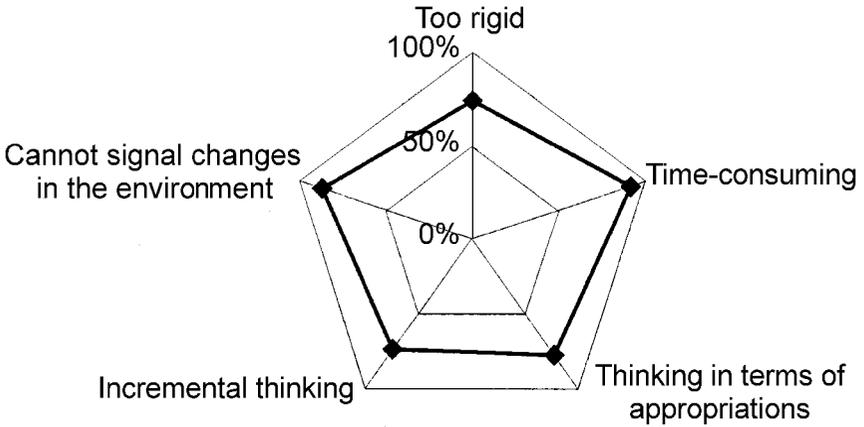


Figure 2 The five most critical aspects of the annual budget as perceived by radical companies

As can be seen from Table 3, the low Mann–Whitney p -values indicate strong support for the rejection of the null hypothesis that the ratings are equal for the two groups. The conclusion is that there is a relationship between the status of the annual budget today and agreement with the criticism. This pertains to all 10 critical assertions. However, as can be seen from Figure 3, several respondents that represent the conservative group of companies strongly (points 4 and 5 on the scale) agree with some of the criticism.

In response to research question 4b, Figures 2 and 3 indicate the five most critical aspects of the annual budget as perceived by the radical and the

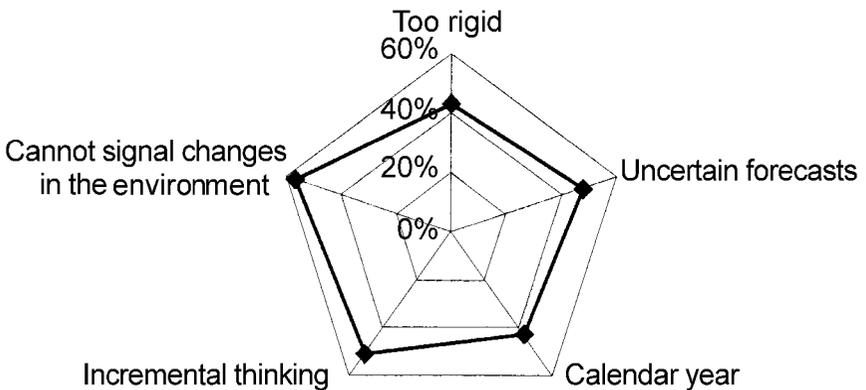


Figure 3 The five most critical aspects of the annual budget as perceived by conservative companies

conservative companies, respectively. The radar graphs show the relative frequencies of respondents who expressed strong agreement with the criticism by circling points 4 and 5 on the scales. As can be seen from Figures 2 and 3, radical and conservative companies alike view the following three criticisms of the annual budget as most critical:

- 1 it cannot signal changes in the environment;
- 2 it leads to incremental thinking;
- 3 it is too rigid.

In order to see which criticisms tend to go together, cluster analysis of all 10 critical statements, regardless of group, was performed. The analysis revealed that the above three most critical statements are included in the same cluster if two clusters are formed. Statement 'b', 'It is too time-consuming', and statement 'd', 'It is often based on the calendar year which is not necessarily the best time period', are also included in this cluster. All six statements included in this cluster received overall mean ratings greater than the middle point '3' on the scale, a result that seems to strongly affirm some of the main criticisms levelled at the annual budget. As for the other statements, it can be observed that these received an overall mean rating less than the middle point on the scale.

In sum, it can be observed that there seem to be significant differences between the responses of the two groups, with the radical group agreeing more strongly with the criticism. However, it can also be observed that a reasonably large number of high-ranking representatives of companies that have no plans at present to abandon this budget strongly agree with several aspects of the adverse criticism levelled at the annual budget.

