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Executive veto power and credit claiming

Comparing the effects of the line-item veto and the package veto

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Abstract The line-item veto has often be heralded as an effective tool in reducing pork barrel spending. A model of veto bargaining over public goods and pork barrel spending in the presence of credit claiming incentives demonstrates that the item veto does not necessarily reduce pork barrel spending and reduces the executive's ability to attain his preferred level of spending on public goods. The item veto also has an ambiguous effect on the balance of power between the executive and the legislature while strengthening the position of the legislative agenda setter within the legislature.

Keywords Veto bargaining · Package veto · Line-item veto · Agenda setting

JEL Classification C72 · D72 · D78

1 Introduction

On August 11th, 1997, President Bill Clinton became the first U.S. President to exercise a line-item veto to strike down provisions from legislation passed by Congress. Although U.S. presidents have long desired the power to veto individual items from legislation, the U.S. Constitution does not explicitly address whether this power exists and the president's right to a line-item veto had, until this point, remained a debate resurfacing at regular intervals.[1] The president, however, only enjoyed his enhanced veto power for a brief moment. The constitutionality of the line-item veto was soon contested and the Supreme Court ruled

[1]The item-veto authority was first proposed as a part of a bill in Congress in 1876 and was supported by Ulysses Grant. See American Enterprise Institute (1984), Mackay and Weaver (1985) and Watson (1993).

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it unconstitutional on June 25th, 1998. Yet the Supreme Court's ruling has not been sufficient to prevent the president from seeking expanded veto authority. George Bush proposed a line-item veto act in 2006 and 2007 but the Senate didn't pass the bill on either occasions.[2]

President Ronald Reagan's announcement of his intention to seek a line-item veto authority in 1984 drew the attention of scholars to the analysis of the effects of various types of vetoes on the legislative outcome. While the literature has predominantly focused on legislative vetoes in the U.S. (at the federal and the state level), presidents in other presidential systems such as Brazil, Korea and Portugal also wield veto powers.[3]

Shugart and Carey argue that "the veto is the president's most consistent and direct connection with the legislative process" (1992: 134). They identify three factors influencing the power of the veto. The first factor concerns how the executive can target his veto. A package veto requires the president to veto the bill as whole whereas a line-item veto allows him to veto parts, or items, of the bill. Second, the conditions for override constrain the president's ability to use the veto strategically. Finally, a pocket veto authority refers to the president's ability to wait out the legislative session instead of promulgating or vetoing the legislation, and thereby rob the legislature of its opportunity to override his veto.

Proponents of the line-item veto have emphasized its ability to unravel log-rolling and to eliminate pork barrel projects or legislative riders whereas its opponents have warned against more confrontational politics and possibly a lack of compromise in the policy process. The proponents further claim that the effectiveness of the presidential package veto has been eroded by the legislative practice of passing bills late in the session and thereby raising the cost to the president of sending the entire bill back to the legislature (Crain et al. 1974). The ability to veto individual items allows the president to veto objectionable items from the bill, e.g., legislative riders, without facing the costs associated with stalling the legislation, e.g., the closing down of government agencies funded by the bill in question.

Opponents of the line-item veto warn that it creates incentives for "irresponsible" behavior on behalf of legislators who may be tempted to play a game of position-taking and credit-claiming. Legislators may engage in log-rolling to piece together a bill attractive to their constituency, secure in the knowledge that they can use the president as a scapegoat after he vetoes the pork barrel and yet claim credit for their efforts to serve their constituency. In the words of Sen. Lawton Chiles (D-Fla.):

> We can be for a project that looks mighty good back home, knowing all the while that someone in OMB will flag it and tell the President, "You better veto that." We will not have to worry. The President will take the heat. We will get the credit and the chance to answer mail both ways. A member can say, "I added the money for this valuable project I knew you wanted, but I am sorry the President vetoed it."[4]

The possibility of the item veto inducing such behavior has been raised by political commentators and a number of scholars (see, e.g., Abney and Lauth 1985; Burkhead 1956;

[2] The line-item veto act of 2006 was adopted by the House. The line-item veto act of 2007 never made it out of House and Senate committees.

[3] All but one US state grant its governor veto power and only five governors do not have a form of the line-item veto. In Brazil the president can veto bills, articles, paragraphs, subsections or subparts and his veto can be overridden by an absolute majority of legislators in a joint session of the chambers. The Korean President has a package veto that can be overridden by a majority of two-thirds. Finally, in Portugal only an absolute majority is required to override a package veto except on matters of foreign policy. See Shugart and Carey (1992) and appendix in Mainwaring and Shugart (1997).

[4] Quoted in Congressional Record, vol. 129 (October 29, 1983): p. S14948, cited in American Enterprise Institute (1984: 14).

Joyce and Reischauer 1997; Robinson 1988; Shaviro 1997). There is also a large literature, starting with Mayhew (1974), on position-taking that focuses on the benefits that legislators accrue from taking stands on issues (e.g., by voting for legislation). Of course, position-taking (much like campaign promises) may be considered cheap talk but Snyder and Ting (2005) provide a rationale for why voters might want take cue from the actions of legislators even when they may appear inconsequential. While there are no empirical studies of the type of credit claiming studied here, scholars have, e.g., found that voters reward legislators for offering private members' bills even though the probability of their adoption is very small (Fowler et al. 2009; Bowler 2009).[5]

The literature has focused mainly on the side of the argument that concerns the effectiveness of veto powers in reducing deficit spending. While the theoretical literature seems to support, more or less, the notion that stronger veto powers are effective in reducing spending, the findings in the empirical literature have been far less conclusive and offer at best weak support for the hypothesis. Schap (1986), Carter and Schap (1987), and Kiewiet and McCubbins (1988) present similar perfect information models showing that veto powers affect the balance of power, but that reductions in total expenditures are not guaranteed. Schap (1988, 1990) considers the efficiency of different veto rules and shows that "stronger" veto rules can have the unexpected consequences of being Pareto inefficient and leading to higher expenditures.[6]

The standard model of the executive veto addresses only certain types of legislation but leaves out others—namely those that feature predominantly in the debate about the item veto, that is, pork barrel. Each item is assumed to be a public good, i.e., each legislator derives some utility from a dollar spent on that item, whereas by its very nature, pork barrel legislation provides particularistic benefits to legislators and/or their constituencies. Hence, legislators that don't benefit from the pork barrel would rather be without it, unless by means of logrolling they get something for their vote.[7]

Another problematic feature shared by most models of the item veto is that vetoes are never exercised in equilibrium. The veto's effect comes about only because legislators anticipate an executive veto. Imperfect information would gives rise to vetoes but it is not a necessary condition for the item veto to be used. The nature of the item veto renders the legislature unable to pass 'veto-proof' legislation that includes pork barrel spending. Models of veto bargaining don't address one of the concerns voiced by opponents of the item veto either—legislators' incentive to pass bills unacceptable to the president while claiming credit for their attempts to do so in their constituency. The presence of credit claiming incentives[8] explains the executive's use of the item (and the package) veto without assuming that legislators (e.g., Cameron 2000; Matthews 1989; McCarty 1997) or voters (e.g., Groseclose and McCarty 2000) are simply badly informed about the executive's preferences. Vetoes do occur in Magar's (2001) complete information model where the actors derive utility from taking a stand by proposing bills that will be vetoed or using vetoes that the legislature will override.

