

The veto as electoral stunt: EITM and a test with comparative data*

Eric Magar
Instituto Tecnológico Autónomo de México
emagar@itam.mx

April 8, 2013

Abstract

The paper extends Romer and Rosenthal's approach to separation of power to account for the variable use of vetoes and veto overrides with no sacrifice in explanatory power of policy. Vetoes are treated as deliberate acts of position taking in executive-legislative negotiation. The model yields comparative statics results and hence empirical implications. These are turned into seven falsifiable hypotheses on veto and override incidence. Four veto hypotheses are then tested with data from American state governments 1979–99. Substantial evidence is found for the specific predictions of the model, including the hypothesis that assemblies controlled by parties with enough seats to override are associated with more, not less executive vetoes. The comparative research design offers advantages over single-case studies.

1 Ploys and stunts

Veto gates of one sort or another are found in democracies worldwide (Lijphart 1999). Combined with periodic elections, they remain the cornerstone protecting citizen rights against encroachments by government authority and promoting compromise in distributive conflict (Madison 1961). This paper argues that the veto can also

*Prepared for delivery at the EITM Alumni Conference of the 2013 Annual Meeting of the Midwest Political Science Association, Chicago, April 11–14. ©Copyright by the Midwest Political Science Association. I am grateful to Neal Beck, Gary Cox, Federico Estévez, Burt Monroe, and David Rohde for useful comments and critiques; to Luis Estrada, Juan Antonio Rodríguez Cepeda, and Fernando Rodríguez Doval for research assistance; and to the Asociación Mexicana de Cultura A.C. and the Sistema Nacional de Investigadores for financing parts of this research. Mistakes remain the author's responsibility.

be employed as publicity stunt to capture the attention of distracted voters in the competition for electoral survival.

The veto has received attention from historians and political observers of the Roman Republic (Polybius 1922), Papal conclaves (Chadwick 2003:337), and Antebellum America (Tocqueville 1988:122), among many others. Despite centuries of interest, vetoes remain paradoxical from a theoretical perspective. Paraphrasing Sir John Hicks's work on wages, there is no commonly accepted theory of the veto. The main obstacle is that, armed with a theory predicting when a veto will occur and what the outcome will be, the parties can agree to this outcome in advance, and so avoid the costs of a veto. Two explanations of why such bargaining failures come about have been proposed. Both advance the notion that vetoes are not really failures but a different sort of bargaining (Cameron and McCarty 2004 review this literature).

By one account, vetoes are bargaining ploys devised by shortsighted politicians in their quest for influence. Bargaining parties often cannot foresee where each other's limits of acceptable legislation lie, and discover that a proposal is beyond it the hard way, by triggering a veto. In Cameron's (2000) *Sequential Veto Bargaining* one party exploits information asymmetry, using threats and actual vetoes to convey a false image of recalcitrance and thus obtain larger concessions (see also McCarty 1997; Roth 1995:292).

By another, vetoes are electoral stunts devised to communicate with constituents. The veto and its drama value represent a form of inter-temporal bargaining, an attempt to replace today's obstinate adversary with a more compromising. Elections offer periodic opportunities to let voters settle undecided disputes. In Groseclose and McCarty's (2001) *Blame Game*, Congress corners the President to veto expensive proposals popular among constituents. Fiscal responsibility makes presidents pay an electoral penalty for deploying the veto (see also Indridason 2000).

Within this debate, the paper offers an example of EITM. A formal model of vetoes as electoral stunts is first proposed. Empirical implications are then derived by yielding comparative statics results from the game's equilibrium. These are turned into seven testable hypotheses about vetoes, overrides, and their variable incidence. Veto predictions are then subject to a test with data from American state governments from a panel spanning the 1979–99 period. Four of five hypotheses tested are borne out by the data. Last, the paper discusses the relevance of the findings defending the value of another model of vetoes as position-taking exercises.

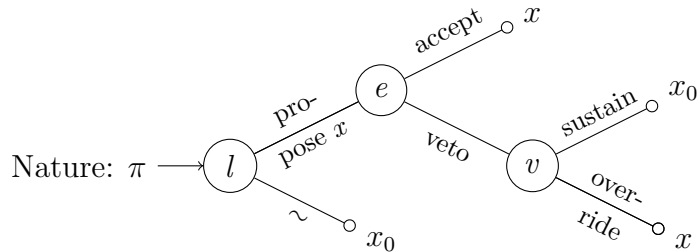


Figure 1: The stunts game

2 Formal model of vetoes (and overrides)

A standard monopoly agenda setter model (Romer and Rosenthal 1978), adapted for the study of inter-branch bargaining (Kiewiet and McCubbins 1988), generates the results in the paper. Other than the motivational structure of the game, modified slightly, all the premises remain intact. Stunts is a game of strategy for three players: the legislator (l), the executive (e), and the override pivot (v). Unlike Cameron’s, it is a full information game.¹ At stake is one-dimensional policy—a unit segment of the real line.² Players have asymmetric powers to influence policy. The game’s extended form appears in Figure 1. The legislator moves first, making a proposal $x \in [0, 1]$ or not. If no proposal is made, the game ends enforcing the status quo ante x_0 . Otherwise the executive moves next, accepting or vetoing the proposal. Acceptance ends the game with policy x replacing the status quo. But a veto lets override pivot move last, choosing whether to end the game at the status quo, by sustaining the veto, or at the proposal. The game’s outcome, denoted $\omega \in [0, 1]$, therefore takes one of two values: the legislator’s proposal ($\omega = x$) or the status quo ($\omega = x_0$).

Nature reveals the value of $0 \leq \pi \leq 1$ at the outset. π , the position-taking weight, is a stochastic parameter combining dual motivations to determine how the game will be played. Player i ’s goal is to maximize $u_i(\omega | a)$, utility from outcome ω given the game’s combined actions a . Function u_i is a linear combination of policy gain and the position taken:

¹Full in the text is a shorthand for perfect, symmetric, certain, and complete information (Rasmusen 1989:45–8).

²The key results can be extended to N -dimensional space, but comparative statics tests derived here cannot.

Symbol	meaning
$i = l, e, v$	a player, abbreviated by her ideal point
$x, x_0 \in [0, 1]$	the proposal, the status quo in space
i_0	player i 's indifference point vis-à-vis x_0
$a = (a_l, a_e, a_v)$	a game's actions
$a_i \in A_i$	one action from player i 's action set
ω	the game's outcome
$0 \leq \pi \leq 1$	position-taking weight
τ	mode of play threshold
$\epsilon > 0$	infinitesimal value

Table 1: Summary of notation

$$\mathbf{u}_i(\omega | a) = (1 - \pi) \times \mathbf{PolicyGain}_i(\omega) + \pi \times \mathbf{Position}_i(a) \quad (1)$$

$$= (1 - \pi) \times (\mathbf{Policy}_i(\omega) - \mathbf{Policy}_i(x_0)) + \pi \times \mathbf{Position}_i(a) \quad (2)$$

$$= (1 - \pi) \times (-|\omega - i| + |x_0 - i|) + \pi \times (-|a - i|). \quad (3)$$

Both **Policy** and **Position** are Euclidian functions of the form $f_i(x) = -|x - i|$, the former mapping *outcomes* to payoffs, the latter *actions* to payoffs. **PolicyGain** compares the status quo to outcome utility differential. The key difference between outcome-contingent and act-contingent payoffs is the way they influence players's choice of optimal actions.

Full information and the game sequence make actions and strategies virtually alike,³ so results can be deduced from actions, which feature prominent in the model. Note in Figure 1 that one element in every player's action set shows support for the proposal ("propose x ", "accept", and "override" for the legislator, executive, and pivot, respectively), the other for the status quo ("don't propose", "veto", and "sustain"). Conveniently, action sets can be formalized by the position taken through each action: $A_l = \{x, x_0\}$; $A_e = \{x, x_0\}$; and $A_v = \{x, x_0\}$. These are what the $\mathbf{Position}_i(a)$ component of utility evaluates.

The equilibrium concept is sub-game perfect Nash. The distinction of three discrete modes of play simplifies analysis: the standard or setter mode ($\pi = 0$), the lexicographic or campaign mode ($0 < \pi < \tau$), and the tradeoff/stunts-only mode ($\tau \leq \pi \leq 1$). The text discusses the standard and lexicographic modes only, under what shall be referred to as the "small- π condition", or $\pi < \tau$. The full equilibrium

³The only difference is that executive and pivot strategies are actions conditional on a proposal, eg. "veto given proposal x ".

is derived is in the appendix. Small- π leaves position-taking as secondary criterion for choice, making players primarily policy seekers, as in the standard model. This condition, I show below, is not as restrictive as might seem, while delivering several advantages.

2.1 The standard mode

Note that when $\pi = 0$, `Position` cancels out and $u_i(\omega | a) = \text{PolicyGain}_i(\omega)$. Setter is, in fact, a special case of stunts. $\pi = 0$ effects no change in the setter game's unique and well-known equilibrium (Cameron 2000; Kiewiet and McCubbins 1988). I discuss the intuition of the standard result as setup for electoral stunts. Playing as agenda setter, the legislator's proposal is necessary for policy change. Under the stylized separation of power rules, however, it is insufficient. Proposals necessitate support of at least one other player to succeed in replacing the status quo. The price the legislator pays for this support is policy concessions—moving the proposal towards a partner's ideal point in order to render it more palatable. When judging opportunity, three general situations can be distinguished: when the price tag to buy support for change is prohibitive; when it is affordable; and when it is zero.

Figure 2a helps illustrate the first. l , e , and v are players's ideal policies. The status quo's location guarantees that others find legislator-wished leftward change unacceptable. Therefore in standard equilibrium, unable to please adversaries, the legislator makes no proposal (the figure is meant to illustrate the stunts equilibrium, so for now ignore the x^* -labeled arrow).

Figure 2b illustrates affordable change, a status quo with room to negotiate. The legislator must ascertain whose support is cheaper—who can be left status quo-indifferent with least concessions. Pivot support is cheaper in the illustration. Label e_0 indicates executive tolerance: while she would rather be offered policy *at* her ideal point, threats to veto proposals $x \in (e_0, x_0)$ (the base of the smaller triangle, vertices excluded) are cheap talk: no change at all leaves her worse off. The same is true for the pivot regarding segment (v_0, x_0) (the base of the larger triangle). It therefore follows that any proposal $x \in (e_0, x_0) \cup (v_0, x_0)$ is veto-proof: either the executive accepts or the pivot overrides. Here $x = v_0 + \epsilon$ maximizes legislator gain. The executive's strategic predicament is noteworthy. The proposal is beyond her tolerance, but a veto is futile. In standard equilibrium, she accepts in anticipation of the ugly proposal's inevitability. This sort of strategic anticipation makes vetoes off-equilibrium-path events (Corollary 1 in the appendix shows this). Stunts builds upon this.

