

# Not Just Parliamentary “Cowboys and Indians”: Ministerial Responsibility and Bureaucratic Drift<sup>1</sup>

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*A strict interpretation of the doctrine of individual ministerial responsibility requires that the minister alone bear public responsibility for her department's actions. Critics charge that it is not sensible to hold a minister solely responsible for departmental errors when government departments are so large and complex, and senior bureaucrats so powerful in their own right; senior bureaucrats should be made directly accountable to Parliament. The paper uses a game theoretic model to show that this criticism is misguided. To the extent that politicians more effectively police the bureaucracy when they are governed by a doctrine of ministerial responsibility than when they are not, the doctrine strengthens accountability. Much of the doctrine's force comes from the threat of ministerial resignation, but the opportunities that the doctrine creates for opposition parties to embarrass the government also contribute to its efficacy.*

At the heart of Westminster parliamentary government is the constitutional doctrine of responsible government (Jones, 88; Sutherland). The doctrine has collective and individual aspects. The collective aspect of responsible government requires that ministers, as a group, bear responsibility for the policies and performance of their government. In practice this means that the government (i.e., the Ministry) must have the confidence of the House and that individual ministers must publicly support the Cabinet's decisions. Individual responsibility refers to the responsibility borne by a minister in his or her capacity as the political head of a government department. It is with individual responsibility that this paper is concerned.

Individual responsibility requires that the minister be both accountable and responsible to Parliament for his or her department's activities (Woodhouse 1994, 27–39). The minister is accountable to Parliament in the sense that it is he or she to whom MPs put their questions and from whom they receive answers regarding the relevant department's policies and actions. In this capacity, the minister may simply be a conduit for information, or may be required to justify his or her department's position to Parliament. Responsibility goes beyond accountability; it requires that the minister not only explain his or her department's actions and policies but, in the event of a departmental error, accept the blame for the mistake and, if possible, correct

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it. At the limit, responsibility requires that the minister resign in the face of a serious departmental error. Classical interpretations of the doctrine state that ministers must accept the blame for all serious departmental errors (Jennings, 208; Lowell, 192). Modern versions of ministerial responsibility are somewhat less severe, requiring that ministers accept blame only for serious departmental errors of which the minister knew or should have known (Woodhouse, 38).<sup>2</sup> It must be emphasized, however, that it is the minister, and not the bureaucrats that serve under him or her, who is responsible to Parliament. Supporters of ministerial responsibility argue that this refusal to divide responsibility between ministers and bureaucrats has a salutary effect on political accountability; it motivates ministers to control their departments and motivates departments to respond to their ministers.<sup>3</sup>

The traditional expression of ministerial responsibility has its critics. Chapman (38), for example, thought that the doctrine was irrelevant to modern British government, describing it as a mere excuse for a verbal game of “cowboys and Indians” between ministers and opposition parties. Other critics argue that the paucity of ministerial resignations for departmental errors is evidence of the doctrine’s inability to deliver political accountability.<sup>4</sup> Indeed, in an era in which ministers increasingly manage departments by delegating a large measure of their power to their bureaucratic deputies, there is concern that “the doctrine of ministerial accountability undermines the potential for genuine accountability on the part of the person that ought to be accountable—the senior officer of the department [the deputy minister]” (Special Committee on Reform, 21).<sup>5</sup> This argument comes to life every time a minister (in defiance of the constitutional convention) publicly blames a civil servant for departmental errors. But it has also found formal recognition: administrative reforms in Canada, Great Britain, and New Zealand have sought to make civil servants, not just ministers, publicly accountable for their actions (Woodhouse 1994, 218–270; Sutherland, 107–110; McLeay, 23, 197). The movement is most advanced in the latter two countries where ministers now essentially contract with department heads (in New Zealand) or arms-length agencies (in Great Britain) for the provision of administrative services. Ministers remain responsible for the direction of policy while the departmental or agency chief executives have become responsible to Parliament for the quality and efficiency of administration.<sup>6</sup>

Several scholars have pointed out that the practical result of these changes has been to exaggerate the tendency of ministers to avoid responsibility by claiming that they are responsible for political but not operational failures (Woodhouse 1994, 9–13; Gregory; Barberis). In Great Britain, for example, Michael Howard (Home Secretary in May 1993 and responsible for the country’s prisons) refused to resign after two prison escapes. Howard instead fired the Chief Executive of Prison Services, claiming that the escapes were the result of operational not political failures. The Chief Executive disputed Howard’s claims and stated that he had met his performance targets in spite of policies that underfunded and overcrowded the

prison system (Barberis, 458). A more serious, though less stark, example of ministerial evasion comes from New Zealand, where, in 1995, a viewing platform built by the Department of Conservation (DOC) collapsed killing fourteen people. An inquiry concluded that the platform failed because it had been improperly constructed by DOC workers. This operational failure was, however, found to be rooted in policies that had chronically underfunded the DOC, thereby depriving it of the technical resources and control procedures that might have prevented the accident. Despite these findings, and contrary to what a strict interpretation of ministerial responsibility would require, the Minister in charge of the DOC stated that he was not obliged to offer his resignation (Gregory, 519–524).

Governments will always make mistakes, of course, even bad ones—whatever their administrative arrangements. Nevertheless, it is an open question as to whether political accountability is better served when ministers are held responsible for all departmental errors (as the traditional doctrine requires) or when responsibility is divided so that ministers are responsible for political errors while their bureaucratic subordinates assume responsibility for administrative failures (as is the case under the New Zealand and British reforms). This paper contributes to the debate by using a game theoretic model to show how individual ministerial responsibility can enhance political accountability in Westminster parliamentary systems. The paper begins with a game in which responsibility is divided between bureaucrats and ministers so that the latter are not held responsible for bureaucratic errors—a situation I refer to as lacking (traditional) ministerial responsibility. In this game bureaucrats fail to implement the government's preferred policy but ministers are not punished for this failure. In the following section the game is altered to reflect the classical doctrine of ministerial responsibility: ministers are punished for the bureaucrats' errors. A third section determines the extent to which the paper's results hinge upon certain modeling assumptions. A fourth section offers conclusions. The paper's main result is that a convention of ministerial responsibility strengthens political accountability by providing politicians with an incentive to search out and correct bureaucratic "drift" (i.e., bureaucratic deviations from politically prescribed policy choices) (McCubbins, Noll, and Weingast 1989).

It should be stressed at the outset that one of the central assumptions of my model of ministerial responsibility is that parties are (or at least can be treated as if they were) unitary actors. This assumption is common in the literature on parliamentary government, but it makes the model blind to the intraparty jockeying that typically accompanies a ministerial scandal (e.g., backbench MPs pressing Prime Ministers to sack the troubled minister, and ministers attempting to fend off this pressure and evade responsibility).<sup>7</sup> That being said, the model does generate a valuable and nonobvious insight into the nature of Westminster parliamentary government, suggesting that the force of ministerial responsibility depends as much on the opportunities that the convention creates for the opposition

to embarrass the government as it does on the threat of ministerial resignation (Palmer). In this respect, and to the extent that the doctrine improves political accountability, ministerial responsibility is not merely a pretext to a game of parliamentary “cowboys and Indians.”

### THE GAME

The game is played out in a unidimensional policy space in which both the government and opposition have ideal policy points. Without loss of generality, let the interval  $[0, 1]$  on the real line represent the policy space, and place the government and opposition’s ideal points (denoted  $G$  and  $O$ , respectively) anywhere along this line.<sup>8</sup> The game begins with the government formulating an initial policy,  $B_0$ , which is also located at  $G$  (the assumption being that the government will attempt to enact a policy that reflects its preferences). The bureaucracy then implements government’s policy, though not with the results that the government envisioned. For a variety of reasons, the bureaucracy, upon which the government relies to implement its policies, may enact a policy that differs from what the government envisioned.<sup>9</sup> The situation is depicted in Figure 1, with  $B_1$  and  $B_2$  representing possible policy outcomes—as enacted by the bureaucrats. The interval between  $B_0$  and  $B_1$  (or  $B_0$  and  $B_2$ ) is bureaucratic “drift,” the deviation between the policy desired by the government and the policy implemented by the bureaucrats.

