Multiple Constituencies, Bureaucratic Efficiency and Rational Choice in Public Sector Management

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Introduction

Easily one of the hottest topics nowadays in the business world is that of corporate governance and the related issues of corporate responsibility and managerial ethics. Serious discussions on these issues have long been held both in academe and among business circles, but these have turned more serious and acrimonious as a result of the recent corporate scandals in the United States. At the heart of the matter is the issue of greed in the corporate world. Not only has the acquisitiveness of individual managers been denounced from all sides, but indeed, what have traditionally been accepted as legitimate motives of the business enterprise have increasingly been called to question.

Poor governance and abuse of authority have long been a major concern in government, of course, but nothing as unsettling an issue as the Enron case has rocked the public sector in recent times, certainly not in this country. For all the continuing public revulsion against bureaucratic incompetence, corruption and abuse of authority, serious debates on public sector governance have been relatively muted.

The Need for a Rigorous Theoretical Framework for the Analysis of Bureaucratic Behavior in the Public Sector

The reason for the glaring neglect of serious theoretical debates on bureaucratic behavior in government is the absence of a rigorous theory of bureaucracy. In public-sector management literature, there is no theoretical framework as robust as the neo-classical theory of the firm to serve as basis for such discourse. To put it in another way, the typical government bureau has no clearly articulated objective function to serve as basis for determining whether or not government agencies are performing efficiently.

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While it is true that managers of public organizations are mandated to achieve certain goals—for example, to produce so many units of output for specific constituencies, or to perform their responsibilities within certain specified resource restrictions or prescribed procedures—these are more in the nature of constraints imposed on them from without rather than true organizational objectives which they are supposed to pursue in earnest (Wilson 1989). There is no single variable corresponding to profits that the bureau manager is supposed to *maximize.* In the language of linear programming, the specified constraints enable decision makers in government bureaus to define their *feasible set,* that is, the region where they are free to operate, but they don't have an objective function to maximize. Hence, there is no hypothetical optimal or equilibrium solution to serve as basis for action. Consequently, there is no meaningful criterion to determine the rationality of the choices made by public sector managers, much less how efficiently their agencies are performing. They have no clearly defined standards for showing that one feasible course of action is preferred to another. Within the feasible set of options, public sector managers can operate with relative impunity and the possibility of taking courses of action that are inimical to some— if not indeed to all—of their constituencies is great.

As Shafritz and Hyde readily admit,

> There is little, if any, agreement on the standards and measurement of
> performance to appraise a government manager. ... Government managers
> rarely have a clear bottom line, while that of a private business manager is
> profit, market performance, and survival. (1997, 387)

With undisguised bafflement, Oliver Williamson wrote,

> The public bureaucracy is a puzzle. How is it that an organization form
> that is so widely used is also believed to be inefficient—both in relation to
> a hypothetical ideal and in comparison with private bureaucracies? (306)

To illustrate our point, consider a typical business firm that seeks to maximize,
say, its market value[1]. It's objective function takes the form

$$V = f(x_1), \quad i = 1, 2, \ldots, n \qquad (1)$$

where V is the firm's market value, and x_i is the set of goods and services
produced by the firm. The firm seeks to maximize V subject to the budget constraint

$$B \geq \Sigma x_i c_i \qquad (2)$$

where B is its authorized expenditures for the period, and c_i is the cost per unit
of the ith product.

Suppose the firm has two outputs, x and y. In Figure 1, the line segment MN
shows the various combinations of x and y that the firm can produce with its given
budget. The contours I_1 through I_4 represent combinations of the two products that
yield different values of V. Applying the "strong" rationality criterion, the firm will
choose combination b of the two products which maximizes the firm's market
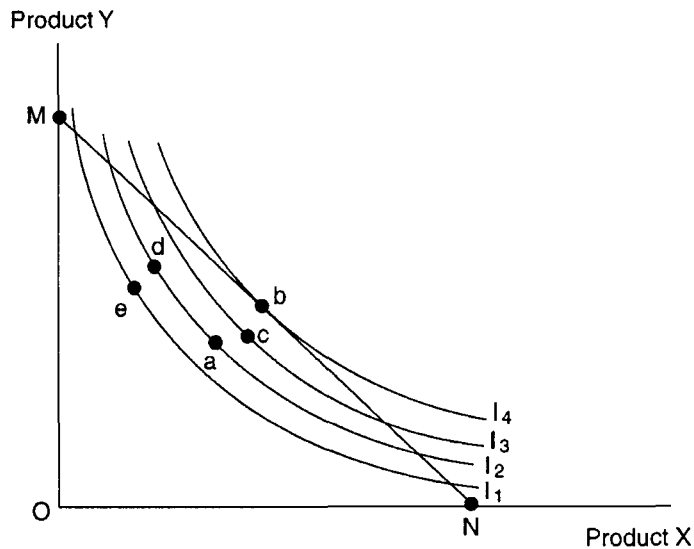value. This is the firm's *optimal* position.