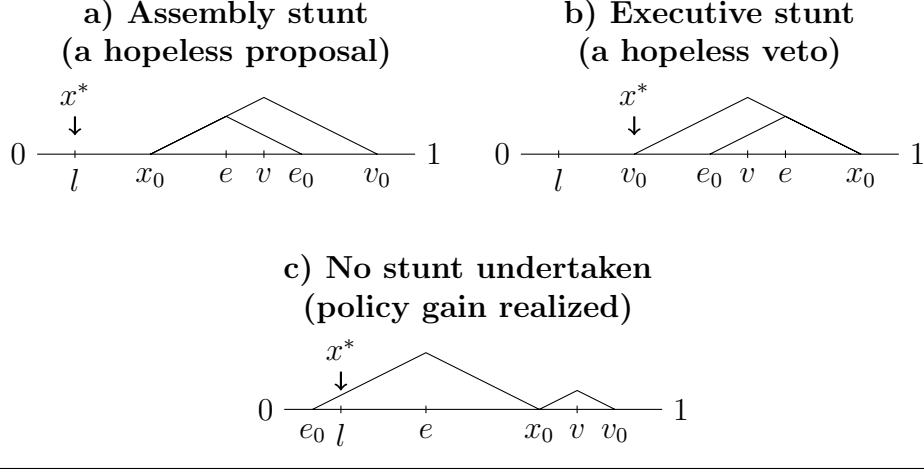


Figure 2: When to expect stunts (when $0 < \pi < \tau$). l , e , and v are players's ideal points, x_0 is the status quo. The executive is indifferent between outcomes e_0 and x_0 , the override pivot between outcomes v_0 and x_0 .

Figure 2c illustrates free support, a special case of affordable support. The legislator achieves maximal policy gain without concessions because the executive, in the illustration, finds the status quo uglier than proposal $x = l$.

2.2 The lexicographic mode

Dual motivation kicks in when $0 < \pi < 1$. Unlike `PolicyGain`, which by evaluating outcomes forces players to rely on strategic foresight, `Position` evaluates actions per se, by the position adopted regardless of anything else.

Tensions can arise when choice relies on two criteria, complicating analysis. Figure 2b illustrates. Proposal $x = v_0 + \epsilon$ is veto-proof and therefore feasible, with substantive policy gain for the legislator. But in order to realize this gain, concessions must be made. Proposal $x = l$, on the contrary, is unfeasible, yet signals the legislator's true preferences accurately. Is gain or position taking top priority? Formally, the dilemma compares one component of utility under proposal $x = v_0 + \epsilon$ and proposal $x = l$

$$\text{PolicyGain}_l(\omega = v_0 + \epsilon) = 2 \times |v - x_0| - \epsilon > 0 = \text{PolicyGain}_l(\omega = x_0)$$

and the other component

$$\text{Position}_l(x = v_0 + \epsilon) = -|l - v_0 - \epsilon| < 0 = \text{Position}_l(x = l).$$

PolicyGain tilts choice towards the first proposal, **Position** towards the second.

Just how many units of policy are players willing to sacrifice to get a unit of position-taking? Parameter π governs this trade-off, larger values favoring acts, smaller favoring outcomes. In fact, π can always be small enough (given x_0 , l , e , and v) to render **Position** systematically smaller in magnitude than **PolicyGain**. Threshold τ denotes the limit between π s that are small enough in this sense and those that are not. It is defined in such way that $\pi < \tau$ implies that $\forall \omega, a : \pi |\text{Position}| < (1 - \pi) |\text{PolicyGain}|$, resolving tensions, if any, *always* in favor of **PolicyGain**. This simplifies analysis considerably. The Theorem in the appendix solves the stunts game for any value of π . Results and hypotheses in the text are drawn from the special case where Nature is constrained to always sample $\pi < \tau$.

Setting $0 < \pi < \tau$ makes preferences lexicographic (Fishburn 1974), with **Position** a secondary criterion that matters if, and only if, $\text{PolicyGain}_i(x) = \text{PolicyGain}_i(x_0)$. That is, only when both actions achieve the same policy gain for player i is choice driven by position taking. The implication is simple but extreme: players in lexicographic or campaign mode will *never* sacrifice policy gain within reach, even if infinitesimal, for the sake of position-taking. Games in campaign mode receive only a nimble of position-taking motivation. And it is enough to explain veto and override incidence in equilibrium.

A veto can be expected in two general circumstances. One is when the pivot joins the legislator to impose a new outcome the executive dislikes, as in Figure 2a. The veto does not prevent policy change (it is overridden) yet signals executive phobia for change. The other is when the pivot joins the executive to prevent change wished by the legislator, as in Figure 2b. The legislator cannot produce desired outcomes (to the left of x_0) but can instead send a hopeless proposal at her ideal, $x^* = l$, to signal will for change, even though the status quo remains unchanged. Although the two circumstances are observationally equivalent—both produce a veto—the expected fate of an override attempt serves to distinguish two types of vetoes: assembly stunts and executive stunts.⁴

⁴Assembly stunts correspond to Conley and Kreppel’s (2001) “type I” vetoes (those on bills originally passed by partisan votes, bound to be sustained) while executive stunts correspond to their “type III” vetoes (those on bills passed by large bipartisan coalitions, bound to be overridden). They only consider type IIIs to signal a position-taking motivation, but not type Is, as here.

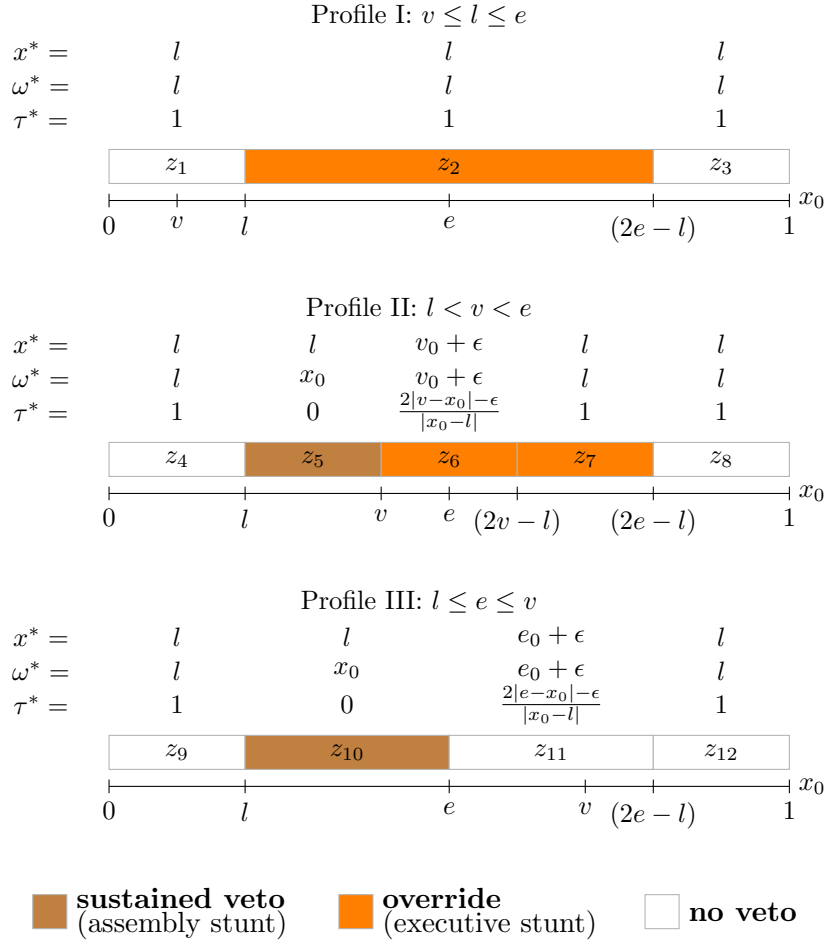


Figure 3: Vetoes, overrides, and the status quo. Equilibrium assumes $0 < \pi < \tau$ in three preference profiles. Panels reveal discrete zones where a given $x_0 \in [0, 1]$ prompts a specific equilibrium proposal (x^*), outcome (ω^*), and threshold (τ^*).

3 Results

Results from the small- π game are derived here. Across different preference profiles, interest will focus in specific features of the stunts equilibrium: the equilibrium proposal, the equilibrium outcome, the equilibrium path of play from initial to a terminal node in the game tree, and the equilibrium threshold τ associated with a status quo. Analysis proceeds by gauging the effect that varying x_0 has on these features. Some paths of play involve vetoes, others do not, so analysis supplies predictions on when and why to expect vetoes and overrides.

Assuming without loss of generality that the legislator is to the left of the executive (results are symmetric otherwise), three preference profiles deserve consideration: (I)

$v \leq l \leq e$; (II) $l < v < e$; and (III) $l \leq e \leq v$. Figure 3 summarizes results by breaking the policy space, one profile at a time, into mutually exclusive and exhaustive segments or **zones** labeled z_1, z_2, \dots, z_{12} . Key for our purpose, status quos within each zone trigger a distinctive set of equilibrium features of interest, different from contiguous zones's. Consider z_1 . When $x_0 \in z_1$ then $x_0 < l < e$ must be true. So proposal $x = l$, by shifting policy rightward and toward the executive's ideal point, in fact brings her $\text{PolicyGain}_e > 0$ and, in equilibrium, accepts it. Equilibrium features for z_1 include the following triad: proposal $x^* = l$; outcome $\omega^* = l$; and path propose–accept (I discuss threshold τ^* in a while). The game follows that same equilibrium path when $x_0 \in z_3$: the status quo is, again, so far from the executive that she is better-off letting the legislator impose policy at will. Repeating the analysis for the remaining two preference profiles produces the following result.

Result 1 (The no-veto zone) *For $0 < \pi < \tau$ (games in campaign mode) with $l \leq e$, the no-veto zone for profile I is $z_1 \cup z_3$; for II it is $z_4 \cup z_8$; and for III it is $z_9 \cup z_{11} \cup z_{12}$.*

See Corollary 2 (the formal version of Result 1) in the appendix for a proof. Any status quo in the no-veto zone elicits a proposal that is invariably accepted. And the next result follows trivially. Corollary 2 is an if-and-only-if statement, implying that status quos *not* belonging in the no-veto zone *involve the use of the veto*. Graphically, expect a veto—an electoral stunt—whenever x_0 belongs in one of the non-white zones of Figure 3 (see Corollary 3).