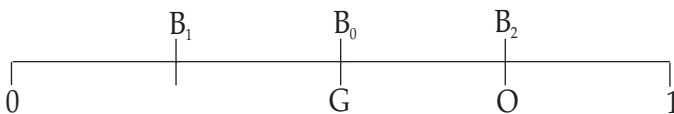
### The Players’ Utility Functions

In the interest of minimizing the mathematical complexity of the model, let us assume that bureaucratic drift is uniformly distributed over the policy space (i.e.,  $B_i \sim U[0, 1]$ ,  $i \neq 0$ ).<sup>10</sup> Let us further assume that the players’ utilities depend on the final policy outcome such that the further the final policy is away from a player’s ideal point, the worse off the player is. I operationalize this idea by having the players’ utility functions take the form:

$$U_G = -|G - B_i|$$

$$U_O = -|O - B_i|$$

FIGURE 1



where  $|G - B_1|$  and  $|O - B_1|$  are the absolute values of the difference between the government's and opposition's ideal points (respectively) and the final policy outcome.

Given the nature of its utility function, the government would appear to have an incentive to seek out and correct bureaucratic drift. Unlike models dealing with agency discretion or noncompliance in the American system of government, there are no institutional reasons a majority government in a Westminster system cannot correct bureaucratic policy errors—after all, they have a near monopoly on power (McCubbins et al. 1989; McCubbins, Noll, and Weingast, 1987; Calvert, McCubbins, and Weingast). Nevertheless, the government still has to monitor the bureaucracy—and this requires resources.<sup>11</sup> It seems reasonable that the more resources the government expends on monitoring, the more likely it is to discover bureaucratic drift. I operationalize this idea by allowing the government to expend  $p$  ( $0 \leq p \leq 1$ ) units (of time, money, personnel, etc.) on monitoring, with an expenditure of  $p$  ensuring that it discovers the drift with a probability of  $p$ .<sup>12</sup>

The opposition's motives are not as straightforward. It has some incentive to uncover drift—at least drift that makes it worse off (e.g.,  $B_1$  in Figure 1). If, however, the drift is toward its ideal point (e.g.,  $B_2$ ), the opposition would prefer to let the bureaucrats' policy decision stand. Whether the drift favors the opposition or makes it worse off depends on the location of  $G$  and  $O$ , but it can be put into probabilistic terms because we know how drift is distributed. Let  $k$  denote the probability that the drift is to the opposition's disadvantage. In Figure 1, for example,  $k = .5$  because half of the time the drift will be to the left of  $G$  and half the time to the right of  $G$  (toward  $O$ ). Note that the opposition does not have the power to correct bureaucratic drift, but it can alert the government and the government can correct it (by returning the policy to  $G$ ). Like the government, the opposition must expend resources to uncover drift. The opposition's monitoring costs are denoted as  $q$  and follow the same rules as set out above. I also assume that if neither the government nor the opposition discovers the bureaucratic drift, the drift goes uncorrected. In other words, the public is not an effective watchdog of the bureaucracy.<sup>13</sup>

A player's expected utility, then, depends on the magnitude of the bureaucratic drift, the amount of effort put into discovering the drift (hence the probability of discovering the drift), and the effort that the opposing player puts into discovering the drift. The expected utilities are of the form:

Government:

$$[1] \quad E[U_G] = p(-p) + (1-p)\{k[q(-p) + (1-q)(-|G - B_1| - p)] + (1-k)(-|G - B_2| - p)\}$$

Opposition:

$$\begin{aligned}
 [2] \quad E[U_O] = & q \{k(-|O - G| - q) + (1 - k)[p(-|O - G| - q) \\
 & + (1 - p)(-|O - B_2| - q)]\} + (1 - q)\{k[p(-|O - G| - q) \\
 & + (1 - p)(-|O - B_1| - q)] + (1 - k)[p(-|O - G| - q) \\
 & + (1 - p)(-|O - B_2| - q)]\}
 \end{aligned}$$

The players' strategies consist solely of choosing the degree of effort they want to exert in monitoring the bureaucracy (i.e., levels of  $p$  and  $q$ ).<sup>14</sup> Thus, a strategy set  $(p^*, q^*)$  will be a Nash equilibrium if, for the government,  $E[U_G(p^*, q^*)] \geq E[U_G(p, q^*)]$ , and for the opposition,  $E[U_O(p^*, q^*)] \geq E[U_O(p, q)]$  for all  $p$  and  $q$  (Gibbons, 8).

### Outcomes

The general result is that neither player bothers to police the bureaucracy. In game theoretic terms,  $(p^* = 0, q^* = 0)$  is the unique Nash equilibrium. The intuition behind this result is as follows. The opposition has no incentive to search out *bureaucratic* drift because if the drift makes the opposition worse off, then the best it can do is to alert the government and have the government return the policy to the government's ideal point; if in the opposition's favor, policing the bureaucracy is counterproductive because it erodes any gains that the opposition stands to realize. From the government's perspective, the resources expended on monitoring simply outweigh the gains that come from eliminating bureaucratic drift.

Figures 2 and 3 provide a graphical representation of the equilibrium as it applies to the game depicted in Figure 1 (i.e., when  $G = .5$  and  $O = .75$ ). The figures graph the players' payoffs against values of  $p$  and  $q$ .<sup>15</sup> The boldfaced diamonds indicate the payoffs received when the opponent does not monitor (i.e., sets  $p$  or  $q$ —as the case may be—to zero), the boldfaced circles, the payoffs received when the opponent does its utmost to monitor (i.e., sets  $p$  or  $q$  to one). Note from Figure 2 that the opposition's payoffs from monitoring (along the lower right edge where  $q = 1$ ) are lower than from not monitoring (on the higher left edge where  $q = 0$ )—and that this is true regardless of the value of  $p$  chosen by the government. This pattern indicates that the opposition is always better off not policing the bureaucracy. By not monitoring (i.e., playing  $q = 0$ ) the opposition restricts the government's payoffs to the line traced out by the boldfaced diamonds in Figure 3. The government's choice is obvious: not monitoring ( $p = 0$ ) allows it to secure its highest payoff. Figures 2 and 3 do not constitute a proof, but it can be shown (see Appendix 1) that the equilibrium of  $(p^* = 0, q^* = 0)$  is unique and independent of the location of  $G$  and  $O$ .

### ADDING MINISTERIAL RESPONSIBILITY TO THE GAME

From the electorate's perspective, the above equilibrium is suboptimal. Presumably, voters voted for the government because they wanted to

FIGURE 2  
Opposition's Payoffs from Figure 1

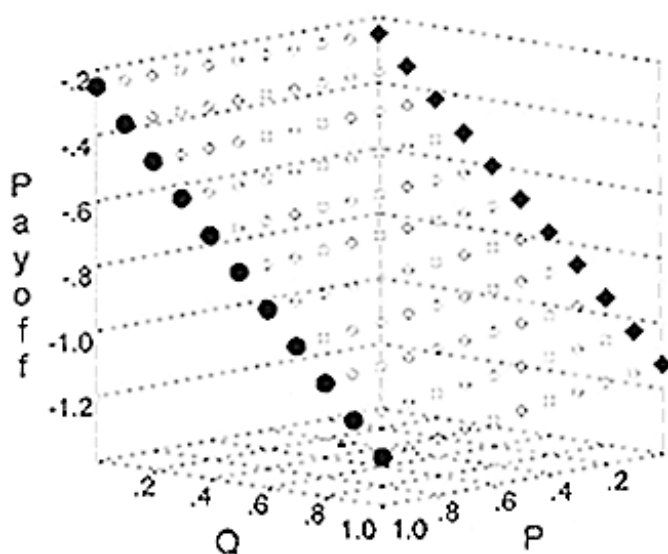
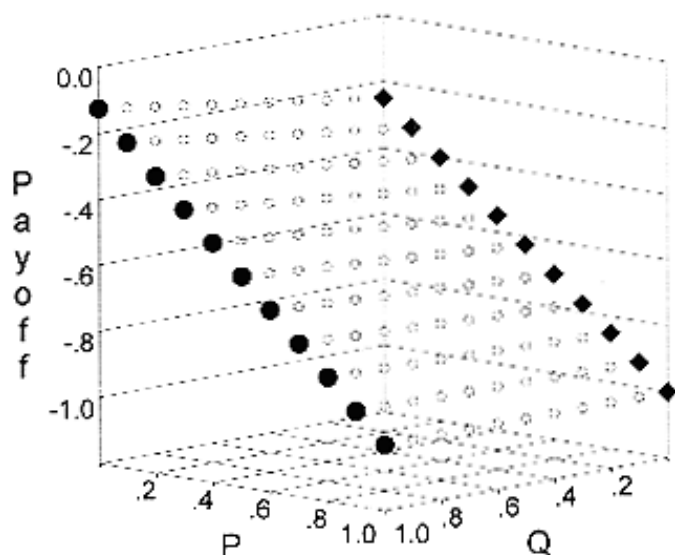


FIGURE 3  
Government's Payoffs from Figure 1





obtain a policy  $B_0 = G$ . Politicians' failure to monitor the bureaucracy allows a bureaucratic policy choice to displace a democratic one. Voters would prefer that both the government and the opposition do their utmost to limit bureaucratic drift. A convention of ministerial responsibility can motivate the government and opposition to do exactly this.

