

UNIVERSITY BUDGETING: Creating Incentives for Change?

Bas Savenije

.....

A number of Dutch universities are engaged in a decentralization process, strengthening faculty management and considering the institutional level as the center of a divisionalized organization. This development gives rise to the following question: To what extent is university management able to implement change according to university strategy? The article investigates the role of the budget as an instrument for change. It distinguishes between a base component and a special-purpose component in budgeting. It analyzes several approaches of budget development in relation to the implementation of change. Conclusions are formulated about the use of budgeting and control procedures.

.....

‘Universities,’ I said, ‘are the prototypes of the organization of tomorrow.’
‘If that be so,’ said a Professor standing near, ‘then God help us all.’

Charles Handy. *Gods of Management* (1978)

Power is bestowed by an audience after the play is complete.

James P. Carse. *Finite and infinite games* (1986)

In the Dutch higher education system, power traditionally has been distributed mainly between the government and the academic staff within the faculties. Until the mid-1980s, reform in higher education was initiated by the government. Especially since 1970, Dutch government has induced several restructuring and retrenchment operations, mainly driven by productivity and efficiency concerns (Savenije and Otten, 1986):

Address correspondence to: Bas Savenije, Associate Director, Budgeting and Control, University of Utrecht, Heidelberglaan 8, 3584 CS Utrecht, The Netherlands.

Revised version of a paper presented at the 31st Annual Forum of the Association for Institutional Research, San Francisco, May 26–29, 1991.

1. The universities were forced to restructure their curricula from the existing five to six years into a four-year curriculum.
2. Staff/student ratios in the budgeting model of the Ministry of Education were seriously reduced, for some disciplines as much as 40 percent.
3. In a nationwide process, specific fields of study were concentrated in one or two universities. This change concerned not only highly specialized curricula with very small enrollment, but also a number of larger ones.
4. New budgeting procedures were developed in order to allocate research funds to universities on the basis of the volume of submitted research programs of acclaimed and externally reviewed quality.
5. New regulations for the structure of scientific staff were implemented, aiming, among other things, at a 40 percent reduction of the numbers of full and associate professors.

Traditionally, the position of the management of Dutch universities has been relatively weak compared to the United States and Great Britain (Maassen, 1986). Dutch universities by law are governed by an elected multiconstituency university council with policy-making and budget allocation authority. The executive work of university management is performed by a three- to five-person governing board composed of faculty and lay members.

The middle management structure, the faculty level,¹ used to be relatively weak, too. Again there is an elected council with budget allocation authority, which also determines the content and structure of educational programs, of course within the boundaries of government regulations. Research programs are drawn up at the departmental level. The government measures mentioned above led to considerable changes in academic programs, which had to be specified and implemented by the middle management. Consequently, the position of the middle management within the faculties has strengthened during the last decade.

Recently, there is a change in the steering philosophy in Dutch higher education, with the government stepping back and allowing greater institutional autonomy (Van Vught, 1988). This development is based on the idea that the increase of institutional autonomy will result in an improvement of the quality of the higher education system. The system as a whole is expected to become more effective in its reactions to the increasing turbulence in its environment and to become better suited to the rapidly changing demands of society (Maassen and Van Vught, 1989). As a consequence of this change in governmental strategy, the universities themselves undertook and improved procedures for the external evaluation of the quality of academic programs, education as well as research, on the basis of peer review (Van Vroeijsstijn and Acherman, 1990).

This new institutional autonomy led several Dutch universities to increase the

autonomy of the middle management within their institutions. Thus, under the pressure of the faculties, they carry on the tradition of decentralization within the university. This development gives rise to the following questions: What is the value created by the central university level, in addition to the constituent parts of the university? To what extent is university management able to implement change from a point of view of an overall university strategy? An important aspect of these questions is the potential role of the budget. Budget allocation is an important legal competency and a powerful tool of the university management that can be used to influence the behavior of the faculties (Lisensky, 1988; Williams, 1984). The objectives of this article are (1) to analyze the role of different budgeting procedures in realizing strategic change from the viewpoint of the top management level, and (2) to investigate how this role is influenced by the specific circumstances in Dutch university management.