[5] Consistent with the presence of credit claiming, Abney and Lauth (1985) find that there is a greater emphasis on pork barrel in states where the governor has an item veto.

[6] The focus in this article is on the line-item veto but there is also a substantial theoretical and empirical literature on the package veto. Cameron (2000) and Cameron and McCarty (2004) provide excellent reviews of the literature.

[7] Masia (1985) recognizes the importance of this and derives conditions under which legislators provide pork to their constituencies and executive vetoes are exercised.

[8] Note that the use of the term 'credit claiming' does *not* correspond to Mayhew's (1974) use of the term where legislators claim credit for legislation passed by Congress and signed into law by the President.

Below I take the two claims that have been central to the debate about the item veto and incorporate them into a model of public and private goods provision. The first claim focuses on pork barrel projects and how the item veto can be used to remove riders that have been attached to legislative bills. The second claim concerns the importance of constituency service to legislators, how it manifests itself in credit claiming and how it may undermine the item veto's effectiveness. While the first result suggests that the item veto will reduce pork-barrel spending, the second result suggests that these gains may be offset by greater incentives to attach riders to legislative proposals.

2 A model of public and private goods provision

The budget enters the legislative arena with the executive submitting an initial proposal. Legislative consideration of the proposal begins in a committee that submits an amended version to the floor, which is voted on after debate and, if allowed, additional amendments. After the legislature has accepted the budget, it is submitted to the executive for ratification. The executive can then veto the bill as a whole, or parts thereof, as specified by the veto rule. If the executive exercises his veto, the bill goes back to the legislature, which may override the executive's veto by a majority (usually a super-majority) specified by the veto rule.

To analyze the use of executive veto powers and how they shape policy outcomes, I consider a model based on the process described above. The actors in the game are an executive (E), and a set, N, of n legislators. One legislator, the agenda setter, A, is chosen exogenously from the set of legislators to amend the executive's proposal and submit it to the floor under a closed rule. For the bill to pass, a simple majority of legislators has to vote for the bill submitted by A. Superscripts are used to denote a player's ideal policy, e.g., legislator i's ideal point is denoted by z^i, whereas subscripts refer to items of a bill.

A legislative proposal can include both public and private goods. A bill $x = (z, x_1, x_2, \ldots, x_n)$ is a list containing the public good, $z \in \mathbb{R}$, and n private goods, $x_i \in \{0, 1\}$, where the index of the private goods corresponds to that of the legislators. Thus, x_i is an indicator for whether a particular private good is provided or not whereas z is the level of public good spending. The cost of each private good is assumed to be fixed, and is given by α_i.[9] The legislators are ordered by the cost of the legislators' private goods so that $i > j$ implies $\alpha_i > \alpha_j, \forall i, j \in N$. If a bill is not adopted the status quo policy is implemented. No private goods are funded under the status quo but the current level of spending on the public good, z^o, is maintained, i.e., $x^o = (z^o, 0, 0, \ldots, 0)$.

Legislators are assumed to maximize their reelection prospects. While voters' behavior is not directly modeled, it is assumed to take note of two factors. First, voters care about the final policy outcome. Voters within a given constituency are more likely to reward their representative by reelecting her the more favorable the final policy outcome is to the constituency. Secondly, voters not only look at the final policy outcome, but also consider whether their representative has made an effort to serve their interests. Thus, if they discover that their representative has not been successful in providing private goods to the constituency they will punish him at the polls. Likewise, if the legislator's track record shows that he has tried to serve his constituency's interests by getting private goods on the agenda and having them adopted by the legislature, he will be rewarded accordingly. This will be the case even if the

[9] The private goods are, thus, assumed to be chosen exogenously, e.g., if a particular private good is politically salient within each constituency at any given point in time.

private good is not provided in the end, as when the executive successfully vetoes the private good.

The executive differs from the legislators in two important ways. First, his constituency is not as narrowly based as the legislators' constituencies. The executive is therefore assumed to have a larger stake in providing public goods than private goods. Secondly, it is assumed that the executive doesn't face the same incentives for credit claiming as the legislators. While, one can easily see the veto stage as presenting an opportunity for the executive to take a stand, it is not clear how voters would perceive it. On the one hand, voters may see it as the role of the president to keep a check on wasteful spending by the legislature, which was what President Clinton appealed to as he first used his veto power, while on the other hand, the presidential veto may be seen as interfering with the more 'democratic' legislative politics, which is the light those displeased with the president's use of the veto have tried to cast on it.[10]

The actors' preferences over the public good are single-peaked and quasi-linear. Preferences for the public good are characterized by the functions, $w_E(z)$ and $w_i(z)$, for E and all $i \in N$, respectively. The legislators' preferences over the public good are assumed to be identical, and the dependence of $w(z)$ on i is thus suppressed. Let $z^E = \arg\max_{z\in\Re} w_E(z)$ be E's ideal point and $z^A = \arg\max_{z\in\Re} w(z)$ be the legislators' ideal point. The legislators prefer to have their own private good produced but would prefer to provide none of the other legislators' private goods. More specifically, legislator i's utility from having his own private good provided is proportional to its cost, α_i, as is the disutility, $-\varepsilon \sum_{j\in N} \alpha_j x_j$, of producing the legislators' private goods. Finally, the utility that a legislator gets from having his private good included in the bill submitted to the president is $\beta\alpha_i$. Thus, legislator i's utility function is $U_i(x, x_{iL}) = w(z) + \alpha_i x_o + \beta\alpha_i x_{iL} - \varepsilon \sum_{j\in N} \alpha_j x_j$, where x_{iL} indicates whether or not the private good was included in the legislative bill. The executive is assumed to dislike all private goods and his disutility is linear in the cost of the private goods. His utility function is given by $U_E(x) = w_E(z) - \gamma \sum_{j\in N} \alpha_j x_j$.

I make two assumptions about the model's parameters. First, it is assumed that the actors value their private good more than the cost of providing the other legislators' private goods and having the public good provided at their preferred level: $\alpha_A - \varepsilon \sum_{j\in N} \alpha_j > w(z^A) - w(z^o)$. The assumption can be thought of as necessary condition for 'universalistic' allocation of pork barrel projects (Ferejohn 1974; Weingast 1979; Shepsle and Weingast 1981) and is empirically consistent with legislators voting for omnibus bills providing private goods for a number of legislators. Second, it is assumed that credit claiming incentives are relatively small. In particular, the legislators are assumed to prefer having the public good provided at their preferred level than receiving the credit claiming incentives. As the legislators' credit claiming benefits stem from claiming credit for having tried to provide rather than actually delivering pork barrel, it appears reasonable to assume that these benefits are relatively small.[11]

The game has five stages as shown in Fig. 1. The first stage is the *proposal stage* where the executive submits a bill to the legislature. E's proposal consists of spending on a public good, and on n private goods. The spending on the public good can be any point on the real line, whereas the costs of the private goods are fixed. Intuitively, one can think of the private goods as projects that either can be funded, or not. The executive's proposal then consists

[10] See The New York Times, Aug. 12th, 1997, p. A1 and The Economist, Aug. 16th–22nd, 1997, pp. 22–23.