The effect of ministerial responsibility is modeled by making two modifications to the game:

1. When both the government and opposition discover the bureaucratic drift, the government pays a small penalty and the opposition reaps a small reward. Think of this as the opposition profiting from the relevant minister's embarrassment over a bureaucratic error, but the minister (and by association the Cabinet and the governing party as a whole) escaping from an outright political disaster because he or she has acted to correct the error.
2. When only the opposition discovers the bureaucratic drift, the government pays a large penalty and the opposition reaps a large reward. This is meant to represent a situation in which the opposition's discovery has clearly caught the government unawares. This is a political catastrophe for the government and a coup (figuratively speaking, of course) for the opposition. The large penalty reflects the significant political cost of a ministerial resignation, which in addition to damaging the minister's career, may interrupt the Cabinet's legislative program, demoralize government backbenchers, and undercut the governing party's reputation for competent governance. This last characterization of the penalty brings electoral costs into the model, albeit implicitly.<sup>16</sup>

The practical effect of these changes is to place the government and opposition in a zero-sum situation where government losses are opposition gains. According to Palmer, this is precisely what ministerial responsibility accomplishes:

Ministerial responsibility is virtually explicit in its expression of the monitoring relationship between the opposition parties in Parliament and the Cabinet. . . . Parliamentary mechanisms constitute the primary weapons available to the main opposition party in its continuous competition with the governing party for the Westminster franchise. The opposition acts as an electorally appointed monitor—seeking and publicising information that damages the reputation of the governing party . . . and the governing party has corresponding incentives to conceal damaging information and publicise positive information (Palmer, 175–176).

### Players' Utility Functions

In order to limit the number of new parameters that are introduced into the model, let the small penalty/reward equal half of the large penalty/reward. We will denote it by  $c$  (for cost). Adding this parameter to the model changes the expected utility functions to:



Government:

$$[3] \quad E[U_G] = p[q(-c - p) + (1 - q)(-p)] + (1 - p)[k\{q(-2c - p) + (1 - q)(-|G - B_1| - p)\} + (1 - k)\{q[r(-2c - p) + (1 - r)(-|G - B_2| - p)] + (1 - q)(-|G - B_2| - p)\}]$$

Opposition:

$$[4] \quad E[U_O] = q\{k[p(-|O - G| + c - q) + (1 - p)(-|O - G| + 2c - q)] + (1 - k)[p(-|O - G| + c - q) + (1 - p)[r(-|O - G| + 2c - q) + (1 - r)(-|O - B_2| - q)]]\} + (1 - q)\{k[p(-|O - G| - q) + (1 - p)(-|O - B_1| - q)] + (1 - k)[p(-|O - G| - q) + (1 - p)(-|O - B_2| - q)]\}$$

The  $r$  parameter is the probability that  $c$ , the opposition's reward for discovering bureaucratic drift, outweighs its gain from accepting  $B_2$  as the new policy position (so  $1 - r$  is the probability that the opposition will forgo the opportunity to embarrass the government and silently accept the new policy).

### Outcomes

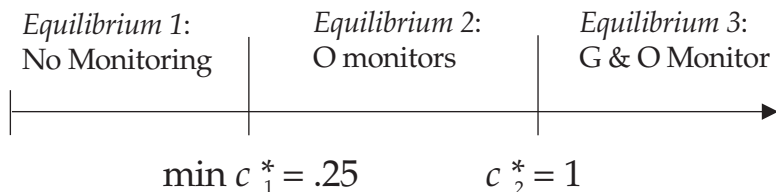
There are three possible equilibria under ministerial responsibility:

1. Equilibrium 1: If the penalty/reward for discovering drift ( $c$ ) is very small, neither the government nor the opposition monitors the bureaucracy.
2. Equilibrium 2: As  $c$  increases beyond a certain threshold, the opposition begins to monitor.
3. Equilibrium 3: As  $c$  moves beyond a second higher threshold, the government also begins to monitor.

These equilibria are illustrated in Figure 4 (and proven in Appendix 2). While monitoring clearly (and rather predictably) becomes more likely as  $c$  increases, two less obvious dynamics provide greater insight into the equilibria. First, the reward for correcting bureaucratic drift has to be large enough to make the opposition strictly prefer embarrassing the government to hiding favorable drift. Only when this condition is satisfied does monitoring occur. Second, the reward required to induce opposition monitoring

FIGURE 4

### Three Possible Equilibria under Ministerial Responsibility



increases as the ideal points of the government and the opposition diverge. These two relationships are connected: if the government and the opposition are at opposite ends of the policy space, then all bureaucratic drift works to the opposition’s advantage and only a relatively large reward will get it to forgo silently accepting the drift.

It is common to think about ministerial responsibility constraining (or failing to constrain) the government directly (e.g., through the threat of ministerial resignation). The model suggests, however, that doctrine’s impact on the behavior of the opposition is just as important. Insofar as it takes a smaller penalty/reward ( $c$ ) to trigger opposition monitoring than government monitoring, it is fair to say that the opposition is more sensitive to the presence of ministerial responsibility than the government. Indeed, for many values of  $c$ , only the opposition bothers to monitor the bureaucracy—yet this is enough to prevent a bureaucratic decision from trumping a democratic one. This suggests that ministerial responsibility can work quite effectively even if it has little or no direct effect on the government’s behavior.

The small reward that the opposition receives for uncovering drift even if the government discovers it, is also important for the model. Without this small reward, the game has no equilibrium; as  $c > 1$ , the game takes on the form set out in Figure 5. The substantive implication of this result is that the effective political oversight brought about by a convention of ministerial responsibility does not rest solely on the threat of ministerial resignation, but depends also on the incentive that the convention creates for opposition parties to embarrass the government (underscoring the point made above). This leads me to suggest that the parliamentary game of “cowboys and Indians” (as Chapman termed it), in which the opposition harries ministers over even relatively small matters, may be central—not irrelevant—to accountability in the Westminster system of government.

FIGURE 5  
Nature of the Game When Opposition Does Not Get Small Reward for Discovering Bureaucratic Drift\*

		Opposition	
		$q = 0$	$q = 1$
Government	$p = 0$	3, 2	1, 3
	$p = 1$	2, 4	2, 1

\*The cell entries represent the relative values of the payoff, not their actual values. In other words, a player prefers 3 to 2 and 2 to 1.

This is a significant and nonintuitive insight into the nature of responsible government. In sum, ministerial responsibility has the potential to force politicians (on both government and opposition benches) to police the bureaucracy. This is no small achievement—monitoring is costly to politicians and they would prefer not to do it.

#### WHAT'S BEEN LET IN THE BACK DOOR?

The results of any formal model are direct consequences of the assumptions upon which the model is based: sound assumptions produce genuine results, unwarranted assumptions, specious results. It is important, therefore, to examine the present model's assumptions closely. This section is divided into three parts. The first part uses qualitative evidence gathered from interviews with Australian and New Zealand MPs to show that the model—despite its simplicity—captures key elements of political reality.<sup>17</sup> The second part assesses the extent to which the model's results depend on my assumptions about monitoring costs. The third part questions (and defends) the manner in which I have chosen to model the bureaucracy.