The status of the annual budget versus respondents' attitudes towards rolling forecasts

Research question 5 focuses on the respondents' attitudes towards the rolling forecast, the main alternative to the annual budget, as suggested by the critics. In order to get an answer to this question, five assertions found in the literature were included in the questionnaire. Responses were measured on five-point Likert scales, with point 5 representing 'agree completely'. Research question 5 is divided into the following sub-questions: (a) is there a difference between conservative and radical companies in terms of attitudes towards the rolling forecast; and (b) to what extent do respondents who represent conservative and radical companies, respectively, indicate strong agreement with statements concerning rolling forecasts?

In response to research question 5a, Mann-Whitney *p*-values were computed for each statement. As can be seen from Table 4, all statements except statement 'c', 'increases flexibility and competitiveness', are associated with a very low *p*-value, indicating that the null hypothesis of equal ratings can be rejected for all

Table 4 Mean ratings and Mann–Whitney significance levels (*p*-values) for statements concerning rolling forecasts

<i>Rolling forecasts</i>	<i>Mean ratings</i>		<i>Mann–Whitney p-values</i>
	<i>Conservative companies</i>	<i>Radical companies</i>	
a. Along with key performance measures (the balanced scorecard) can well replace the annual budget	3.47 (<i>n</i> = 140)	4.26 (<i>n</i> = 23)	0.000***
b. Do not have the same mandatory image as the annual budget	3.24 (<i>n</i> = 139)	3.91 (<i>n</i> = 23)	0.001***
c. Increase flexibility and competitiveness	3.28 (<i>n</i> = 139)	3.52 (<i>n</i> = 23)	0.241
d. Make it possible to produce variance reports that convey impulses to change rather than confirm what is already known	3.51 (<i>n</i> = 140)	4.00 (<i>n</i> = 23)	0.008***
e. Convey a feeling of uncertainty: the goal posts keep shifting all the time	2.98 (<i>n</i> = 140)	2.35 (<i>n</i> = 23)	0.005***

*** Indicates significance at the 0.01 level.

statements except statement ‘c’. An affirmative answer to research question 5a therefore seems warranted, with the exception of one statement.

Table 5 indicates the answer to research question 5b. Recalling that ‘agreeing strongly’ refers to points 4 and 5 on the scales, it can be seen from Table 5 that respondents representing radical companies tend to view rolling forecasts very favourably. The negative statement ‘conveys a feeling of uncertainty’ is the only statement that received a frequency less than 50%. As is also apparent from Table 5, respondents representing conservative companies also tend to view rolling forecasts favourably. Statement ‘a’, ‘Rolling forecasts can well replace the annual budget along with key performance measures (the balanced scorecard)’, received the highest percentages for both groups of companies.

In sum, the analysis suggests that there is a relationship between the status of the annual budget today and attitudes towards the rolling forecast. As expected, radical companies tend to have more favourable attitudes than conservative companies. It deserves to be noted, however, that a considerable number of respondents who work for conservative companies – companies that do not intend to abandon the annual budget – have favourable attitudes towards the rolling forecast as an alternative to the budget. This may be indicative of a propensity to change the management model in the not so distant future.

Table 5 Frequency of respondents agreeing strongly with the statements about the rolling forecast (n = total number of respondents per group and statement regardless of points circled)

<i>Statements about rolling forecasts</i>	<i>Frequency of respondents who circled points 4 and 5 on the scales</i>	
	<i>Conservative companies</i>	<i>Radical companies</i>
a. 'Can replace the budget'	61% ($n = 140$)	87% ($n = 23$)
b. 'Not so mandatory'	48% ($n = 139$)	83% ($n = 23$)
c. 'Increases flexibility'	47% ($n = 139$)	57% ($n = 23$)
d. 'Better variance reports'	56% ($n = 140$)	74% ($n = 23$)
e. 'A feeling of uncertainty'	31% ($n = 140$)	17% ($n = 23$)

However, it must be emphasized that willingness to change an existing system in reality is different from willingness to express favourable attitudes towards change in an academic survey.

