

Decision Externalities, Economic Efficiency and Institutional Response*

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Ce texte examine l'application du concept d'efficacité économique au processus de décision collective et aux institutions du secteur public. Nous montrons que l'existence de coûts de transaction et de procédures de décision collective requiert un cadre d'analyse plus large que celui qui a été adopté jusqu'à maintenant afin d'évaluer les processus politiques et les institutions. Par la suite, nous développons le concept de réponse institutionnelle et montrons que plusieurs structures et institutions affectant les décisions publiques peuvent comporter des mécanismes de contrepoids visant à corriger les problèmes d'efficacité. Nous proposons ensuite une procédure de diagnostique afin de découvrir les problèmes potentiels d'efficacité en cherchant les situations où les preneurs de décision ne supportent pas tous les coûts ou ne capturent pas tous les bénéfices engendrés par ces décisions. Le texte identifie des exemples de décisions avec externalités dans trois processus de décision publique: les choix par les voteurs individuels, par les représentants élus dans les assemblées législatives, et par les membres de la bureaucratie. Nous introduisons un certain contenu empirique à la discussion en la mettant en relation avec les changements politiques et institutionnels récents qui sont survenus au Canada.

The paper examines the application of the concept of economic efficiency to collective decision processes and public sector institutions. We show that the existence of transactions costs and of collective decision-making procedures requires a broader framework for judging policy processes and institutions than has traditionally been adopted. Next we develop the concept of institutional response and argue that many public decision structures and institutions may already embody counterbalancing features designed to deal with potential efficiency problems. We then propose a diagnostic procedure for finding potential efficiency problems by looking for situations where the major decision-makers do not bear all the costs of their actions or capture all the benefits that these actions create. The paper identifies examples of such *decision externalities* in three areas of public decision-making: choices by individual voters, by elected representatives in legislatures, and by members of the bureaucracy. The discussion is given specific empirical content by relating it to recent major institutional or policy initiatives taken in Canada.

I Introduction

The paper examines the application of the concept of economic efficiency to collective decision processes and public sector institutions. We start with a section devoted to the standard of reference that defines an

optimal use of resources. This starting point is crucial since economists analyse efficiency in relation to an ideal situation. We show that the existence of transactions costs and of collective decision-making procedures requires a broader framework for judging policy processes and institutions

than has traditionally been adopted.

Next we develop the concept of institutional response and argue that many public decision structures and institutions may already embody counterbalancing features designed to deal with potential efficiency problems. This implies that any evaluation must take account of the nature and extent of such responses and examine how they can be strengthened and improved. We then propose a diagnostic procedure for finding potential efficiency problems by looking for situations where the major decision-makers do not bear all the costs of their actions or capture all the benefits that these actions create.

The paper identifies examples of decision externalities in three areas of public decision-making: choices by individual voters, by elected representatives in legislatures, and by members of the bureaucracy. In each case, we characterize the nature of the problem and point to possible counterbalancing factors. Next we proceed to give the discussion more specific empirical content by relating it to three major institutional or policy initiatives taken recently in Canada. Each one is assessed within the framework developed in the preceding sections and examined as a possible response to decision externalities existing in the Canadian political process. A brief final section concludes the paper by drawing several general lessons for the examination of efficiency from the proposed approach.

II Defining a Standard of Reference

The term efficiency, as it is employed in the economic literature, presupposes a standard of reference representing a hypothetical world where all resources are used in an optimal manner. Allocations are considered to be inefficient if they depart from this ideal standard.

Several conceptual problems must be overcome when we attempt to define an ideal reference situation. We shall illustrate them in two ways. First, we inquire into the meaning of a reference standard if

transactions costs are introduced into the analysis as an explicit element. Second, we review the definitional problems that arise when political decision-making becomes an essential part of the theoretical framework.

Much of traditional economic analysis has relied on a frictionless world to represent the ideal reference solution. In a recent article, Keith Acheson and Stephen Ferris (1991:46) characterize the nature of such a world:

... assume that mechanisms exist that costlessly make all information about resources available to all individuals. All promises are also costlessly enforceable. For public goods, the unanimity principle rules. Complex contracts are costless to make and enforce. Strategic disputes over rents are costlessly resolved. In this world, an optimal allocation of resources results from contract and exchange.

Some reflection will indicate the problems arising from adoption of a standard defined in this manner. In reality, it is expensive to obtain relevant information and to enforce legal arrangements, while public choices are based on some version of majority rule rather than on the unanimity principle. If deviations from a frictionless world are deemed to be inefficient, all costs associated with the gathering of information, the drafting and enforcement of contracts, and the making of collective decisions must be considered to be improper uses of economic resources. On the other hand, if such transactions costs are accepted as necessary elements of the analytical framework, the emphasis is changed. Analysis must now focus on whether these costs are minimized in particular situations and on whether existing institutions and policies are a rational response to their existence.

Acheson and Ferris (1991:54) point out some of the implications for efficiency analysis of theoretical work incorporating common property rights and transactions costs into the standard of reference:

The common property right analysis revealed

that competition could be excessive, could be bad and needed to be socially controlled. It justified for efficiency reasons making political decisions by majority rule and other non-unanimity voting schemes ... It made industrial organization a more difficult but richer discipline, which required more than a knowledge of the perfect competitive and simple monopoly models. It also provided the possibility of an efficiency defence for government involvement in the economy.

Although these lessons are the logical outcome of theoretical inquiry, they have met with some resistance:

That government regulation could be efficient, that rent-seeking might be an unavoidable cost of the most efficient way of making political decisions, that competition needed to be controlled and directed, and that the courts could be active in redistributing wealth and replacing market mechanisms for efficiency reasons were not particularly palatable messages for the traditional economist ... (ibid.).

The reluctance to accept the full implications of a broader standard probably helps to explain why comparison with a frictionless world continues to play a role in many economic studies.

While the literature on transactions costs points out the need for governmental institutions, it focuses primarily on private contracts and markets and does not pursue the public sector aspects of the analysis in detail. A separate literature has developed, dealing primarily with the theoretical questions that arise when political choices play an integral part in the design of economic models.

A question that has been of much concern to those analysing public choices is whether majoritarian institutions can yield stable equilibrium outcomes and whether such outcomes will be located on the Pareto frontier, where all feasible changes that would increase the well-being of at least one individual, without reducing the well-being of someone else, have been implemented.

Unless this can be demonstrated, at least under ideal conditions, it is not clear whether an economic standard of reference can be defined for situations including political institutions.