#### Is the Model Realistic?

My results follow from four (more or less explicit) assumptions about the political dynamics of ministerial responsibility:

1. The penalties and rewards associated with ministerial responsibility are not purely electoral in nature, but are wrapped up with the impact on the parties' morale and disruption to the governing party's legislative agenda. If this assumption is correct, then it would not seem to be imperative to include voters in the model to dispense punishments and rewards to the political parties.
2. The political penalties and rewards of ministerial responsibility accrue to parties collectively, not just to ministers. In other words, parties are unitary actors—or at least can be treated as if they were. It is reasonable to model ministerial responsibility as a game between parties only if this assumption is correct.
3. The contest between the government and opposition is zero-sum in nature (i.e., what the opposition wins, the government loses). If this were not the case, then one could not be sure what size of penalty/reward would be required to entice the government and opposition to monitor bureaucratic activity, or even if it would be possible to do so.
4. One can get a good understanding of how ministerial responsibility works by focusing on the parliamentary battles between the government and the opposition. Thus, it is not necessary to include explicitly the media or the electorate in the model.

Interviews with Australian and New Zealand MPs suggested that these four assumptions were quite realistic. To begin with, a large majority of

the MPs I talked to characterized the cost or reward of a ministerial scandal in terms of its impact on their party's morale—not on their party's electoral prospects. The emphasis on party morale comes out well in the following remark:

It was very bad for us. We (the backbenchers) were seen to be guilty by association. The backbench thought the government (i.e., the Cabinet) was in disarray. I felt that the ALP was personal in its attacks, *but the general objective* [of attacking ministers] *is to inflict psychological damage on the other party* [my emphasis].

(An Australian Liberal MP commenting on the ministerial travails of Howard's first term.)

MPs did, of course, make some references to a loss of popularity or growing pessimism about re-election, but just as frequently (and as the quote above indicates) they mentioned how backbenchers worried about the disruption to the government's cohesion or legislative agenda. One MP even directly downplayed electoral concerns:

The feeling on the backbench was not that we were slipping in the polls, but that we were being put on the defensive in Parliament . . . and morale fell as a result.

(An ALP backbencher reflecting on a drawn-out ministerial scandal during Keating's second term.)

Taken together, this evidence would seem to confirm the first assumption.

It is noteworthy that MPs tended to talk of how morale in *the party* rose or fell or of how *the backbench* was dragged down alongside the minister (this comes through in the first quote), rather than of the direction of their personal electoral fortunes. Indeed, some backbenchers seemed to resent the fact that their political careers are tied to ministerial fortunes:

Morale on the backbenches plummeted. It was just terrible. We were all looking at him [the minister] and saying "What the hell are you doing to us?"

(An Australian National MP describing caucus reaction to a ministerial scandal during Howard's first term.)

It was, however, an ALP frontbencher who most forcefully expressed the view that the costs and rewards of ministerial troubles accrue to parties, not just to ministers. Asked if the costs of a ministerial resignation were borne by the minister alone or by the party collectively, he replied: "The individual minister is irrelevant; it's the [governing] party that pays, the backbench that pays." My second assumption—that parties can be treated as if they were unitary actors—seems reasonable then.

The same ALP frontbencher described the situation between the government and opposition in zero-sum terms. He noted how important it was for the ALP to have brought down several of Howard's ministers, how the resignations "boosted our morale tremendously, *and in equal terms demoralised the government* [my emphasis]." The same theme arose in a conversation with a long-serving New Zealand MP:

Q: I argue that the chief sanction of a ministerial scandal is not the damage done to the minister's career, but the damage done to his or her party. Would you agree with this view?

A: Oh, there's no question about that. You end up with a backbench saying to the PM [Prime Minister] and Cabinet, "You have to amputate to save the party." The minister's scalp has to be offered; ministers are expendable, you see. Of course, in opposition there is a huge sense of exhilaration when you get a minister's scalp.

Q: It's realistic then to describe the situation in zero-sum terms, what the opposition gains, the government loses?

A: Exactly—that's the whole point of the adversarial nature of the Westminster system.

Again, the qualitative evidence would seem to buttress the model.

When one talks to MPs about the costs or rewards of a ministerial scandal, they emphasize the state of backbench morale and the disruption of the government's legislative agenda. These are parliamentary concerns that do not in any immediate sense involve the media or the electorate. This does not mean that MPs are completely indifferent to media or electoral effects, just that these effects are not uppermost in their minds—at least in the short run. (In fact, only one MP out of eighteen chose to emphasize the role of the media in meting out political sanctions.) MPs largely consider public and press reaction to events in the House to be a "black box" about which they know one thing: winning parliamentary battles produces better political outcomes than losing parliamentary battles. A New Zealand MP described the connection between Parliament, the media, and the electorate in the following terms:

It's like dropping a pebble into a pond. What goes on in the House gets through to the press and eventually through to the public. And if you drop enough pebbles into the pond, you can build up a quite big political wave.

Even the lone MP who stressed the power of the media argued that "the headlines are driven by the mood of the House. . . . [T]hey always tell you which team had the psychological edge." Even in an era of electronic media and intensive political polling, the floor of the House remains the primary political battleground in MPs' minds. Thus it appears that modelling ministerial responsibility in terms of a parliamentary struggle between the government and opposition rather than in terms of media and voter reactions is not out of step with political reality.

There are costs and benefits to using formal theory to study political institutions (Hammond). The advantage of using formal models to study politics is that they allow one to simplify reality so that one can more easily perceive critical relationships. The corresponding danger is that substance and context are made subordinate to mathematical tractability and theoretical elegance. That has not happened in this case. The model presented here is stylized, but as the qualitative evidence demonstrates, it is not so stylized as to be irrelevant to political reality. Indeed, if one values

parsimony, the fact that such a simple model does such a good job of capturing key aspects of political reality counts in its favor.

### What If Monitoring Were Cheaper?

There remains the question of whether the above results come about only because monitoring costs, bureaucratic drift, and the probability of detecting the drift are all confined to the same  $[0, 1]$  interval. Perhaps if it were less costly to detect bureaucratic drift, one might arrive at an equilibrium in which both players monitored the bureaucracy even in the absence of a convention of ministerial responsibility. I investigated this possibility by allowing an expenditure of  $p$  units to uncover drift with a probability of  $\alpha p$  ( $\alpha > 1$ ).<sup>18</sup> Two conclusions emerged from this analysis (shown in Appendix 3). First, if one is to escape the “no monitoring” Nash equilibrium of  $(p^* = 0, q^* = 0)$ , monitoring costs must be reduced by at least half ( $\alpha \geq 2$ ). Second, even if such a reduction is made, one may still encounter an equilibrium in which neither player polices the bureaucracy (just how often depends on how  $k$  is distributed).<sup>19</sup> In other words, lower monitoring costs alone are not sufficient to move the equilibrium away from  $(p^* = 0, q^* = 0)$ . Note also that it appears that as monitoring costs are reduced, the penalty/reward ( $c$ ) required to induce the government and opposition to monitor the bureaucracy also decreases.<sup>20</sup> The paper’s results then do not completely collapse if monitoring is made less costly.

There is, of course, a strong substantive argument against lowering the cost of monitoring. The more cost-effective (i.e., easy) one makes monitoring, the more one undercuts the criticism against a strict interpretation of ministerial responsibility. One of the reasons critics want to make bureaucrats directly accountable to Parliament is because they believe that it is already too hard to monitor their activities: one simply cannot expect a minister (even one supported by a personal staff) to keep tabs on an entire government department. Phrased differently, if effective monitoring requires so little effort, then why is it unreasonable to expect the minister to bear sole responsibility?

### Is the Bureaucracy Modeled Appropriately?

One of the major aims of the administrative reforms in Britain and New Zealand was to tie top bureaucrats’ career prospects more closely to their performance: if a chief executive failed to fulfil the terms of a contract, then the contract would not be renewed (Woodhouse 1997, 48–49). This suggests that it might have been more appropriate to model the bureaucracy as a player, and in particular as a player that the government could punish and that might have responded to punishment by conforming more closely to the government’s directives. It is not clear, however, that the addition of a punishable bureaucracy would significantly alter the model’s outcome. Ineffectual monitoring would undermine any system of sanctions, and in this sense weak monitoring incentives would remain the

chief impediment to political accountability in the absence of ministerial responsibility (Horn, 121). These weak monitoring incentives could be offset if bureaucrats were punished more severely when ministers were not held vicariously responsible, but this would be hard to justify substantively because it is not as if the classical doctrine of ministerial responsibility protects bureaucrats from punishment.<sup>21</sup> D. N. Chester, for example, writes that “the fact that the Minister is responsible for everything done, or not done, by his department does not render the civil servant immune from disciplinary action or dismissal by the Minister” (110). What beyond dismissal can a minister really do?