SOME ASPECTS OF UNIVERSITY ORGANIZATION

Several models have been created in order to explain the nature of a university as an organization. Often, these models emphasize the unique character of the university. An important aspect is the autonomy of the professionals (the scientific staff) at the basis of the organization. They derive their power from the fact that their work is too specialized and complex to be supervised by university managers. A clear example of such a model is Clark's professional model with the mutual adjustment between the professionals as the dominating mechanism of coordination (Clark, 1983). In Mintzberg's analysis the university is characterized as a professional bureaucracy (Mintzberg, 1979).

Other models emphasize the political character of university decision-making processes (Baldrige, 1971; Cohen, March, and Olsen, 1972). These authors also mention anarchistic aspects and characterize the decision-making process as "decision flowing": a never-ending process in order to make results really work, with fluid participation and an issue carousel. "Decisions are not made as much as they are pinned down temporarily" (Baldrige, 1975, p. 383). According to the well-known garbage can model, "Choices are made only when the shifting combinations of problems, solutions, and decision makers happen to make action possible" (Cohen, March, and Olsen, 1972, p. 16).

The developments in Dutch higher education mentioned in the introduction throw a new light on the position of the central university management. At the university level as well as at the faculty level there is no question of an integrated organization, but of a collection of rather independent entities, held together by a loose administrative overlay. Within a faculty (small groups of) professionals are those entities. Faculties are clearly professional organizations: The influence of the professionals on the faculty management is substantial. But seen from the center of the university, not the professionals but the facul-

ties (the middle structure) are the composing entities. The management of the university as a whole is behaving more and more like the center of a divisionalized organization, or (in Mintzberg's terms) the divisionalized form (Mintzberg, 1979).

The university, therefore, experiences conflicting power needs. On the one hand, several characteristics of a professional bureaucracy can be recognized, especially within the faculties, but to a certain extent also in the institution as a whole. The professionals strive to control not only their work, but also the decision-making processes, at the faculty level as well as at the university level. On the other hand, the university as a whole operates to a certain degree like a divisionalized structure, with rather independent divisions and a small technostructure for the headquarters striving for standardization of outputs. According to this model, the middle line (the faculty level) is the key part of the organization. Because the division is treated as a single integrated entity and the headquarters tend to impose its standards through the management of the divisions, a tendency toward centralization within the divisions can be observed. The main features of the professional bureaucracy and the divisionalized form are compared in Figure 1.

As a consequence of the organizational changes, the University of Utrecht is

	professional bureaucracy	divisionalized form
coordinating mechanism	standardization of skills as a result of training	standardization of outputs; performance control
key part of organization	operating core (professionals)	middle line (division management)
decentralization	rather decentralized	decentralized, but centralization within divisions
planning & control	little planning and control	much performance control

FIG. 1. Main Features of the Professional Bureaucracy and the Divisionalized Form (derived from Mintzberg, 1979)

engaged in a transaction from one organizational configuration to another. As Mintzberg points out, in these circumstances the "Political Arena"² emerges as an important aspect of the functioning of the organization (Mintzberg, 1983, p. 314). Where, within the faculties, the professionals usually rely on the system of expertise for their power, they have to rely more and more on the system of politics in university matters. This development also leads to increasing political behavior by the middle-line management, which is heavily controlled by the professionals. In this context, it is important to remember the existence of a university council. Not only by the way this council is composed, but also by the nature of its most important topics, the decision making is highly political. And budgetary decisions are especially prone to political behavior: "Decision making quickly becomes a zero sum game when there are insufficient funds for everyone to achieve their goals" (Hardy, 1990, p. 308). Put in another way: "If politics is regarded in part as conflict over whose preferences shall prevail in the determination of . . . policy, then the budget records the outcomes of this struggle" (Wildavsky, 1984, p. 4).