Product Y

Figure 1: Choices open to the Business Firm

Suppose the firm were originally at point a and it is considering the alternative actions of moving to either point c, d or e. Applying the "weak" rationality criterion, a choice from among these options is rational from the standpoint of the firm if it will put *the firm in the best possible position among these options. The* obvious choice in this case is to move to combination c as this brings the firm to the highest possible iso-value contour. Any other choice would have been irrational from the standpoint of the firm. The move to combination e is especially egregious as this would *actually* reduce *the firm's market value.*

Consider now a public bureau that is mandated to serve two constituencies, for example, an agency that provides technical assistance to small and medium enterprises (call this product x) and financial support for aspiring entrepreneurs (y). To facilitate easy comparison, let us assume that this bureau has exactly the same budget as the private firm in our previous example.

Suppose that this agency is mandated by the government to produce the minimum amounts of x and y of the two services.

In Figure 2 below, the agency's feasible set is defined by the triangle MNO, and its managers are free to chose any combination of its two services within that

set. If the agency's goal is to minimize its expenditures, they may choose the combination O, leaving them free to either realize a surplus, or to divert theresources thus freed for other purposes, including serving their own personal interests.[2] Alternatively, they may choose any other combination within the set, including combination b which exhausts the budget.
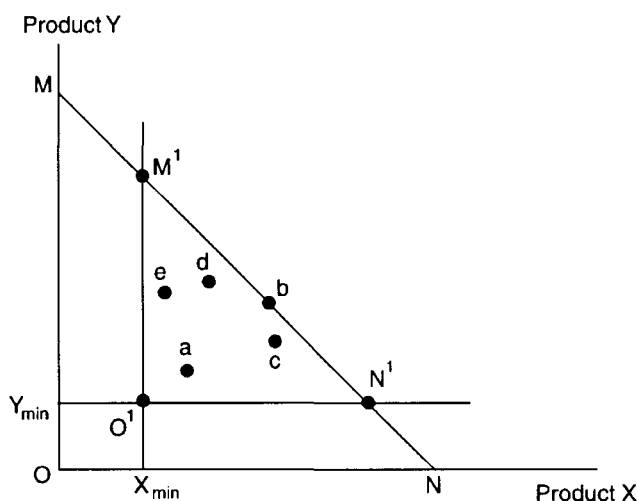

Figure 2: Choices open to the Government Bureau

The point we wish to stress here is that because the government agency has no well defined objective function corresponding to Eq. (1) above, its managers will be at wits' ends in determining whether or not a course of action from among a number of feasible alternatives will yield better results than the current level of performance. For example, in moving away from point a, which among combinations c, d and e is the most preferred? Without a

hypothetical set of iso-value curves similar to those shown in Figure 1, the best course of action is impossible to ascertain. Determining the optimal solution is of course out of the question. Technically, any combination of the two products that fall within the feasible set, including the minimum quantities mandated by higher authorities, qualifies the bureau as having met its objectives.

From these simple hypothetical cases, we can only conclude that a clearly defined objective function is an essential ingredient of an economic theory of bureaucratic behavior. Without one, neither the rationality of choice of bureau managers nor the economic efficiency of the agencies they manage can be established with any degree of certitude.

Rational Choice in Private Sector Management

In classical microeconomic theory, the goal of the firm is to maximize profits, and by our loose definition of the term, any decision that enhances profits is rational.

Applying this criterion in firms that are managed by their owners poses no difficulty because profit maximization is obviously in the interest of the owner-manager. However, problems arise in applying this rationality norm in most other forms of business organization where the owners of the firm are not necessarily the same persons as those who run the day-to-day affairs of the enterprise. In most (but certainly not all) business corporations, managers have no claim to the firm's residual income. While corporate shareholders seek to maximize the market value of their shares (which reflects the long-run profitability of the enterprise), managers seek to maximize their incomes and to enhance the marketability of their professional services. The principal-agent problem arises precisely because of conflicts of interests between the owners of the firm (the principals) and the professional managers who run the business for them (their agents).

There are however reasonably effective mechanisms by which to co-align the interests of principals and agents, mainly by linking compensation and promotion to corporate performance. These arrangements are governed by contracts which describe the terms and conditions of employment of company managers and workers. However, no matter how elaborately designed these contracts are, they

are never complete in specifying all possible contingencies that may arise during the period of employment. Due to information asymmetries between principals and agents and opportunistic behavior on the part of managers, profits are never maximized because part of the firm's resources are very likely to be diverted to serve the personal interests of the managers.[3]

These obvious limitations notwithstanding, corporate managers can still be assumed to earnestly pursue the financial objectives of their employers because doing so is in keeping with their efforts to maximize their own economic well being.

Rational Choice In Public Sector Management

Public Choice Theory, the theoretical framework that underpins current thinking in public governance, draws heavily from the principal-agent theory of the firm[4]. In public choice theory, voters are considered to be the main principals while their elected officials are their direct agents. These elected officials, working on behalf of those who put them in office, are *supposed* to undertake programs and provide services that are intended to serve the public interest. However, they seldom do so in practice because they are more interested in enhancing their own political and economic fortunes. If there is anything at all that they seek to maximize, it is their votes (Downs 1957), taken here as proxy for their personal interests, which include power, income and the prestige that go with their positions (Weingast 1984 and Downs 1957).