A second concern with the way the bureaucracy is modeled is the distribution of bureaucratic drift. As the model stands, bureaucratic drift is distributed uniformly over the policy space. This assumption does not seem realistic because it implies that the government’s policy has no effect on bureaucratic behavior. It would be more plausible (though not necessarily empirically correct) if the drift were concentrated about the government’s ideal point with large errors only rarely occurring—as would be the case if the drift were distributed normally about  $G$ .

Unfortunately, the literature is ambivalent about exactly what effect governments’ political preferences have on policy outputs. Rose (1976), for example, concluded that parties lacked the ability to translate their platforms into public policy (1982). This would seem to support the use of a uniform distribution. Castles’ (1982) work, on the other hand, suggested that parties had a significant influence on public expenditure, evidence favoring the use of a normal distribution.<sup>22</sup> Politicians hold different beliefs: Brian Mulroney and Joe Clark, for example, worried that the Canadian federal bureaucracy remained politically loyal to the Liberal Party (Campbell 1983; 1988). Thatcher held similar suspicions about the British civil service (1993, 18; 45–49). One might model these situations by centering drift on the opposition’s ideal point or by using a distribution that is skewed in favor of the opposition, but the larger point here is that the literature does not give one a solid basis for choosing one of these distributions over another.

There are other reasons for using a uniform distribution. The game’s logic is that players monitor bureaucrats only if the benefit of correcting bureaucratic drift promises to outweigh the cost of searching for it. One would expect, then, to see less monitoring when drift was normally distributed than when it was uniformly distributed because expected value of unfavorable drift is smaller under the former assumption than under the latter.<sup>23</sup> The problem with distributing drift with a distribution with a relatively small variance (like a normal distribution) is that it stacks the deck in favor of ministerial responsibility: not only are political actors less likely to search for normally distributed bureaucratic drift when not governed by ministerial responsibility, but smaller penalties and rewards will be required to induce monitoring when ministerial responsibility is put in place. The danger here is that the model’s results are the consequence of an unfair competition between the two regimes of political accountability.



One can avoid setting up a straw man of this sort by uniformly distributing the bureaucratic drift because the uniform distribution's relatively large variance makes it more likely that the players will monitor even in the absence of ministerial responsibility.

## CONCLUSION

Critics of ministerial responsibility argue that it is irrational to hold the minister solely responsible for his department's actions while allowing the bureaucrats who actually commit the errors to go publicly unpunished—especially when departments are so large and complex, and senior bureaucrats so powerful in their own right. From the critics' perspective, the doctrine of ministerial responsibility needs to be altered so that senior bureaucrats, not just their ministers, are directly accountable to Parliament. The argument is predicated on the notion that one solves a principal-agent problem by punishing the agents (bureaucrats) not the principals (politicians). The assumption is not incorrect, but critics of ministerial responsibility do not seem to appreciate that it applies as much to politicians as to bureaucrats. Politicians, after all, are the voters' agents, and they have to be motivated to search out bureaucratic errors.<sup>24</sup> The model suggests that ministerial responsibility provides this motivation, and to this extent, the doctrine contributes to political accountability.

The model's results should not be taken to imply that there would be absolutely no monitoring of bureaucrats—and therefore no political accountability—in the absence of a strict convention of ministerial responsibility. This is far too strong a conclusion, and the results supporting it depend on specific assumptions about monitoring costs. In addition, it may be difficult to enforce a convention of ministerial responsibility, especially if a Cabinet is willing to shield its ministers with collective responsibility—the model did not address this possibility.<sup>25</sup> That being said, it is incorrect to cast the doctrine of ministerial responsibility as irrelevant to Westminster parliamentary government. Indeed, the paper's results should serve as a cautionary note to studies that use the small number of ministerial resignations for a departmental error as an argument for the nonexistence (and hence the emptiness) of the convention of ministerial responsibility (Finer; Woodhouse 1994). Resignation is not an equilibrium outcome of either the game with ministerial responsibility or the game without it; in the former, ministers take steps to eliminate departmental errors, in the latter they are not obliged to resign for these errors. Thus, the paucity of ministerial resignations for departmental fault can be taken as evidence either that ministerial responsibility is entirely absent or that it is functioning quite satisfactorily. Many of the authors who study ministerial responsibility empirically are aware of this limitation, but this does not prevent them from using ministerial resignation as a measure of the convention's efficacy. The model reveals the shortcomings of this approach.

The model also points out the danger of weakening the convention of ministerial responsibility. If bureaucratic errors do not carry with them hefty costs for ministers (and, by association, their parties) and substantial rewards for opposition parties, the convention loses its ability to motivate politicians to search out bureaucratic drift. The threat of resignation provides the convention with much of its force, of course. However, the model also shows that the convention's strength depends on letting the opposition score lesser political victories against the government. This result lends credence to Page's argument (156–157) that the doctrine of ministerial responsibility is supported as much by the "public fuss" that erupts upon accusations of ministerial impropriety as it is by the threat of resignation. It also suggests that institutions that allow the opposition to harry and embarrass ministers, such as Question Time (or Question Period as it is called in Canada) and the media scrums in the lobbies—which are often written off as mere theatrics—may be vital to the practice of responsible government.

#### APPENDIX 1

The graphs show that there are no interior solutions. The best that can be done is to take the partial first derivatives of the player's utility functions (with respect to  $p$  and  $q$  as the case may be) and attach a sign to them. A negative sign indicates that the player prefers to set  $p$  (or  $q$ ) as low as possible; a positive sign, that the player prefers to set  $p$  (or  $q$ ) as high as possible. At zero points, however, one must go back to the utility function and check to see if an equilibrium exists.

The partial first derivatives are:

$$[5] \quad U_{Gp} = -1 - p + -(1 - k)(-|G - B_2| - p) - k[q(-p) + (1 - q)(-|G - B_1| - p)] = -1 + |G - B_2|(1 - k) + |G - B_1|[k(1 - q)]$$

$$[6] \quad U_{Oq} = -1 + k(-|O - G| - q) - k[p(-|O - G| - q) + (1 - p)(-|O - B_1| - q)] = -1 + k[|O - G|(p - 1) + |O - B_1|(1 - p)]$$

They are negative in all but two instances:

- 1)  $k = 0$  and  $G = 0$  or 1

The derivative of the government's utility function can equal zero under these conditions. Note that when  $k = 0$ , all drift is in the opposition's favor and so it expends no resources trying to uncover the drift (i.e., it plays  $q = 0$ ). With  $q = 0$ , equation 1 (describing the government's expected utility) reduces to:

$$[1b] \quad U_G = p(-p) + (1 - p)(-|G - B_1| - p)$$

which is equal to  $-1$  when  $p = 1$  and  $-|G - B_1|$  when  $p = 0$ .<sup>26</sup> The latter is always greater than or equal to the former because the greatest value that

$|G - B_1|$  can take on is 1.<sup>27</sup> This implies that the government, like the opposition, is always better off ignoring the bureaucracy. Therefore, a Nash equilibrium exists at  $(p^* = 0, q^* = 0)$ .

2)  $k = 1$ ,  $G = 0$  or  $1$ , and  $p = q = 0$

Both derivatives can equal zero under these conditions. Observe that when  $k = 1$  all drift works to the opposition's disadvantage. This is only possible if  $G = O$  (i.e., the government and opposition have identical ideal points). The question is whether these conditions can support an equilibrium. With  $k = 1$  the government's utility function can be written as:

$$[1c] \quad U_G = (1 - p)[q|G - B_1| - |G - B_1|] - p$$

Equation 1c equals  $-1$  when  $p = 1$  and  $+q|G - B_1| - |G - B_1|$  when  $p = 0$ . Again, the latter is always at least as great as the former because  $q|G - B_1|$  is never negative and  $|G - B_1|$  never larger than 1. Thus, playing  $p = 0$  is a weakly dominant strategy from the government's perspective. With  $p = 0$ , the opposition's utility function becomes:

$$[2b] \quad U_O = -|O - B_1|(1 - q) - q$$

The opposition is always at least as well off playing  $q = 0$  as it is playing  $q = 1$  because the greatest value that  $|O - B_1|$  can attain is 1. One can conclude that  $q = 0$  weakly dominates  $q = 1$  and that, in light of the above result,  $(p^* = 0, q^* = 0)$  constitutes a Nash equilibrium. The intuition here is that while bureaucratic drift disadvantages both parties equally (and so both would appear to have an incentive to police the bureaucracy), there is a strong incentive for each player to free-ride on the other's policing efforts.