UNIVERSITY BUDGETING

There are numerous definitions of the concept of *budget*, whether or not it is related to higher education. The aspect most recognized is its function as "an instrument that enables the allocation of resources from one organizational unit to another" (Caruthers and Orwig, 1979, p. 1). But the budget is also "a device by which the distributors of funds carry out their plans and signal their priorities" (Jones, 1984, p. 19), or "a series of goals with price tags attached" (Wildavsky, 1984, p. 2). And: "Viewed in another light, a budget may be regarded as a contract" (Wildavsky, 1984, p. 2). In most definitions we recognize three general functions of the budget: allocation of resources, implementation of plans, and accountability for outcomes (see, for instance, Jones, 1984). Budgeting, then, can be described as an interactive process in order to determine the activities and related funds for a certain period, in quantitative, mostly financial terms, with the help of which the management is held responsible for the performance of the activities involved (Groot and Van de Poel, 1985).

University budgeting is concerned with the allocation of resources by the university management to the faculties and service departments. The latter, however, are not taken into consideration in this article. Several budgeting systems can be distinguished. The most relevant distinctions can be made according to the following dimensions (Jones, 1984; Groot and Van de Poel, 1985):

1. The degree of the freedom in spending the allocated funds. Two budgeting systems are especially relevant: *Lump-sum budgeting*—funds are allocated

- without direct ties to specific activities or outcomes and without prescriptions on which cost categories they are to be spent; *Earmarked budgeting*—funds allocated have to be spent for an activity specified by the funder.
2. The process in which the budget is drawn up. Again, I will distinguish two relevant budgeting systems: *Nonformalized budgeting*—there exist (almost) no rules concerning the factors that constitute the budget; the process is characterized by a strong emphasis on political decision making; *Formalized budgeting*—the process makes explicit use of decision rules of a quantitative form, taking into account relevant factors that constitute the budget.

In the budgeting systems of most universities both lump-sum budgeting and earmarked budgeting can be recognized. Accordingly, the budget is composed of a base component and a special-purpose component. The base component, allocated as a lump sum, is the general fund appropriation (sometimes called *core budget*) that provides base support for faculty operations, supporting a variety of activities yielding multiple desired objectives. The special-purpose component has an earmarked character and addresses specific priorities concerning short-term activities rather than ongoing needs. The base component and the special-purpose component can both be arrived at in a formalized as well as a nonformalized approach.

A budgeting system is more than a quantitative model. It is an interactive process to translate policies into activities and related funds and to provide a framework for accountability. Budgeting, therefore, is an essential part of a planning and control cycle (Anthony et al., 1984). At the University of Utrecht the budgeting process is embedded in the planning and control cycle as follows (Otten and Savenije, 1990). Every two years a development plan is drawn up dealing with the research and educational policy of the university. This plan also contains an internal financial scheme: an outline of the faculty budgets for the next five years, with the help of an allocation model and based on the goals formulated in the plan. The outcome of this quantitative model is only calculated for the last year of the five-year period. So, there is no one-to-one relation between the outcome of the model and the actual budget allocation. Other considerations also play an important role, such as last year's budget; the total available budget for the university; considerations as to how fast budget adjustments can be implemented. The actual allocation of budgets for the next year is to a large extent based on the financial figures for that year in the financial scheme. At the end of each year, the faculties have to send in reports accounting for the activities contained in the yearly budgets.

TWO COMPONENTS OF UNIVERSITY BUDGETING SYSTEMS

In this section, I will describe in general terms the potential role of the base component and the special-purpose component, starting from a formalized as well as from a nonformalized approach.

The *base component*, allocated as a lump sum, is an essential part of faculty budgets. Because of the degree of freedom, the receiver of funds always prefers a lump-sum budget to earmarked funds (De Vries et al., 1990). As a consequence of decentralization, one can expect a tendency to maximize the base component of the budget at the cost of the special-purpose component.

Traditionally, the nonformalized approach to the base component prevailed in higher education, and especially the incremental approach. This approach takes the previous year's allocation as a base, which is then adjusted up or down depending on changes in a limited number of factors.

The occurrence of this budgeting system is embedded in the political structure of the university organization, the budget being the record of which interest group prevails. The budgetary response to priorities is typically an ad hoc determination concerning what increment is needed to effect programmatic change (Caruthers and Orwig, 1979; Lisensky, 1988; Wildavsky, 1968). Because of its strong dependence on the political climate and its ad hoc character in meeting institutional priorities, the Achilles' heel of incremental budgeting is its long-term perspective. Consequently, it is not a very useful instrument for the translation of plans into actions.