Politicians maximize their votes by currying favors not to the voters directly but to organized political groups and powerful members of the community who can deliver the votes. These power blocks within the body politic have interests that do not necessarily coincide with those of society as a whole.[5] They pursue their own political and economic interests by engaging in a variety of rent-seeking

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behavior, such as by actively lobbying politicians and government officials to support their causes. Politicians accede to their demands in exchange for the votes that they can deliver. Thus, while politicians make choices that are rational from the standpoint of their selfish political and economic goals, these are seldom in the interest of society as a whole.

To implement their political agenda, politicians appoint officials to manage the bureaucracy and to run the day-to-day operations of government. At this level, politicians serve as the principals for whom their appointed department heads and bureau officials act as agents. It is in the personal interest of these agency managers to implement programs as directed by those who put them in office. It is therefore only to be expected that their choices will favor their political benefactors more than the constituencies that they are supposed to serve. As a rule, agency managers have no strong incentives to serve the public interest.

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This problem is compounded by the fact that the entire government bureaucracy consists of layer upon layer of bureaucrats, one level acting as principals to those immediately bellow them (Moe 1984). The lowest level bureaucrats who actually deliver services directly to their constituencies are several layers removed from the electorate and are therefore relatively insulated from them. In the absence of extensive and effective monitoring and control mechanisms, it is too far-fetched to expect them to dedicate themselves to the public interest. In pursuing their own personal goals (which take the form of higher salaries and promotions), lower-level managers of public agencies will tend to do the bidding of those who put them in office, subject only to applicable laws and existing administrative rules and procedures, if at all.

Suffice it to say that even the most well-meaning of agency managers cannot truly serve the public interest because they are subject to a plethora of ambiguous and often conflicting signals that are imposed on them from various sources. By contrast, managers of private firms have a single, clear-cut objective: to maximize returns on their employers' investment. The realization of their own individual goals depend in large measure on their success in creating value for the firm, and it

is therefore in their interest to run a tight ship. To do otherwise would expose them to the harsh judgement of the "invisible hand" of market competition.

In public choice theory, all major actors in the public arena – the electorate, their elected officials, and those appointed by them to manage the bureaucracy – are assumed to be utility maximizers and are therefore expected to behave rationally (Boston, et al. 1996). They are, however, driven by different and frequently conflicting objectives. What may be rational or efficient from the perspective of the individual bureaucrats may not be so with reference to the economic interest of the constituencies that they are supposed to serve, and even less so in terms of the economic interests of society (Simon 1997 and Steiss 2003).

Institutional Sources of Bureaucratic Inefficiency

It is truly ironic that even when public agency managers are sincerely concerned about the well-being of their constituencies, they cannot be efficient under the institutional arrangements in which they operate. Aside from the absence of a well-defined objective function for the public bureau, there are many other factors that contribute to bureaucratic inefficiency.

Inherent Limitations of Bureaucratic Organization

The bureaucratic organization, with its emphasis on adherence to rules, strict conformity to operational procedures, task specialization and administrative accountability, is generally considered to be ineffective in achieving stated organizational goals. While Max Weber has claimed that bureaucratic organization brings *technical* efficiency to the highest possible levels (1973), most subsequent writers on organization and management have argued that bureaus of the Weberian mould tend to be *economically* inefficient.[6] Excessive controls, they claim, unnecessarily limit the range of choices open to managers and prevent them from responding creatively and in a timely manner to continually changing circumstances. As a result, they fail to create economic value due largely to missed opportunities. Moreover, strict adherence to established rules and procedures and extreme authoritarianism in the organization tend to stifle individual initiative and discourage

efforts to exceed minimum acceptable levels of performance. Finally, carried to extremes, division of labor and task specialization encourage bureau managers to pursue the goals of their own units rather than those of the organization as a whole, and, as a result, fail to combine their complementary activities to create value through synergy.

Incompetence in the Government Bureaucracy

Incompetence in the government bureaucracy stems from a number of factors. To begin with, the odds are great that less than capable individuals are recruited into public service. In the private sector, job applicants are evaluated largely on the basis of their training and experience, and only the most qualified for the job are hired. This is seldom the case in the public sector where appointments to administrative positions are based largely on personal considerations rather than on technical or managerial capabilities.

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Additionally, a good deal of self-selection takes place among job seekers, the more competent among whom shy away from government positions in favor of better-paying jobs and greater opportunities for professional advancement in the private sector.

Once in office, political appointees have little incentive to develop their professional skills and to excel on the job. Since their contribution to agency performance is difficult to measure in any meaningful way, it is easy for public agency officials to conceal their incompetence. For the same reason, promotions and salary adjustments are usually made on the basis of criteria other than accomplishment, such as length of service, strict compliance with established procedures, and most contemptibly, subservience to their superiors and political patrons. It is not surprising therefore that government bureaus are mostly under incapable hands.