Recent work by Peter Coughlin and others (reviewed in Coughlin, 1992) demonstrates that political competition can in fact lead to efficient and stable equilibrium outcomes. This will be the case as long as voters make probabilistic choices, and candidates maximize expected plurality or expected votes while being uncertain of how voters will respond to their platforms.¹ Theoretical results derived from probabilistic voting models correspond to a more intuitive understanding of the political process. In a competitive political system – one in which potential entry of new parties or candidates forces existing parties to continually search for new platforms that will insure electoral success – there are strong pressures to offer efficient policies to voters. As long as inefficiency persists, there remains the possibility that some party will be able to credibly promise Pareto-improvements and thus capture support from voters who care primarily about their own welfare, regardless of which party or politician satisfies them. This implies that competitive political pressures will push the society toward an efficient equilibrium allocation of its resources.² In such a framework, political institutions and government policies have a legitimate purpose from a narrowly defined economic perspective and efficiency analysis of the systemic factors that lead to failure of the political marketplace becomes an appropriate analytical task.

III Evaluating Institutional Response

The quotations presented earlier suggest that government policies, such as regulation, can play a useful role in an economy with transactions costs even when there is a high degree of competition in private and public sectors. Efficiency analysis based on

an expanded standard of reference thus recognizes that public policies and institutions observed in the real world may represent a response to actual allocation problems, and that they may indeed be an efficient response. To evaluate their effectiveness, we must identify the underlying problems and ask whether other policies or institutional arrangements would represent a better way of dealing with them.

It may be useful to give an example of how this approach differs from the more traditional analysis based on a frictionless standard. In a world with no transactions costs, minimum wages represent government interference impeding the efficient operation of the labour market. They are rejected on this basis in many textbooks dealing with microeconomics despite their persistence in the real world. Yet it can be shown (Ferris, 1982) that costly and asymmetric information in the labour market may call for collective action, and that a minimum wage may provide an appropriate response to the problem.³ To make the analysis complete, one has to take a further step and investigate whether such a wage policy also represents the best choice from among available policy tools.

As we argued earlier, in a competitive political system there are strong pressures on decision makers to supply efficient responses (Becker, 1983), including, perhaps, minimum wage legislation. Donald Wittman (1989) has emphasized this point and maintained that many arguments demonstrating that economic markets operate efficiently can be applied equally to political markets. His work is useful in showing the variety of possible responses that may already be embedded in existing political institutions and that may counteract factors leading to political market failure.

While the approach proposed in this paper recognizes the existence and role of competitive pressures, it is based on a somewhat more cautious attitude. We would question the presumption that observed outcomes must always represent the equilibrium result of a pervasive competi-

tive process that operates perfectly in the economic as well as the political spheres. Searching for appropriate responses seems a continuing and somewhat imperfect process, with changing conditions and circumstances allowing for continuing improvement. In such a world, there is room for policy research to produce useful information and to suggest changes that can improve existing institutions.

In an analysis taking account of system response, it is important to focus on those changes that are consistent with basic political arrangements and other broad institutional features of the society. The difficulty for the analyst who wants to suggest improvements lies in making a judgement on what features to accept as given and what institutions or arrangements to examine as subject to change. Clearly, abolition of the right of citizens to vote in periodic elections is not a proposal that would be of great interest to any sensible policy analyst. But what about existing laws regulating advertising during election campaigns or the merit principle as the primary basis for hiring in the public service? The nature of the problem is familiar to economists, who have traditionally used a wide variety of idiosyncratic partial equilibrium models in their research devoted to private markets and who realize that even models based on the concept of general equilibrium are subject to some limiting assumptions, such as the existence of well-defined property rights.

IV Decision Externalities

As a general rule, inefficiency in the allocation of resources arises whenever we have 'decision externalities,' that is when decision-makers fail to take account of all costs or all benefits relevant to society in making allocational choices. In private markets, individual maximizing decisions will fully internalize all social costs and benefits as long as property rights are fully specified and can be enforced at reasonable cost (Coase, 1960). Similarly, there is efficiency in politi-

cal markets if incentives and constraints are formulated in an optimal manner. When this is not the case, decision externalities arise, leading to choices that fall short from society's point of view.⁴

Our discussion in this section deals with decision-makers belonging to the three groups most basic to the functioning of the public sector: voters, legislators and members of the bureaucracy or administrative structure. In each case, the relevant questions concern constraints and decision contexts. We must ask under what circumstances actors in each group will be guided to internalize the social consequences of their choices and in what contexts they will fail to do so. We start with an examination of the use of information by voters and proceed to examples of choices made by legislators and by bureaucrats. In each instance, the analysis includes an evaluation of existing institutional or policy responses to the consequences of decision externalities.

Voters and Information Asymmetries

For most citizens, information about the social consequences of public policy is both difficult to acquire and of questionable value. Mancur Olson (1973) and others have pointed out that in the public sector, the opportunities to gain experience with policy alternatives are often limited by the necessity of experimenting with alternatives as a collectivity rather than individually. (Compare the problems of evaluating conflicting claims concerning personal hygiene products with those of evaluating alternative proposals for publicly provided medical insurance.) Moreover a single vote, whether informed or not, will at best have a negligible effect on the outcome of any election. Thus, it does not seem rational for anyone to vote or use resources in acquiring information about the social consequences of party platforms.

Many people do vote nonetheless, perhaps because of social norms concerning civic duty. But even so, the incentive for any voter to base his or her decision on knowl-

edge of all social consequences of the proposals made during an election campaign remains weak because of an important decision externality. Even if the voter is convinced that acting on a fully informed basis will help to improve the social use of resources, it is clear that the benefits of the more efficient allocation that results will accrue almost entirely to others. Ignorance of the social consequences of the issues to be voted on is therefore the most rational course of action, as Anthony Downs (1957) pointed out 38 years ago.

Rational ignorance by individual voters goes hand in hand with asymmetries in information across participants in elections. Information will be easier to acquire and be of greater interest if it relates to matters of great personal concern, and especially to matters having an impact on a small, well-defined group of individuals or firms who stand to be similarly and importantly affected. In other words, in democratic systems we should expect the distribution of information about the social consequences of policy proposals to have a high variance as well as a low mean (Ferejohn, 1990).

If asymmetries in knowledge do in fact exist and also persist over time, we may observe adverse selection in politics – a situation in which bad ideas and those who tell untruths gradually push good ideas and honest politicians out of politics (Breton and Wintrobe, 1992). Since voters do not acquire enough information to tell truth from falsehood concerning the social consequences of policy alternatives, those who make truthful statements cannot be identified as being honest with certainty. Not knowing for sure who tells the truth and who does not, voters will tend to reward honesty less highly at the polls than in a world of certainty, while dishonest statements will attract rewards, acting in the same way as do 'lemons' that tend to drive out good cars in second-hand car markets (Akerlof, 1970).

If the truth does not come out in the clash of conflicting claims during election campaigns, the equilibrium of the political

economy may not be on the Pareto frontier.⁵ Special interests may convince political parties to implement policies that reward narrowly defined groups at public expense, either by providing campaign resources in exchange for favoured policies or by strategically revealing biased information. Political parties can win elections in these circumstances despite the inefficiency of the policies offered because the effectiveness of false advertising allows them to generate votes in spite of the adverse effects of their proposals on the welfare of individual voters.