[11] Statements and proofs of the equilibrium outcomes where these assumptions are relaxed can be found on the authors' website (http://indridason.politicaldata.org).

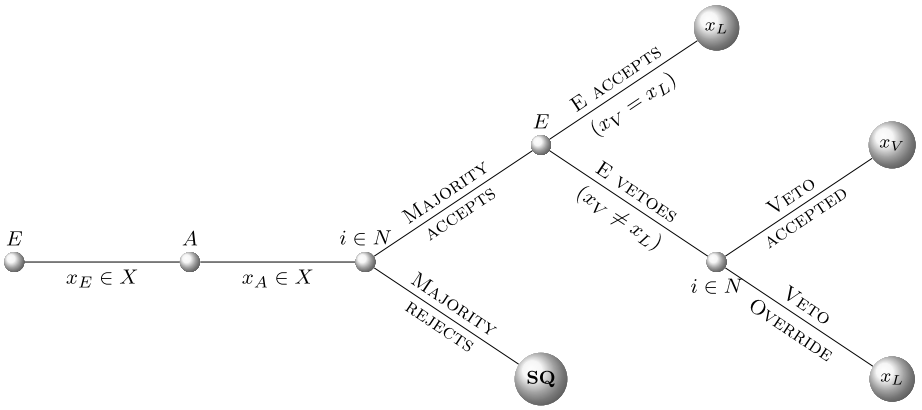

Fig. 1 Sequence of actions

of a number, z, on the real line and a $n \times 1$ vector of zeros and ones, $x_i, i \in N$, indicating whether a project gets funded or not. Each private good and the public good are separate items in the proposal. E's strategy at the first stage is then a choice of an alternative from the policy space, $x \in X = \Re \times \{0, 1\}^n$.

The second stage is the *amendment stage*. The agenda setter, A, amends the executive's proposal before submitting it to the floor. A is unrestricted as to the amendments she can make so her strategy is either to offer no amendments or to select an alternative from the same choice space as the executive, $x_A \in X$. Indeed, as A is not restricted in any way by E's choice in the first stage, and no vote is taken between the two proposals, it is immediate that the executive's proposal has no effect on the outcome of the game.

At the *voting stage* a vote is taken on A's bill against the status quo, x^o. If a majority of the legislators votes for A's amendment, the legislative outcome is $x_L = x_A$. If not, the game ends and the status quo remains in place. The voting stage is also the legislators' opportunity to take a stand on an issue known to their constituency. The legislative outcome, x_L, offers the legislators, at the agenda setter's discretion, utility that is independent of the final policy outcome through the mechanism of credit claiming described above. The inclusion of legislator i's private good in a bill passed by the legislature gives him the opportunity to signal his efforts to his constituency. The legislator may have an incentive to accept proposals that he knows will get vetoed at a later stage when voters reward him for his effort. The legislative process described here comes close to that of proposals that are sent to the floor under a closed rule. It is, however, also possible to think about the two stages as a stylized bargaining process, in which the legislators have to come to an agreement on, i.e. find majority support for, a particular proposal. The results presented here show, e.g., that the agenda setter will build the cheapest coalition of sufficient size to pass his proposal, which mimics results that obtain in legislative bargaining models, e.g., Baron and Ferejohn (1989).

The fourth stage is the *veto stage* where the executive gets an opportunity to exercise his veto. The veto rule defines his set of actions, $V(x^o, x_L)$. Under the package veto the veto set is $V_P(x^o, x_L) = \{x^o, x_L\}$, whereas the line-item veto set is $V_I(x^o, x_L) = \{x \in X \mid z \in \{z^o, z_L\}$ and $x_j \in \{0, x_{iL}, \forall i \in N\}$. Intuitively, the executive has a choice between the values specified by x^o and x_L on each dimension of the policy space. If in a two person legislature, $x^o = (0, 0, 0)$ and $x_L = (1, 1, 1)$ then $V_P(x_L) = \{(0, 0, 0), (1, 1, 1)\}$ and $V_I(x_L) = \{(0, 0, 0), (0, 0, 1), (0, 1, 0), (0, 1, 1), (1, 0, 0), (1, 0, 1), (1, 1, 0), (1, 1, 1)\}$. The executive's

veto is denoted $x_V \in V(x_L)$. If the executive does not use his veto, i.e., $x_V = x_L$, the game ends and the policy outcome is x_L.

The last stage of the game is the *override stage*. If the bill is vetoed it returns to the legislature which has a choice of to override the veto or not. Legislator i's action at this stage is a choice between the legislative outcome, x_L, and the president's veto alternative, x_V. If a qualified majority m, as specified by the veto rule, votes for x_L, the veto is overridden and the final outcome is x_L. Otherwise x_V is the outcome.

I consider the subgame perfect Nash equilibria of the game. The players are assumed not to play weakly dominated strategies at any stage. Eliminating weakly dominated strategies gets rid of 'peculiar' equilibrium behavior in the voting stages of the game, i.e., allowing weakly dominated strategies renders any voting outcome possible if no voter is pivotal.[12] Note that the executive's action in the first stage is irrelevant as it places no restrictions on the actors in the subsequent stages, i.e., the agenda setter can amend his proposal in any way she sees fit. The executive's initial proposal is merely included here for the sake of completeness. Denote the equilibrium policy outcome as x^*.

3 The executive veto

Under what circumstances will the executive exercise his veto power? Will the executive target public or private goods? Does the legislature, or the agenda setter, have any means of avoiding the veto or using it to its own advantage? In this section I consider how different veto rules and the presence of credit claiming incentives interact and affect the agents' strategies and the final policy outcome.

3.1 The line-item veto

A logical starting point is to be compare the results obtained from the present model without credit claiming with the results of the standard spatial model in the literature to provide a benchmark of sorts against which the importance of credit claiming incentives can measured. The model of the line-item veto without credit claiming is a special case of the more general model of the line-item veto. I therefore start by deriving the equilibria that exist under the more general model and then, by setting $\beta = 0$, consider what equilibria survive when credit-claiming incentives are absent.

Throughout I assume that the executive prefers a higher level of spending on the public good than under the status quo. The executive is also assumed to prefer more of the public good than the legislators. Let H be the set of the $m-1$ legislators with the most expensive private goods, $H = \{i \in N \mid i > n - m + 1\}$. Intuitively, the executive can always veto up to $m-1$ private goods without the legislature overriding the veto. Sometimes the executive may be able to do better, i.e., if the private items he vetoes are expensive enough for some legislators to prefer the veto even if it includes their own private good. Let $\bar{K}(x_v) = \{K \subset N \backslash H \mid w(z_v) - \varepsilon \sum_{N\backslash(K\cup H)} \alpha_i > w(z_L) + \alpha_i - \varepsilon \sum_{i\in N} \alpha_i x_{iL}, \forall i \in K\}$, and $K^*(x_V) = \max_{K\in\bar{K}(z)} \sum_{i\in K} \alpha_i$. The set $\bar{K}(z_v)$ is the set of the sets of pivotal legislators that prefer the veto x_V (given that all their private goods are vetoed). That is, the cost of the items vetoed is higher than the utility that they receive from having their private good provided.