It is worth emphasizing that all other values of  $k$  (i.e.,  $0 < k < 1$ ) return negative derivatives, indicating that both players prefer to expend as few resources as possible monitoring the bureaucracy. Recall that  $k$  represents the probability that the bureaucratic drift disadvantages the opposition. As such, it is entirely a function of the relative position of  $G$  and  $O$  (government's and opposition's ideal points). For example, when  $G = O$ ,  $k = 1$ . The upshot is that the equilibrium  $(p^* = 0, q^* = 0)$  is unique and entirely unaffected by the locations of  $G$  and  $O$ .

## APPENDIX 2

This appendix demonstrates the existence of three "ministerial responsibility" equilibria and calculates the values of the thresholds that separate them. As before, there are no interior solutions; all that one can do is attach a sign to the partial derivatives of the players' utility functions (equations 5 and 6), noting that the players monitor when the partial derivatives are strictly positive. Under ministerial responsibility the partial derivatives are as follows:

Government:

$$[11] \quad U_{Gp} = -1 + |G - B_2|(1 - k - qr + kqr) + |G - B_1|(k - kq) - cq(1 - 2k - 2r + 2kr)$$

Opposition:

$$[12] \quad U_{Oq} = -1 + |O - G|(k - kp) + |O - G|r(1 - k - p + kp) + |O - B_1|(k - kp) - |O - B_2|r(1 - k - p + kp) + c(2k + p - 2kp + 2r - 2kr - 2pr + 2kpr)$$

Thus, the opposition monitors if:

$$[13] \quad c > \frac{1 - (|O - G| - |O - B_1|)(k - kp) - (|O - B_2| - |O - G|)r(1 - k - p + kp)}{2k + p - 2kp + 2r - 2kr - 2pr + 2kpr}$$

and the government monitors if:

$$[14] \quad c > \frac{1 - |G - B_1|k(q - 1) - |G - B_2|(k - 1)(qr - 1)}{q[1 + 2k(r - 1) - 2r]}$$

Equations 13 and 14 are not by themselves satisfying solutions; it is not clear, for example, whether the penalty ( $c$ ) required to get the government to monitor is bigger or smaller than the reward ( $c$ ) required to get the opposition to monitor. Thus I proceed by looking at two polar situations, one in which the opposition has the greatest incentive to monitor and the other in which it has the least incentive to monitor. The former situation reveals the minimum  $c$  capable of making the opposition monitor (i.e., the lower bound of the first threshold in Figure 4). The latter situation reveals the maximum  $c$  needed to get the opposition to monitor; in other words, the upper bound of the first threshold, and—as it turns out—the lower bound of the second threshold. The linearity of the utility functions guarantees that all other situations (characterized by the locations of  $G$  and  $O$ ) have thresholds that fall between these two extremes.

### The Lower Bound

The opposition has the greatest incentive to monitor when all drift is to its disadvantage and when the expected value of that drift is as large as possible. This is the case when the government and opposition have identical ideal points at an extreme of the policy space (so  $O = G = 0$  or  $1$ ). These conditions imply that: (1)  $k = 1$ ; (2)  $E|O - B_1| = E|G - B_1| = .5$ ; (3)  $\sim \exists B_2 \therefore |G - B_2| = |O - B_2| = 0$ ; and (4)  $|O - G| = 0$ . Note that in the absence of favorable drift (from the opposition's perspective), any  $c > 0$  will be sufficient to make  $r = 1$  (because  $r$  is probability that  $c$  outweighs favorable drift). In view of this, let  $c > 0$ . This assumption and the above constraints allow one to write the partial derivatives as follows:

$$[11b] \quad U_{Gp} = -1 + |G - B_1|(1 - q) + cq$$

$$[12b] U_{Oq} = -1 + |O - B_1|(1 - p) + c(2 - p)$$

Thus (noting that  $E|O - B_1| = .5$ ), the opposition monitors if:

$$[13b] c > .5(1 + p)/(2 - p)$$

It can be shown that the government plays  $p = 0$  if  $c < 1$ . The government monitors if:

$$[14b] c > .5(1 + q)/q$$

Note that:

$$[14c] \lim_{q \rightarrow 0} \frac{.5(1 + q)}{q} = \infty$$

$$[14d] \lim_{q \rightarrow 1} \frac{.5(1 + q)}{q} = 1$$

This is enough to demonstrate the existence and nature of the three equilibria:

1.  $c \leq .25$ : Neither player monitors; ( $p^* = q^* = 0$ ) is the Nash equilibrium.<sup>28</sup>  
*Proof:* Observe from equations 14b–d that  $c \leq .25$  is insufficient to get the government to monitor—regardless of the level of opposition monitoring; so  $p = 0$ . With  $p = 0$  the inequality in equation 13b cannot hold. Thus the opposition, like the government, does not monitor.
2.  $1 \geq c > .25$ : Only the opposition monitors; ( $p^* = 0, q^* = 1$ ) is the Nash equilibrium.  
*Proof:* By equation 14d the government does not monitor if  $c < 1$ . (Indeed, the smallest  $c$  capable of getting the government to monitor is a  $c$  that just exceeds 1.) However,  $c > .25$  is sufficient to get the opposition to monitor. (To see this substitute  $p = 0$  into equation 13b).
3.  $c > 1$ : The government *and* the opposition monitor; ( $p^* = q^* = 1$ ) is the Nash equilibrium.  
*Proof:* Regardless of the level of monitoring chosen by the government,  $c > 1$  is sufficient to get the opposition to monitor. (When  $p = 1$ ,  $c > 1$  allows the inequality in equation 13b to hold, and as shown above, when  $p = 0$ ,  $c > .25$  will do this). With  $q = 1$ ,  $c > 1$  is sufficient to get the government to monitor (see equation 14d).

## The Upper Bound

The opposition has the least incentive to monitor when all bureaucratic drift is to its advantage. This can occur when  $G = 0$  and  $O \geq .5$  or  $G = 1$  and  $O \leq .5$ . As all these situations are essentially identical, I consider the case when  $G = 0$  and  $O = 1$ . Thus:  $k = 0$ ;  $|O - G| = 1$ ;  $\sim \exists B_1 \therefore |G - B_1| = |O - B_1| = 0$ ; and  $E|O - B_2| = E|G - B_2| = .5$ . Note that as the opposition gains  $E|O - B_2| = .5$  from bureaucratic drift,  $c > .5$  to ensure that  $r = 1$ . If  $c > .5$ , the partial derivatives simplify to:

Government:

$$[11c] U_{gp} = -.5(1 + q) + cq$$

Opposition:

$$[12c] U_{Oq} = -.5(3 - p) + c(2 - p)$$

Thus as before, the government monitors if:

$$[15] c > .5(1 + q)/q$$

and the opposition monitors if:

$$[16] c > .5(3 - p)/(2 - p)$$

Equation 15 is identical to equation 14b so, as was shown above, the government monitors if  $c > 1$ . The limits of equation 16 show how the opposition behaves.

$$[16b] \lim_{p \rightarrow 0} \frac{.5(3 - p)}{(2 - p)} = .75$$

$$[16c] \lim_{p \rightarrow 1} \frac{.5(3 - p)}{(2 - p)} = 1$$

Thus three equilibria exist:

1.  $c \leq .75$ : Neither player monitors; ( $p^* = q^* = 0$ ) is the Nash equilibrium.  
*Proof:* The government monitors if  $c > 1$ , and when  $p = 0$ , the opposition monitors if  $c > .75$  (by equation 16b).
2.  $1 \geq c > .75$ : Only the opposition monitors; ( $p^* = 0, q^* = 1$ ) is the Nash equilibrium.  
*Proof:* As above, the government monitors if  $c > 1$ ; and when  $p = 0$ , the opposition monitors if  $c > .75$  (by equation 16b)—but here this last condition is fulfilled.
3.  $c > 1$ : The government *and* the opposition monitor; ( $p^* = q^* = 1$ ) is the Nash equilibrium.  
*Proof:* The government monitors if  $c > 1$ ; and when  $p = 1$ , the opposition monitors if  $c > 1$  (by equation 16c);  $c > 1$  so both players monitor.