To be sure, their generally lower levels of technical and managerial competence do not necessarily make public sector officials any less rational than their counterparts

in the private sector, at least not insofar as their self-seeking behavior is concerned. However, because they are generally endowed with less cognitive and technical skills, their choices can only be expected to be much less optimal. They may be rational but, in the words of Nobel Laureate Herbert Simon, they are more *boundedly* so (1997, 88).

Bureaucratic Integration and Transactions Costs

In managing their supply chains, private firms limit their productive activities to those in which they posses the highest level of technical competence, and acquire other required physical inputs and services from outside suppliers and distributors. In entering into these strategic arrangements, firms incur what are called transactions costs. These are costs that are intended to insure that the terms of contract are carried out to the letter.[7] The optimal range of activities that a firm will undertake (or the degree to which it is vertically integrated) is that which minimizes the sum of their production and transactions costs.[8]

As a rule, managers of government agencies are loathe to outsource peripheral activities within their administrative responsibilities even if doing so will result in greater cost effectiveness in their operations. The reason, quite simply, is that spinning off costly or redundant activities to private firms or to other government agencies will reduce the size of their bureaus and therefore runs counter to their personal interest.

Inefficiency in the Allocation of Output

In the private sector, firms provide goods and services to customers in exchange for the prices paid for them. Prospective customers will purchase their products only if they perceive higher values in them than the prices they are required to pay. Those for whom the perceived value of a product is less than the price will not purchase the product at all. In private-sector transactions, price serves as the mechanism by which economic goods are made available only to those who will realize an economic surplus from their purchase. Except where there are significant

external effects in production or consumption, the price system insures an efficient allocation of economic goods among their users.

In the public sector, there is no such mechanism to allocate output efficiently. Even where bureaucrats are benevolent, they can never be efficient in distributing their products. In most societies, privately consumed government services such as education and health services are grouped into "slots" that are allocated to government agencies for distribution to deserving citizens (Banerjee 1997). However, agency managers are unable to observe the value of these services to their customers. By taking their words at their face value, they are often misled into providing the goods to users who have far less need for them than others. The result is a distribution of goods that is non-Pareto optimal.[9]

What Goals do Bureaucrats Pursue?

In the absence of something akin to profit maximization as an objective, what goals do government bureaucrats typically seek in practice? For want of a theoretically elegant model of choice to serve as a guide for action, public choice theorists have looked at a number of surrogate measures of bureaucratic performance. We focus on two: budget maximization and cost minimization.

Budget Maximization

Niskanen (1971) has shown that self-seeking bureaucrats typically attempt to justify and to perpetuate their sinecures by attempting to maximize their budgets. This objective obviously also serves the interests of the politicians who put them in office as these would provide them extra leverage in expanding their political power bases. Pursuing such a goal is obviously rational from the bureaucrats' standpoint because it enhances their income potential and the prestige that goes with high office. However, this certainly does not serve the public interest.

Maximizing the size of the bureau (as measured by the level of its expenditures) implies that the agency will extend its activities up to or even beyond the point where the total value of output is exactly equal to their budgets. Under the usual concavity assumptions, these levels of activities are non-optimal.

In Figure 3, the quantity of output is measured along the horizontal axis and the nominal value of output to society along the vertical axis. The agency's budget is also indicated along the ordinate. The line OB represents the budget in relation to output and assumes a constant average cost. The curve V shows the value of output to society at different

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levels of operation. Suppose the agency starts with a budget of B_1. At this level of operation, the bureau produces OQ_1 units of output and contributes ab in net economic value to society. Increasing the budget to B_2 is rational from the standpoint of both the agency managers and of society as this enables the bureau to increase its contribution to the community's economic wellbeing to a^1b^1 (> ab). At this level of operation, the bureau produces OQ_2 units of output and its net contribution to social welfare is maximized at a^1b^1. Any further increases in its budget beyond this point will result in a net decline in welfare. Producing output OQ_3 with a budget (total cost) OB_3 will yield a net value of zero to society. Increasing the budget beyond B_3 will actually destroy value. Ironically, such moves are consistent with the maximization of the incomes of both the bureaucrats and their political sponsors and are therefore rational from their perspectives.
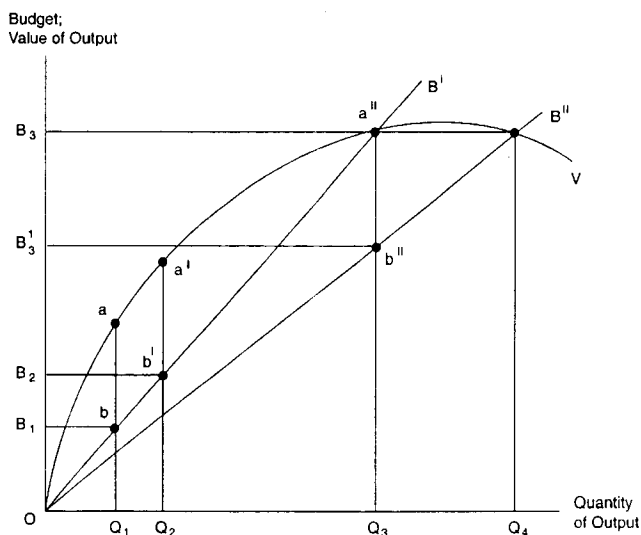

Figure 3: Maximization of the Agency's Budget

Loss Minimization.

