

Slack in public administration: conceptual and methodological issues

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Abstract

Ever since its introduction, the concept of organisational slack has constituted the basis for a considerable body of research within behavioural science. A great deal of this research has concentrated on budgetary slack, and within the field of public administration the focus has been on the slack- or budget-maximising bureaucrat. As the reduction of slack is the purpose of many of the techniques which are part of the new public management, there is a need to focus on how to measure changes in the level of slack. The objective of this paper is to discuss the relationship between three central concepts within the research on slack: organizational slack, budgetary slack, and the discretionary budget; to assess whether these concepts are suitable for public organizations; and to discuss problems of measurement.

Over the past few decades a wide range of reforms and management techniques have been introduced in public administration to improve productivity and efficiency – management by objectives, total quality management, performance measurement, zero-base budgeting, etc. This movement is described as the “new public management”, which, according to Jackson (1994, p. 121), puts the emphasis on “the importance of financial devolution; explicit standards of measuring performance; clear relationship between inputs and outputs; increased accountability; the superiority of private sector management practises and styles; the efficiency of competition and contracting out; and efficiency of parsimony”. Critics have seen the new public management as a marked-based ideology invading the public sector, while others regard it as a management hybrid with a strong emphasis on core public values.

In connection with this development there is a need to assess whether new techniques, management information systems, and organizational forms lead to increased productivity, efficiency, and quality. Because of the complexity of public administration, this may be difficult. In this context the concept of slack may be useful. Ever since Cyert and March (1963) introduced organizational slack as a significant concept in their theory of the firm, the level of slack has been used as an indicator of productivity. Even if a certain level of slack is necessary in order for an organization to be able to carry out its tasks in a satisfactory manner, a high level of slack may be an indication of poor utilisation of resources.

The objective of this paper is to discuss the relationship between three central concepts within the research on slack: organizational slack, budgetary slack, and the discretionary budget; to assess whether these concepts are

suitable for public organizations; and to discuss problems of measurement.

Organizational slack

Cyert and March (1963, p. 36) associate organizational slack with an understanding of the firm as a coalition of stakeholders. They define organizational slack as “[the] disparity between the resources available to the organization and the payments required to maintain the coalition”. Using their contribution as a starting point, the research on organizational slack has taken several directions. Bourgeois (1981), Bourgeois and Singh (1983), and Sharfman *et al.* (1988) have analysed organizational slack from a behavioural perspective, discussing both theoretical models and problems of measurement in empirical research. Bourgeois (1981) emphasises that organizational slack forms a basis of resources which enables the organization to adapt to internal and external pressures, as well as to initiate any strategic changes required. He thus indicates that organizational slack is needed in all organizations. Wayne and Rubinstein (1992) apply the concept in a game-theory analysis of decision-making situations with particular emphasis on relations of co-operation and conflict. Leibenstein (1966, 1978, 1980), in particular, has discussed the concept from a micro-economic perspective. Through his concept of X-efficiency he analyses the degree to which an organization possesses an unutilised potential for improving its efficiency. Williamson (1963, 1964) discusses the concept based on the manager’s possibility for using organizational slack to his own advantage. Within public administration, this research has been further developed, particularly by Miqué and Belangé (1974); Niskanen (1975), Breton and Wintrobe (1982), Wyckoff (1990), and Duizendstraal and Nentjes (1994).

According to Cyert and March (1963), organizational slack exists in two shapes –



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either as additional inducements for the stakeholders, or as a reserve accumulated by the management to which they can resort for resources during difficult times. In order to accumulate a reserve the management can regulate the amount of input/output which is transferred between the stakeholders and the organization. By supplying the organization with greater amounts of input than necessary to maintain a certain level of production, i.e. by keeping the productivity at a lower level than that which is ultimately possible to achieve, the level of organizational slack will increase. Likewise, the management may reduce the amount of output which is transferred to the customers, i.e. keep the volume of sales at a lower level than that which is actually possible, and thus create another form of potential slack.