Do externalities in information acquisition and the associated asymmetries in knowledge about the full consequences of policies provide an efficiency rationale for regulation of advertising during election campaigns as Ronald Coase (1977) and others have suggested? Policies that have been proposed in this connection include disclosure requirements concerning the size of contributions and the identity of contributors; limitations on the allowable size of contributions and the ability to pool them; rules concerning who can and cannot participate in and contribute to political advertising campaigns; and restrictions on the time frame and location of political advertising.

Those who favour restrictive policies argue that regulation may improve allocation in situations where false advertising is effective, by making it easier for voters to separate 'good products' from 'bad' ones and by preventing those with the resources to mount an advertising campaign and having an undue influence on policy outcomes, out of proportion to the number of votes in their group.⁶ Moreover, regulation may enhance public confidence in the electoral system as a whole by counteracting the perception that inequalities in wealth lead to inequalities in effective influence if it helps to equalize campaign resources across officially recognized opposing groups.

As we pointed out earlier, efficiency analysis in the presence of transactions costs and political institutions must recog-

nize the possibility that existing private actions, public policies and political institutions represent a response, and possibly an adequate response, to the allocation problems caused by decision externalities. Before accepting the need for the introduction or reform of regulations governing election campaigns, we must therefore evaluate existing responses to the information problems outlined above.

When voters are aware of their own ignorance, politicians may voluntarily tag themselves with a particular ideology in order to help voters economize on the costs of acquiring information about their policy platforms (Downs, 1957). Cultivating a reputation for honesty will also allow politicians to win votes, just as reputation allows private firms to earn greater profits in situations where consumers know that they cannot easily investigate the quality of an item before they buy it. In addition, voters may resist or discount advertising claims if they suspect that they reflect information that is biased by inequalities of wealth. While such private responses by politicians and voters will reduce rational ignorance and the problems associated with it, they may not offer a sufficient response. A need for government action may remain, as is suggested by the long history of legal restrictions on campaign financing and advertising reviewed by Khayyam Paltiel (1979).

Before accepting any argument for restrictions on campaign finance and advertising, one may want to inquire into the motivations of those who regulate access to the media during elections, and into the role of freedom of the press. It is important to note that the politicians who actually regulate competition in the political marketplace do not necessarily take into account the full social consequences of *their own* actions. As Paltiel (1979) and Filip Palda (1992) and others have argued, incumbent politicians may want to place legal limits on campaign spending by advocacy or special interest groups primarily because these limits help to stifle political competition.⁷ Whether the

lessening of political competition results ultimately in less efficient policies being adopted is not of immediate interest to those whose primary goal is to win the struggle for power.

While every proposal for public intervention faces the question of motivation, few people would regard the self-interested nature of politicians as sufficient reason, by itself, for foregoing the benefits of regulatory action or other public services. However, there may be special dangers arising from intervention in political markets that have no counterpart in private markets. Albert Breton and Ronald Wintrobe (1992) suggest two reasons why it may not be wise to allow public regulation of political advertising by non-party groups, even if a *prima facie* case for such regulation could be made. In the first place, competition in political ideas is in many instances the only form of competition available to non-governing advocacy groups. This stands in contrast to private markets where regulation of commercial advertising, for example to insure product safety, still leaves firms with many instruments with which to compete, including quality and price. Moreover, if restrictions on political advertising do lessen political competition, we may end up with a government that attempts to place restrictions on competition in all other important 'ideas markets,' including the justice system and the media. Perhaps these special dangers inherent in regulating free speech explain why limitations on political advertising by non-party interest groups are often struck down by the courts as being unconstitutional, as in 1993 by the Alberta Supreme Court in *Somerville v. Canada*, or in 1976 by the U.S. Supreme Court in connection with *Buckley vs. Valeo*.⁸

It is possible that new interventions not yet considered will improve matters, over and above private and institutional responses that already exist. However, what may appear at first glance to be a good case for further public intervention to regulate campaign financing and advertising turns out on closer inspection not to be decisive.

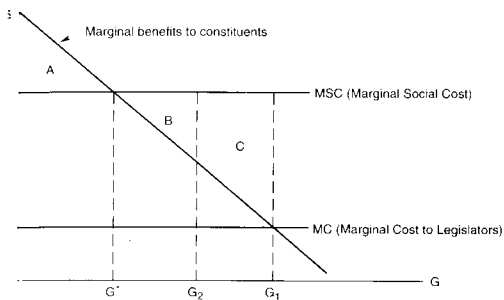
The general lesson here is that the identification of a decision externality in the political process by itself is not sufficient to justify new public action. It must also be demonstrated that the proposed public intervention does more good than harm.

Legislators and Universalism

Representative government can give rise to significant decision externalities in the legislature. Members of the legislative body are chosen in geographically delimited areas. In order to get elected or to stay in office, they support public projects or programs that primarily benefit their constituents. The problem arises from a mismatch of tax and benefit incidence in the decision process. The tax base relied upon by legislators extends beyond individual districts, including all members of the polity. However, individual members are likely to consider only those taxes that are paid by their constituents in deciding on the type and size of expenditure programs most beneficial to their districts. As a result, legislative bodies have the tendency to pass budgets that are too large.

The implications of divergence between costs and benefits can be illustrated with a simple diagram drawn for one of many identical districts (Inman and Fitts, 1990). Different levels of project expenditures are shown on the horizontal axis. The vertical axis measures marginal benefits to the legislator (the change in total benefits and in total costs perceived by constituents) of a small increase in project outlays. It is assumed that the marginal benefits curve slopes downward since there are diminishing marginal returns to the consumption of public output. For simplicity, perceived marginal tax costs are assumed to be constant.

In Figure 1 the marginal tax function reflecting the share of costs falling on the district is given by MC, while a higher marginal tax curve labelled MSC represents marginal social costs, the marginal costs falling on all taxpayers. The legislator chooses total project outlays indicated by



- = Pareto-efficient size of government
- = Outcome under norm of universalism.
- = Outcome with constrained universalism resulting from strong national parties, strong party leaders, or institutional arrangements such as strong appropriations committees.

Based on Inman and Fitts (1990, Figures 2 and 3).

Figure 1 Universalism and constrained universalism

the intersection of the marginal benefits curve with the lower marginal tax curve MC. A decision-maker who takes account of all costs, on the other hand, would set his budget where the marginal benefits curve intersects the higher marginal social cost function. Given our simple framework, the resulting inefficiency can be measured by the sum of the areas labelled B and C.