[12] As an example, if the weakly dominated strategies are not eliminated and the legislature faces a vote between two bills, x and z, then a vote where all the legislators cast their votes for x, even though they prefer z, is an equilibrium behavior as the individual legislator cannot change the outcome by changing his vote.

The set $K^*(x_V)$ is the set in $\bar{K}(x_V)$ that maximizes the cost of the private goods vetoed. The stage is now set for stating the executive's veto strategy.

Proposition 1 *Given a legislative bill x_L we can distinguish two cases of the optimal veto strategy x_V^*, based on the provision of the public good in the legislative proposal*:

(i) $z_V^* = z^o$ *and* $x_{iV}^* = \begin{cases} 0 & \text{if } i \in K^*(z^o) \cup H \\ x_{iL} & \text{else} \end{cases}$ *if the following three conditions hold*:

(a) $z_L < z^o$

(b) $w_E(z_L) - \gamma \sum_{i \notin K^*(z_L) \cup H} \alpha_i x_{iV}^* > w_E(z^\circ) - \gamma \sum_{i \notin K^*(z^\circ) \cup H} \alpha_i x_{iV}^*$

(c) $\exists B^+ \subset B = \{i \in N | x_{iL} = 1\}$, *such that* $|N \backslash (B \cup B^+)| \geq n - m + 1$ *and* $\varepsilon \sum_{j \in B \backslash B^+} \alpha_j \geq w(z_L) - w(z^o)$

(ii) *and* $z_V^* = z_L$ *and* $x_{iV}^* = \begin{cases} 0 & \text{if } i \in K^*(z_L) \cup H \\ x_{iL} & \text{else} \end{cases}$ *else.*

The proof is straightforward and is omitted here. If (i) is the executive's strategy it must be the case that: (a) he prefers the status quo level of the public good to the level in the legislative proposal, (b) he must prefer a veto of the public good and a 'smaller' veto of private goods over not vetoing the public good and a more extensive veto of private items, and (c) there must exist at least $n - m + 1$ legislators, enough to sustain the executive's veto, that prefer the reduced cost of the bill to their preferred level of the public good. If $z_L < z^o$ the executive faces a tradeoff whether to just veto private items, or the public good and (fewer) private goods as vetoing the public good will make, in general, the legislators less likely to sustain his veto. Note that (a) does not imply (b) since the agenda setter is not restricted to proposing levels of the public good that the legislators prefer to the status quo level. It is also worth noting that condition (c) implies that the executive will not choose to veto the public good, if $w(z_L) > w(z^o)$, unless he is able to veto some legislator's private good as well.

If the three conditions do not to hold the executive will not veto the public good but veto as many private items as he possibly can. He needs $n - m + 1$ legislators to sustain his veto. The upper bound of his vetoes of private goods is then $m - 1$ plus the number of legislators included in the legislative bill that would rather live without their private good than supply other legislators with theirs, $i \in K^*(z_L)$.

The most important implication of the proposition is that the executive will veto all of the private items, if there are less than $m - 1$ of them in the bill, and at least $m - 1$ if there are more. The legislature is therefore never in a position to bargain with the executive, i.e., by offering a higher level of public goods in exchange for not vetoing private items. Before considering the equilibrium of the game, note that the agenda setter will never propose the status quo, $(z^o, 0, 0, \ldots, 0)$, unless it happens to be the agenda setter's ideal policy.

Proposition 2 *The agenda setter will only propose the status quo if $w(z^o) \geq w(z)$ for all z. This holds equally for the line-item veto and the package veto.*

All proofs are provided in an online appendix. This result will be useful in proving the propositions below. If $z^o < z^A < z^E$, A is guaranteed even a higher minimum payoff under the line-item veto, or $w(z^A) + \beta\alpha_i$.[13] We can therefore quickly dismiss strategies that yield a

[13] The reason that this does not hold when the legislators and the executive's ideal points lie on the opposite sides of the status quo is that now the executive can benefit from keeping the public good at the status quo

lower payoff for A. Depending on the parameters of the model, five different types of policy outcomes can occur.

Proposition 3 *Five different equilibrium policy outcomes can occur under the line-item veto* (*with credit claiming*):

1. *The public good gets produced at the preferred level of the legislators and only the private good associated with the agenda setter gets produced.*
2. *The public good gets produced at the preferred level of the legislators and less than* $n - m + 1$ *legislators, including the agenda setter, are provided with private goods.*
3. *The public good gets produced at the level of the status quo, and less than* $n - m + 1$ *legislators, including the agenda setter, are provided with private goods.*
4. *The public good gets produced at the preferred level of the legislators but no private goods are provided. The agenda setter may receive credit claiming benefits.*
5. *The public good gets produced at the level of the status quo and no private goods are provided.*

The equilibrium generating the first outcome exists only if the cost of the agenda setter's private good is lower than the cost of $n - m - 1$ other legislators' private goods. If this is the case A can propose any bill that has the support of exactly m legislators, including herself, whose private goods are more expensive than x_A. These $m - 1$ legislators must also benefit enough from the public good and the ability to claim credit to make up for the cost of providing A's private good. To be able successfully to veto items in the bill the executive must have the support of $n - m + 1$ legislators. The $n - m$ legislators who were offered no private goods clearly want the private goods to be vetoed; the additional vote to sustain has to come from one of the legislators offered a private good. Assuming that he prefers the whole bill to pass he cannot be swayed to vote for sustaining the veto unless his private good is produced. In maximizing his payoff the executive naturally chooses to spare the legislator with the lowest α from his veto—which by A's design is herself. Hence, the veto is sustained and the final policy outcome is: $x_V = (z^A, 0, \ldots, 0, \underbrace{1}_{x_A}, 0, \ldots, 0)$.

The intuition behind the second equilibrium is a little bit more complex. It is not always the case that all the legislators will be ready to vote for a proposal which only provides the agenda setter with the private good while the rest must be content with their preferred level of spending on the public good (and, for some, credit claiming benefits). If the number of such legislators is small enough, less than $n - m + 1$ to be precise, A may benefit from providing them with private goods. The $m - 1$ legislators with the most expensive private goods are out of luck and their items are always vetoed. Credit claiming incentives are still crucial to the existence of this equilibrium as a simple majority of voters has to vote for the proposal at the voting stage but less than a majority of the legislators end up with their private goods funded. These legislators will vote for the agenda setter's proposal is if credit claiming is more important than the cost of providing up to one-third of the legislators with the private good. The agenda setter's strategy is to offer private goods to the cheapest override minority, i.e., those who eventually get the goods, and then to the legislators with the most expensive private goods as they are most likely to vote for a bill knowing that they will be snubbed in the end. It also helps induce the 'correct' veto from the executive, e.g., if the executive

provision level. The executive may be able to do so if the cost that the other legislators bear from providing A with the private good exceeds the benefit from lowering the level of the public good.

benefits from accepting the level of public good and vetoing more of the private goods he will be less likely to do so as the cost of the private goods increases. If this is the case the agenda setter has an incentive to include private goods for more than a bare majority in the bill. Finally, the agenda setter will only make a proposal leading to this policy outcome if she can place herself among the legislators that get provided with the private good.