Also from the viewpoint of accountability, the incremental approach is inferior. It takes the previous year's budget for granted and limits the discussion to the increment without an evaluation of the starting point. Likewise, any analysis of the relation between (changes in) outputs and budget will be a fuzzy one.

The formula funding approach is often mentioned as an instrument to rationalize the discussion about the allocation of resources and the implementation of plans (for instance, Hopkins and Massy, 1981). This approach makes use of a set of decision rules, sometimes simple, sometimes complex, which it reduces to quantitative form. The approach is certainly useful in providing a common language for negotiating and discussing the allocation of resources (Mayo and Kallio, 1983). However, in practice the rational-analytic approach may be snowed under by the political character of negotiations and decision-making processes (Hardy, 1988; Hardy, 1990). Even the model itself may evolve from a model based on criteria directed toward efficiency, toward a more coalitional model reflecting the relative power of organizational subunits (Hills and Mahoney, 1978).

The formula-based approach may be useful for the implementation of plans and strengthening accountability, especially when input variables of the model are also indicators for the implementation of plans. But one must not forget that the base component is allocated as a lump sum, without any direct relation to activities or cost categories. Faculties divide their budget among departments, frequently with another formula, or even without any formula at all. For the accountability about implementation of plans, it is, therefore, necessary to specify concrete objectives beforehand, regardless of the parameters of the formula.

The *special-purpose component* of faculty budgets addresses special priorities, not ongoing needs. The funds allocated have to be spent for an activity that is specified beforehand. Consequently, the special-purpose component may be useful for the implementation of plans and especially for innovative projects.

Decentralization implies a tendency to minimize the special-purpose component of the budget in favor of the base component. Its size will be limited, its application restricted to temporary grants.

In a formalized approach, funds focusing on a special activity are added to the base component. The decision to treat funding for a certain activity as a special-purpose allocation rather than an element of the base component revolves around accountability considerations. In fact, the special-purpose funds are added to the lump sum with the condition of specified output. With an eye on accountability, it is recommendable to formulate a concrete project, or a contract, which specifies the output, the time schedule, the people responsible, and so on. Involvement of the faculty concerned is strengthened by a dual commitment, meaning that also the faculty pays a substantial financial contribution to the project (De Vries et al., 1990; Savenije and Van Rosmalen, 1988). The calculation of the funds needed will be formula-based, considering not only output parameters, but possibly also input and throughput. This budgetary approach is especially suited as a start for a new activity that sooner or later will be covered by the (enlarged) base component of the budget.

The nonformalized approach to the special-purpose component usually takes the form of the following procedure (a competitive approach). A (mostly small) part of the university budget is put aside for special purposes. The university management specifies the purposes that it wishes to see accomplished and provides the faculties with guidelines for applications for these funds. Applications are reviewed, usually against a set of preestablished criteria. Preferably, the review consists of a yes-or-no-judgment, because ranking is very problematic, if not impossible. Generally, there are no rules to fix the amount of money that is granted to each of the successful applications.

This approach seems to be useful in stimulating change. In order to gain accountability, the guidelines for applications must include the output desired. However, the decision about criteria is a rather political one, just like the ranking that may be necessary if too many applications are reviewed positively. "Outside the political process, there is no agreed upon way of comparing and evaluating the merits of different programs for different people whose preferences vary in kind and intensity" (Wildavsky, 1968, p. 193).

EXPERIENCES AT UTRECHT

I will now describe some experiences at the University of Utrecht and their consequences for the potential role of budgets in the present situation. The first

example concerns the political aspects of the formalized approach to the base component (see also Otten and Savenije, 1990).

Traditionally, the University of Utrecht had an allocation model that was mainly enrollment-driven. In 1984 a new model was adopted because of the introduction of new budgeting procedures at the national level and the decline of budgets (Savenije and Otten, 1986). An important objective of the new budgeting procedures was the allocation of research funds to universities on the basis of the volume of submitted research programs of acclaimed and externally reviewed quality. In the new model of the University of Utrecht, all activities were grouped into a number of programs, such as undergraduate teaching, graduate programs, research projects, and management. For each program the total academic and supporting staff full-time equivalent was considered. The model was highly normative, leading to lump sums to be allocated to faculties (Dijkman, 1985).