As argued earlier, weaknesses in political markets are likely to call forth institutional adjustments. In this case, such responses must also deal with an additional problem that afflicts democratic bodies. As Robert Inman and Michael Fitts (1990:82) have recently expressed it: 'majority legislatures, unconstrained by formal or informal rules of behavior, should tend toward chaos'. The conclusion derives from theoretical research by Kenneth Arrow (1951) and Richard McKelvey (1976) showing that decision making by an absolute majority generally fails to yield a stable outcome if choices are made along more than one dimension, and that it may result in the selection of policies that are inferior to rejected alternatives from the point of view of all legislators.

Barry Weingast (1979) has suggested decision-making under the norm of universalism as a likely response. According to

this norm, each legislator agrees to support the allocations preferred by every other member of the legislative body. If everyone acts in this manner, a stable policy equilibrium can result. In effect, a coalition of the whole is formed which assures all members their best policy, with best being defined as conditional on membership in the coalition.

While universalism can be viewed as a response to the stability problems associated with majority rule, it fails to deal with inefficiency caused by decision externalities in legislatures.

Moreover, the losses from such externalities may be so large as to make voters aware of the full implications of universalism. If this happens, voters as a group may prefer to go without the services provided by the coalition rather than to shoulder the imposed losses. This possibility is illustrated in Figure 1, where area A (the surplus gained from provision of the good) is smaller than the combined areas B and C (the loss from producing at G_1 rather than at G^*). To avoid such situations, which could lead to the defeat of the coalition as a whole, other norms or restrictions may be imposed on political decision-making. Thus, legislative bodies may adopt internal institutions or rules that prevent possible losses from exceeding net benefits. In addition, further constraints on output may be imposed by other elements in the political system, such as party discipline and strong national leadership. (A possible solution with constrained universalism is illustrated by output G_2 in Figure 1.)

Inman and Fitts (1990) point to several constraints operating within the American congressional system that go beyond simple universalism. They include powers granted to the appropriations committees and to committee chairs, parties with representation from all parts of the country, strong party discipline, and the influence of a strong president who can successfully exercise veto and agenda setting power. In each case, power is granted to political actors whose calculations are based on a

broader view of costs and benefits than those of single legislators. A similar effect may have been achieved by recent legislation setting overall targets for the US budgetary process.

Wittman (1989) argues that pressure groups and rational calculations by voters may also serve to limit the effects of legislative decision externalities. Many groups that provide resources to politicians are regional or national in scope and may adopt a corresponding perspective in evaluating the effects of legislation. In addition, voters who are lobbied directly by broad interest groups may come to realize the broader implications of narrow legislative actions and make elective choices accordingly.

The tendency to adopt excessive budgets described for the US Congress will also operate in the Canadian Parliament and in provincial legislatures, although the particular institutional responses and mechanisms creating a restrained budgetary regime will differ due to Canada's different political traditions. National or provincial parties will see it in their interest to evaluate policy outcomes in terms of a more inclusive constituency than individual members of Parliament and exercise a restraining influence on budgetary choices. This will be more important in Canada than in the United States since party discipline plays a more significant role in a parliamentary system, where a government loss on a major piece of legislation results in new elections. In addition, there are institutional elements having no counterpart in the US, such as the doctrine of budget secrecy strengthening the bargaining hand of the Minister of Finance, who is charged by the Prime Minister with the task of keeping demands by other ministers in line with available tax resources (Breton, 1991a;1991b). As in the United States, the tendency towards excessive budgets will in the end only be overcome completely in Canada if individual decision-makers are forced to adopt a view that properly matches the costs and benefits of the public programs they propose, although the

tendency may be kept in check to some extent if the decision-making process as a whole is constrained in a suitable manner.

Bureaucratic Choices

Bureaucracy is an important component of the public sector. Politicians need an administrative structure to develop and carry out policies. Their relationship to those in charge of bureaus can give rise to a variety of decision externalities.

William Niskanen (1971) was one of the first to focus on this relationship. He modelled the interaction as rather one-sided, attributing to bureaus the power of making all or nothing offers in bargaining with their political sponsors. The result was to give free reign to attempts at maximizing budget size, with levels of output exceeding by far what private industry would have produced in comparable circumstances.

Although he did not emphasize it in his best-known work, Niskanen was aware that the bargaining relation was embodied within a broader political framework that could severely limit bureau power. This becomes apparent in his discussion of the interaction of bureaus and legislative review committees. In this analysis, high demanders within oversight committees are the dominating force in determining output, although they may collude with bureaus to attain joint goals.

Niskanen's seminal work provided the starting point for a large literature on bureaucracy (reviewed succinctly in Acheson, 1986). It is mentioned here because it pinpoints two crucial sources of decision externalities. On the one hand, bureaus may pursue their own agenda, which may differ significantly from the goals that the sponsor may want to pursue. On the other hand, they must function within a political context that provides motivation and defines policy limits.

A case study on the use of benefit-cost analysis within Transport Canada, conducted some years ago by one of the authors (Hettich, 1983), illustrates these pressures. The policy question concerned approval of

a short take-off and landing system (STOL) for Toronto, Montreal and Ottawa, with Transport Canada supporting a positive regulatory decision, while other groups pushed for a negative outcome.

Both sides attempted to buttress their positions with benefit-cost studies. While the analysis presented by a consultant for the opposing side followed the principles established in the economic literature for such studies, the one submitted by Transport Canada deviated in important respects from accepted economic practice. Measured costs focused only on items creating budgetary responsibilities for Transport Canada. Other items, such as the opportunity cost of government-owned land and outlays that would have to be born by Hydro Quebec, were not included. On the other hand, secondary benefits to the industry manufacturing aircraft suitable for this type of service were overemphasized. As a result, the analysis supported establishment of a STOL service, while the report based on established principles did not.

The study by Transport Canada illustrates how decision externalities may arise in bureaucratic choices. Since managers in public agencies are evaluated primarily by how well they use agency budgets, they may have little incentive to take account of costs that fall outside their purview. In addition, it is rational for them to emphasize benefits that accrue to groups providing the agency with political support in the budgetary process, even though such benefits may be primarily distributional in nature and may not represent an economic gain.

As in other areas of the public sector, institutional responses are possible and may, to some extent, already be operating within the system.⁹ In Canada, the doctrine of ministerial accountability provides a strong incentive for effective political control of bureaucratic institutions. Within the public service, there are specialized agencies, such as the Treasury Board and the Department of Finance, that perform an oversight role linking policy more directly

to the goals pursued by Cabinet. Both agencies have traditionally shown a strong concern for economic efficiency.

Some of the pressures operating in public agencies also occur in large organizations in the private sector. Recent work by Breton and Wintrobe (1982) provides a general framework for studying bureaucratic organizations of all types. They emphasize the role of vertical networks, linking superiors to subordinates, and that of horizontal networks, connecting employees at the same level of responsibility, for the creation and exchange of trust within agencies or firms. Where unwritten or implied contracts among members of an organization are essential to its economic performance, participants may invest in relationships of trust in order to obtain support in future actions and decisions. The existence of trust in vertical networks enhances the power of managers to operate more quickly and at lower cost by insuring that subordinates will be rewarded for their co-operation. Horizontal networks serve the interests of lower level employees and diminish the power of superiors to control them by enhancing mutual support among workers at the same level of command. Because they diminish control by superiors, horizontal networks may give rise to decision externalities within organizations such as government bureaus.