The third equilibrium outcome is similar to the one discussed in the previous paragraph. This policy outcome can arise only when the legislature and the executive disagree about whether to increase or decrease spending on the public good. When the executive cannot be prevented from vetoing the public good, the agenda setter must rely on private goods and/or credit claiming to induce legislators to vote for his proposal. This implies that the cost of passing the bill may increase.

The fourth outcome corresponds to the agenda setter's minimum payoffs described in Proposition 2. Clearly a proposal containing only the legislators' preferred level of the public good will pass and is veto-proof. The agenda setter may be able to do better for herself by including her private good (which is subsequently vetoed) but this is the case only if the legislators are not prepared to override the executive's veto of both items.

The fifth equilibrium policy outcome provides the public good at the level of the status quo and no private goods. The credit claiming incentives are crucial for this equilibrium which occurs only if the agenda setter stands to gain more from the credit claiming than having the public good provided at her preferred level. The equilibrium exists only if the legislators prefer a lower level of spending on public goods than under the status quo and if the legislators care more about the cost of providing A's private good than obtaining their preferred level of spending on the public good.

If credit claiming incentives are absent, $\beta = 0$, the results are notably different. Under these circumstances the legislators' stand on a bill is the same at the voting stage as at the override stage as they know the structure of the game and act with perfect foresight, i.e., they know the implications of accepting a certain proposal at the voting stage.

Corollary 1 *Suppose credit claiming incentives are absent, $\beta = 0$. If*

1. $w(z^o) < w(z^A) - \epsilon\alpha_A$,
2. $\alpha_A > \varepsilon \sum_{j=k+1}^{k+m} \alpha_j$ *for some* $k > A$, *and*
3. $|\{i \in N \text{ such that } \alpha_i < \alpha_A\}| \leq n - m - 1$, *where* $n = |N|$ *and* m *is the number of votes needed for override*,

then the unique equilibrium policy outcome is $x = (z^A, 0, 0, \ldots, \underbrace{1}_{x_A}, 0, 0, \ldots, 0)$. *Else the equilibrium policy outcome equals* $x = (z^A, 0, 0, \ldots, 0)$.

The intuition here is simple. The agenda setter cannot use credit claiming incentives to induce votes for her proposal. Structuring the proposal so that some other legislator obtain their private project would leave more than a majority of the legislators less inclined to support the proposal. Thus, the agenda setter includes only her own private project—provided that she prefers overriding the veto, which results in $m - 1$ projects being funded, to accepting a veto that eliminates her project. In other words, the agenda setter's project will be funded if the cost of the $m - 1$ proposed projects is not too high.

How do these results compare with the standard (perfect information) spatial models of the executive veto? In the existing literature, the legislature anticipates the executive's veto strategy and as a consequence the executive never finds himself in situations in which he would prefer to use his veto. The results obtained here indicate almost the opposite; the

veto is almost always used. Consider the case when credit claiming is present. The veto is exercised in four of the five possible equilibrium policy outcomes (1, 2, 3, and 5). In the fifth (4), the veto is used in some circumstances, e.g., if $w(z^o) < w(z^A)$.

The usefulness of the predictions can be assessed only by looking at the actual use of the line-item veto. One is, of course, tempted to look at the U.S.'s brief experience with the item veto; president Clinton used the item veto 82 times in the span of 18 months. This temptation should be resisted, not only because of the brevity of the veto's existence but also because the legislature may have been uncertain about whether the President would use it actively and whether the vetoes would hold up to constitutional challenges during this period. At the state level, where many governors have had a line-item veto for some period, the veto has been used actively although the variance across states is considerable. Reese (1997), in a study of 10 states between 1973 and 1992, found that the item veto was used 425 times on average (with range from zero to 1350) in the states over the time period. While the study covers only a few of the states that grant their governors item veto authority, the data suggest that use of the item veto tends to be the rule rather than the exception as suggested by the standard spatial model.

The identity of the agenda setter plays a crucial role. Unless the agenda setter is one of the legislators with the $n - (m - 1)$ cheapest private goods, no private goods are provided. That is, if the agenda setter's private good is one of the $m - 1$ most expensive ones, it will always be targeted by the executive's veto. The remainder of the discussion assumes that the agenda setter is one of the 'cheap' legislators.

Starting with the legislators' preferences for change in the level of the public good ($w(z^A) - w(z^o)$), the agenda setter generally benefits from greater dissatisfaction with the status quo. If the legislators' desire change to the status quo enough, they won't mind providing the agenda setter with her private good as long as they get their preferred level of the public good. As their desire for change declines ($w(z^A) - w(z^o)$ becomes smaller), the agenda setter is forced to buy support for his bill by providing some legislators with private goods. As their desire for change declines further, two things happen. First, the public good becomes susceptible to being vetoed (i.e., the cost of getting rid of $m - 1$ private goods outweighs the benefits of the public good). Second, the legislators eventually come to prefer being without their preferred level of the public good if they also have to shoulder the costs of the private goods. Thus, in terms of private good provision, there is a non-linear relationship between the legislators' satisfaction with the status quo level of the public good and the number of pork barrel projects funded. At high and low levels of satisfaction, there is next to no pork barrel spending. At intermediate levels, more private goods are provided because the agenda setter needs to, and can, buy the support of legislators.

The effects of the size of credit claiming benefits (β) are similar. When credit claiming benefits are large, the agenda setter has no incentive to propose more than m private goods (of which $m - 1$ are subsequently vetoed). As the credit claiming incentives drop, legislators may no longer be willing to vote for the agenda setter's legislation unless it leads to their project being funded. Finally, as Corollary 1 shows, when credit claiming benefits approach zero, at most the agenda setter's project is funded. Hence, the number of pork barrel projects is highest at intermediate levels of credit claiming.

The cost of the private goods has a predictable effect on the agenda setter's ability to achieve a favorable outcome. If the cost is low, the legislators will be happy to provide the agenda setter with her private good if they get their preferred level of the public good. As costs rise two things occur. First, the legislators become less willing to accept proposals that provide the agenda setter's private good. The agenda setter's response is to buy additional votes with private goods. Second, higher costs influence the options available to the executive. When the costs of providing the public good are sufficiently high, the executive can

veto the public good in addition to the $m-1$ private goods as the legislators would rather be without the public good than to face a bill including all of the private goods. In sum, the effect of the costs is non-linear as well. Few private goods are provide when costs are very high or very low, while at intermediate costs the number of pork barrel project is larger. With respect to the public good, however, high costs result in the executive getting his way when the legislature prefers less spending.

Finally, consider the executive's disutility from pork barrel spending. Under the item veto a compromise where the agenda setter proposes the executive's preferred level along with some private goods is never possible. This is not possible as the executive cannot credibly commit to honor any compromises, i.e., he always faces an incentive to veto the items of the bill that he dislikes. Thus, an executive who only mildly dislikes pork barrel behaves exactly as an executive who dislikes pork barrel intensely.