An interesting question in this context is whether it makes sense to apply the concept of organizational slack, given its definition, to the public sector and non-profit organizations as opposed to private enterprises: the stakeholders have a different composition; they are connected to the organization through different forms of contracts; and the management has fewer possibilities for influencing the basis of income. The relationship to the customers or the users of public services is of particular importance. In private businesses a normal market contract exists between the firm and the customer, and the overall demand governs the supply – at least in the long run. Provided that the firm does not have problems supplying the goods, the amount purchased by a customer is not in itself part of the inducements.

For the public services, which are usually not financed through direct payment from the users, the level of production needs to be regulated through budgetary restrictions. This implies that the output of public services may in itself constitute an important part of the users' inducements. Besides, the users of some public services have no alternative suppliers at hand. As Cyert and March's definition of organizational slack presupposes that the stakeholders may leave the coalition, it is difficult to define what proportion of the slack is at the disposal of the users in these organizations. Another difference between private and public organizations is that public sector managers cannot establish a slack reserve by keeping the sales volume at a lower level than that which is realistically achievable in the market. In reality, therefore, the picture is very complex.

As a conclusion we may say that it should be possible to apply the concept of

organizational slack to public agencies. However, Cyert and March's definition is unsuitable as a way of grasping all the forms of slack which may exist within the public sector.

Budgetary slack

Most researchers who have concerned themselves with budgetary slack position themselves in relation to Cyert and March (1963), but the relationship between organizational slack and budgetary slack has not been addressed or clarified to any significant degree. Although the basis for the concept of budgetary slack lies in the theory of organizational slack, budgetary slack is normally defined as the difference between the stated budget and an honest budgetary prediction (Kirby *et al.*, 1991; Lukka, 1988; Ueno and Sekaran, 1992; Waller, 1988). Lowe and Shaw (1968) and Lukka (1988) use the concept "budgetary bias" in order to distinguish between, on the one hand, slack as an overestimate of the costs and underestimate of the income, and on the other hand, what is termed "upward bias", i.e. a conscious bias of the budget in the opposite direction. A distinction is also made between budgetary slack based on a conscious action by the budget manager; and an unintended misjudgement or an actual change in productivity or efficiency (Anderson, 1974; Demski, 1967; Lukka, 1988; Otley, 1985). According to these views, budgetary slack in public administration can be defined as a conscious overestimate of the costs *ex ante*.

A large proportion of the research on budgetary slack has been conducted with the aim of identifying the factors which influence the development of this type of slack. There are strong indications that participation is a necessary, although not sufficient, precondition for the establishment of budgetary slack (Dunk, 1990, 1993; Govindarajan, 1986; Leavins *et al.*, 1995; Young, 1985). Research also shows that budgetary slack co-varies with budgetary emphasis (Dunk, 1993; Leavin *et al.*, 1995); with asymmetrical information (Ueno and Sekaran, 1992); technology (Merchant, 1985); commitment and job involvement (Nouri, 1994); as well as with linkages between the budget and reward systems (Chow *et al.*, 1991; Dunk, 1990; Kirby *et al.*, 1991; Leavins *et al.*, 1995; Waller, 1988). Within this research, budgetary slack is measured partly by means of composite variables taking as their starting point management attitudes toward budgetary slack; partly by means of financial

key figures; and in experiments on the difference between an honest budgetary prediction and the stated budget proposal.

The difference between organizational slack and budgetary slack is, first, that budgetary slack is defined *ex ante*, while organizational slack is defined *ex post*. Second, budgetary slack is tied to the assessment of the budget manager as to what represents the minimum cost at which a specified amount of goods/services can be produced. Any budget manager acts as a principal towards her or his subordinates, and if we presuppose asymmetrical information and the existence of opportunistic behaviour, the honest assessments of this manager will be flawed in various ways. The concept of organizational slack is defined and applied on the assumption that full information is available. Third, the time scope is limited in the context of the budget. This means that organizational slack which has accumulated within the organization and which cannot be dissolved within the budget period in question, is unlikely to be considered as slack by the budget manager. The conclusion must be, therefore, that according to the dominating definitions, organizational slack and budgetary slack are indeed two independent concepts, each with its separate content.