Due to the constant reduction of the university budget by the ministry of education, the outcomes of the internal allocation model were no longer in agreement with the available budget. This affected the credibility of the model, and in 1987 it was no longer accepted as an instrument for university planning and budgeting. This caused a time-consuming discussion about the possible changes in the model. Several proposals were constructed by the Board of Governors, but none of them could count on enough support within the university community. In fact, every proposal caused fierce discussions about the details of the model. The formula of the model led to a number of interim results before it reached the final outcome, such as teaching load, number of full-time-equivalent academic staff, number of nonacademic staff, and so on.

Although in the end all these results were put together into one lump sum, they all started to lead a life on their own. Faculties compared these results with the actual situation, with a desirable situation, and with the situation of faculties at other universities. This led to ad-hoc coalitions and very often completely contradictory claims. In the end the discussion was mainly focused on the details of the model and was diverted from the real issue: Can the faculties keep up the output and quality of their programs with the budget allocated?

I will give some examples of the coalitions and their arguments. A large, important coalition was formed by the faculties of arts, humanities, law, and social sciences, the so-called alpha/gamma coalition. They claimed a larger share of the university research budget. Their average relative volume of research activities was about 40 percent, while some natural science faculties even had 65 percent. The natural sciences, however, argued that changing the allocation of the university research budget for reasons other than quality would endanger their capability of attracting research grants and contract research.

The alpha/gamma coalition also argued that the parameter relating the number of nonacademic staff to the number of academic staff had to be more favor-

able. When confronted with the fact that this parameter was twice as large as the parameter being used in the model of the ministry, they just changed the argument and said that departments at other universities were much better off. On the other hand, the natural and medical science faculties claimed the (for them) more favorable parameter of the ministry's model. So every faculty claimed a larger budget. Although there was a lot of support for the alpha/gamma coalition within the university council, there was never a majority prepared to support the claims brought forward by the coalition.

In 1989, the board proposed a completely new approach that was adopted by the university council, on the condition that it would be a temporary one. In the financial scheme for the years 1990–94 two main factors determined the budget of a faculty:

1. The degree in which a faculty contributes to the total budget of the university, the "earning capacity" of the faculty. By improving the quality and/or output of their activities, faculties can influence the total budget of the university and consequently increase or decrease their earning capacity.
2. A limited number of deviations from the earning capacity, directly related to the research and educational policy as stated in the development plan of the university.

The advantage of this approach was that all the arguments were made explicit: There was no way to hide behind details of a mathematical model. It was expected that this approach would improve the quality of the discussion. But the end of this new approach appears now to be in sight, not because of the construction of a new, improved model, but because of a coalition of several faculties discontent with their budgets, their research capacity, and the relatively favorable staff/student ratios of the natural sciences compared to the alpha/gamma faculties. And this time the argument of this coalition against the new approach is supported by a majority in the university council. To summarize, because of the impossibility of political agreement about a formula, a less quantitative approach was chosen, which in turn is questioned for purely political reasons.

This example illustrates that a formalized approach is no guarantee whatsoever for a rational budgeting process. The funding model itself, being the essence of the rational-analytic approach, becomes a political issue and diverts the attention even further from the real issues concerning activities planned and funds needed. The second example concerns the role of the special-purpose component in stimulating innovation (see also Savenije and Van Rosmalen, 1988). In discussing the role of the university and the faculty level at Utrecht, it appeared to be useful to distinguish two categories of innovative activities:

1. *Professional innovation*: innovation as a consequence of developments inherent to the discipline concerned, for instance, the adaptation of a program to new developments in the discipline. Main source: professional knowledge.
2. *Entrepreneurial innovation*: the initiation of new activities as a result of changes in the academic environment, for instance, a new field of study directed toward a new student market. Main source: an entrepreneurial attitude.