Lane (1993) has noted that in the public choice theory framework, economic inefficiency does not necessarily imply inefficiency in the internal operations of the bureau, or that waste is flagrantly tolerated. To the extent that they are evaluated partly on the basis of the cost-effectiveness of their operations, bureaucrats sometimes attempt to minimize the cost of producing a given level of output.

In Figure 3, bureau managers may seek to shift the budget line OB to OB^1 through deliberate attempts to reduce the per unit cost of output. Thus, if the agency has decided on producing Q_3 units of output, it may attempt to minimize the total cost of producing that amount to OB^1_3. In this way, it is able to generate a"b" in economic welfare. This strategic move would have been rational from society's viewpoint since it will generate a positive increment in economic value. However, the process does not necessarily end here. The improved cost picture will enable self-seeking agency managers (with the usual backing of their sponsors) to increase output to OQ_4 and still operate "within budget," so to speak. Indeed, improvements in the agency's internal operations may serve to justify further budgetary allocations. As it turns out, cost minimization is often just a subterfuge for expanding the bureau!

A Value-Maximization Model of Bureaucratic Behavior

In searching for an alternative theoretical model for explaining, or more appropriately, *prescribing* choice criteria in government, we must abandon the traditional Weberian definition of bureaucracy.[10] Instead, we define the government bureau as an institution intended to create value for society and to allocate this among its members. By this definition, the government bureau is viewed as an entity that is mandated to serve the interests not only of its constituencies but those of all its stakeholders *taken altogether*.[11]

In a typical business firm, the stakeholders include the owners of the business enterprise (or shareholders, in the case of publicly-owned corporations), employees, customers, and the community or society at large. The "owners" of a government bureau are the members of society, as represented by the electorate. We call the direct beneficiaries from its activities constituencies rather than customers for the

reason that they normally do not pay for the services that they receive. Otherwise, both private firms and government agencies, as well as non-profit organizations and other forms of productive institutions essentially have identical sets of stakeholders.

In some cases, a number of stakeholders of a government bureau may have coincident interests. For example, a welfare agency that serves the needs of street children also benefit the parents, commuters, and all of society.[12] Quite often, however, the different constituencies served by the government bureau have conflicting interests, and the interest of one can only be served by sacrificing some benefits to others. Typically, there is

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no way of telling whether the benefits accruing to some outweigh the damage done to the economic well-being of others. Such situations arise when there are significant external diseconomies associated with an activity. For example, by setting up protective tariffs on imported cement, the government serves the interests of the cement industry. However, this is made possible at the cost of higher prices to consumers. In many cases of this nature, the gainers gain less than what the losers lose.

The profit maximization model of the firm has recently fallen into disrepute because it looks at the interest of only one of the firms many stakeholders, namely the owners of the firm, or its shareholders. In its place, *stakeholder theory* has assumed increasing prominence in the recent management literature.[13] According to this theory, managers should show concern for the interests of all groups that have a legitimate stake in the corporation. This alternative conceptual framework has served as the main rationale for current thinking on corporate governance (Poblador 2002).

However, stakeholder theory, as currently articulated, is flawed for several reasons:

(1)It fails to specify the corporation's objective function in terms of a single, well-defined variable and therefore fails to identify an optimum or equilibrium point. Because of this, it does not provide a theoretical basis for rational choice. This model in particular fails to provide managers with the ratio-

nal basis for establishing trade-offs between the conflicting interests of their stakeholders. As a consequence, decision makers are at a loss in determining whether one course of action is preferred over another.

(2) In the absence of a well-articulated criterion for rationality and objective measures of performance, managers have to be "empowered" to exercise discretion, subject only to incompletely specified contracts. As a result, corporate managers are able to maneuver within their areas of accountability and divert resources to unintended purposes. This in turn requires more monitoring and supervision and thus increases what are called agency costs.

(3) Stakeholder theory politicizes the corporation by sharply drawing the boundary lines among the various stakeholders. As a result, the enterprise emerges as a zero-sum game, and stakeholders are put in a confrontational relationship vis-à-vis one another (Poblador 2002).

For all these reasons, the currently accepted interpretation of stakeholder theory is equally inapplicable to government bureaus, all the more so because oversight mechanisms are generally much weaker in the public sector.

On a purely theoretical plane, it is not only difficult but impossible to simultaneously maximize the separate interests of all stakeholders, certainly not when these interests are incompatible.

How, then, can the enterprise fully serve the collective interests of all its stakeholders?

A possible way out of this dilemma is to state the goal of the productive organization in both the public and private sectors in terms of maximizing economic value in general and not just that accruing to a particular stakeholder or group of stakeholders. By stating the organization's objective function in terms of a single maximand, it becomes possible to define rationality and economic efficiency. More importantly, it enables us to determine, or at least approximate, the appropriate trade-off among the interests of the different stakeholders in the enterprise.