DISCUSSION

This study suggests that the answer to the question 'Is the annual budget really dead?' is negative: an overwhelming majority of respondents do not think it is time to throw it away. On the other hand, the study has shown that many high-ranking practitioners who are not ready to abandon the traditional budget agree with much of the criticism levelled at it. We interpret this as support for the thesis propounded in the theoretical framework of the study: the annual budget is needed in order to uphold internal effectiveness, but it cannot be instrumental in the company's struggle to achieve external effectiveness because – as the results of the study show – the budget cannot signal changes in the environment. External effectiveness must be achieved by strategic means, but it goes without saying that the fruits of this can easily be squandered if internal effectiveness is low. Therefore the annual budget, complemented by other instruments, still has an important role to play.

Increased environmental uncertainty may be seen as diminishing the role of planning: uncertainty may quickly make plans obsolete (Samuelson, 1997: 109). However, some degree of planning is necessary. As this study has shown, most radical companies, and many conservative companies alike, view more flexible instruments, such as rolling forecasts and balanced scorecards, as necessary complements to the traditional budget.

The annual budget, with its complementing techniques, can then be seen as having a partial role in the creation of a form of zero base against which alternative plans can be developed, a role that may even be strengthened when the

company is operating in turbulent, efficient markets. In this case the budget can serve as a buffer against environmental uncertainty (Merchant, 1984: 293), or as Horngren *et al.* (1996: 257) phrase it: 'A budget allows systematic rather than chaotic reaction to change.' This is supported by empirical evidence to the effect that increased use of budgetary control seems to be occasioned by increasing environmental dynamism (Simons, 1987; Ezzamel, 1990; Otley, 1990; Parker and Lewis, 1995).

The environmental uncertainty factor can, however, also be used as an argument in favour of completely rejecting the traditional budget. Hope and Fraser (1999c: 5) argue that the budget cannot cope with environmental uncertainty, and they speculate that this is one of the reasons why Scandinavian companies, many of which operate in turbulent global markets, have taken the lead when it comes to dismantling the budget. This will, of course, be the result if there is no form of stable activity in a company's business area, which may especially be the case in the service sector. In the manufacturing sector, however, there may still exist a considerable need for resource administration, even if the activities creating value-added cannot be budgeted *ex ante*.

After the survey was completed we confronted the CFO of a world-class manufacturing company with the question whether environmental uncertainty really causes increased reliance on the annual budget for control purposes. The company manufactures heavy diesel machinery and operates on many turbulent markets globally, especially the one in Southeast Asia. The answer to the question was an unequivocal 'no'. The historical phase when the answer would have been in the affirmative is irretrievably over. Confronted with a question about motivation, another purported role that the annual budget may have (Samuelson, 1997: 109), the CFO also dismissed this as something belonging to the past.

According to this CFO the role of the annual budget is now primarily to communicate information to shareholders and external interested parties in the form of references to the previous and the current budget in the annual report; its role as a steering mechanism for management is largely over. In view of the results of this survey, this may not be representative of the attitudes of a majority of top-level financial officers, but it may be indicative of one of the directions in which the role of the traditional budget is moving.

The interviewee sees the annual budget as a by-product of a continuous planning and control process. Thanks to modern information technology it is easy to produce – a fact that could alleviate some of the criticism. However, the planning process is now focused on activities and projects needed to achieve strategic targets. Continuous monitoring of financial and non-financial indicators *vis-à-vis* rolling forecasts shows whether the company is on the right track or not. If it is on the wrong track, the company will immediately alter course, regardless of the annual budget. Comparisons are made with the budget, but revisable plans, reviewed continuously on a short-term basis, are much more important as steering mechanisms than the annual budget. Verbal comments made by several respondents on the returned questionnaires are in line with this statement.

SUMMARY

To sum up, the results of the study indicate that three main types of system are in use in large Finnish companies. Using a similar classification as presented by Samuelson (1997: 110) – corresponding roughly to the items on the scale shown in Figure 1 – these are:

- the traditional budget system;
- a hybrid system, with budgets as well as forecasts and other new instruments;
- forecasts, with or without other instruments such as the balanced scorecard.