At a minimum, then, the penalty/reward for ministerial responsibility ( $c$ ) must exceed .25 before the opposition begins to monitor, and it must exceed 1 before the government begins to monitor. It follows from this that both the government and the opposition monitor when  $c$  is strictly greater than 1. Also, as opposition and government ideal points diverge, the  $c$  required to get the opposition to monitor increases until it is equal to the government's threshold of 1.

## APPENDIX 3

Under this assumption the partial derivatives of the utility functions are:

$$[7] \quad U_{Gp} = -1 + \alpha|G - B_2|(1 - k) + \alpha k |G - B_1|(1 - \alpha q)$$

$$[8] \quad U_{Oq} = -1 + \alpha k[|O - G|(\alpha p - 1) + |O - B_1|(1 - \alpha p)]$$

Consider how equations 7 and 8 respond to changes in  $k$  (which describes the structure of the game):

$$1) \quad k = 0$$

This corresponds to a situation in which all drift works to the opposition's advantage. This is possible only if  $G$  is located at an extreme of the policy space (i.e.,  $G = 0$  or  $1$ ). If all drift favors the opposition, it has no incentive to monitor the bureaucracy (i.e.,  $q = 0$ ). With  $k = q = 0$  equation 7 becomes:

$$[7b] \quad U_{Gp} = -1 + \alpha|G - B_2|$$

Now because  $G = 0$  or  $1$ , the expected value of  $|G - B_2|$  is  $1/2$ .<sup>29</sup> This means that an  $\alpha > 2$  is, on average, sufficient to make  $U_{Gp} > 0$  and generate a Nash equilibrium of ( $p^* = 1/\alpha$ ,  $q^* = 0$ ).

$$2) \quad k = 1$$

Under this condition all drift works to the opposition's disadvantage. This in turn implies that  $O = G$  and that  $|O - G| = 0$ . As a result one can write equations 7 and 8 as follows:

$$[7c] \quad U_{Gp} = -1 + \alpha|G - B_1|(1 - \alpha q)$$

$$[8b] \quad U_{Oq} = -1 + \alpha|O - B_1|(1 - \alpha p)$$

Both of these equations equal zero if  $p = q = 1/\alpha - 2/\alpha^2$ .<sup>30</sup> Is ( $p = 1/\alpha - 2/\alpha^2$ ,  $q = 1/\alpha - 2/\alpha^2$ ) an equilibrium? A comparison of the government's payoffs from a play of  $p = 1/\alpha - 2/\alpha^2$  and a play of  $p = 0$  shows that it is not.

$$[9] \quad p = 1/\alpha - 2/\alpha^2: \quad U_G = +2q|G - B_2| - 1/\alpha + 2/\alpha^2$$

$$[9b] \quad p = 0: \quad U_G = -\alpha q|G - B_2| - |G - B_1|$$

The payoff generated by equation 9b is always as great or greater than that generated by equation 9; hence  $p = 0$  weakly dominates  $p = 1/\alpha - 2/\alpha^2$ . With  $k = p = 0$  the opposition's payoffs from a play of  $q = 1/\alpha - 2/\alpha^2$  and a play of  $q = 0$  are, respectively:

$$[10] \quad q = 1/\alpha - 2/\alpha^2: \quad U_O = -|O - B_1|(2/\alpha) - 1/\alpha + 2/\alpha^2$$

$$[10b] \quad q = 0: \quad U_O = -|O - B_1|$$



Which of these strategies returns the greater payoff depends on  $\alpha$ . There are three possibilities:

- i.  $1 < \alpha < 2$ :  $E[U_O(p^* = 0, q = 0)] \geq E[U_O(p^* = 0, q = 1/\alpha - 2/\alpha^2)]$  and the Nash equilibrium remains  $(p^* = 0, q^* = 0)$ .
- ii.  $\alpha = 2$ :  $E[U_O(p^* = 0, q = 0)] = E[U_O(p^* = 0, q = 1/\alpha - 2/\alpha^2)]$  because with  $\alpha = 2$ ,  $1/\alpha - 2/\alpha^2 = 0$ . Thus  $(p^* = 0, q^* = 0)$  remains the Nash equilibrium.
- iii.  $\alpha > 2$ :  $E[U_O(p^* = 0, q = 0)] \leq E[U_O(p^* = 0, q = 1/\alpha - 2/\alpha^2)]$ , creating a Nash equilibrium at  $(p^* = 0, q^* = 1/\alpha - 2/\alpha^2)$ .

We see, then, that regardless of the value of  $\alpha$ ,  $(p = 1/\alpha - 2/\alpha^2, q = 1/\alpha - 2/\alpha^2)$  is not an equilibrium. In fact, the condition of  $k = 1$  and  $\alpha > 2$  produces a game with two equilibria (closely resembling a Chicken game).<sup>31</sup> This is because if  $p = 1/\alpha$ ,  $U_{Oq} = -1$  implying that the opposition prefers to play  $q = 0$ . Similarly, the government's best response to an opposition play of  $q = 1/\alpha$  is  $p = 0$ . In short, both players prefer that their opponent monitor the bureaucracy, but nevertheless also prefer to take on the burden of monitoring to avoid a situation in which nobody monitors.

$$3) \quad 0 < k < 1$$

This is a very general condition. Let's begin by rewriting equations 7 and 8:

$$[7d] \quad U_{Gp} = -1 + (\alpha - \alpha k)|G - B_2| + [k(\alpha - \alpha^2 q)] |G - B_1|$$

$$[8c] \quad U_{Oq} = -1 + k[|O - G|(\alpha^2 p - \alpha) + |O - B_1|(\alpha - \alpha^2 p)]$$

While these equations do not point to a specific equilibrium, we can note a number of dynamics:

- i. As  $k$  approaches 0 it becomes increasingly likely that  $U_{Gp} > 0$  and  $U_{Oq} < 0$ . This means that small values of  $k$  are likely to produce a Nash equilibrium of  $(p^* = 1/\alpha, q^* = 0)$ .
- ii. As  $k$  approaches 1 it becomes increasingly likely that  $U_{Gp} < 0$ . The effect on  $U_{Oq}$  depends, however, on  $p$ . If a large value of  $k$  elicits a play of  $p = 0$  from the government (as it is likely to do), the relative magnitude of  $|O - G|$  to  $|O - B_1|$  determines the sign of  $U_{Oq}$ . In general, the smallest capable of inducing the opposition to play  $q = 1/\alpha$  is  $\alpha = 2$ . This is because the maximum expected value of  $|O - B_1|$  is  $1/2$  and the minimum value of  $|O - G|$  is 0 (corresponding to a situation of  $k = 1$  with  $G = O = 1$  or 0). As  $|O - G|$  increases, and  $E[|O - B_1|]$  slips below  $1/2$ , the  $\alpha$  required to induce a play of  $q = 1/\alpha$  increases, and if it does not do so quickly enough, we remain at a Nash equilibrium of  $(p^* = 0, q^* = 0)$ .