In theory, one can stimulate professional innovation by providing additional funds. But pressure can never stimulate professional innovation that is not already started by the professionals themselves. Furthermore, a formalized approach is likely to fail in formulating criteria to differentiate between faculties. It can be expected in the long run that, on the basis of a competitive approach, each faculty receives approximately an equal share of the extra budget. Finally, it is very difficult for nonprofessionals to review the output of a professional innovation and therefore to demand an account. Consequently, those who want to stimulate professional innovation by the allocation of funds are advised to divide these funds among the faculties as a part of the base component of the budget from the outset, thus dispensing with long and expensive procedures.

Entrepreneurial innovation can be stimulated by the university administration, and in general has to be stimulated, because of the tendency of the professionals to perfect their existing activities instead of creating new ones (Mintzberg, 1979). The implementation is a process that involves mainly professionals and on which the central administration has a limited influence. Important conditions for the success of an entrepreneurial innovation are that it should not have an ad hoc character and that the relevant participants are all involved. In general the best guarantee for these conditions can be found when the initiative is born as a product of the planning process of the university, and the implementation is carried out by a task force of professionals supported by the university administration. The output should be clearly defined and monitored.

Experiences show that entrepreneurial innovation should not be financed on the basis of requests for revolving funds—the competitive approach. It has become clear that not only the decisions about the criteria and the ranking of the applications are highly political, but also the way the applications are generated within the faculties. The university administration may very well formulate criteria for projects directed toward entrepreneurial innovation. But the professionals are mainly directed toward professional innovation. Therefore, a coalition is formed between members of the academic staff and the faculty management. The staff redefines a project to make it look like entrepreneurial innovation in order to meet the requirements. This is not always as difficult as

it seems. Because the formulation of these requirements is a political issue, the result usually is rather vague. The faculties, interested in the money to be divided, send these applications to the university administration and emphasize their innovative status and their importance. While the members of the university council are chosen from within the faculties, it is rather easy to find a spokesperson prepared to defend these applications in the council's meeting. This phenomenon is called "grant chasing" by Baldrige (1980). The stimulus for innovation is often some outside offer for funding; but if there is no real connection to institutional needs, the project lives as long as the additional money is available.

The experiences at Utrecht show that special-purpose budgeting is inadequate to stimulate professional innovation, because of the impossibility of satisfactory control devices. The nonformalized approach is also not suited for entrepreneurial innovation, because of its highly political character in choosing criteria and ranking of applications and the real danger of grant chasing. A formalized approach may offer possibilities to stimulate entrepreneurial innovation, only when there is sufficient commitment from the professionals involved.

RESULTS AND CONCLUSIONS

The base component of the budget is a rather limited instrument for the implementation of planned change. This applies especially to the nonformalized approach with its highly political character. But it is not a law of nature that budgeting will become more rational by adopting a formalized approach. The danger is real that the very details of the model itself become principal issues of political discussion, not because of a special interest in the adequacy of the model structure, but purely with an eye on the outcome. Discussions, therefore, are diverted from the role of budgets as instruments to implement strategic plans. The model formula may contain input parameters that are also indicators for the implementation of plans, but there is absolutely no guarantee that this structure will be preserved in the budgeting procedures at the lower management levels. This threatens the effectiveness of the budget as a management tool for planned change.

As a consequence of the limitations mentioned, control and accountability procedures are important. But in order to monitor planned change, purely financial control devices will not suffice. Analysis of input-output relations have to be combined with an evaluation of the degree in which the outputs are related to plans. However, this will not be easy: Because of the lump-sum character of the base component, the relation between input and output will not always be clear and faculty cooperation is needed to generate this insight (James, 1988). Furthermore, desired outputs are not always of a purely quan-

titative nature and consequently it may be difficult to formulate the outputs in a measurable way.

The special-purpose component may be useful in stimulating change. Distinguishing between entrepreneurial and professional innovation, the formalized approach offers possibilities to stimulate entrepreneurial innovation only when there is sufficient commitment from the professionals involved. This commitment can be strengthened by a dual financial commitment. The decision which innovation projects are to be supported will become more rational if it is contained within a university development plan. It is important to realize that the role of the university management will rather be to support valuable ideas from the operating floor than to invent innovations itself (Savenije, 1989).