Result 2 (The veto zone) *For $0 < \pi < \tau$ (games in campaign mode) with $l \leq e$, the veto zone for profile I is z_2 ; for II it is $z_5 \cup z_6 \cup z_7$; and for III it is z_{10} .*

Predictions can be refined to distinguish executive from assembly stunts. Consider $x_0 \in z_5$, when $l < x_0 < v < e$ must be true and both executive and pivot support are prohibitive. The situation is analogous to Figure 2a's: the legislator takes a position by proposing her hopeless ideal that is, in fact, killed. The associated equilibrium path is then propose–veto–sustain, and therefore z_5 is the **sustained veto zone** of profile II. (It is easy to verify that $x_0 \in z_{10}$ has the same equilibrium path.) Consider now $x_0 \in z_7$, when $(2v - l) < x_0$ must be true and therefore the pivot accepts proposal $x = l$, rendering it veto-proof. Since $x_0 < (2e - l)$ is also true, the executive dislikes the equilibrium proposal, as in Figure 2b. It is the executive's turn to show that she prefers the status quo to the inevitable proposal, pushing the game onto path propose–veto–override. With different equilibrium proposal and outcome, as Figure

3 indicates, the equilibrium path of play when $x_0 \in z_6$ is exactly the same, leaving $z_6 \cup z_7$ as profile II's **override zone**. Generalizing to other profiles yields the next result (see Corollaries 3 and 4).

Result 3 (The override and sustained-veto zones) *For $0 < \pi < \tau$ (games in campaign mode) with $l \leq e$, the veto zone consists of mutually-exclusive and exhaustive subsets: the override and the sustained-veto zones. The override zone for profile I is z_2 ; for II it is $z_6 \cup z_7$; for III it is empty. The sustained-veto zone for profile I is empty; for II it is z_5 ; for III it is z_{10} .*

Together, results 1, 2, and 3 predict exactly when to expect vetoes given the relative locations of players and status quo in a stylized system of separation of powers. And by offering an explanation of *why* vetoes occur, the theory's results also predict whether or not an override will accompany the veto. The next question to address is how small should π be for all this to hold. Formally, what is the maximum τ that condition $0 < \pi < \tau$ can support? To answer, note that, in position-taking matters, the agenda-setter has one important advantage. To take a position dear to voters, the legislator is free to propose $x = l$ —the maximand of Position_l —revealing her preferences with accuracy by pinpointing her exact ideal policy. Other players can show relative preference for one or another alternative set on the table, x or x_0 , but cannot act to pinpoint bliss policies. As a consequence of this asymmetry, regardless of whether the executive and pivot decide with the PolicyGain (at low π s) or the Position (at higher π s) component of utility, their choice criterion is π -invariant. The executive's situation in Figure 2c illustrates. There remains a good deal of improvement available from proposal $x = l$ to her ideal point e , yet foregoing the policy gain in search of position-taking emits the wrong signal: the veto speaks of preference for x_0 over $x = l$, which is objectively false. Available position-taking acts can only reinforce Policy under any $0 < \pi \leq 1$, and therefore $\tau = 1$ for both. In other words, any π is small enough for the executive and pivot.

With unlimited posturing ability, the agenda setter requires consideration of three cases. In one $\omega = l$ is beyond reach but some $\text{PolicyGain}_l > 0$ can be got through compromise, as when x_0 belongs in z_6 or z_{11} . The legislator could opt to dump the deal and maximize Position_l instead by proposing $x = l$. Threshold τ divides π s making PolicyGain_l predominate (in favor of compromise) and π s making Position_l predominate (against compromise). Eq. 7 in the appendix computes the precise value of τ , reported in Figure 3. In another case $\omega = l$ is within reach, as when x_0 belongs in $z_1, z_2, z_3, z_4, z_7, z_8, z_9$, or z_{12} . PolicyGain_l and Position_l converge on the same choice

under any $0 < \pi \leq 1$, and therefore $\tau = 1$. In the last case any $\text{PolicyGain}_l > 0$ is impossible, as when x_0 belongs in z_5 or z_{10} . No π short of zero restrains the legislator from relying on **Position** to choose, and so $\tau = 0$.

The small- π constraint deserves two comments before moving to empirical implications. Apart from simplifying analysis considerably, the constraint has the desirable property of leaving the standard setter's equilibrium policy unchanged. Everything that setter explains, small- π stunts explains as well, while also accounting for vetoes and overrides as two types of electoral stunts. Setter owes its canonical status to explanatory power, parsimony, and generalizability (Bawn 1999; Cohen and Spitzer 1996; Cox and McCubbins 2005; Den Hartog and Monroe 2011; Gely and Spiller 1990; Gerber 1996; Huber 1996; Kiewiet and McCubbins 1988; Krehbiel 1991; Richman 2011; Shepsle and Weingast 1987; Weingast and Moran 1983 are just some of its applications). For the same reasons, it is among the most-tested rational actor models, with an impressive empirical record (Cox 1999). So a model, like small- π stunts, preserving the policy predictions seems appropriate, hence its choice.

And the small- π constraint is not excessively retractive. Its removal effects no change in executive and pivot behavior, and does so for the legislator only when she is veto-proofing a proposal with concessions. If $\pi \geq \tau$ when $x_0 \in z_6 \cup z_{11}$, then the legislator relies on **Position** to choose, foregoing the compromise.⁵ When $x_0 \in z_6$ the consequence will be a sustained instead of overridden veto; when $x_0 \in z_{11}$ a veto will be sustained instead of a proposal accepted. The removal of the small- π shrinks the override zone while leaving the veto zone unaffected in profile II and swells the sustained-veto zone in profile III. In sum, dispensing with small- π makes vetoes more frequent and overrides less so.

4 Empirical implications

A direct test of Results 1, 2, and 3 requires measures of players's ideal points and the status quo.⁶ Over two decades of methodological refinements have produced ideal point estimates for a growing number of assemblies accross time and space (Bonica 2010; Cantú, Desposato and Magar 2013; Jackman 2000; Jones and Hwang 2005; Londregan 2000; Poole and Rosenthal 1985). But measurement of status quos

⁵By Eq. 7, threshold τ is a linear function of x_0 in both z_6 and z_{11} , tending to zero in each zone's left limit, tending to one in the right limit. So rightward status quo shifts within these two zones rapidly dilute the constraint's tightness.

⁶The stunts model would also need to be adapted to a bicameral legislature, possibly along the lines of the cartel-pivot hybrid model Cox and McCubbins (2005:177).

poses a more formidable challenge, and has lagged behind (Poole 2005). Recent developments in this area (Peress n.d.; Richman 2011) promise a very fruitful venue for future research.

This section proposes a less direct test instead. I proceed by treating the status quo as a random variable, yielding comparative statics results that can be turned into testable propositions with auxiliary premises. For simplicity, a uniform, common-knowledge probability density is assumed: $x_0 \sim \mathcal{U}(0,1)$ —the status quo could be anywhere in space with same probability at the start of the game, setting up an extremely simple scenario. But the argument actually extends to any continuous density with positive support in $[0,1]$.⁷ Results 1, 2, and 3 naturally extend into precise predictions of veto and override probabilities. Refer back to profile I of Figure 3 to illustrate. A veto will not take place when $x_0 \in z_1 \cup z_3$, but will when $x_0 \in z_2$. The probability of a veto in profile I is the probability that $x_0 \in z_2$: $Pr[y^*(x^*) = x_0 \mid v \leq l \leq e] = Pr[x_0 \in z_2]$. And, by the uniformity assumption, $Pr[y^*(x^*) = x_0 \mid v \leq l \leq e] = 2e - l - l = 2(e - l)$. Probabilities of vetoes and overrides can be computed likewise for any preference profile.

For comparative statics results, note that, in profiles I and II of Figure 3, ideal point l limits the veto zone on the left and $2e - l$ on the right; and that, in profile III, the limits are l on the left and e on the right. In all cases, the veto zone’s size (which, we know, is proportional to the probability of a veto) depends directly on the distance $\|l, e\|$. Thus, a veto becomes more (less) probable as e is farther from (closer to) l .

Note next how shifts in ideal point v have a more complex effect, depending on preference profiles. On the one hand, v shifts have no effect on the veto zone’s size so long as v remains confined, in its drift, to the bounds of a given preference profile—in other words, if v does not “jump over” any other player’s ideal point. Refer to Figure 3. In profile I, v is outside (to the left of) the corresponding veto zone, whose size remains unaffected by shifting v closer to or farther from its left bound (l). This remains true so long as v does not jump over this left bound, which would bring us into profile II—from $v \leq l \leq e$ into $l < v < e$. In profile II, v lies within the veto zone, dividing the latter into the sustained-veto and override zones. Pulling v towards

⁷A more sensible approach is Cox and McCubbins (2002). Nature deals a common-knowledge random shock affecting the status quo at the start of each legislature: $x_{0,t} = x_{0,t-1} + \mathbf{shock}$. The implication is that time t ’s status quo at will be located closer to last period’s with higher likelihood than elsewhere. If, however, \mathbf{shock} ’s probability density falls monotonically beyond last period’s status quo (as, apparently, their model assumes), comparative statics are identical to those in the text.

l increases the share of overrides, pulling v towards e decreases it; in any case, the outer bounds of the veto zone itself remain unchanged. Lastly, any v in profile III lies outside (to the right of) the veto zone, again leaving its size unaffected.

On the other hand, v has a substantial effect on the veto zone when it changes from any slot to the right of e to any slot to the left of e —when v jumps over e , changing from profile III to profile II or from profile III to profile I. This effect is visible in Figure 3: holding l and e fixed, the veto zone in profiles I and II is twice the size of the veto zone in profile III. In profiles I and II the agenda setter makes concessions (when necessary) to the pivot, whose preferences are more congenial than the executive’s, rendering a veto threat harmless policy-wise (but pushing the executive to perform stunts). The situation is different in profile III, where the agenda setter targets the executive with concessions (when necessary), offering her policy gain that she does not refuse (regardless of π , as discussed above).

The effect of v shifts on the probability of a veto is therefore discontinuous. It remains constant so long as v does not jump over e in its slide along $[0, 1]$. It experiences a substantial, discrete drop (increase) in size when v jumps over e to its right (left). One implication of this, somewhat complex, effect is that the veto zone never shrinks in size as v gets closer to l . The following hypothesis puts together the comparative statics uncovered so far.