Discretionary budget

In terms of slack in public administration, the most fundamental contribution was made by Niskanen (1971). He works within the public choice tradition, and his main thesis from 1971 is that bureaucrats will seek to maximise the budget of their bureau. This is based on the supposition that there exists a positive co-variation between the size of the budget and the utility that can be obtained by the bureaucrat. Niskanen claims that a range of variables will be included in the bureaucrat's utility function: pay, fringe benefits, power, reputation, security, production volume, and the amount of energy needed in order to manage and change one's own department. Miqué and Belangér (1974) suggested an extension of the model and argue that bureaucrats act to maximise their discretionary budget, defined as the difference between the total budget and the minimum cost of producing the output expected by the political authorities. This modification implies that the model will predict low productivity rather than "budget maximisation" in public administration. Niskanen (1991) accepts this as the general model and claims that his original model,

predicting budget maximisation, constitutes a special case.

Many critical voices have been raised against the model of the slack-maximising bureaucrat, and empirical investigations designed to test out the validity of the model have proven difficult. Several studies have been conducted in order to examine whether public organizations are less productive than private ones – with ambiguous results (Borcherding *et al.*, 1982; Downs and Larkey, 1986; Mueller, 1989; Savas, 1982). After going through the relevant research, Blais and Dion (1991), however, claim that the hypotheses of the bureaucrat's tendency to maximise his or her own budget or the discretionary budget should still constitute a central basis in any theory on bureaucratic behaviour.

The discretionary budget has not been theoretically defined either in relation to organizational or budgetary slack. According to the definition, political authorities will have certain expectations in terms of the volume that should be produced by a public organization. In the model is embedded an assumption that there exists a minimum cost which is necessary in order for the production to remain at this level. The difference between this minimum cost and the stated budget is defined as the discretionary budget. The concept is thus very similar to budgetary slack, but there is a significant difference in the sense that the discretionary budget is not based on the perception of the budget manager as to what minimum cost is achievable in real terms within the budget period in question. Furthermore, there is no indication in Miqué and Belangér's model (1974) that additional inducements to the stakeholders are drawn in as a variable in the definition of minimum cost. However, Niskanen (1991) indicates that the discretionary budget may, among other things, be used for additional inducements in the shape of perquisites to the management and/or the employees. Another portion of it will be spent in ways that serve the interests of the political review authorities. According to Niskanen, negotiations will take place with the purpose of distributing the discretionary budget among uses which serve the interests of the bureau and the interests of the political review authorities respectively.

As the discretionary budget may be used to meet the interests of the political review authorities, this may also, directly or indirectly, benefit the population. The corresponding condition applies in the special case of the management of a bureau having preferences in relation to the

maximisation of output. The additional inducements for the users of public services are thus better defined than was the case when the concept of organizational slack was applied. The relation between the discretionary budget and organizational slack is therefore somewhat unclear. Both concepts include the reserve which the management may establish in order to keep the productivity at a lower level than that which is realistically speaking achievable, both are defined *ex post*, and both are applied on the condition of full information. The difference is primarily found in the fact that while organizational slack is defined in terms of what inducements are necessary in order to keep the stakeholders within the coalition, the discretionary budget does not have a clear definition of what inducements should be included in the model.

On the basis of this, the relationship between the three concepts of slack may be described as in Table I.