From the point of view of control, it is necessary to specify the output clearly, which will not always be easy. As in the case of the base component, purely financial control devices will not suffice. Analyses of input-output relations have to be combined with an evaluation of the degree in which the outputs are related to the original plan. The most important general conclusions are the following:

1. Especially in a political environment, the budget is only a limited instrument for the implementation of strategic change. The budgetary decision making is very often a political affair. Furthermore, although university management is capable of stimulating change within the faculties, it has little influence on the direction in which the actual change is going. Budgeting procedures may be useful in strengthening developments that are already initiated within a faculty, but are rather ineffective to implement some kind of change in a top-down manner.
2. In order to stimulate change at the faculty level, control devices are more effective than detailed planning instruments. However, the control function should not be strictly financial and its effectiveness is limited by the difficulties in measuring and monitoring outputs (James, 1988).

In line with those conclusions, some recommendations can be given concerning the management style in decentralized institutions like Utrecht University. University management should adopt a style that can be characterized as follows. There is some central coordination of divisional strategies, mainly consisting of the center's reaction to strategies proposed by divisions. The budget, and especially budget changes, are considered as the first year of a strategic plan; short-term objectives have to be explicated and monitored. It is recommended to describe these objectives in some sort of contract between the central management and the faculties. The control function is not strictly financial. Comprehensive, annual reviews are discussed with each division, including in-

dicators for the realization of the objectives agreed upon (Angenent and Savenije, 1991). This style can be compared to the one called "strategic control" by Goold and Campbell (1987).

It may be concluded that, while the budgeting competencies of university management are rather large, the steering capacity of these competencies is limited. From the point of view of the budget's role as a management tool for planned change, a divisionalized structure is preferable to the structure of a professional bureaucracy.

NOTES

1. The English word *faculty* is used as a translation for the Dutch *faculteit*, incorporating the notion of a collection of departments (in Dutch *vakgroepen*). It is more or less close to a college in the U.S. system.
2. Political behavior can be defined as behavior outside of the legitimate systems of influence, tending to benefit the individual or group, frequently at the expense of the organization at large (Mintzberg, 1983, p. 172).

REFERENCES

- Angenent, M. P., and Savenije, J. S. M. (1991). Prestatie-indicatoren: doel of middel? *Tijdschrift voor Hoger Onderwijs* 9(1): 42–52.
- Anthony, R. N., Dearden, J., and Bedford, N. M. (1984). *Management Control Systems*. Homewood, IL: Richard D. Irwin, Inc.
- Baldrige, J. V. (1971). *Power and Conflict in the University*. New York: Wiley.
- Baldrige, J. V. (1975). Rules for a Machiavellian change agent: Transforming the entrenched professional organization. In J. V. Baldrige and T. E. Deal (eds.), *Managing Change in Educational Organizations* (pp. 378–388). Berkeley: McCutchan.
- Baldrige, J. V. (1980). Managerial innovation. Rules for successful implementation. *Journal of Higher Education* 15(2): 117–134.
- Caruthers, J. K., and Orwig, M. (1979). *Budgeting in Higher Education*. AAHE-ERIC/Higher Education Research Report No. 3. Washington, DC: American Association for Higher Education.
- Clark, B. R. (1983). *The Higher Education System. Academic Organization in Cross-National Perspective*. Berkeley: University of California Press.
- Cohen, M. D., March, J. G., and Olsen, J. R. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly* 17: 1–25.
- De Vries, P., Koelman, J. B. J., and Boersma, P. B. (1990). *Bekostiging van het Specifieke Hoger-onderwijsbeleid*. Beleidsgerichte Studies van Hoger onderwijs en Wetenschappelijk onderzoek 24. Zoetermeer: Ministerie van Onderwijs & Wetenschappen.
- Dijkman, F. G. (1985). An allocation model for teaching and non-teaching staff in a decentralized institution. *Research in Higher Education* 22(1): 3–18.
- Goold, M., and Campbell, A. (1987). *Strategies and Styles. The Role of the Center in Managing Diversified Companies*. New York: Basil Blackwell.
- Groot, T. L. C. M., and van de Poel, J. H. R. (1985). *Financieel Management van Nonprofit Organisaties*. Groningen: Wolters-Noordhoff.
- Hardy, C. (1988). The rational approach to budget cuts: One university's experience. *Higher Education* 17: 151–173.