Hypothesis 1 (The incidence of vetoes) *When the game is in campaign mode and $l \leq e$, the probability of a veto is inversely proportional to l , directly proportional to e , and never directly proportional to v . Formally, letting r stand for the incidence rate of vetoes over N proposals:*

$$\frac{\delta r}{\delta l} < 0; \frac{\delta r}{\delta e} > 0; \text{ and } \frac{\delta r}{\delta v} \leq 0.$$

Inequalities reverse when $l > e$.

When studying individual proposals, a higher veto incidence rate implies a higher probability that a randomly chosen proposal is vetoed; when studying aggregate proposals, it implies a larger number of vetoes.

In the case of overrides, all three ideal points (not just v) interact with the preference profile to produce effects. Under profile I, the override zone shrinks as l moves rightward; it grows as e shifts rightward; and it is unaffected by v . Under profile II, it is unaffected by l ; it grows as e slides rightward; and it shrinks as v moves rightward. Under profile III, the override zone is empty, hence remains unaffected by l , e , and

v . Finally, when v jumps over to e 's right there is a discrete drop in the size of the override zone, as in the previous paragraph. The next hypothesis puts together this second set of comparative statics.

Hypothesis 2 (The incidence of overrides) *When players are in campaign mode and $l \leq e$, the probability of an override is never directly proportional to l , is never inversely proportional to e , and is never directly proportional to v . Formally, letting s stand for the incidence rate of overrides over M vetoes:*

$$\frac{\delta s}{\delta l} \leq 0; \frac{\delta s}{\delta e} \geq 0; \text{ and } \frac{\delta s}{\delta v} \leq 0.$$

Inequalities reverse when $l > e$.

Testing hypotheses 1 and 2 does not require measures of the status quo, only change in preferences through shifts in players's ideal points. An alternative operationalization of these hypotheses relies on indicators of relative preferences only (where is l vis-à-vis e ; where is l vis-à-vis v). Partisan theory (Cox and McCubbins 1993) suggests a straightforward mapping of the party status of the branches of government to these relative positions. The auxiliary assumption is that the partisan status of the branches affects distance $\|l, e\|$: under divided government (when her party does not have majority status in the assembly) it is never smaller than under unified government (when it does). This generates the following hypotheses on veto and override incidence.

Hypothesis 3 (The Divided Government Surge) *All else equal, (a) veto incidence is higher and (b) override incidence is never lower when government is divided than when it is unified. Formally, if d is a binary variable (equal to 1 when the executive's party does not have majority status in the assembly; 0 otherwise), then*

$$(a) \frac{\delta r}{\delta d} > 0 \text{ and } (b) \frac{\delta s}{\delta d} \geq 0.$$

Hypothesis 3b's greater or equal sign (inherited from Hypothesis 2 and absent from 3a) indicates that $d = 1$ is a sufficient condition for vetoes to surge but not for overrides to surge. All else equal, variables d and r should be more strongly associated than d and s .

The majority party size offers another testing opportunity, by approximating the degree of similarity between l and v . With variation across time and space, parties are nonetheless known for their capacity to increase rank-and-file discipline significantly,

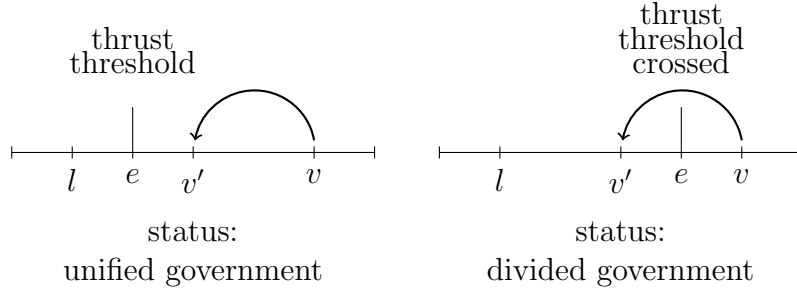


Figure 4: The size-and-status interaction

especially in votes that party leaders care the most for (Cox 1987; Cox and Poole 2002; Morgenstern 2003). Construing the legislator as the majority party leader, she should be likelier to exert influence on the pivot when they belong to the same party than when not. Referring to a party with (without) enough seats to override a veto as majority above (below) override level, another auxiliary assumption is that the distance $\|l, v\|$ is never smaller when the party is below than when at or above override level.

Hypothesis 4 (The Supermajority Thrust) *All else equal, (a) veto incidence and (b) override incidence are never lower when the majority party in the assembly is above override level than when it is not. Formally, if o is a binary variable (equal to 1 when the majority party’s share of seats is at or above that required to override; 0 otherwise), then*

$$(a) \frac{\delta r}{\delta o} \geq 0 \text{ and } (b) \frac{\delta s}{\delta o} \geq 0.$$

The interactive effect of v ’s location and the preference profile generates the next hypothesis. If, as assumed, divided government leaves e farther from l , while being above override level brings v closer to l , then the thrust effect of supermajorities is likelier to kick-in when government is divided than when it is unified. To see why, consider that increasing majority party size shifts v closer to l (Figure 4 portrays this as a shift from v to v'). With unified government (and e closer to l than to v) the jump to v' needed to pass over the “thrust threshold” (ie ideal point e) is quite long. With divided government (and e closer to v than to l) a shorter jump suffices, thereby further increasing veto incidence.

Hypothesis 5 (The Size-and-Status Interaction) *All else equal, (a) the Supermajority Thrust on veto incidence (from Hypothesis 4a) and (b) on override incidence (from*

Hypothesis 4b) are likelier under divided than under unified government. Formally,

$$(a) \frac{\delta(r | d = 0)}{\delta o} \leq \frac{\delta(r | d = 1)}{\delta o} \text{ and } (b) \frac{\delta(s | d = 0)}{\delta o} \leq \frac{\delta(s | d = 1)}{\delta o}.$$

The auxiliary assumption for the next hypothesis is that motivation has an electoral component, Nature sampling larger π s (hence $\pi = 0$ is less likely) in games more proximal to the next election than in less proximal ones. $\pi \neq 0$ is a necessary condition for vetoes, like vetoes are a necessary condition for overrides. Due to changing legislator behavior induced by larger π s, veto incidence rises when the small- π condition no longer holds. And the effect of $\pi \neq 0$ on override incidence cancels when π surpasses τ (so override incidence drops again).

Hypothesis 6 (The Electoral Pulse) *All else equal, (a) the incidence of vetoes increases and (b) the incidence of overrides has an inverted u-shape as the next election gets closer. Formally, if p measures the Proximity to the next election, then*

$$(a) \frac{\delta r}{\delta p} > 0 \text{ and } (b) \frac{\delta^2 s}{\delta p^2} \leq 0.$$

We get another hypothesis by controlling for bicameralism. Portraying assemblies as unitary actors (still quite common in the literature) may be inappropriate when an upper legislative chamber of the assembly can veto proposals before the executive gets a chance to do so. Assuming that split partisan control of the chambers of a bicameral assembly depresses legislative productivity (the legislator choosing to ‘retain x_0 ’ more often than when the assembly is unified), the executive will get fewer chances to veto.

Hypothesis 7 (The Divided Assembly Slump) *All else equal, when a party does not have majority status in both chambers of a bicameral assembly (a) the incidence of executive vetoes and (b) of overrides decreases relative to situations where a party does (or unicameral assemblies). Formally, if c is a binary variable (equal to 1 when the same party controls both houses; 0 otherwise), then*

$$(a) \frac{\delta r}{\delta c} < 0 \text{ and } (b) \frac{\delta s}{\delta c} < 0.$$

5 Veto incidence in state governments

The empirical context for a test are American state governments. Subnational data offer at least two advantages. The veto is well-investigated, with pretty good un-

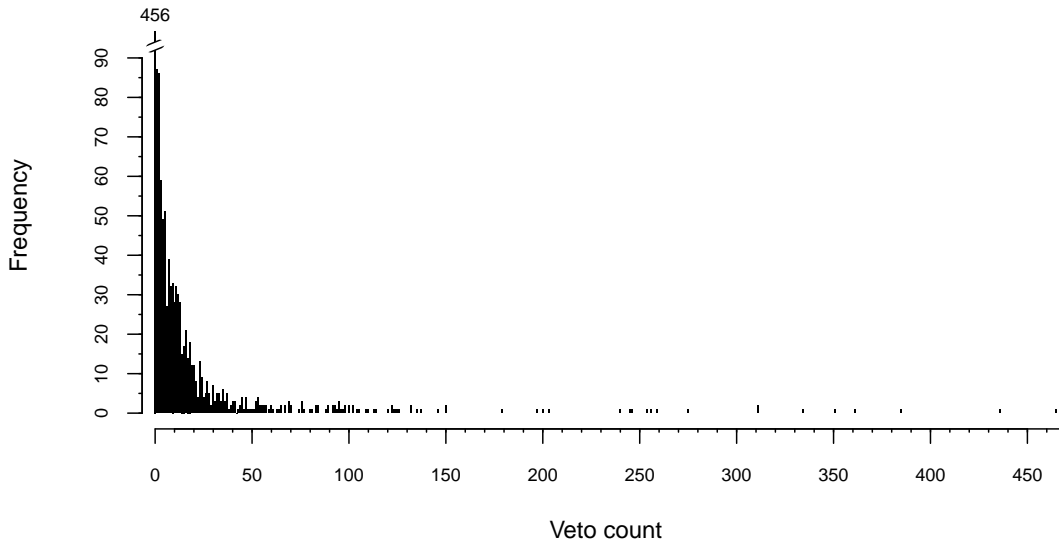


Figure 5: Veto frequency in 1,365 state legislative sessions

derstanding of its determinants, but for the U.S. federal government only (Magar 2007 reviews the empirical literature). A systematic study of inter-branch relations in state governments offers a fresher perspective. More important, sub-national data give comparative perspective, letting many factors of interest vary among otherwise quite similar units. Variance in state institutions and party systems give leverage for a test not on offer at the national level.

I re-analyze data in Magar (2007) with slight changes in method and controls. The units of observation are legislative sessions in 49 state governments between 1979 and 1999.⁸ In total, 1,365 sessions are included in the analysis. The dependent variable is `veto.countj`, the number of bills the governor vetoed in legislative session j . Because sessions differ in length and legislative productivity, the number of `bills.passedj` is included among other controls. A negative binomial regression model is specified in search of `veto.countj` correlates (Cameron and Trivedi 1998).⁹ Vetoes in state governments are rare events, as the acute right-skewedness of the distribution of observed vetoes in Figure 5 attests. The distribution has a single mode in zero veto per session, and the frequency drops sharply as the number of vetoes per session rises.