Estimating the economic value created by a private firm for its customers is a relatively straightforward endeavor because this can be gauged directly from the prices that their customers are willing to pay for their products and services. As we

have noted earlier, customers who purchase their products and services are those who value them more highly, or at least as much as the prices that they pay for them. Those who do not purchase a product can be assumed to attach less value for it than the price. By entering into market transactions with their customers, there is therefore reasonable assurance that firms create economic surplus for them. Finally, the existing market prices for both outputs and inputs enable business firms to factor externalities into their cost estimates with relative ease, and in this way address more effectively the economic interests of their other stakeholders.

There is no such price mechanism in the public bureaucracy to guide public agencies in their decisions on the levels of output and on how to allocate their outputs among their different constituencies. There being no price to separate those who are willing to purchase their products from those who are not, the differential valuation of their services among the users cannot readily be established. The unavoidable consequence is inefficient distribution and hence, less than maximized welfare for their constituencies. Alternative ways must therefore be explored to gauge the value that public agencies create for their intended direct beneficiaries as well as those who are indirectly affected by their activities.

Private firms go to great lengths to study their markets and to know their customers better. Progressive companies typically conduct periodic market studies (or demand analysis) the findings of which serve as basis for their product design and pricing strategies. Government agencies should do no less.

Taking their cue from their counterparts in the private sector, managers of government agencies can estimate the value placed by their constituencies on the goods and services they produce by looking at a number of indicators of consumer preferences. Economics textbooks list a number of *determinants of demand* which include income, prices of substitutes, and relevant personal circumstances of consumers. Where income figures are hard to come by, agency administrators may conduct lifestyle checks on their constituencies to determine their capacity to obtain their services from alternative sources. Most goods and services provided by government agencies have close substitutes in the private sector. The prevailing prices of these products provide a good basis for establishing the perception of value of the services that they offer to their constituencies. For example, tuition fees

charged by private universities provide administrators of state universities useful inputs for determining their own tuition and scholarship policies.

In many cases, consumers themselves provide signals of their preferences. For example, patients who adamantly insist on superior medical treatment are most likely to be the ones who attach little value to free medical services offered by government hospitals. Those who queue up early for their share of publicly provided services are more likely than not to value these services more highly than late comers. In most cases, *self- selection* automatically eliminates potential users of government services. These include patients who choose to go to private hospitals rather than seek the services of government hospitals or health clinics, as well as lawbreakers who would rather seek the legal services of private lawyers rather than those of a public defender.

Once the demand for its output has been approximated, a government bureau will be in a much better position to decide on how to allocate its services between its constituencies and among the members of a particular constituency. Let us consider a number of hypothetical situations.

The Simplest Case: Serving A Single Constituency

The line D in Figure 4 is the estimated demand curve for the services rendered by a government agency to a particular constituency. Output is assumed to be produced at a constant cost of Oc per unit. With an unlimited budget, the agency maximizes its contribution to value by producing OQ units of output. At this level of operation, the total value generated by the bureau is indicated by the area abc which is the difference between the value of the output to the users (area abQO) and the total cost of production (cbQO). It can readily be seen that any other level of output will yield a lower net economic value. If the agency's budget were set at a lower level cb^1Q^1O, the agency will produce OQ^1 units of output, and total value generated is the lightly shaded area aa^1b^1c. If the agency is able to increase its budget by the amount $bb^{11}Q^{11}Q$ and produce additional output QQ^{11}, the increase in total cost will exceed the corresponding increase in value to consumers, and net economic

value *declines* by the heavily shaded area $bb^{11}a^{11}$. This clearly demonstrates that the goal of maximizing an agency's budget without limit is not compatible with the goal of maximizing value overall.
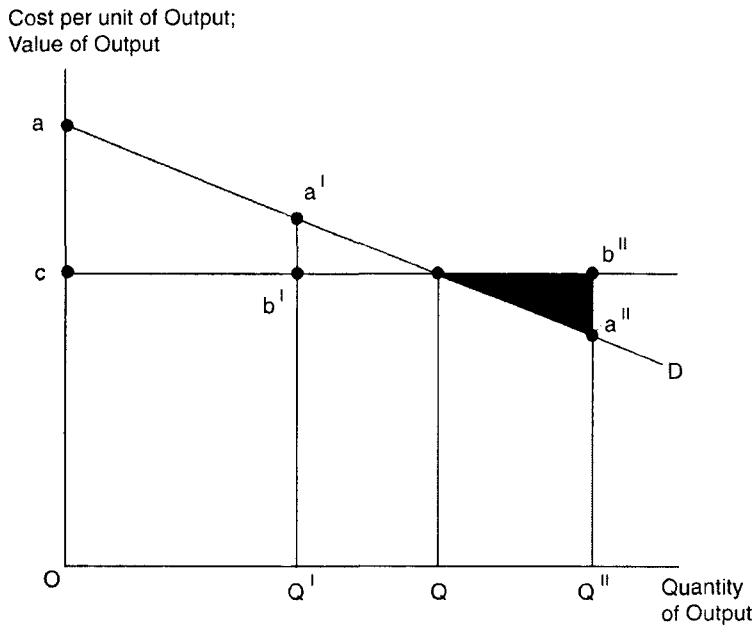