- Hardy, C. (1990). "Hard" decisions and "tough" choices: The business approach to university decline. *Higher Education* 20: 301–321.
- Hills, F. S., and Mahoney, T. A. (1978). University budgets and organizational decision making. *Administrative Science Quarterly* 23: 454–465.
- Hopkins, D. S. P., and Massy, W. F. (1981). *Planning Models for Colleges and Universities*. Stanford: Stanford University Press.
- James, E. (1988). *Decision-Making Structures and Incentives at American Higher Education Institutions*. Higher Education Finance No. 1. Erasmus Universiteit Rotterdam.
- Jones, J. (1984). Budgeting for academic quality: Structures and strategies. In J. Folger (ed.), *Financial Incentives for Academic Quality* (pp. 15–28). New Directions for Higher Education No. 48. San Francisco: Jossey-Bass.
- Lisensky, R. P. (1988). Integrating the control systems. In D. W. Steeples (ed.), *Successful Strategic Planning: Case Studies* (pp. 15–22). New Directions for Higher Education No. 64. San Francisco: Jossey-Bass.
- Maassen, P. A. M. (1986). Strategische planning: ook in het Nederlandse wetenschappelijk onderwijs een management-revolutie? In P. A. M. Maassen and F. A. Van Vught (eds.), *Strategische Planning in het Wetenschappelijk Onderwijs* (pp. 1–12). The Hague: VUGA.
- Maassen, P. A. M., and Van Vught, F. A. (1989). Is government really stepping back? An analysis of the government strategy towards higher education. In P. A. M. Maassen and F. A. Van Vught (eds.), *Dutch Higher Education in Transition. Policy Issues in Higher Education in the Netherlands* (pp. 113–127). Culemborg: Lemma.
- Mayo, M., and Kallio, R. E. (1983). *Effective Use of Models in the Decision Process: Theory Grounded in Three Case Studies*. The AIR Professional File No. 15. Tallahassee: Association for Institutional Research.
- Mintzberg, H. (1979). *The Structuring of Organizations: A Synthesis of the Research*. Englewood Cliffs: Prentice Hall.
- Mintzberg, H. (1983). *Power In and Around Organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Otten, C. M. E., and Savenije, J. S. M. (1990). The rise and fall of an allocation model: An evaluation of its role as an instrument for policy decisions. *Research in Higher Education* 31(1): 1–14.
- Savenije, J. S. M. (1989). University strategy: Creation and implementation. Paper presented at the 11th Annual European Forum of the Association for Institutional Research, University of Trier, Germany, August 1989.
- Savenije, J. S. M., and Otten, C. M. E. (1986). Qualitative issues of planning in a Dutch university. *Research in Higher Education* 24(1): 35–46.
- Savenije, J. S. M., and Van Rosmalen, C. M. A. (1988). Innovation in a professional organization. *Higher Education* 17(6): 683–698.
- Van Vroeijsstijn, A. I., and Acherman, J. A. (1990). Control oriented versus improvement oriented quality assessment. In L. C. J. Goedegebuure (ed.), *Peer Review and Performance Indicators* (pp. 81–102). Utrecht: Lemma.
- Van Vught, F. A. (1988). A new autonomy in European higher education? An exploration and analysis of the strategy of self-regulation in higher education governance. *International Journal of Institutional Management in Higher Education* 12(1): 16–26.
- Wildavsky, A. B. (1968). Budgeting as a political process. In *International Encyclopedia of the Social Sciences*, vol. 2 (pp. 193–198). New York: Crowell, Collier, Macmillan.
- Wildavsky, A. B. (1984). *The Politics of the Budgetary Process*. Boston: Little, Brown and Co.

Williams, G. (1984). The economic approach. In B. R. Clark (ed.), *Perspectives on Higher Education. Eight Disciplinary and Comparative Views* (pp. 79–105). Berkeley: University of California Press.

Received June 14, 1991.