Table 2 summarizes the regression model to analyze $\overline{\text{veto.count}}_j$, session j 's av-

⁸Nebraska excluded because formally non-partisan elections prevented coding key regressors.

⁹R (R Dev. Core Team 2011) and WinBUGS (Spiegelhalter, Thomas, Best and Lunn 2007) used for estimation and post-estimation analysis, relying on packages MASS (Venables and Ripley 2002), lmtest (Zeileis and Hothorn 2002), and R2WinBUGS (Sturtz, Ligges and Gelman 2005).

Estimated model:

$$\overline{\text{veto.count}}_j = \exp(\beta_0 + \beta_1 \text{super.dg}_j + \beta_2 \text{plain.dg}_j + \beta_3 \text{div.assembly}_j + \beta_4 \text{super.ug}_j + \beta_5 \ln(\text{election.proximity}_j) + \dots + \text{error}_j)$$

Hypothesis	Coefficient(s)	Prediction	Test		Uncertainty prediction
			result	level ^a	
3. Divided government surge	β_1	+	+	.001	–
	β_2	+	+	<.001	+
	β_1 & β_2^b	+	+	<.001	?
4. Supermajority thrust	β_1	+	+	.001	–
	β_4	+	+	.067	–
	β_1 & β_4^b	+	+	.003	–
5. Size and status	$\beta_1 - \beta_4^b$	+	+	.012	?
6. Electoral pulse	β_5	+	+	.001	–
7. Divided assembly slump	β_3	–	+	.228	–

Notes: (a) One-tailed test. (b) Wald test.

Table 2: Model, hypotheses, and test summary

erage vetoes given systematic characteristics. The table relates key regressors to hypotheses and reports results. Magar (2007) elaborates on model specification and shows it is quite robust. In the right side are separate indicators for the government status ensuing from the interaction of state institutions and parties. To test hypotheses, three breeds of divided government, and two of unified government, are distinguished. Dummy `div.assembly` indicates sessions with the chambers of bicameral assemblies controlled by different parties. Dummies `plain.dg` and `plain.ug` indicate, for divided and unified government respectively, sessions with the same party in control of both chambers yet below override level in one of them at least. Dummies `super.dg` and `super.ug` do the same for sessions with majority party above override level in both chambers. The five indicators are mutually-exclusive and exhaustive, so `plain.ug` is dropped from the equation to avoid the dummy trap and, therefore, is the baseline for coefficient interpretation.

A rare bird in the U.S. Congress, a party above override level is remarkably common in state assemblies, owing to differences in override rules and party systems.¹⁰ Gubernatorial vetoes in six states could be overridden by majority rule in the period, so any majority party in those sessions was perforce above override level. Much higher bars were also within majority party reach in other states, as Table 3 shows. Overall, $111 + 350 = 461$ sessions in the period, or one-third, the party controlling the unified

¹⁰After 1829, parties above override level are found in the 39th Congress (1865–67, during the Lincoln administration), the 43rd (1873–75, Grant), the 74th and 75th (1935–39, Roosevelt), and the 89th (1965–67, Johnson); in all but the first, government was unified.

Government status		Share required to override a veto						All sessions	
		$\frac{1}{2}$		$\frac{3}{5}$		$\frac{2}{3}$		N	%
		N	%	N	%	N	%		
Div. Govt. above override	<code>super.dg</code>	55	32	8	6	48	5	111	8
Div. Govt. below override	<code>plain.dg</code>	—	—	22	17	365	34	387	28
Div. Assembly	<code>div.assembly</code>	8	5	48	38	205	19	261	19
Unif. Govt. below override	<code>plain.ug</code>	—	—	7	5	249	23	256	19
Unif. Govt. above override	<code>super.ug</code>	107	63	43	34	200	19	350	26
Total		170	100	128	100	1,067	100	1,365	100

Table 3: Institution–party interactions among observed sessions

assembly was above override level. The figure for the U.S. Congress since 1945 is 3 percent.

The right side also includes `election.proximity`, a measure of how many days (logged) separate the next legislative election and the session’s ending date. This ought to capture the electoral component of the veto. There are also controls for the number of `bills.passed` in the session (the exposure variable), and indicators for governors with `item.veto` and `pocket.veto` powers and for `special.sessions`. Appendix B reports maximum-likelihood estimates of the model’s coefficients. The text discusses hypotheses and tests only.

Divided government sessions should experience, all else equal, more vetoes on average than unified government or split assembly sessions (hypothesis 3). The prediction is that coefficients β_1 and β_2 , for divided government indicators, should be positive, as the third column of Table 2 reports. Since the claim should be true regardless of the override level of the majority party, a Wald test that both coefficients are jointly positive was also undertaken. As the fourth and fifth columns of the table report, the null hypotheses (that parameters are ≤ 0) can be rejected at confidence levels at or below .001 for the three tests—levels much better than the conventional .05. Majorities above override level (supermajorities) should also swell average session veto incidence, other things equal, compared to parties not meeting this requirement (hypothesis 4). The prediction is that coefficients β_1 and β_4 , for above-override-level indicators, should be positive. Again, the expectation is dissociated from the status of government, so a joint test was also carried. Coefficient β_1 was discussed above; β_4 does not clear the test at conventional levels. It is reasonable to argue that the .067-level remains quite acceptable for rejecting the null: that p-value is indicative that we would be wrongly rejecting a true null less than 7 in 100 times.¹¹ Another

¹¹The model does not control for party factions, which may interfere to push β_4 towards negative values. A significant number of states with supermajorities have little real party competition, where

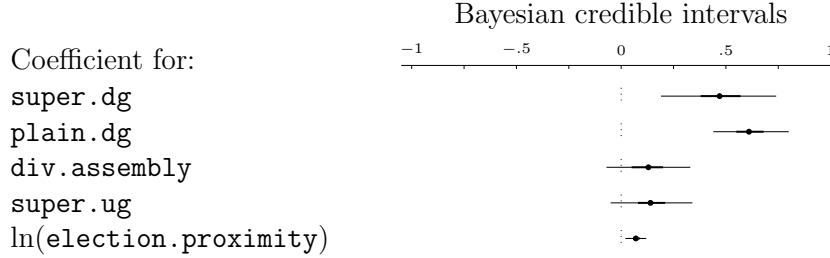


Figure 6: *Magnitude and confidence of stunt-related coefficients. MCMC replica of the model. Charts report the median, 50% interval, and 95% interval of posterior coefficient distributions.*

defense of the hypothesis is the Wald test for joint significance, reaching the .003 level. With less confidence than for divided government, there is systematic evidence that majorities above override level are associated with more vetoes on average.

Supermajority effect should be larger, other things equal, under divided than unified government (hypothesis 5). The prediction is $\beta_1 > \beta_4$, implying that $\beta_1 - \beta_4$ should be positive. A Wald test rejects the null at the .012 level.

And sessions ending closer to election Tuesday should, other things constant, manifest higher veto averages than sessions ending farther before the election (hypothesis 6). Because `election.proximity` is coded to take negative values (-1 is the measure for maximum closeness), the prediction is that β_5 should be positive. The null is rejected at the .001 level. Simulations will reveal this effect and other effects on veto incidence more eloquently.

Finally, sessions in divided assemblies should have fewer average vetoes, other factors constant, than those in unified assemblies (hypothesis 7). The prediction that β_3 is negative fails. The estimate is in fact positive, although far from conventional significance—in statistical terms, it is indistinguishable from zero.

Overall, predictions are borne out quite successfully. Only one of five hypotheses on veto incidence tested was rejected. Another, related to majorities above override level, is borderline. The other three are confirmed with great statistical confidence. The stunts model has empirical content.

I close the section by simulating counterfactual sessions to illustrate vetoes as stunts in state governments. The approach relies on Markov Chain Monte Carlo (MCMC) re-estimation of the regression model, a convenient method to gauge the

parties tend to be factious, fractionated, and weaker. We can read Wright and Schaffner (2002) as indicating that one-party/non-partisan chambers tend towards greater dimensionality of the issue space, making it easier for the governor to extract a majority coalition though he/she is in the wrong party (so fewer vetoes). I am grateful to one anonymous referee for pointing this out.

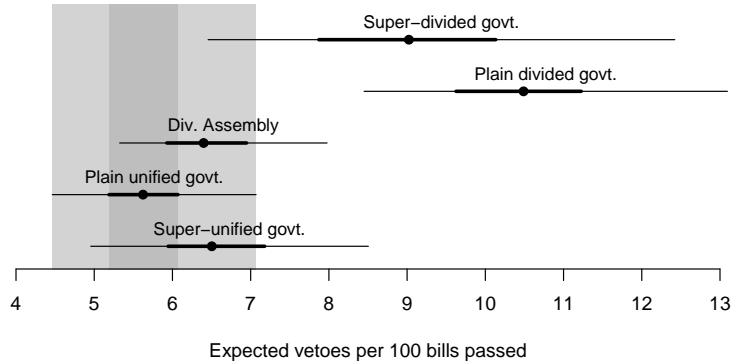


Figure 7: Effects of the partisan status of government on expected vetoes. Horizontal lines are 95% and 50% intervals of the expected veto posterior distribution, points indicate the median. Sessions simulated under different partisan configurations had the following features in common: the assembly adjourned one month ahead of the next election having passed 100 bills, the session was regular, and the governor had item but no pocket veto.

joint effect of regression coefficients and predict veto incidence and measure precision (see Gelman and Hill 2007). Figure 6 shows that MCMC estimates of key regressors are very close to the maximum-likelihood discussed so far.¹² The picture reveals `super.ug` borderline effect eloquently: the 95 percent interval of posterior coefficient simulations touches the zero at the hip. And `div.assembly` was expected on the other side of the scale.