Figure 4: Maximizing Value for a Single Cosstituency

Even in this simple situation, the agency faces the serious problem of determining how to allocate its output among the members of its constituency, all of whom are presumably entitled to it. In Figure 4, the budget-constrained agency must make certain that only consumers whose reservation prices are indicated along the portion aa^1 of the demand curve are served, and those who value the product at less than a^1Q^1 (i.e., those whose reservation prices lie along the portion of the demand curve further to the right of point a^1) are not. In identifying the individuals who are entitled to the agency's service (i.e., those who attach a value the product that is greater than its average cost), the agency may use estimates of the various demand parameters discussed earlier (i.e., income, prices of substitutes, etc), along with a variety of signals coming from the customers themselves.

Serving Either One Constituency or Another

Suppose now that the agency may provide its service to either one constituency or another, for example, one of two communities in need of additional facilities for child care. For simplicity, let us assume identical costs in both communities but that the need is more intense in one community than in the other. In Figure 5, D_a and D_b are the demand curves for the needed facilities in Communities A and B, respectively, and Oc ($= Oc^1$) is the corresponding cost per child of producing the required facilities. Under the assumed demand conditions, greater value will be generated by constructing the facilities in Community A rather than in Community B. Facilities good for OQ pre-schoolers will be built at a total cost of $cbQ O$, and net value generated is indicated by the area abc. Had the facilities been built in Community B, less value ($a^1b^1c^1$) would have been generated. This simple illustrative exercise yields this general rule: *The services of a government bureau should be provided to those constituencies where more value is generated.*

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The experience of the Metro Manila Development Authority with sidewalk vendors along EDSA serves as a good illustrative example of a situation where public facilities may be enjoyed by either one constituency or another. In this case, the economic value of the use of sidewalks to commuters who traverse EDSA must be weighed against the value of these sidewalks to vendors in terms of the income they are able to realize from their use. In deciding to clear the sidewalks of vendors, the MMDA has obviously calculated that the value of the use of sidewalk to commuters (in terms largely of additional incomes earned due to the easing of traffic) far outweighs the income loss to the vendors by depriving them of their venue to ply their trade.
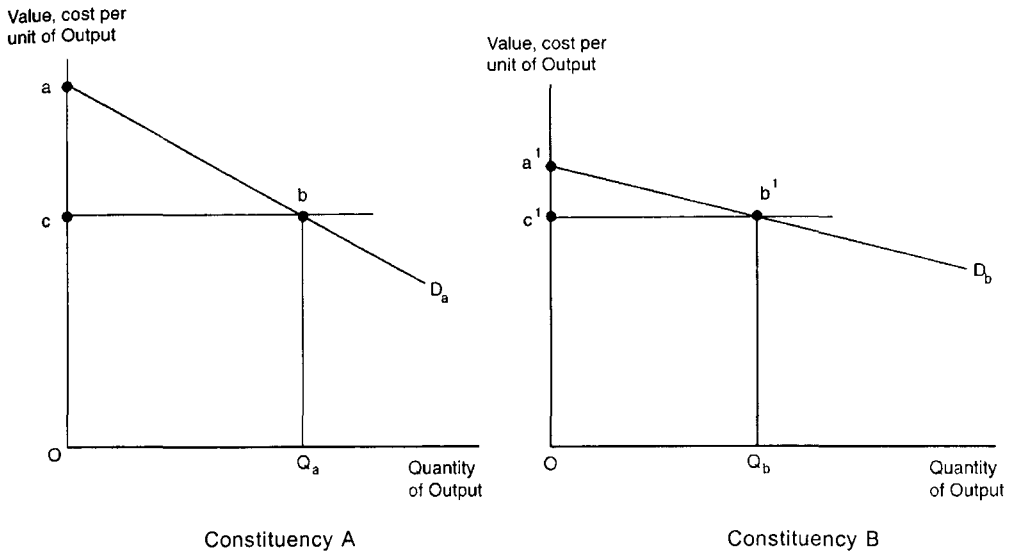
Constituency A

Constituency B

Figure 5: Value Creation for Either of Two Constituencies

Serving Multiple Constituencies

Let us now consider the more typical case where the public agency simultaneously serves several constituencies. In Figure 6, D_a and D_b are the demand curves for two different services provided by the agency to Constituents A and B, respectively. These products cost Oc_a and Oc_b per unit, respectively. In the absence of a budget constraint, the welfare-maximizing levels of output are OQ_a of product X and OQ_b of product Y.