Things are a simpler when credit claiming incentives are absent. Only two types of equilibrium policy outcomes can occur. The agenda setter can obtain her most preferred outcome if the cost of funding her private project is not too high and if the projects vetoed are not too expensive. The executive veto is always used when the agenda setter is able to obtain her most preferred outcome, but when the policy outcome is z^A and no private projects are provided the veto may, or may not, be used.

Thus, credit claiming is not essential for vetoes to occur under the item veto as would be the case in the standard spatial model. Rather, it is the distinction between public and private goods that leads to vetoes being exercised in equilibrium. More generally, in the context of the spatial model, heterogenous preferences across issue dimensions would produce to similar results. This speaks to the importance of modeling the actors' preferences correctly. If the line-item veto is indeed, as many have claimed, aimed at getting rid of pork barrel projects, or other items that serve narrow interests, it is inappropriate to use the standard spatial model to analyze veto bargaining.

The results demonstrate that the item veto places the agenda setter in a highly advantageous position. The agenda setter is often able to obtain her most preferred policy outcome. Given that the agenda setter's project represents all of the pork-barrel provided it would appear natural to infer that pork-barrel spending is minimized when the agenda setter's project is cheap. That is only partly true as the advantageousness of the agenda setter's position depends on the cost of her private project. If the agenda setter's project is among the $m-1$ most expensive projects it will always be vetoed and, consequently, the agenda setter has no incentive to fund *any* pork-barrel projects. Hence, less pork-barrel spending takes place when the agenda setter's preference for pork is relatively strong. If, however, the agenda setter's project is among the $n-m+1$ cheapest ones, pork-barrel spending will be lower the cheaper her project is.

3.1.1 The line-item veto with individual item override

Different types of line-item vetoes exist. There is, for example, considerable variation at the U.S. state level with respect to what counts as an item.

Another important variation in item veto powers concerns how the executive's item vetoes are treated. The above analysis of the line-item veto focused on a particular type of the line-item veto where the legislature faces a choice between the original legislation and the legislation stripped of *all items* that the executive has chosen to veto. Another popular variant of the item veto allows each vetoed item to be considered separately.[14] I term this

[14] I am grateful to a reviewer for pointing this type of the item-veto out to me.

variant a line-item veto with individual item override. The results produced by the line-item veto are highly sensitive to whether the executive can 'package' the item vetoes or not.

The analysis of the line-item veto with individual item override is straightforward. The agenda setter cannot structure legislation so as to protect her private good from the executive veto if each item is considered for override separately. The override stage can now be viewed as a sequence of votes on each of the vetoed items. As each private good provides only a single legislator with benefits, all executive vetoes are sustained. The agenda setter's options are, therefore, limited to obtaining her preferred level of the public good and the benefits stemming from credit claiming.

Proposition 4 *Under the line-item with individual item override the agenda setter proposes her preferred level of the public good,* z^A*, and the private good for some set of legislators,* $B \in N$*, such that* $A \in B$*. The president vetoes all private goods and his vetoes are sustained. The policy outcome is* $(z^A, 0, 0, \ldots, 0)$.

Proposition 4 shows that the results differ radically when the executive's vetoes must be considered individually. In this form, the item veto does deliver on its promises and is highly effective in removing pork barrel spending from the bill. Here, however, there are no constraints on how many private goods are included in the bill passed by the legislature. The agenda setter can include as few, or as many, private items in the bill as she wishes whereas our previous results indicated that there was generally a limited on the number of private goods the agenda setter would want to include. If the legislators' motives include embarrassing the executive by 'forcing' him to veto popular projects, as Burkhead (1956) and Groseclose and McCarty (2000) suggest, then the individual item override has potentially negative consequences for the executive. That is, adding an private good to a bill has no consequences for the legislators but forces the executive to make unpopular choices. Thus, the ability to effectively stamp out pork barrel may come at a cost to the executive.

Proposition 4 highlights the importance of distinguishing between public goods and pork barrel projects when modeling the item veto. Most models of the item veto are couched in a spatial model of politics where legislators ideal policies are represented as points in a multidimensional space. This generally implies that preferences along each issue dimension are far more heterogeneous than when it comes to pork barrel projects (whereas, in the model presented here, only a single legislator prefers a positive level of spending).[15] Since in the spatial model each item, or dimension, is essentially a public good it is possible that some item vetoes could be overridden even when item vetoes are considered individually. Hence, the spatial model would produce very different results from the model presented here.

3.2 The package veto

To address the debate about the line-item veto it is necessary to consider what sorts of policy outcomes occur under the package veto. Does the package veto result in greater spending than the line-item veto? Is the balance of power between the two branches disrupted by a change in the veto rules? Does the package veto lead to a greater provision of private goods? Three equilibrium policy outcomes are possible under the package veto.

[15] Note that the spatial model does not rule out the possibility of representing preferences over pork barrel. However, in using the spatial framework one would need one dimension per legislator and additional restrictions on the actors' preferences. Thus, the comments here are directed at how existing models have used the spatial model rather than as a general comment about the applicability of the spatial model in this context.

Proposition 5 *Under the package veto three different equilibrium policy outcomes can occur*:

1. *The public good is produced at the preferred level of the legislature and only the agenda setter is provided with the private good.*
2. *A bare majority, including the agenda setter, are provided with the private good and the public good is provided at the preferred level of the legislator or higher.*
3. *The private goods are given to m legislators, including the agenda setter, where m equals the number of legislators needed to override the executive veto. The public good is provided at the level preferred by the legislators.*

The conditions associated with each policy outcome and proofs can be found in the appendix. The first type of equilibrium policy outcome occurs when the agenda setter has the power to obtain her most preferred outcome: z^A and only her private good is supplied. If the legislators' utility from obtaining their preferred level of the public good is greater than the cost of the agenda setter's private good, the legislature can do no better than accept such a proposal. The executive cannot successfully veto the proposal because the legislature unanimously prefers it to the status quo.

In the second type of equilibrium, where $z \geq z^A$ and private goods are provided for the cheapest bare majority of legislators that includes the agenda setter, the agenda setter may buys the executive off by offering him enough of the public good so that he is indifferent between accepting the bill, including the private goods, and the status quo. This level of public good spending is referred to as a 'compromise'. Since the executive can accept only the bill as a whole, or veto both the public and private goods he can do no better than accept the proposal. Note that the agenda setter doesn't need to build override majority support as in the previous proposition. The agenda setter needs only to provide a bare majority of the legislators with their private good to induce them to accept the proposal. The first two types of equilibria thus suggest that the agenda setter needs only to please either the executive or the legislature under the package veto. In contrast, under the item veto, the agenda setter can never shield herself from the executive's veto by offering the executive his preferred level of the public good.

If in the second type of equilibrium outcome the agenda setter chooses to please the executive, then in the third type she allies with the legislature rather than with the executive. In this case z^A and m private goods are provided. By giving a override majority a stake in the proposal the executive is powerless to prevent it from being adopted, i.e., if he chooses to veto the proposal the legislature will override his veto.