The counterfactual leaves session controls constant: the governor has item, but not pocket veto power, the session is regular, and exposure is set to `bills.passed = 100`. This is convenient because expected vetoes can be read as percentages of bills sent to the governor. Simulations in Figure 7 also set the session’s ending date one month ahead of the legislative election ($election.proximity = -30$), and reveal the partisan status of government effects. Expect 5.5 vetoes on average per 100 bills passed in a session under plain unified government, the baseline. Super unified government raises this to about 6.5 vetoes per 100 bills, but the simulation spreads of both overlap to a considerable extent—it is somewhat likely that differences may be due to chance alone. Divided government, on the other hand, nearly doubles the expectation in both

¹²Three chains were updated 410 thousand times each, preserving every fifteen-hundredth iteration from the last 150 thousand as sample of $3 \times 100 = 300$ posterior simulations to derive the results discussed. Gelman and Hill’s (2007) $\hat{R} \approx 1$ for all model parameters after the burn-in, and effective sample sizes were all above 85, suggesting that the chains had converged towards a steady state with reasonable autocorrelation.

its plain and its super variants. Spreads also grow, yet the overlap of super-divided government with the baseline is negligible. Executives systematically veto bills even when an override is highly likely.

The final simulation lets `election.proximity` vary to reveal the electoral pulse of vetoes. Figure 8 compares a session held under plain unified government to another held under plain divided government. Lines simulate expected vetoes per 100 bills for sessions ending as early as 4 years before election Tuesday and as late as 1 day before. Dark lines report the median simulation, clear lines are a random sample of posterior simulations. Note the upward-sloping trend in most simulations. Under plain divided government, about 8% bills are predicted vetoed in sessions ending 2 years before the election, about 8.5% for sessions ending 1 year before election, and about 10% for those ending on election week (all plus or minus 1.5% vetoes). The growth is substantial: for a session with average productivity (296 bills) under plain divided government, expect between 6 and 10 additional vetoes on average, attributable to the electoral cycle from beginning to end. The effect is more modest for a session under unified government (bottom set of bars), but still 2 to 4 extra vetoes are distinguishable from beginning to end of the cycle.

6 Discussion

Several points can be elaborated here.

6.1 Overrides

Offering another position-taking model of the veto is no redundancy. My stunts model differs from Groseclose and McCarty (2001) in three significant ways. Most important, their model only lets legislators engage in position-taking (when they force the executive to veto popular legislation). The stunts game lets the executive engage in such behavior to her advantage as well (when she vetoes a proposal disliked by constituents despite certainty that the veto will be overridden). The removal of this asymmetry conforms to reality while allowing richer interactions between the branches of government.¹³ I also increase the model's explanatory power because the

¹³This asymmetry forces Groseclose and McCarty (2001:111) to conclude that a consequence of any veto is a drop in presidential popularity (see also Prediction 18 from Cameron and McCarty 2004). Anecdotal evidence from the U.S. (the case they model) provides a notable counterexample. In the 1995–96 budget standoffs, President Clinton's emphatic vetoes against the Republican majority's cuts are generally accepted as paving the way for his 1996 reelection (LeLoup and Shull 1999).

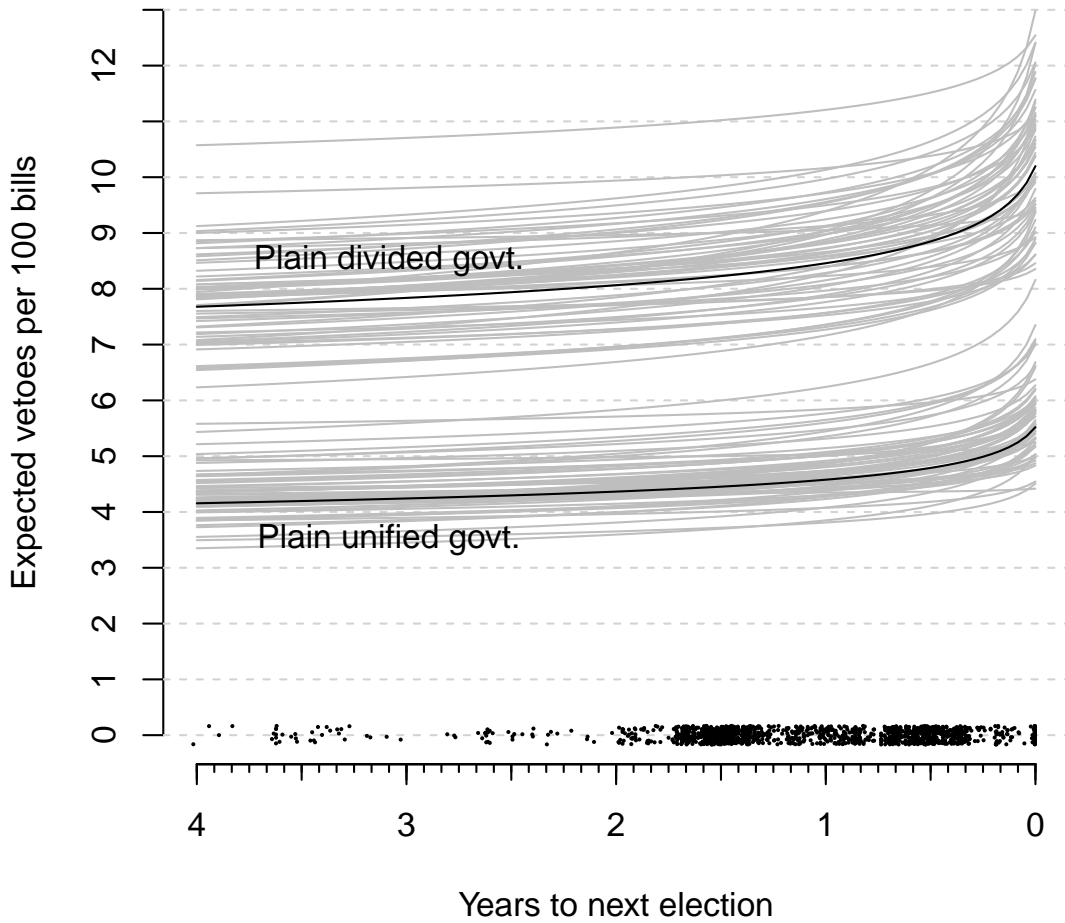


Figure 8: The electoral pulse of the veto. Lighter curves drawn with a random sample of model 1 posterior simulations, heavier ones with the median posterior. Other than assembly adjourning variably vis-à-vis election Tuesday, and reporting unified (bottom) and plain divided government (upper lines) only, simulated sessions are identical to Figure 7's. Dots at the bottom are sessions's actual ending dates (y-jittered for visibility). Clustered at zero are many sessions that ended after the election, see text for details.

stunts game also explains overrides, which remain anomalous in the blame game. By this account, the stunts game formalizes Conley and Kreppel's (xxx) veto typology, proposing conditions for two types of vetoes or stunts. Third, in their model both the assembly and the executive appeal to the same median voter, who then allocates rewards and penalties. Here the assembly represents one set of interests while the executive represents another, possibly different, set of interests. The more distinct are the rules by which legislators and executives are elected, the more important it may be to allow them to serve different electoral masters.

6.2 Ploys v. Stunts re-examined

Predictions can be pitted to those from the theory of vetoes as bargaining ploys. A rigorous comparison of the theories, with a more complete set of predictions is in order, but some initial steps can be offered. Of nine predictions drawn from five stunts hypotheses, only two are shared with Cameron's theory, as the last column of Table 2 speculates. Both theories predict that the likelihood of a veto augments with plain divided government (Cameron 2000:152-77; also Prediction 5 of Cameron and McCarty 2004).¹⁴ This intuitive prediction is in line with the findings of the empirical literature (eg Lee 1975). And since both theories treat the assembly as a unicameral body, the divided assembly control extends with the same prediction: split assemblies depress veto incidence.¹⁵

Theories make opposite predictions on the effect of a majority above override level. The causal mechanism in models of vetoes as bargaining ploys is incomplete information on the exact location of other players's ideal points. In one version of Cameron's model (the Override game) the exact location of the pivot is unknown. In such circumstances, the executive has a dominant strategy to veto legislation she dislikes (see Cameron 2000:99)—there is a non-zero probability that the proposal make insufficient concessions to please the pivot, and the veto will be sustained. Based on the discussion above, it seems reasonable to expect a veto to be overridden with *higher certainty* when the majority party in the assembly is above override level than when it is below, diluting executive incentives to veto. The implication from Cameron's perspective is that veto incidence should be *depressed* under such circumstances, contrary to the stunts prediction (see Prediction 6 in Cameron and

¹⁴In the postwar Congress that Cameron investigates, divided government is tantamount to plain divided government.

¹⁵Cameron (2000:138) predicts that split assemblies increase override incidence but remains silent about veto incidence.

McCarty 2004).

Predictions on the effect of a proximal election also seem contrary. In another version of Cameron’s model (the Sequential Veto Bargaining game), the legislator cannot draw a precise line between bills the executive finds acceptable and unacceptable (106). Information asymmetry gives the executive strategic advantage. By vetoing otherwise acceptable policy, she can cultivate a reputation for toughness and, with some probability, harvest bigger concessions in future bargaining. The less the assembly knows about the executive’s preferences, the more attractive sequential veto bargaining becomes. Upon inauguration of a new executive, or immediately after new assembly members are sworn in, the legislator has the least experience contrasting the branches’s relative preferences. The start of a session would therefore seem to provide the most fertile soil for reputation-building vetoes. Experience then takes care of reducing information asymmetries, leaving less room for such breed of veto bargaining towards the end of a legislative term, when the next election approaches. Although this is pure speculation on my part, it seems reasonable to expect veto incidence to drop as elections draw closer (contrary to my prediction). The executive’s diminishing need to build a reputation as the session draws to an end (Prediction 13 in Cameron and McCarty 2004) should reinforce all this.

6.3 The status quo test

Recent methodological developments offer status quo estimates, finally Richman (2011). A direct test of Results 1, 2, and 3 will be doable soon.

7 Conclusion

Forthcoming

Small- π stunts guarantees R+R’s policy predictions, plus vetoes. More explanatory power, yet still parsimonious.

Appendix A: The formal model

To derive the stunts game equilibrium, the first node of the game tree will be referred as the proposal stage of the game, the second as the veto stage, the third as the override stage. The third mode of play in the text (not analyzed) will be expanded into two separate modes so that, in all, the game can be in four modes of play: the

standard ($\pi = 0$), the lexicographic ($0 < \pi < \tau$), the trade-off ($\tau \leq \pi < 1$), and the stunts-only ($\pi = 1$) mode. And if u_i cannot break indifference, player i arbitrarily chooses x_0 .

Two Definitions, a Lemma and a Theorem generate the results in the paper.