If the total agency expenditures allowed are less than the amount necessary to produce the value-maximizing levels of output, the agency must allocate its budget between its two constituencies in such a way that *the last unit of expenditure will yield equal net increments to value* for both. In the diagram, the agency's budget is set at $B = c_a dQ_a^1 O + c_b d'Q_b^1 O$. In order to maximize value created in both constituencies, the agency must produce OQ_a^1 and OQ_b^1 of the two products. With this allocation, the last unit of expenditure will yield bd in marginal value for Constituency A and b'd' (= bd) for Constituency B, and total value generated is the sum of the shaded areas $abdc_a$ and $a^1b^1d^1c_b$. Any other allocation scheme will yield less total value.
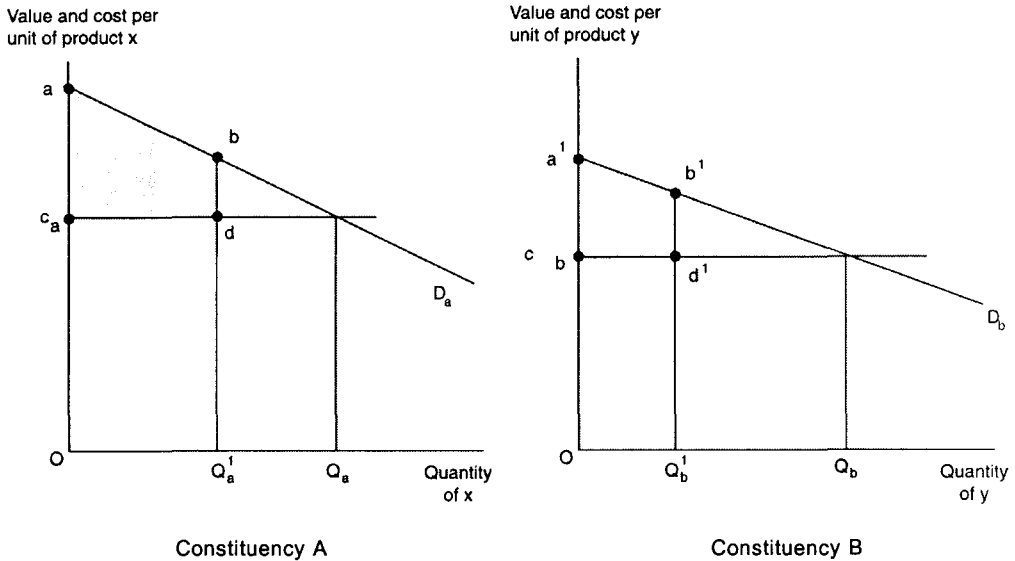
Figure 6: Maximizing Value for Two Constituencies

Implications on Performance Evaluation and Compensation of Bureau Administrators

In arguing for value maximization as the ultimate goal of public-sector management, we must also rethink the criteria for rewarding government bureaucrats in order to make their personal interests coincide more closely with those of their constituencies and of society as a whole. The prevailing standard set of performance evaluation criteria used in the government bureaucracy should give way to one that is more in keeping with value maximization. In particular, rather than basing their compensation and promotion on how closely government bureaucrats adhere to prescribed rules and regulation of the government bureaucracy, or how adequately they have provided specified amounts of services to particular constituencies, they should be evaluated on the basis of how much value they have generated overall. In this way, the interests of the individual bureaucrats are harmonized with those of their constituencies and other stakeholders in their agencies. What is then rational from the standpoint of their individual economic interests also becomes rational with respect to the interest of their constituencies and of society as a whole.

Endnotes

1 The market value of a firm reflects the market's assessment of its profitability.

2 Resource diversion in organizations is discussed in Jensen and Meckling (1976).

3 Williamson (1985); Milgrom and Roberts (1992); Jensen and Meckling (1976).

4 Seminal works in the field include those of Buchanan and Tullock (1962) and Niskanen (1971). An excellent introductory summary of the basic tenets of this school of thought can be found in Felkins (2001).

5 Prendegrast (2003); Bennedsen (2000); Self (1985).

6 Among the early detractors of Weber and the so-called scientific management school are Douglas McGregor (1960), Rensis Likert (1961), and Daniel Katz and Robert Kahn (1978).

7 Transactions cost also include potential loss of opportunities arising from being locked into a contractual arrangement that may has cease to be advantageous to the organization.

8 Williamson (1985). See also Besanko (2004) and Milgrom and Roberts (1992).

9 That is, a redistribution of goods from users who value the products less to those who value. them more is bound to increase economic welfare overall.

10 Max Weber (1947) formulated a theory of bureaucracy that stresses the *rational-legal* characteristics of modern organizations. In the Weberian (i.e., "classical") tradition of organization theory, an act is *rational* if it conforms to formally established rules and procedures.

11 The intended beneficiaries are easy enough to identify for certain government bureaus but not for others. For those that provide direct benefits such as health, welfare and education, the "customers" are warm bodies that can readily be identified. But for many others, for example, the military and the foreign service, the beneficiary is society itself and not any particular group of individuals.

12 Providing such a service is said to have significant positive external effects.

13 See, for example, Donaldson and Preston (1995); Wheeler and Sillanpaa (1977).

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