As with the item veto, the results here differ from most of the existing literature in that the executive wields his veto.[16] Vetoes occur because credit claiming incentives lead legislators to pass legislation even if they know it will subsequently be vetoed. However, the importance of credit claiming incentives is suppressed by the package veto, which prevents the agenda setter from using those credit claiming incentives to her advantage. Under the item veto, credit claiming incentives can operate independently of the final outcome, i.e., the agenda setter can use the incentives to gain a legislator's support even though his private good will be vetoed. Under the package veto, once a private good is in the bill it cannot be removed without vetoing the whole bill including the public good. The predictions of the model, that

[16] It is the perfect information literature, as before, that is being referred to. Work that has focused on incomplete information (Dearden and Husted 1990) and reputation (Matthews 1989) has shown why the veto might be used.

vetoes do occur but not with great frequency, seem consistent with the U.S. experience with the package veto. The veto was exercised 2,238 times in the history of the United States up to the year 1966. In the period 1889–1968, the average percentage of legislative bills that were vetoed was 2.5. The presidents from Eisenhower through Carter used the package veto 181 times, which is about 1.6% of all legislative bills passed during their tenure.[17]

In equilibrium, all legislation includes some pork barrel projects because the legislators receive greater utility from their private good than the disutility they incur from providing private goods to other legislators. If the legislators' desire to change the provision of the public good ($w(z^A) - w(z^o)$) is sufficiently strong, a single pork barrel project, the agenda setter's, is funded. If the legislators' desire for change is lesser, the agenda setter faces a choice between (i) proposing a bill that is agreeable both to half the legislators and to the executive and (ii) one that is agreeable to a supermajority and is, therefore, veto-proof. If the legislators' preferred level of public good spending is far below the status quo level then the agenda setter will opt for building a supermajority coalition as buying off the executive requires increasing spending on the public good. Finding a compromise position with the executive becomes more attractive as the legislators prefer more public good spending. Intuitively this makes sense—a compromise becomes more likely as preferences for the public good become more similar. As the legislature's preferred level increases (from a very low level relative to the status quo), the policy outcomes moves from (i) the z^A and the agenda setter's private good, (ii) to z^A and m private goods, (iii) to the compromise position ($\hat{z}$) and $\frac{n+1}{2}$ private goods, (iv) to z^A and $\frac{n+1}{2}$ private goods, and, finally, to (v) z^A and the agenda setter's private good.

A compromise is not always possible. If the executive prefers only a small increase in public good spending, the legislature has very little to offer the executive. Hence, the lower the executive's preferred level of spending, the more likely the agenda setter is to build a supermajority coalition for its proposal. Similarly, the more the executive views pork barrel spending as a serious problem, the agenda setter must make greater compromises on public goods to veto-proof its proposal and is, therefore, more likely to opt for building a supermajority coalition.

Finally, the cost of providing private goods influences the policy outcome. When the costs that the legislators' incur are high, providing the private good to a bare majority of the legislators and compromising with the executive is the most attractive strategy for the agenda setter. That is, high costs imply both that the legislators would not accept a bill that only provided the agenda setter with the private good and that building a veto-proof, supermajority coalition is not an attractive option. If the costs are very low, the agenda setter can clearly obtain her most preferred outcome; but for an intermediate range of the cost parameter building an override coalition is preferable. Thus, low costs don't necessarily imply more pork barrel as low costs enable the agenda setter to take advantage of the legislature's desire to change the provision of the public good.

Compared with the item veto, there is a greater propensity for private goods to be provided to more legislators under the package veto. Private goods may be provided to more than half of the legislature (up to the number of votes required to override a veto) under the package veto whereas under the item veto at most $n - m + 1$ private goods are funded and in many circumstances the agenda setter sees to even fewer projects being funded. This does not necessarily imply lower spending under the item veto as it is possible that neither of the high-cost equilibrium outcomes occurs under the package veto, and the high-cost

[17] American Enterprise Institute (1984: pp. 2–3).

outcome occurs under the item veto. It is, however, possible to consider examples based on specific parameter values and compare equilibrium policy outcomes. If, for instance, $w(z^A) - \epsilon\alpha_A > w(z^o)$ and $A > n - m + 1$ then Proposition 5.1 applies under the package veto, but Proposition 3.4 applies under the item veto and spending is reduced by α_A in moving away from the package veto. On the other hand, examples where spending is higher under the item veto can also be constructed.

Suppose that the conditions $w(z^A) - \varepsilon\alpha_A \geq w(z^o)$ and $\varepsilon \sum_{j=A+1}^{A+m-1} \alpha_j > w(z^A) - w(z^o)$ hold. Then there exist preference configurations such that the policy outcome under the package veto is $(z^A, 0, 0, \ldots, 0, \underbrace{1}_{x^A}, 0, 0, \ldots, 0)$ but $(z^o, \underbrace{1, 1, \ldots, 1}_{n-m+1}, 0, 0, \ldots, 0)$ under the item veto. Changing the veto rule from a package veto to an item veto not only increases the number of private goods produced dramatically but also keeps the legislature from having the public good produced at its preferred level. If $z^E > z^A$, as we have assumed throughout, then the bill passed into law under the item veto is associated with a greater level of spending than the bill accepted under the package veto. Parameter values that lead to such an outcome are given in Example 1. It is not possible to make general statements about the effectiveness of the line-item veto in cutting pork barrel projects and constraining spending. Rather, the effectiveness of the two veto powers is highly contingent on the actors' preferences. Any evaluation of veto powers must, therefore, be preceded by careful examination of the actors' preferences.

Example 1 Consider a seven-person legislature, $N = \{1, 2, \ldots, 7\}$, with $A = 2$, $m = 5$, and the following preference parameters:

- $\alpha_1 = 4$, $\alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = \alpha_6 = 5$, $\alpha_7 = 15$
- $w(z^A) - w(z^o) = 1$
- $w_E(z^A) < w_E(z^o)$
- $\beta = 1/16$
- $\epsilon = 1/15$

Then the equilibrium agenda setter proposal is: $(z^A, 1, 1, \ldots, 1)$.

The executive vetoes $m - 1$ of the most expensive private items and the public good and the veto is sustained by the legislature. The policy outcome is: $(z^o, 1, 1, 1, 0, 0, 0, 0)$.

One of the central claims made by proponents of the item veto is that it shifts the balance of power from the legislature to the executive. While the item veto allows the executive to benefit from the ability to trim private goods from bills, Example 1 shows that the agenda setter's anticipation of the executive's action can result in more, and not less, private goods being provided. Comparing the two outcomes in the example, we can see that whether the executive prefers the line-item veto to the package veto depends on the intensity of his preferences over the public good.