While its generality makes application in particular circumstances somewhat difficult, the analysis of trust as the basis for exchange in complex organizations adds an important tool for the analysis of bureaucracy and provides an additional dimension in which existing institutional responses can be evaluated. It tends to give support to reforms that strengthen managerial authority, although it must be remembered that the relation between politicians and those in authority in bureaucratic organizations also plays a crucial role in creating desirable outcomes. Only if legislators want efficient policies will public managers provide them to society.

V Three Recent Institutional Changes

In this section we evaluate proposed or recently implemented reforms of elections, political parties, parliament and the bureaucracy as possible institutional responses to decision externalities. The Royal Commission on Electoral Reform and Party Financing (1991) has recommended severe limits on non-party or advocacy group expenditure during election campaigns, and the strengthening of recognized political parties by the establishment of publicly financed party foundations. During the mid-1980s, following the *Report of the Special Committee on the Reform of the House of Commons: Third Report* (1984), known as the McGrath Report, standing committees of parliament gained the right to determine their own agenda. Such agenda setting power is a radical departure from previous practice in which committees acted primarily on the basis of references from the government. As part of a comprehensive review of the federal bureaucracy known as *Public Service 2000* (Government of Canada, 1990), the government of Canada proposed, and is now in the process of implementing, changes in the rules governing the public service that will substantially increase the discretionary authority of senior managers. These selected reform proposals are all particularly important parts of larger reform packages. We consider each of them in turn.

The Report of the Royal Commission on Electoral Reform and Party Financing

The 1988 general election was fought largely on the issue of free trade with the United States, with substantial participation by non-party interest groups. According to figures quoted by the *Final Report* of the Royal Commission on Electoral Reform and Party Financing (vol.1:338), non-party groups and individuals promoting free trade spent \$0.77 for every dollar of the advertising budget of the Progressive Conservative party, the only mainline party

supporting free trade. Independent expenditures on advertisements against free trade accounted for only \$0.13 for each dollar of advertising by the two large parties opposed to the trade agreement, and overall about four times as much money was spent to promote free trade as was spent to oppose it (Hiebert, 1991).

Perhaps in reaction to the experience of the 1988 election, the Royal Commission recommended that expenses incurred during election campaigns by any group or individual independently from registered political parties should not exceed \$1,000 (vol 1., recommendation 1.6.6, 356).¹⁰ The Commission expressed concern that in the absence of such a law:

Since it cannot be expected that all political interests would have the same ability to gain access to resources, the likely consequence is that the election outcome would be influenced by those with greater access to funding. One set of participants would thus have an unfair advantage over other sets of participants (vol. 1:351).

We argued earlier that the source of the problem is a decision externality in information acquisition which leads to information asymmetries and rational ignorance among voters. We also suggested that despite the existence of the externality, there are good reasons for continuing to err on the side of political competition. In contrast, the Commission proposes to eliminate effective electoral participation by groups such as advocates and opponents of abortion, the National Citizens Coalition, Greenpeace, the aboriginal peoples, feminist groups, Real Women, and by *all* other interest groups.

How can such a severe restriction on participation by non-party groups be justified? The Commission cites only one piece of evidence that the advertising by advocacy groups about free trade may have actually affected the outcome to the advantage of the progressive Conservative Party (Johnston et al., 1991), and no evidence that this advertising misinformed rather than in-

formed voters. Is this a sufficient basis for the radical proposal made by the Commission in view of the fact that advertising is the only effective method that non-party groups can use to compete in the political marketplace, and in view of the role that competition plays in forcing political agents to continually search for Pareto-superior policies? Given the severe risks that are incurred by restricting competition in political markets, it would appear preferable to focus on policies that govern disclosure of campaign resources, or deal with the possible subsidization of those that cannot effectively compete, rather than proposing the imposition of constraints that limit the participation of those who are presently taking part in the political process.

A second major recommendation of the Royal Commission concerns the establishment of publicly-financed, arms-length party 'foundations'. The Commission recommends that any party receiving at least 5 per cent of the vote in the previous election should be eligible for public funding of a party foundation that would receive 25 cents for every vote. These party foundations would be able to solicit contributions from individuals and firms and would be treated as charities for tax purposes, while being required to fulfil all the financial obligations of charities set out in the *Income Tax Act* (vol 1., recommendations 1.5.15–1.1.17, 298–302).

The study of decision externalities in legislatures is helpful in assessing this second proposal. By strengthening national parties, the funding of party foundations may help to reduce the problems associated with universalism. Strong national parties base their calculations on a broader view of benefits and costs than is typically taken by individual legislators representing single-member constituencies. While it did not cast its argument in terms of decision externalities in legislatures, the Royal Commission's argument for public financing of party foundations comes close:

... the failure of the large national parties to en-

gage in political education has limited their opportunities to accommodate and mediate conflicting representational needs. They lack well-established networks of knowledgeable supporters who can provide advice on policy problems and policy implementation, or promote and defend the trade-offs that constitute an inherent part of sound public policies (vol.1: 297).

It should be noted that where party foundations exist, as in Germany, the educational activities of foundations are often hard to distinguish from direct campaigning (Paltiel, 1980). Such a finding raises the question of why financing of party foundations is a better alternative than increased public funding of regular party activities.¹¹ It also reinforces the argument for relaxing the recommended limits on non-party advertising in order to foster competition in the marketplace for political ideas.

Reforms of the Committee Structure of Parliament

One of the central recommendations contained in the *Report of the Special Committee on the Reform of the House of Commons: Third Report* (1984) – the McGrath report – is that each standing committee of parliament should have the right to initiate its own inquiries. This recommendation was implemented in 1986 as Standing Order 96(2). As Sharon Sutherland and Y. Balticioglu (1988:45) note, Standing Order 96(2) became the high point of the reforms of parliament introduced during the 1980s. Although the government still refers main estimates to committees, and committees continue to undertake special investigations referred to them by the government, they are no longer obliged to spend most of their time on the estimates and can decide by themselves to investigate almost every aspect of any government department.

A cynical view of the power of agenda control granted to the committees of parliament by the new Standing Order is that it has no real effect. The government ap-

points the chair of every committee, each committee has a majority of government members and, in the last resort, the government can always use 'goon squads' of government partisans to bring an errant committee back in line.¹² The granting of agenda control may simply have been a response by the Progressive Conservative Party, elected with an overwhelming majority in 1984, to pressure from a large number of backbenchers who could not reasonably expect to be appointed to Cabinet and who wanted some way of raising their media profiles.