The traditional budget system is still going strong, with no perceived need for major changes, in 25% of the responding companies. These are evenly spread over a wide spectrum of industries. However, the majority of the responding companies, 60.7%, indicate a readiness for continuously changing the budget and including new instruments. Thus, it can be observed that a hybrid system consisting of the budget, rolling forecasts and in some cases a balanced scorecard, is most common among the responding companies, with industries ranging from basic Finnish manufacturing industries, such as paper, pulp, metal products and machinery, to non-manufacturing industries such as the wholesale business and agencies. This observation is in line with the results of the Swedish academic studies mentioned earlier (Gafvelin and Kamola, 1996; Glader *et al.*, 1996). It is also in line with discussions occurring in non-academic Scandinavian trade journals (Wennberg, 1996; Johansson, 1999).

The number of companies that consider abandoning the annual budget altogether, are in the process of doing so, or have already done so, relying solely on forecasts and other flexible instruments, is equal to 14.3% (24 out of 168). The ‘old economy’ Finnish manufacturing stalwarts, such as the paper and pulp industry, are conspicuous by their absence from this group. Instead this group includes special industries, such as food products, wooden artefacts and, especially, companies that produce electricity and gas. Notably, the wholesale business is also represented here.

The overall conclusion of the study is that the annual budget is not yet ready for the scrap heap. However, it had its heyday when the administration of resources was the core of management activities. This historical phase is now largely over, meaning that the traditional budget has lost some of its old usefulness. Because of this focus on the administration of resources, revisions of the budget – however frequent – cannot be very helpful when it comes to handling increasing external pressure. A quotation from a recently published book on activity-based budgeting by Brimson and Antos (1999: 9) supports this observation: ‘The problem is that traditional planning and budgeting focuses on resources rather than activities which are central to value creation.’ As also suggested by Börjesson (1997), Cassell (1999), as well as Block and Carr (1999), the budgeting process may in future move in the direction of activity-based

budgeting, although the critics of the annual budget do not explicitly mention this possibility. This constitutes an interesting avenue for future research.

REFERENCES

- Argyris, C. and Kaplan, R. S. (1994) 'Implementing new knowledge: the case of activity-based costing', *Accounting Horizons*, 8(3): 83–105.
- Arterian, S. (1998) 'Sprinting to a streamlined budget', *CFO Europe*, 23.9.
- Block, R. J. and Carr, L. P. (1999) 'Activity-based budgeting at Digital Semiconductor', *Journal of Cost Accounting*, 13(6): 11–20.
- Börjesson, S. (1997) 'A case study on activity-based budgeting', *Journal of Cost Management*, 10(4): 7–18.
- Brimson, J. A. and Antos, J. (1999) *Driving Value using Activity-Based Budgeting*. New York: John Wiley.
- Cassell, M. (1999) 'Budgeting and more . . .' *Management Accounting*, September: 22–3.
- Ekhholm, B.-G. (1983) 'Ekonomisk lönsamhet och investeringskalkylering', Working Paper No. 114. Helsinki: Swedish School of Economics and Business Administration.
- Ekhholm, B.-G. (1984) 'The business idea and its life path', Paper presented at the Fourth Annual Strategic Management Society Conference, Philadelphia, USA.
- Ekhholm, B.-G. and Wallin, J. (2000) 'National management culture, strategic priorities and management accounting practices' (forthcoming).
- Ezzamel, M. (1990) 'The impact of environmental uncertainty, managerial autonomy and size on budget characteristics', *Management Accounting Research*, 1: 181–97.
- Fama, E. F. (1970) 'Efficient capital markets: a review of theory and empirical work', *Journal of Finance*, May, 25(2).
- Gafvelin, S. and Kamola, A. (1996) 'Budget – till vilken nytta?' Magisteruppsats vid Företagsekonomiska institutionen (Master's thesis), Uppsala universitet.
- Glader, M., Johansson, C., Nilsson, J., Nilsson, G. and Samuelson, L. (1996) 'Ekonomistyrning i svenska börsföretag', Rapport från sektionen för redovisning och finansiering, Stockholm: Stockholm School of Economics.
- Gurton, A. (1999) 'Bye bye budget . . . the annual budget is dead', *Accountancy*, March: 60.
- Hope, J. and Fraser, R. (1997) 'Beyond budgeting . . . breaking through the barrier to "the third wave"', *Management Accounting*, December: 20–3.
- Hope, J. and Fraser, R. (1999a) 'Beyond budgeting. Building a new management model for the information age', *Management Accounting*, January: 16–21.
- Hope, J. and Fraser, R. (1999b) 'Take it away', *Accountancy*, May: 66–7.
- Hope, J. and Fraser, R. (1999c) 'Beyond budgeting', White Paper. May. *Beyond Budgeting Round Table*. CAM-I (www.cam-i.org).
- Hope, J. and Hope, T. (1997) *Competing in the Third Wave*. Boston, MA: Harvard Business School Press.
- Horngren, C. T., Foster, G. and Datar, S. M. (1997) *Cost Accounting. A Managerial Emphasis*, 9th edn. London: Prentice-Hall.
- Horngren, C. T., Sundem, G. L. and Stratton, W. O. (1996) *Introduction to Management Accounting*. Upper Saddle River: Prentice-Hall.
- Johansson, C. (1999) 'Budgetering i omvandling – Avveckling eller utveckling?', *Ökonomistyrning & Informatik*, 14: 381–504.
- Kyläkoski, K. (1990) *Kansainvälisillä markkinoilla toimivan yrityksen strategia – ja budjettisuunnittelu, kannattavuus ja rahoitus*. Summary: *Corporate Strategic and Budget Planning, Profitability and Financing in Firms Operating on International*