It is not only the balance of power between the executive and the legislature that is affected by the type of veto. In contrast with most models of the veto, the legislature is not modeled as an unitary actor here as the legislators' preferences over private goods differ. More importantly, legislative procedures treat legislators differently. A single legislator is assumed to hold agenda setting powers that, unsurprisingly, enable her to obtain favorable policy outcomes. However, the type of executive veto power has substantial consequences for the agenda setter. Under the package veto, agenda setting powers always offer the opportunity for log-rolling and, importantly, the resulting bill always includes the agenda setter's project (if any). In line with the common wisdom, the item veto allows the executive to

unravel attempts at log-rolling although he is constrained by the override provision. The constraint on the executive's strategy generated by the override provision has substantial consequences for the agenda setter. Under the item veto the agenda setter has greater flexibility in putting together legislative proposals that benefit her. This ability stems from the fact that she can de facto hand out the benefits associated with credit claiming, i.e., without incurring the cost of supplying the private goods, and thus garner support for bills that otherwise would not be adopted by the legislature. However, the greater flexibility benefits the agenda setter only if the cost of her project is sufficiently low (i.e., is one of the $n - m + 1$ cheapest projects) as the executive always vetoes the most expensive projects. If that is the case, the agenda setter is generally in a strong position. However, if the agenda setter's project is one of the $m - 1$ most expensive projects then it will never be included in the version of the bill that is adopted. Moreover, as the agenda setter has no incentive to provide other legislators with their projects, her proposal will never lead to any projects being funded.

4 Conclusions

The model presented here deviates in two important ways from the standard framework for analyzing the effects of different kinds of veto rules. First, the model takes into account the different types of incentives that legislators face. Legislators care about their reelection prospects and therefore wish to serve the interests of their constituents—or at least give the appearance of doing so. This provides legislators with incentives to sponsor legislation and amendments that signal those efforts. Amendments that are adopted by the legislature provide an even stronger signal of their effort. Thus, legislators have an interest in having their efforts documented by being adopted by the legislature—even if they anticipate the subsequent veto of their pork barrel projects, in which case the executive is blamed. Secondly, the model distinguishes between public and private goods to better evaluate claims about the effects of the item veto which more often than not have focused on pork barrel projects or items concerned with special interests.

The results allow comparisons with both the existing literature and across types of veto powers. First, the executive veto is exercised under both the item and the package veto—a result that doesn't obtain in other perfect information models.[18] Whether the executive uses his veto depends, naturally, on the configuration of the actors' preferences. The conditions under which the veto is used under the item veto are weak—the executive will be able to veto some items as long as a bill contains any private good. Vetoes are less likely under the package veto but they are nevertheless possible. If the legislators care enough about credit claiming but the cost they incur from providing private goods are relatively high they will be satisfied with passing legislation that will subsequently be vetoed. Note that while vetoes occur under the package veto because of the assumptions made about the legislators' preference for credit claiming that is not the case under the item veto. Item vetoes occur because the legislature cannot propose 'veto-proof' legislation that includes private goods—the item veto is exercised in equilibrium because of the structure of the policy space, i.e., the presence of private goods.

Second, the results suggest that the case for the item veto is not as clear-cut as often is assumed. The predictions about its usefulness in cutting pork barrel spending are substantiated if credit claiming is absent. When legislators are not concerned with credit claiming, at

[18] See, however, Magar (2001) for an exception.

most the agenda setter is provided with the private good. The public good is provided at the preferred level of the legislature. It bears noting that as the legislature was assumed to prefer less spending on public goods than the executive, the result does not say anything about whether the item veto serves to increase or decrease spending on public goods. In the same circumstances under the package veto, at least as many projects are funded. Thus, in the absence of credit claiming incentives, the item veto does help reduce pork barrel spending.

In contrast, when legislators engage in credit claiming, the number of private goods provided under the item veto may increase up to $n - m + 1$. The number of private goods provided under the package veto can be substantially higher—as many as the number of votes, m, needed to override the executive's veto. However, as demonstrated by Example 1, in the previous section, a switch to the item veto can result in greater pork barrel spending. Hence, in the presence of credit claiming incentives, one cannot make general statements about the relative effectiveness of the two veto rules in reducing pork barrel. Even though the conditions under which the package veto outperforms the item veto appear somewhat restrictive, one cannot infer that the item veto is more effective without careful consideration the actors' actual preferences.

Third, the model demonstrates how the different types of vetoes influence the balance of power in the policy making process. The item veto has usually been considered to affect the balance of power between the executive and the legislative branches. The item veto has the appearance of being the 'stronger' type of veto as it offers the executive greater flexibility in choosing what to veto. An assessment of the executive's veto power must, however, consider that the legislature anticipates the executive's veto option and chooses its strategy accordingly. Sometimes less flexibility has its advantages. The package veto, for example, offers the legislature a chance to offer a compromise—proposing a higher level of spending on the public good in exchange for some pork barrel projects. Under the item veto such compromise is impossible as the executive cannot credibly commit to not vetoing the private goods. Consequently, the level of spending on the public good never exceeds the legislature's preferred level under the item veto. The policy outcome may thus remain inefficient even if the configuration of preferences is such that the line-item veto reduces pork barrel spending, i.e., the item veto rules out Pareto-improving compromises between the executive and the legislature. With respect to spending on private goods, the effect of the item veto is ambiguous as the discussion about pork barrel spending above suggests. On the whole, then, a switch from a package veto to an item veto does not have clear-cut effects on the balance of power.

Veto powers can, however, have significant effects on the balance of power within the legislature. Legislative agenda setters are in a privileged position that helps them to have their pork barrel projects funded. The model highlights how under the item veto they can structure legislative proposals to obtain a favorable policy outcomes in which fewer of the other legislators' projects are funded. The positive effect of the item veto on the agenda setters' ability to obtain a more favorable outcome is, however, conditional on two factors. First, credit claiming incentives must be present in order to induce the legislature to accept the agenda setters' proposals. Second, the agenda setters' projects must be cheap relative to those of the other legislators as otherwise the executive will target them. If either of these conditions is not met, the agenda setters' proposal power doesn't acquire greater significance.

The same conditions are important for evaluating the veto powers' effect on pork barrel spending. If, under the item veto, the agenda setter cannot propose a bill that leads to her private good being funded, she will propose a bill that doesn't include any private goods. Thus, if the conditions do not hold, the claims of the item veto's proponents hold up. This

naturally begs the question whether the conditions are likely to hold. Whether legislators face credit claiming incentives is an empirical question. There is some anecdotal evidence suggesting that credit claiming incentives are important but limited experience with the item veto makes systematic study difficult. Perhaps the more relevant question to ask is whether it is reasonable to assume that the cost of the legislators' projects is exogenous. The assumption is undoubtedly a poor description of reality but it highlights how the agenda setter must position herself to avoid having her project vetoed. The agenda setter faces the same incentives if the cost of the legislators' projects is endogenous, i.e., she would seek to include a number of projects in her proposal that are more expensive than her own. Thus, one would expect the second condition to be met if agenda setting powers are non-negligible.

The model considered here demonstrates that correctly specifying the structure of the policy space and accounting for legislators' credit claiming incentives has significant implications for the evaluation of the effects of different veto powers on pork barrel spending. The presence of credit claiming is shown to complicate comparison of the package and the item vetoes—only in the absence of credit claiming can the item veto be shown to produce less pork barrel spending. The vetoes' effect on the balance of power between the executive and the legislature is clearest with regard to the level of public goods provided—the executive can hope to reach his ideal level of public good spending only under the package veto. Interestingly, veto powers also affect the distribution of power within the legislature. If the item veto leads to a reduction in pork-barrel spending it will benefit the agenda setter. In those instances the agenda setter will structure the legislative proposal so that her pork barrel project is funded while few others are.

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