Measuring slack

Even though organizational slack has proved to be an important concept in analyses, great problems are associated with measuring the phenomenon empirically. Bourgeois (1981) suggests a method in which each group of stakeholders is asked how big a reduction in the inducements they are willing to accept in the event of the organization being plunged into a crisis. This method has also been described by Barnard (1938), March and Simon (1958), and Cyert and March (1963), and is used by Nohria and Gulati (1996) in studying the correlation between innovation and organizational slack. In the public agencies where important stakeholders have no real alternatives, this method cannot easily be applied.

For reasons of validity and reliability, Bourgeois (1981) and Bourgeois and Singh

(1983) suggest as an alternative that relative changes in the slack level can be measured by using data from the accounts as a basis. They recommend that an indicator variable be developed, building on retained earnings; dividend pay-outs; general and administrative expenses; working capital as a percentage of sales; debt as a percentage of equity; credit rating; short-term loan interest compared to prime rate; and price/earnings ratio. Furthermore, they introduce the dimension "ease-of-recovery" – using the three categories available slack, recoverable slack, and potential slack. Cheng and Kesner (1997) used this method when they analysed organizational slack and responses to environmental change. Sharfman *et al.* (1988) operate according to the same guidelines, although their operationalisation is somewhat simpler: they regard slack as the physical resources available in an organization. Williamson (1964) and Schiff and Lewin (1968) found that when pressure arose to reduce organizational slack, the focus was primarily directed toward selling, general, and administrative expenses. According to Wolf (1971, cited in Leavins *et al.*, 1995), these costs are non-repetitive, which means that they can function as a barometer for changes in slack. Miller *et al.* (1996) used selling, general and administrative expenses as a percentage of total costs as a measure of the slack absorbed within the organization.

Using figures from the accounts to measure organizational slack is generally a problematic approach, and it is particularly problematic in relation to public administration. First, the accounts do not offer any impression of what inducement the stakeholders would have accepted in a crisis situation, and second, it is extremely difficult to uncover what, in real terms, would be the highest achievable productivity. Thus, it is not possible to uncover the level of slack by

Table I
 The relationship between organizational slack, budgetary slack and discretionary budget

Organizational slack	Discretionary budget	Budgetary slack
1 Defined <i>ex post</i>	1 Defined <i>ex post</i>	1 Defined <i>ex ante</i>
2 Inducements to the stakeholders beyond what is necessary to secure their participation in the coalition	2 Additional inducements to the management, employees or the customers	2 The share of the inducements which the manager assumes can be freed through negotiations with the stakeholders during the budget period
3 Reserve built up by the management by keeping productivity and sales volume at lower levels than those which are actually obtainable	3 Reserve built up by the management by keeping productivity at a lower level than what is actually obtainable	3 The share of the reserves of which the management has conscious knowledge, and which it assumes can be dissolved in the course of the budget period

studying the accounts of a public bureau.

Is it, then, feasible to develop an indicator variable which depicts relative changes in the level of slack? The greatest problem is probably one of distinguishing between changes in the level of slack and a redistribution of slack between the stakeholders. The distribution of slack is not random, but tied to decisions made by the dominating coalition (Cyert and March, 1963). In some organizations, the employees may, through a strong bargaining position, have attracted slack in the form of high pay; in others, dominating customers may have secured particularly good conditions for themselves. This means that the distribution of slack is influenced by the relations of power and the composition of the dominating coalition. If we accept without reservation the accounts as our starting point, it is difficult, not to say impossible, to know whether registered changes are associated with a change in the level of slack, or with a redistribution of it. Stable contracts, especially with regard to the dominating coalition, are therefore a prerequisite for measuring relative changes in slack by means of figures from the accounts. This means that it may be difficult to find a single indicator with sufficient validity for all situations.