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## Notes

1. The title is derived from Chapman's (1963) comment that ministerial responsibility "may be a useful tag for harrying ministers in Parliament, but even then it smacks of a verbal game of cowboys and Indians." (38).
2. Of course, what constitutes a serious error is often determined by political circumstances (Marshall and Moodie, 87).
3. Sutherland (120), for example, states that his refusal to become entrapped in trying to separate politics from administration is the genius of the Westminster model of ministerial responsibility. Jones writes that  
 Having to account in Parliament strengthens his [the minister's] control over the department, since the issues that arise in Parliament focus his attention on specific topics inside his department. Politics, like lightning can strike anywhere, and thus in a random manner the spotlight of Parliamentary concern can alert the minister to where he should be directing his gaze within the department. It keeps not only him but also his civil servants on their toes (118).
4. Finer (1965) remains the strongest expression of this argument.
5. A similar sentiment has been expressed in the British context: "If Crichton Down is dead and ministers are not accountable to Parliament for some actions of their officials, then who is? Not to put too fine a point on it, who ought to resign or be penalised if mistakes are made? If it is not Ministers, it can only be officials" (Treasury and Civil Service Committee, para. 3.4). Woodhouse (1997, 37–38) provides a nice summary of the standard critique of ministerial responsibility. See also Ward (1987, 202–203) and Woodhouse (1994, 22–23, 33, 218).
6. This short description glosses over several differences in the British and New Zealand reforms. In New Zealand, it was decided at the outset that departmental chief executives were to be responsible to Parliament for outputs while ministers were to remain responsible for the choice of outputs and for outcomes. In Great Britain, ministers were to remain responsible for policy governing these "Next Steps" agencies and for their day-to-day operations despite the fact that the latter were to be the bailiwick of the chief executives (who were to be directly responsible to the minister for reaching targets outlined in a performance and framework agreement). The political difficulties inherent in this arrangement forced government officials to admit that chief executives may have to account directly to Parliament. See Woodhouse (1994, 218–298) and Marshall (1991).
7. On the assumption of parties as unitary actors, see Laver and Schofield (1990) and Laver and Shepsle (1995). On the intraparty politics of ministerial responsibility see Finer (1965), Marshall (1989, 127–133), and Woodhouse (1994, 47–161).
8. Any one-dimensional space can be normalized to fall within the unit interval.
9. Most relevant to this analysis is the possibility that policy errors occur because bureaucrats are left responsible for matters of implementation, enforcement, and evaluation, and their (not necessarily self-interested) decisions in these areas influence the final policy outcome. Of course, undesired policy results may also happen because bureaucrats attempt to satisfy their private preferences or those of their clients (so the agricultural ministry responds to large agricultural producers rather than small farmers or consumers). I am, however, ruling out the possibility that the errors are due to

calculated malfeasance because ministers have never been held responsible for subordinates' criminal activities. I am also ruling out the possibility that policy errors are a consequence of a minister's deliberate noncompliance with a Cabinet decision because this would push the matter into the realm of collective responsibility.

10. The difficulty with this specification is that it implies that the government's ideal point has no effect on the policy that is actually implemented; policy is essentially chosen randomly by the bureaucracy. This is an unrealistic assumption, but it has the virtue of mathematical simplicity and is not critical to the model. See the section below entitled "What's Been Let in the Back Door?"
11. Banks and Weingast (1992) make a similar assumption that monitoring bureaucrats is a costly activity.
12. The linear construction is not as realistic as a nonlinear construction that posits diminishing returns to monitoring efforts (e.g., an expenditure of  $p$  units might detect drift with  $\text{Prob.} = \sqrt[p]{0 \leq p \leq 1}$ ), but the former makes the mathematics of the model more transparent and the latter turns out to have some undesirable properties (see note 19).
13. This assumption can be justified on a number of grounds. First, members of the general public will frequently have little incentive to police the bureaucracy. Changes in the regulation of milk cartons, for example, may attract the attention of milk wholesalers, but will simply not matter to most people. Second, even if the incentives to police the bureaucracy were strong enough to motivate any particular individual to search out bureaucratic drift, that person is unlikely to possess sufficient resources to discover the drift and then convince politicians to reverse it. Third, and in light of the above point, policing the bureaucracy will generally require people to work together; this implies that they will have to overcome a collective action problem.
14. The opposition clearly has no incentive to keep silent about drift that makes it worse off. When the drift is in the opposition's favor either (1) the relative merits of keeping silent or alerting the government are quite clear to the opposition (i.e., one course of action leads to a higher payoff than the other course); or (2) the payoffs between the two courses of action provide equal payoffs and the opposition randomizes over alerting the government or accepting the bureaucrat's policy choice. As a result, there is no need to include the option of keeping quiet or warning the government in the opposition's strategy set.
15. The payoffs were calculated with  $|G - B_1|$ ,  $|G - B_2|$ , and  $|O - G| = .25$ ;  $|O - B_1| = .5$ ; and  $|O - B_2| = 0$ . These are the expected values of the intervals in the Figure 1 game.
16. Policy-sensitive voters are not explicitly included in the model. This is done primarily for reasons of tractability. Nevertheless, policy-sensitive voters are not necessarily required to give an account of ministerial responsibility. Historical accounts of the convention, for example, link its development and practice to parliamentary events (e.g., the monarch's withdrawal from daily politics and the ensuing struggle between Cabinet and Commons for control of the legislative agenda) rather than to directly electoral concerns (N. Chester; Clokie). Of course, voters would be quite important for any positive theory of ministerial responsibility—though it is not clear that they have to be driven by policy concerns. Palmer (1995, 178), for example, argues that it is the show of public disunity that accompanies a party's efforts to force a minister to resign that is electorally costly.
17. I interviewed twenty-two Australian MPs and ten New Zealand MPs. Of these, eighteen (twelve Australians and six New Zealanders) were asked

about ministerial responsibility. To ensure that the New Zealand MPs commented on the traditional interpretation and practice of ministerial responsibility, I discussed ministerial responsibility only with MPs who had been in Parliament prior to the State Sector Act, and referred in my questions to "the situation before the State Sector Act."

18. Under this construction the maximum monitoring effort will be  $p = 1/\alpha$ . This ensures that bureaucratic drift will be detected and makes further monitoring efforts redundant.
19. Similar results occur if quadratic distances are used in place of absolute values (i.e.,  $(G - B_i)^2$  instead of  $|G - B_i|$ ) in the utility functions and  $p$  units of effort detect drift with Prob.  $\sqrt{p}$  (so that there are diminishing marginal returns to monitoring efforts). These changes produce more elegant utility functions, but they also prevent the model from returning parsimonious results because the players' equilibrium strategies can change depending on their ideal points. In other words, one cannot state unequivocally that monitoring occurs at a certain level. Moreover, even when the players do monitor, they do not necessarily do so intensively because the quadratic distance formulation reduces the magnitude of the bureaucratic drift and, by association, the gains that come from correcting it.
20. As this claim is supported by numerical not analytical results I cannot be certain that it is always true.
21. A minister in the government that brought in New Zealand's State Sector Act felt that the Act actually *diminished* the political responsiveness of the bureaucracy. This occurred, he argued, because the State Sector Act took personnel decisions (including firing decisions) out of ministers' hands and allowed chief executives to interpose themselves between the minister and the mid-level bureaucrats.
22. Note, however, that other essays in Castles' edited volume adopted a position closer to Rose's, as does Janda (1993). But Blais, Blake, and Dion (1996) split the difference, arguing that the partisan complexion of government has a modest effect on public spending.
23. Two clarifications are required here. First, I am assuming that the normal distribution is truncated so that it falls within the unit interval. Second, keep in mind that the expected value or size of the drift is related to the distribution's variance, not the distribution's mean (i.e., the expected value of the distribution). Of course, one could increase the variance of a normal distribution by increasing its kurtosis—but the mathematics of this would be cumbersome.
24. Sutherland (119, 120) points out the importance of this dual principal-agent relationship.
25. It is not clear, however, whether the solution to enforcement problems is to give up on ministerial responsibility or to search for better methods of enforcement (Jones, 118).
26. Equation 1b is linear in  $p$  so we can be sure that there is no  $p$  less than 1 and greater than zero that provides the government with an expected utility greater than that provided by playing  $p = 0$ .
27. And  $|G - B_i|$  can only equal 1 if  $G$ , the government's ideal point, is at 0 or 1—hence the second condition.
28. Strictly speaking, the opposition randomizes over monitoring or not monitoring at  $c = .25$ . Nevertheless, one can only be sure that monitoring occurs when  $c > .25$ .
29. Recall that  $B_i \sim U[0, 1]$ .
30. This is because with  $G = 0 = 1$  or 0 the expected values of  $|G - B_i|$  and  $|0 - B_i|$  are  $1/2$ .

31. A larger value may be required. With  $p = 1/\alpha$ , equation 7 becomes  $U_{Gp} = -1 + \alpha|G - B_1|$ . The greatest expected value of  $|G - B_1|$  is  $\frac{1}{2}$ , and this can only come about if O and G are located at 1 or 0. As O and G move away from the extremes of the policy space, the expected value of  $|G - B_1|$  declines and we require a correspondingly larger  $\alpha$  to achieve the two equilibrium outcomes.

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