Definition Let $e_0, v_0 \in [0, 1]$ be the executive and the pivot's respective cutpoints, where

$$e_0 = 2e - x_0 \quad \text{and} \quad v_0 = 2v - x_0. \quad (4)$$

Definition Let \wp_e and \wp_v be the executive and the pivot's respective preferred-to sets, where

$$\wp_e = \begin{cases} (x_0, e_0) & \text{if } x_0 \leq e_0 \\ (e_0, x_0) & \text{if } x_0 > e_0 \end{cases} \quad \text{and} \quad \wp_v = \begin{cases} (x_0, v_0) & \text{if } x_0 \leq v_0 \\ (v_0, x_0) & \text{if } x_0 > v_0. \end{cases} \quad (5)$$

Lemma 1 *Player i outcome-prefers policy inside her preferred-to set (Eq. 5) to the status quo, finds her cutting point (Eq. 4) outcome-equivalent to the status quo, and outcome-prefers the status quo to policy outside her preferred-to subset. Formally,*

$$\forall \omega \in \wp_i, \omega' \notin \wp_i : \text{Policy}_i(\omega) > \text{Policy}_i(x_0) = \text{Policy}_i(i_0) > \text{Policy}_i(\omega').$$

Proof Consider the executive. Given that by Eq. 3 Policy_e is single-peaked and symmetric around e ; that by Eq. 4 e lies at the center of \wp_e ; and that by definition the extremes of \wp_e are outcome-equivalent for the executive, it follows that no point outside \wp_e produces higher outcome-payoff than any point inside \wp_e (all are further away from e , which by Eq. 3 implies a lower outcome-payoff). Because x_0 strictly delimits \wp_e , it is closer to e (and by Euclidian utility yields higher outcome-payoff) than any point outside \wp_e except e_0 ; likewise, any point within the bounds of \wp_e is closer to e (and by Eq. 3 yields higher outcome-payoff) than x_0 . Because outcome payoffs are defined in the same way for the legislator and for the pivot, this extends to any player i . ■

Theorem 1 (The equilibrium of the stunts game) *Letting x^* be the legislator's optimal proposal, $y^*(x)$ and $z^*(x)$ be the executive and pivot's respective best replies to proposal x , $\epsilon > 0$ an infinitesimal number, the following set of strategies and threshold τ^* define the sub-game perfect Nash equilibrium when $l \leq e$ (the result is symmetric otherwise):*

$$\begin{aligned}
x^* &= \begin{cases} l & \text{if } x_0 < l \text{ or } \min(e_0, v_0) \leq l \\ & \text{or } \{l < x_0 < \min(e_0, v_0) \text{ \& } 0 < \pi < \tau\} \\ & \text{or } \tau < \pi \leq 1 \\ \min(e_0, v_0) + \epsilon & \text{if } l < \min(e_0, v_0) \leq x_0 \text{ \& } 0 \leq \pi < \tau \\ x_0 & \text{if } l < x_0 < \min(e_0, v_0) \text{ \& } \pi = 0 \end{cases} \\
y^*(x) &= \begin{cases} x \text{ (accept)} & \text{if } x \in \wp_v \text{ \& } \pi = 0 \\ & \text{or } x \in \wp_e \text{ \& } \pi \neq 0 \\ x_0 \text{ (veto)} & \text{otherwise} \end{cases} \\
z^*(x) &= \begin{cases} x \text{ (override)} & \text{if } x \in \wp_v \\ x_0 \text{ (sustain)} & \text{otherwise} \end{cases} \\
\tau^*(x) &= \begin{cases} 0 & \text{if } l \leq e \leq v \text{ \& } \{l < x_0 \leq v \text{ or } 2v - l \leq x_0 \leq 2e - l\} \\ & \text{or } l \leq x_0 \leq e \leq v \\ \frac{2|e-x_0|-\epsilon}{|x_0-l|} & \text{if } l \leq e \leq v \text{ \& } e \leq x_0 \leq 2e - l \\ \frac{2|v-x_0|-\epsilon}{|x_0-l|} & \text{if } l < v < e \text{ \& } v \leq x_0 \leq 2v - l \\ 1 & \text{if } v \leq l \leq e \text{ or } x_0 \leq l \text{ or } 2e - l \leq x_0. \end{cases}
\end{aligned}$$

Proof Equilibrium is derived by backwards induction. Consider first the case where $\pi = 0$ and only the outcome term of utility needs analysis: $u_i(\omega | a) = \text{Policy}_i(\omega) - \text{Policy}_i(x_0)$. *Override stage.* In light of utility maximization, the pivot's optimal choice follows from Lemma 1: if $x \in \wp_v$ then $\text{Policy}_v(x) > \text{Policy}_v(x_0)$ so she should override the veto to get $\omega = x$; if $x \notin \wp_v$ then $\text{Policy}_v(x) < \text{Policy}_v(x_0)$ and she should sustain the veto to retain x_0 . *Veto stage.* the executive's choice also follows from Lemma 1: if $x \in \wp_e$ then $\text{Policy}_e(x) > \text{Policy}_e(x_0)$ and she should accept the proposal to get $\omega = x$; if $x \notin \wp_e$ then, looking down the game tree through $z^*(x)$, she sees two scenarios. When $x \in \wp_v$ the veto will be overridden, so actions $a = x_0$ (veto) and $a = x$ (accept) bring about the same outcome: $\omega = x$. This is a situation where the executive faces "outcome-indifference between actions" (OIA for short); she should arbitrarily veto. But when $x \notin \wp_v$, the veto will be sustained, with preferable outcome x_0 ; she should again veto.

Proposal stage. With $l \leq e$, three preference profiles (I, II, and III) are feasible; the proof considers all locations of $x_0 \in [0, 1]$ in each profile. **(I) Profile** $v \leq l \leq e$. (a) If $x_0 \leq l$ then, by Eq. 4, $l < e_0$ (because $l \leq e$). So, by Eq. 5, $l \in \wp_e$. By $y^*(x)$ the executive will accept proposal $x^* = l$ which maximizes PolicyGain_l and the legislator should propose it. (b) If $l < x_0$ then, by Eq. 4, $v_0 < l$ (because $v \leq l$).

So, by Eq. 5, $l \in \wp_v$. By $y^*(x)$ the executive will accept $x^* = l$ which she again be proposed. **(II) Profile** $l < v < e$. (a) If $x_0 \leq l$ then $l \in \wp_e$ and the case is identical to Ia. (b) If $l < x_0 \leq v$ then it can be verified that, by Eq. 3 and provided $\epsilon > 0$ is small, $\text{Policy}_l(x_0 + \epsilon) < \text{Policy}_l(x_0) < \text{Policy}_l(x_0 - \epsilon)$. Eqs. 4 and 5 reveal that proposal $x = x_0 + \epsilon \in \wp_v$; and $y^*(x)$ that the executive would accept it; but such proposal brings $\text{PolicyGain}_l < 0$; they also reveal that the desirable proposal $x = x_0 - \epsilon \notin \wp_e \cup \wp_v$, and $y^*(x)$ and $z^*(x)$ reveal that this proposal would be vetoed and the veto sustained. So the best the legislator can achieve is to retain x_0 by proposing nothing. (c) If $v < x_0 \leq (2v - l)$ then, by Eq. 4, $l \leq v_0 < v$ and it can be verified that $\text{Policy}_l(x_0) = -|x_0 - l| < \text{Policy}_l(v_0) = -|v_0 - l|$. Since $v_0 \notin \wp_e \cup \wp_v$ (because $v < e$) then by $y^*(x)$ and $z^*(x)$ we conclude that $x = v_0$ would trigger a sustained veto. By Eq. 5, provided $\epsilon > 0$ is small, $v_0 + \epsilon \in \wp_v$, and by $y^*(x)$ the executive will accept such proposal, leaving the legislator with payoff $u_l(x = v_0 + \epsilon) = -|v_0 - l| + |x_0 - l|$. Since this payoff is larger than the former, $x^* = v_0 + \epsilon$ should be proposed. (d) If $(2v - l) < x_0$ then, by Eq. 4, $v_0 < l$ and by Eq. 5, $l \in \wp_v$. It follows by $y^*(x)$ that the executive would accept proposal $x^* = l$, which should be proposed. **(III) Profile** $l \leq e \leq v$. (a) If $x_0 \leq l$ then $l \in \wp_e$ and the case is identical to Ia. (b) If $l < x_0 \leq e$ then the case is analytically equivalent to IIb, with the executive in lieu of the pivot, and no proposal should be made. (c) If $e < x_0 \leq (2e - l)$ then the case is like IIc with executive and pivot reverted: the optimal proposal is $x^* = e_0 + \epsilon$. (d) And if $(2e - l) < x_0$ then $l \in \wp_e$ so by $y^*(x)$ the executive accepts $x^* = l$, which should be proposed.

Consider now the case where $\pi = 1$ and $u_i(\omega | a) = \text{Position}_i(a)$. Players judge the value of their actions independent of the outcome generated. Analysis of Position_i is, in fact, identical to that of Policy_i . It has the same functional form ($\text{Position}_i(a) = -|a - i|$) and evaluates the same inputs ($A_i = x, x_0$). Therefore $\arg \max_{\omega=x, x_0}(\text{Policy}_i(\omega)) = \arg \max_{a=x, x_0}(\text{Position}_i(a))$. *Override stage.* By Lemma 1, if $x \in \wp_v$ then $a = x$ (override) is optimal; if $x \notin \wp_v$ then $a = x_0$ (sustain) is optimal. *Veto stage.* If $x \in \wp_e$ then $a = x$ (accept) is optimal; if $x \notin \wp_e$ then $a = x_0$ (veto) is optimal. *Proposal stage.* $x^* = l$ maximizes $\text{Position}_l(a)$, hence this is the optimal proposal (unless $x_0 = l$, in which case, arbitrarily, she proposes nothing).

Consider now the case where $\tau < \pi < 1$. Given the game's structure, player i confronts one of three types of feasible action-outcome pairings: (1) $\omega = a \forall a \in A_i$; (2) $\omega = x_0 \forall a \in A_i$; and (3) $\omega = x \forall a \in A_i$. (The fourth pairing, $\omega = x_0$ if $a = x$ & $\omega = x$ if $a = x_0$ is impossible given the sequence of play.) Note first that when $\omega = a \forall a \in A_i$ then $\text{Policy}_i(\omega | a = x) = \text{Policy}_i(x) = \text{Position}_i(a = x)$

and $\text{Policy}_i(\omega \mid a = x_0) = \text{Policy}_i(x_0) = \text{Position}_i(a = x_0)$. So the **Position** component reinforces choice made by the **PolicyGain** criterion, and player i decides as when $\pi = 0$ regardless of $0 < \text{alpha} < 1$. Note next that pairings of types (2) and (3) necessarily leave player i in a state of OIA (both imply that $\text{Policy}_i(\omega \mid a = x) = \text{Policy}_i(\omega \mid a = x_0)$) so \mathbf{u}_i is determined by **Position** _{i} only, making players decide as when $\pi = 1$ regardless of $0 \leq \pi \leq 1$. This simplifies analysis considerably.