- Markets*. Acta Academiae Oeconomicae Helsingiensis, Series A:71, Part I. Helsinki: Helsinki School of Economics and Business Administration.
- Lee, C. M. C. (1999) 'Accounting-based valuation: impact on business practices and research', *Accounting Horizons*, 13(4): 413–25.
- Lindvall, J. (1997) 'Det budgetlösa företaget', *Balans*, 1: 27–30.
- Merchant, K. A. (1984) 'Influences on departmental budgeting: an examination of a contingency model', *Accounting, Organizations and Society*, 9: 291–307.
- Newing, R. (1994a) 'Out with the old, in with the new', *Accountancy*, July: 49–50.
- Newing, R. (1994b) 'Advanced budgeting requires an advanced management system', *Management Accounting*, December: 28–9.
- Ohlson, J. A. (1995) 'Accounting earnings, book value and dividends in equity valuation', *Contemporary Accounting Research*, Spring: 661–87.
- Otley, D. T. (1990) 'Issues in accountability and control: some observations from a study of colliery accountability in the British coal corporation', *Management Accounting Research*, 1: 101–23.
- Parker, L. D. and Lewis, N. R. (1995) 'Classical management control in contemporary management and accounting: the persistence of Taylor and Fayol's world', *Accounting, Organizations and Society*, 5: 211–35.
- Porter, M. E. (1985) *Competitive Strategy*. New York: The Free Press.
- Porter, M. E. (1996) 'What is strategy?', *Harvard Business Review*, November–December.
- Samuelson, L. (1997) *Budgetering & intern redovisning*. Utgåva 4. Eskilstuna, Sweden: Industrilitteratur.
- Schmidt, J. A. (1992) 'Is it time to replace traditional budgeting?', *Journal of Accountancy*, October, 103–7.
- Sieradzki, F. (1995) 'Nu demonteras Volvos budget', *Corporate Computing*, 41: 95–10–11.
- Simons, R. (1987) 'Planning, control and uncertainty: a process view', in Bruns, W. J. and Kaplan, R. S. (eds) *Accounting and Management, Field Study Perspectives*. Boston, MA: Harvard Business School Press.
- Vuorinen, I. (1998) 'Onko budjetointi tarpeen vuonna 2005?', *Execus News, Talvi* (Winter).
- Wallander, J. (1994) *Budgeteten – ett onödigt ont*. Stockholm: SNS Förlag.
- Wallander, J. (1999) 'Budgeting – an unnecessary evil', *Scandinavian Journal of Management*, 15: 405–21.
- Wennberg, I. (1996) 'Budget eller balanserat styrkort', *Ekonomi & Styrning*, 4: 17–20.

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