In order to solve this dilemma, indicators measuring relative changes with respect to the most important stakeholders may be developed. In terms of the employees, indicators may be constructed which build on inducements which are by nature short-term, and can easily be changed; in terms of the users of the public goods/services, the indicator may build on the level of quality; and in terms of the management, the indicator may build on the productivity development. The slack at each stakeholder's disposal is determined by the contracts entered into with the coalition. The type of contract, the contract costs, relations of power, and the time-span of the contracts, as well as the degree of transaction-specific investments, are important factors which influence both the distribution of slack between the stakeholders, and the slack's degree of solubility. As many public agencies have the same purpose, task structure, and organization, the analyses may be extended to a comparison between the bureaus. This may give an indication both of level of slack as well as of changes over a period of time.

In the existing research on the slack-maximising bureaucrat, very little attention has been paid to methods for measuring the level of slack. The aim of this research has primarily been directed towards verifying

the model, and/or towards developing the model with respect to the number of variables and relations. In terms of measuring the discretionary budget, we encounter a new problem in that the model contains a special case in assuming that some bureaucrats have a special preference for maximising the output of the bureau. In this case it is very difficult to measure the total amount of slack. In terms of low productivity and extra inducements for the stakeholders, we come up against the same problems of measurement as the ones associated with measuring organizational slack. The accounts are not likely to provide a basis for measuring the total level of slack, but by studying selected entries and comparing these with those of corresponding bureaus, it may be possible to obtain indications of relative changes.

The great volume of empirical research shows that it is easier to find operational measures for budgetary slack than for organizational slack. Particularly in experiments, budgetary slack has often been directly measured (Chow *et al.*, 1991; Waller, 1988; Wayne and Rubinstein, 1992). This research has provided us with valuable insight into the connections between budgetary slack and other behavioural concepts. Such measurements are more difficult to conduct in field studies. The respondents have reservations about giving information on budgetary slack within their own fields of authority, and unless they are very conscious of their own behaviour, their assessments may be flawed in numerous ways. The method which is most frequently applied, according to their reports, was developed by Onsi (1973). However, methods of measurement have also been developed by Daley *et al.* (1985), and by Dunk (1993).

Onsi's instrument consists of four items and emerges as consistent with regard to measuring attitudes to budgetary slack. Onsi (1973) does not report any reliability analyses, but Merchant (1985) estimated the Cronbach's alpha to be 0.70 for this instrument. Two of the items have an affective basis, while the remaining two have a cognitive foundation. Those who have applied Onsi's method in their research have treated it as an indicator of behaviour directed towards establishing slack (Ueno and Sekaran, 1992), or of propensity towards establishing slack (Merchant, 1985; Nouri, 1994; Govindarajan, 1986). Dunk's method also consists of four items, and Dunk (1993) reports an Alpha-coefficient of 0.68. The distinction between Dunk's method and Onsi's method is that the former only has a cognitive foundation, and that it focuses on

the degree of difficulty in attaining the budgetary goals. It is implicitly presupposed that if the respondents perceive the budget goals as easily attainable, they will have established a large degree of slack in the budget, and conversely, if they perceive them as difficult, there is little budgetary slack.

Attitudes to slack are so far only measured in connection with budgetary slack. The reason for this is that budgetary slack builds on the budget manager's estimate as to which resources are required in order to produce the volume budgeted for. Based on the problems of measuring organizational slack and the discretionary budget, the possibility of measuring the attitudes to accumulating this type of slack should also be considered. The processes of change which the public sector is currently undergoing have made it particularly important to find good instruments with a broad application and the capacity to register indications of changes in the level of slack.

Summary

Many of the changes which are now being effected in the public sector seek to improve productivity, and efficiency, as well as quality, and in many contexts the intermediary variable is constituted by different forms of slack. Often, a change in the level of slack or the distribution of slack is therefore necessary in order to meet the goals of developing a public sector which runs more smoothly. In future research, it is, therefore, necessary to develop new methods of measurement which are adapted to the public sector and suitable for a comprehensive assessment of new initiatives. This applies both to methods which build on quantitative data from the accounts/production as well as to instruments which measure attitudes to slack. The latter have a broad area of application, and would make it easier to compare the development in different sectors and to conduct comparative analyses of the public sector in several countries.

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