Let us assume, however, that such is not the case and that the nominal power of agenda control is utilized to some extent independently of the government. In that case, the new agenda power of committees may alter parliament and the bureaucracy in ways that reduce economic efficiency. In the first place, the granting of agenda power to committees without any compensating institutional change may foster universalism. Real agenda power will be, to some extent, shared by all members of a committee, whether they are from the government or opposition. Sharing power of any kind creates opportunities for repeated exchanges of favours between committee members concerning the precise characteristics of policies that the committee recommends. To the extent that the committee hearing process and committee reports actually influence legislation, the 'you scratch my back and I'll scratch yours' atmosphere in such committees will tend to produce over-expansion of government budgets. This is one of the serious weaknesses of the consensual view of parliament which, as C.E.S. Franks (1987:260) has noted, are often ignored.¹³

The results of a survey on the attitudes of members of parliament towards the committee reforms reported in Sutherland and Baltacioglu (1988:141) suggest that the danger of universalism and its consequences for budget size should be of some concern. They found that those MPs who liked how the McGrath reforms were work-

ing stressed the 'new mood of collegiality in standing committee work'. The pro-reform group also wanted to see non-partisanship extended into the process of legislation so that private members could make their contributions at an early stage (Sutherland and Baltacioglu, 1988:141).

Increased agenda control by committees may also reduce the ability of the government to insure that the bureaucracy does what the government wants at least cost. John Meisel (1988) shows (in the case of cultural policy) that when a united committee with an strong chairman becomes involved in a current policy issue, it can limit the independence of the Minister with regard to the context and timing of new policies. If so, the opportunity arises for senior bureaucrats to turn a simple principal-agent relationship (the Cabinet vs. the bureau) into a more complex arrangement with many principals (the Cabinet and the committees) and one agent.¹⁴ In that case it becomes more difficult for the government to control the bureau which can play the Minister and the Cabinet off against the parliamentary committees. A similar problem exists for voters (many principals) trying to control the government (a single agent) who will attempt to exploit latent divisions in the electorate in order to increase its power.¹⁵

The argument might be made that despite its problems, the new activism of committees produces a larger flow of information to voters. The Public Accounts Committee, which examines reports of the Auditor-General of Canada, may have been especially important in this respect because of the frequency of media coverage this committee has received due to the sensational nature of some of the Auditor-General's findings. Without some such offsetting benefit, however, it appears that greater agenda control by committees in a parliamentary system is not conducive to economic efficiency because it increases the importance of decision externalities in the legislature and may undermine the government's control of the bureaucracy.

If control of agendas remains with the committees, it may be necessary to introduce further, offsetting changes. One response may be for the government to resort more often to the use of the 'goon squads' to tame troublesome committees. Opportunism by the bureau could be limited by issuing new guidelines concerning the appearance of senior officials before parliamentary committees. These guidelines could require, for example, that senior officials testify only with the explicit approval of their Minister concerning the substance of their remarks, and could insist that all testimony by officials be regarded as having been made on the Minister's behalf.

Public Service 2000

In 1990 the federal government released a comprehensive report on the organization of the federal public service entitled *Public Service 2000: The Renewal of the Public Service of Canada* (PS 2000) (Government of Canada, 1990). Many of the changes arising from this report have been embodied in the *Public Service Reform Act (Bill C-26)* which was given first reading on June 18, 1991. One of the central recommendations of PS 2000 that is implemented in the legislation is to distinguish between 'appointment to level' and 'deployment'. Once individuals are appointed to a particular level in a new occupational structure (discussed below), they will be subject to deployment to any other job in the government at the same level by mutual agreement of the employee and the manager. In contrast to current practice, it appears that there will be no job competition and extremely limited rights to appeal (Swimmer and Kinaschuk, 1992:282). Moreover, an employee will not be able to refuse a deployment if that is a condition of employment of their current position. According to Gene Swimmer and Kjerstine Kinaschuk (1992: 278), the government's intention in introducing this reform is to provide employees with the opportunity to try other jobs at a time when there are fewer opportunities for promotion and, at the same time, to give

senior managers more flexibility and discretion.

There seems to be little doubt that the proposed introduction of the concept of deployment will increase the discretion and thus the power of senior managers. Acquiring good jobs will clearly require an increased willingness by employees to interact in a way that managers deem desirable. Other aspects of Bill C-26 promise to further add to the discretionary authority of managers vis-à-vis their subordinates. In addition to introducing the concept of deployment, the Bill proposes that the Public Service Staff Relations Board be empowered to redefine occupational classifications according to a PS 2000 scheme which, if adopted, would substantially reduce the number of bargaining units the government has to face from 69 to 22 (Government of Canada, 1990:22-24). Cutting the number of bargaining groups by a third will greatly increase the degree of heterogeneity of interests within each group and thereby weaken their ability to bargain with the employer over working conditions as well as wages.

Parts of PS 2000 not included in Bill C-26 will also enhance managerial discretion, for example by replacing the watertight person-year budgetary allocation to departments with fungible salary budgets (PS 2000, 57). By moving funds between a non-salary operating budget, from which outside contractors may be paid, and salary budgets, managers will be able to increase or reduce the amount of work done by outside contractors and hence threaten uncooperative employees with unemployment.

The question remains whether the increased power of senior managers that these reforms will produce is conducive to increased efficiency in terms of either the government's or society's objectives. We pointed out earlier that efficient service to the government by its agent, the bureaucracy, is not guaranteed by strong vertical networks in bureaucratic organizations. The strengthening of senior management in the bureau may only result in more satis-

faction for senior management.

Any government is certainly aware of the problem and so we may expect to see additional developments, the purpose of which will be to insure that increased managerial power is used in an appropriate fashion. There are two well-known methods for curtailing potential abuses. Politicization by the government of the most senior levels of the bureaucracy increases the cost to bureaucrats of unwanted actions by tying them into the reward and punishment structure of the party in power. An alternative method is to increase the salaries and perks of senior management and link rewards more closely to performance.

In a parliamentary system, where contracts between line departments and private firms can be overturned by the government, the second method may be the more desirable one for the country as a whole. Co-opting the senior levels of the bureau by bringing them into the party structure may create social costs that exceed the additional compensation required to create compliance by senior managers. Increased costs arise since a politicized bureau will be more eager to help a new government reward its friends and punish its enemies than a non-partisan civil service. Knowing this, private firms are less willing to build relationships with government departments that extend over several electoral periods. The loss of long-term relationships and the resulting decrease in co-ordination with the private sector will lead to higher costs in the provision of public services.

It is of interest to ask why politicization of senior management is a fact of public life in the United States, while in Canada the non-partisan bureau based on merit has been the primary tradition. A possible explanation for this difference lies in the greater protection for private contracts available under the US Bill of Rights than exists in parliamentary systems without constitutionally entrenched property rights. Such enhanced protection reduces the uncertainty faced by private firms in

their dealings with the government, thus lowering the cost of politicization as a means of controlling the behaviour of senior managers.¹⁶

VI Conclusion

When the existence of transactions costs and collective decision procedures is acknowledged, the analyst concerned with economic efficiency requires a broader framework for judging public policy than has traditionally been adopted. At the outset it must be recognized that many public decision structures and institutions already embody counterbalancing features designed to deal with potential efficiency problems. This implies that an evaluation of existing policy or proposed reforms must take into account the nature and extent of such responses and explicitly examine how they are strengthened or improved by the suggested reform.

We have outlined a diagnostic procedure for finding potential efficiency problems in existing public institutions by looking for situations where the major decision-makers do not bear all the costs of their actions or capture all the benefits that these actions create. Such an efficiency analysis recognizes that in the real world observed public institutions and the policy outcomes they produce may represent responses to actual allocation problems, and that they may indeed be efficient responses. We have focused on decision-makers belonging to the three groups basic to the functioning of the public sector: voters, legislators and members of the bureaucracy. We considered under what circumstances actors in each group will be guided into internalizing the social consequences of their choices and in what contexts they will fail to do so. The next step involves a search for institutional changes that either alter individual incentives directly or that improve the nature of equilibrium outcomes by placing constraints on the system as a whole. (Decision externalities still exist in the latter case but are less harmful in equilibrium.)

We show how the approach can be used to examine existing proposals for institutional reform. We have applied the analysis to recently implemented or suggested changes in the laws governing campaign advertising, the rules defining the powers of committees of the House of Commons and the structure of the federal bureaucracy. While in each instance a case for reform can be made, the actual changes implemented or proposals that have been put forward have several shortcomings. Nevertheless, some of them, such as the strengthening of managerial powers in the public service, will lead to greater efficiency if implemented in the proper context. The analysis suggests that an evaluation based on the broader concept of efficiency can result in important practical improvements in institutional design and in public policy.

Notes

- An earlier version of this paper was prepared for the Queen's University-University of Ottawa Project on Government and Competitiveness and released as working paper #93-10 under the title: 'Institutional Mechanisms for Efficient Policy'. Helpful comments were provided by Stephen Ferris, Kristian Palda, Bryne Purchase, Sharon Sutherland, Tom Rymes and the editor and referees of this journal.
- 1 The probabilistic nature of voting insures the continuity of the expected vote function for any party, thus avoiding the instability problems associated with discrete vote functions explored by Arrow (1951), McKelvey (1976) and others. Equilibrium exists provided that the expected vote function for each party is continuous, and concave in the policies of that party for each given platform of the opposition. If the expected vote function is strictly concave in the policies of each party, the electoral equilibrium will be unique. See Coughlin, Mueller and Murrell (1990) and Coughlin (1992).
- 2 If voting is completely deterministic, it always pays candidates to ignore the economic costs imposed on voters who they are sure will not vote for them. In a probabilistic world, however, candidates are never sure who can be ignored in this way, and the incentive to coerce these voters is much reduced.
- 3 Minimum wages can be viewed as a non-market allocative mechanism by which society can redirect job search away from unusually low valued job opportunities. Welfare is increased because:
 - (a) costly job search by each individual in the absence of a minimum wage law has the unintended consequence of increasing the number of potentially unacceptable offers (by a fringe of low productivity employers) in the market as a whole; and
 - (b) minimum wage legislation economizes on the cost of co-ordinating willingness to reject 'bad' jobs while at the same time providing incentives for some (low cost) searchers to report violations of the law. See Ferris (1982).
- 4 For a critical review of the concept of externality, see Dahlman (1979).
- 5 For a formalization of this statement in the framework of a model of political competition in which governments maximize expected votes, see Hettich and Winer (1993).
- 6 It should be noted that if the credibility of the message presented to politicians or the public does not depend on the amount of resources used in formulating the opinion being offered, wealth does not convey an advantage unless one is willing and able to resort to outright corruption. For recent research on lobbying as a game of strategic information transmission in which credibility does require the use of resources, see, for example, Austen-Smith and Wright (1994) and Potters and van Winden (1993).
- 7 There is substantial empirical evidence that campaign spending by incumbents is less productive of votes on average and at the margin than spending by challengers (see, for example, Palda and Palda, 1985, and Jacobson, 1979). Limits on campaign spending are therefore likely to benefit incumbents more than challengers.
- 8 See Palda (1991:chap.6) for a discussion of court decisions. The Alberta Court of Queen's Bench (June 25, 1993) struck down a \$1,000 spending limit on independent groups and individuals that was part of Bill C-114 (May 6, 1993). For further details, see Cross (1994).
- 9 The final determination on permitting a STOL service was made by Cabinet after a decision by the Canadian Transport Commission to grant a licence to a particular carrier had been appealed. Further analysis of this case may reveal that the regulatory process or the arbitration role of Cabinet can be interpreted as responses designed to deal with externalities arising within Transport Canada.
- 10 Pooling of funds from different groups would not be allowed under the proposed rules.
- 11 The Commission argues that a distinction between parties and foundations will give the foundations the 'flexibility, credibility and autonomy' necessary for policy development, will attract 'sympathetic but non-partisan talents,' and will protect parties and their leaders 'from attacks and criticism if and when alternative public policies are explored' (*Royal Commission*, 1991:vol.1:298).

- 12 Absent government members of a committee can be replaced by the government House Leader by loyal partisans in order to deal with troublesome committees by moral suasion or a vote (Sutherland and Baltacioglu, 1988:138).
- 13 In Franks' words, 'Government in parliament, not by parliament, is the central feature of responsibility and accountability' (1987:260).
- 14 Sutherland and Baltacioglu (1988:171-2) recognize the problem but fail to identify the underlying principal-agent problem.
- 15 One way for voters to prevent elected officials from exploiting latent divisions in the electorate is to 'agree' to hold all members of the governing party jointly responsible for public policies. According to Ferejohn (1990:8), this is the analytical wisdom of the responsible parties doctrine.
- 16 For further discussion of the relationship between policy instrument choice and constitutional protection for private contracts in Congressional and Parliamentary systems, see Baldwin (1989).

References

- Acheson, Keith (1988) 'Bureaucratic Theory: Retrospect and Prospect,' *European Journal of Political Economy*, Special Issue 4.
- and Stephen Ferris (1991) 'Origins of Theories of Organization.' Pp.39-64 in Thomas K. Rymes (ed.), *Welfare, Property Rights and Economic Policy: Essays and Tributes in Honour of H. Scott Gordon* (Ottawa: Carleton University Press).
- Akerlof, George (1970). 'The Market for Lemons: Qualitative Uncertainty and the Market Mechanism,' *Quarterly Journal of Economics*, 84:488-500.
- Arrow, Kenneth A. (1951) *Social Choice and Individual Values* (New York: John Wiley and Sons).
- Austen-Smith, David and John R. Wright (1994) 'Counteractive Lobbying,' *American Journal of Political Science*, 38:1:25-44.
- Baldwin, John R. (1989) *Regulatory Failure and Renewal: The Evolution of the Natural Monopoly Contract* (Ottawa: Economic Council of Canada).
- Becker, Gary S. (1983) 'A Theory of Competition Among Pressure Groups for Political Influence,' *Quarterly Journal of Economics*, 98:August:371-400.
- Breton, Albert (1991a) 'The Organization of Competition in Congressional and Parliamentary Governments.' Pp.13-38 in A. Breton, G. Galeotti, Pierre Salmon and R. Wintrobe (eds.), *The Competitive State* (Norwell, MA: Kluwer Academic Publishers).
- (1991b) *Organizational Hierarchies and Bureaucracies: An Integrative Essay*, University of Toronto, unpublished.
- and Ronald Wintrobe (1982) *The Logic of Bureaucratic Conduct* (New York: Cambridge University Press).
- and Ronald Wintrobe (1992) 'Freedom of Speech vs. Efficient Regulation in Markets for Ideas,' *Journal of Economic Behavior and Organization*, 17:217-239.
- Coase, Ronald, H. (1960) 'The Problem of Social Cost,' *Journal of Law and Economics*, 3:October:1-44.
- (1977) 'The Market for Goods and the Market for Ideas,' *American Economic Review*, 64:384-91.
- Coughlin, Peter J. (1992) *Probabilistic Voting Theory* (New York: Cambridge University Press).
- , Dennis C. Mueller and Peter Murrell (1990) 'Electoral Politics, Interest Groups, and the Size of Government,' *Economic Inquiry*, 28:4:682-705.
- Cross, William (1994) 'Regulating Independent Expenditures in Federal Elections,' *Canadian Public Policy - Analyse de Politiques*, XX:3:253-64.
- Dahlman, Carl J. (1979) 'The Problem of Externality,' *Journal of Law and Economics*, 22:141-62.
- Downs, Anthony (1957) *An Economic Theory of Democracy* (New York: Harper and Row).
- Ferejohn, John A. (1990) 'Information and the Electoral Process.' Pp.3-19 in John A. Ferejohn and James H. Kuklinski (eds.), *Information and the Democratic Process* (Chicago: University of Illinois Press).
- Ferris, Steven (1982) 'Information and Search: An Alternative Approach to a Theory of Minimum Wages,' *Economic Inquiry*, 20:October:490-510.
- Franks, C.E.S. (1987) *The Parliament of Canada* (Toronto: University of Toronto Press).
- Government of Canada (1990) *Public Service 2000: The Renewal Of the Public Service of Canada* (Ottawa: Supply and Services Canada).
- Hettich, Walter (1983). 'The Political Economy of Benefit-Cost Analysis: Evaluating STOL Air Transport for Canada,' *Canadian Public Policy - Analyse de Politiques*, IX:4:487-98.
- and Stanley L. Winer (1993) 'Economic Efficiency, Political Institutions and Policy

- Analysis,' *Kyklos*, 46:3-25.
- Hiebert, Janet (1991) 'Interest Groups and Canadian Federal Elections.' In F. Leslie Seidle (ed.), *Interest Groups and Elections in Canada*, Vol 2. of Research Studies of the Royal Commission on Electoral Reform and Party Financing (Ottawa: Supply and Services Canada).
- House of Commons (1984) *Report of the Special Committee on the Reform of the House of Commons: Third Report* (Ottawa: Queen's Printer).
- Inman, Robert P. and Michael A. Fitts (1990) 'Political Institutions and Fiscal Policy: Evidence from the U.S. Historical Record,' *Journal of Law, Economics and Organization*, 6: Special Issue:79-132.
- Jacobson, G.C. (1979) 'Public Funds for Congressional Campaigns: Who Would Benefit?' Pp.99-127 in H. Alexander (ed.), *Political Finance* (London: Sage Publications).
- Johnston, Richard, André Blais, Henry Brady and Jean Crête (1991) 'Letting the People decide: History, Contingency and the Dynamics of Canadian Elections,' unpublished.
- McKelvey, Richard (1976) 'Intransitivities in Multidimensional Voting Models and Some Implications for Agenda Control,' *Journal of Economic Theory*, 12:June:472-82.
- Meisel, John (1988) 'Flora and Fauna on the Rideau: The Making of Cultural Policy.' Pp.49-80 in K.A. Graham (ed.), *How Ottawa Spends 1988/89: The Conservatives heading into the Stretch* (Ottawa: Carleton University Press).
- Niskanen, William A. Jr. (1971) *Bureaucracy and Representative Government* (Chicago: Aldine Atherton).
- Olson, Mancur Jr. (1973) 'Evaluating Performance in the Public Sector,' and reply. In M. Moss (ed.), *The Measurement of Economic and Social Performance* (N.B.E.R.) (New York: Columbia University Press).
- Palda, Filip (1991) *Election Finance Regulation in Canada: A Critical Review* (Vancouver: The Fraser Institute).
- (1992) 'Tilting the Playing Field: Comments on the Final Report of the Royal Commission for Electoral Reform and Party Financing,' *Critical Issues Bulletin* 2 (Vancouver: The Fraser Institute).
- and Kristian S. Palda (1985) 'Ceilings on Campaign Spending: Hypothesis and Partial Test with Canadian Data,' *Public Choice*, 45:313-31.
- Paltiel, Khayyam Z. (1979) 'The Impact of Election Expenses Legislation in Canada, Western Europe and Israel.' In Herbert Alexander (ed.), *Political Finance* (London: Sage Publications).
- (1980) 'Public Financing Abroad: Contrasts and Effects.' Pp.355-84 in M. Malbin (ed.), *Parties, Interest Groups, and Campaign Finance Laws* (Washington, DC: American Enterprise Institute).
- Potters, Jan and F.A.A.M. van Winden (1993) 'Lobbying and Asymmetric Information,' *Public Choice*, 74:3:269-92.
- Royal Commission on Electoral Reform and Party Financing (1991) *Final Report* (4 vols.) (Ottawa: Supply and Services Canada).
- Sutherland, Sharon L. and Y. Baltacioglu (1988) *Parliamentary Reform and the Public Service of Canada*, Carleton University, mimeo.
- Swimmer, Gene with Kjerstine Kinaschuk (1992) 'Staff Relations Under the Conservative Government: The Singers Change But the Song Remains the Same.' Pp.267-312 in Frances Abele (ed.), *How Ottawa Spends: The Politics of Competitiveness* (Ottawa: Carleton University Press).
- Weingast, Barry (1979) 'A Rational Choice Perspective on Congressional Norms,' *American Journal of Political Science*, 245-62.
- Wittman, Donald (1989) 'Why Democracies Produce Efficient Results,' *Journal of Political Economy*, 97:6:1395-424.