Override stage. Unlike other players whose actions can be reversed down the game tree, the pivot's are final, so she may only face type (1) action-outcome pairings. (I rule out the case where $x = x_0$ by treating it as if the legislator had proposed nothing, ending the game). Equilibrium strategy $z^*(x)$ thus remains the same as when $\pi = 0$ regardless of $0 \leq \pi \leq 1$. *Veto stage.* Four cases deserve consideration here. (a) If $x \in \wp_e$ & $x \in \wp_v$, she knows by $z^*(x)$ that a veto will be overridden, putting the executive in a type (3) pairing: as when $\pi = 1$, she should accept. (b) If $x \in \wp_e$ & $x \notin \wp_v$, she knows by $z^*(x)$ that a veto will be sustained, putting the executive in a type (1) pairing: as when $\pi = 0$, she should accept. (c) If $x \notin \wp_e$ & $x \in \wp_v$, she knows by $z^*(x)$ that the veto will be overridden, a type (3) pairing: as when $\pi = 1$, she should veto. And (d) if $x \notin \wp_e$ & $x \notin \wp_v$, she knows by $z^*(x)$ that the veto will be sustained, a type (1) pairing: as when $\pi = 1$, she should veto.

To do: La prueba hasta aquí requiere cambios semánticos menores. Pero del proposal stage hasta el final, requiere menos prosa y más matemática. (11ago2012). Verificar que el cambio en y^* en el equilibrio sea consecuente con la prosa (8abr2013).

Proposal stage. Unlike the executive, who is or is not in a state of OIA depending on factors (proposal x , x_0 , e , and v) out of her control, the legislator has leverage in this matter. In certain game conditions, a certain proposal puts her in OIA (hence behaving as when $\pi = 1$) but others do not (hence behaving as when $\pi = 0$). Whether to make one proposal or the other depends on the actual π —her willingness to concede policy to reach a feasible **PolicyGain** while sacrificing some **Position**. I consider first the proposal stage when π is infinitesimally small, leaving $\mathbf{u}_l(\omega \mid a) = (1 - \pi)\text{PolicyGain}_l(\omega) + \pi\text{Position}_l(a)$ while also guaranteeing that the outcome term always overshadows the action term; formally

$$\forall \text{Position}_l(a) : \begin{cases} \mathbf{u}_l(\omega \mid a) > 0 & \text{if } \text{PolicyGain}_l(\omega) > 0 \\ \mathbf{u}_l(\omega \mid a) < 0 & \text{if } \text{PolicyGain}_l(\omega) < 0 \\ \mathbf{u}_l(\omega \mid a) = \pi\text{Position}_l(a) & \text{if } \text{PolicyGain}_l(\omega) = 0. \end{cases} \quad (6)$$

When Eq. 6 holds, the legislator is always willing to capture any feasible $\text{PolicyGain} > 0$, no matter how small, thus behaving as when $\pi = 0$. He starts behaving as when $\pi = 1$ only when no feasible PolicyGain_l is in sight. From $y^*(x)$ and $z^*(x)$, she knows that this happens whenever $l < x_0 < \min(e, v)$: as when $\pi = 1$, she should propose $x = l$. In all other cases ($v \leq l \leq e$ or $\{(l < v < e \text{ or } l \leq e \leq v) \& (x_0 \leq l \text{ or } \min(e_0, v_0) \leq x_0)\}$) she should make the same equilibrium proposal as when $\pi = 0$.

Last, τ must be determined: Eq. 6 holds if, and only if $\pi < \tau$. Therefore $\pi = \tau \iff (1 - \pi)|\text{PolicyGain}| = \pi|\text{Position}|$. By factorizing π it can be established that

$$\tau = \frac{|\text{PolicyGain}|}{|\text{PolicyGain}| + |\text{Position}|}. \quad (7)$$

In some conditions π 's size is of no importance (any π makes the legislator negotiate as in the standard model, so $\tau = 1$). In others, only when $\pi = 0$ does the legislator behave as in the standard model (so $\tau = 0$). And in others, Eq. 7 sets the precise threshold for π below which the legislator negotiates as in the standard model, above which she may generate conflict.

Figure 3 summarizes the small- π equilibrium proposals and outcomes uncovered so far in the proof. PolicyGain_l and Position_l do not conflict whenever the game has equilibrium outcome $\omega^* = l$ (ie., when $x_0 \in z_1 \cup z_2 \cup z_3 \cup z_4 \cup z_7 \cup z_8 \cup z_9 \cup z_{12}$). In these cases $\tau = 1$: even a unit π makes the legislator behave as when $\pi = 0$. Neither do they conflict when no proposal with $\text{PolicyGain}_l > 0$ is feasible (ie., $x_0 \in z_5 \cup z_{10}$). In these cases $\tau = 0$. They may conflict when the legislator has to make policy concessions to get an outcome (ie., when $x_0 \in z_6 \cup z_{11}$); only $\pi < \tau$ makes the legislator concede. The compromise proposal is $x = \min(e_0, v_0) + \epsilon$. We can compute the legislator's PolicyGain_l and Position_l to establish, with Eq. 7, that

condition	$\text{PolicyGain}_l \geq 0$	$\text{Position}_l \leq 0$	τ
$x_0 \in z_6$	$ x_0 - l - 2v - x_0 + \epsilon - l $ $= 2 v - x_0 - \epsilon$	$- 2v - x_0 + \epsilon - l $	$\frac{2 v - x_0 - \epsilon}{ x_0 - l }$
$x_0 \in z_{11}$	$ x_0 - l - 2e - x_0 + \epsilon - l $ $= 2 e - x_0 - \epsilon$	$- 2e - x_0 + \epsilon - l $	$\frac{2 e - x_0 - \epsilon}{ x_0 - l }$

When $\tau < \pi < 1$ the legislator chooses as when $\pi = 1$. ■

Corollary 1 *When $\pi = 0$ then $y^*(x^*) \neq x_0 \forall x^* \in [0, 1]$.*

Proof Set $\pi = 0$ and $l \leq e$, and rely on the reaction functions defined in the Theorem. (1) If $x_0 \leq l$ then $x^* = l$; since $x^* \in \wp_e$ (because $l \leq e$), $y^*(x) = x$ (she accepts). (2) If $\min(e_0, v_0) \leq l < x_0$ then $x^* = l$; since $x^* \in \wp_e \cup \wp_v$ (because $\min(e_0, v_0) \leq l < x_0$), $y^*(x) = x$ (she accepts). (3) If $l < \min(e_0, v_0) \leq x_0$ then $x^* = \min(e_0, v_0) + \epsilon$; since $x^* \in \wp_e \cup \wp_v$ (because $\min(e_0, v_0) \leq x_0$), $y^*(x) = x$ (she accepts). (4) If $l < x_0 < \min(e_0, v_0)$ then $x^* = x_0$, ending the game. By symmetry, all inequalities reverse when $l > e$. In neither of the mutually exclusive and exhaustive cases does the equilibrium path involve a veto. ■

Corollary 2 (Result 1) *When $l \leq e$ and $0 < \pi < 1$ then $y^*(x^*) = x \iff \{x_0 \leq l \text{ or } (2e - l < x_0 \ \& \ v < e) \text{ or } (e < x_0 \ \& \ e \leq v)\}$.*

Corollary 3 (Result 2) *When $l \leq e$ and $0 < \pi < 1$ then $y^*(x^*) = x_0 \iff \{(l < x_0 < (2e - l) \ \& \ v < e) \text{ or } (l < x_0 \leq e \ \& \ e \leq v)\}$.*

Corollary 4 (for Result 3) *When $l \leq e$ and $0 < \pi < 1$ then $y^*(x^*) = x_0 \ \& \ z^*(x^*) = x \iff \{(v \leq x_0 < (2e - l) \ \& \ l < v < e) \text{ or } (l < x_0 < (2e - l) \ \& \ v \leq l)\}$.*

Proof Holding $0 < \pi < 1$ and $l \leq e$, eight cases deserve consideration in light of the Theorem. (1) If $x_0 \leq l$ then $x^* = l \in \wp_e$ so $y^*(x) = x$ (accept). (2) If $2e - l < x_0$ then $x^* = l \in \wp_e$ so $y^*(x) = x$ (accept). (3) If $v \leq l \leq e \ \& \ l < x_0 \leq (2e - l) \iff v_0 \leq l$ then $x^* = l \in \wp_e \ \& \ x^* \in \wp_v$ so $y^*(x) = x_0$ (veto) and $z^*(x) = x$ (override). (4) If $l < v < e \ \& \ l < x_0 \leq v \iff x_0 \leq v_0$ then $x^* = l \notin \wp_e \cup \wp_v$ so $y^*(x) = x_0$ (veto) and $z^*(x) = x_0$ (sustain). (5) If $l < v < e \ \& \ v < x_0 \leq (2v - l) \iff l \leq v_0 < v$ then $x^* = v_0 + \epsilon \notin \wp_e \ \& \ x^* \in \wp_v$ so $y^*(x) = x_0$ (veto) and $z^*(x) = x$ (override). (6) If $l < v < e \ \& \ (2v - l) < x_0 \leq (2e - l) \iff l \leq v_0 < l$ then $x^* = l \notin \wp_e \ \& \ x^* \in \wp_v$ so $y^*(x) = x_0$ (veto) and $z^*(x) = x$ (override). (7) If $l \leq e \leq v \ \& \ l < x_0 \leq e \iff x_0 \leq e_0 < l \ \& \ x_0 < v_0$ then $x^* = l \notin \wp_e \cup \wp_v$ so $y^*(x) = x_0$ (veto) and $z^*(x) = x_0$ (sustain). (8) If $l \leq e \leq v \ \& \ e < x_0 \leq (2e - l) \iff l \leq e_0 < x_0$ then $x^* = e_0 + \epsilon \in \wp_e$ so $y^*(x) = x$ (accept).

In cases (1), (2), and (8) $y^*(x) \neq x_0$ (veto); the underlying conditions boil down to those in Corollary 2. In cases (3), (4), (5), (6), and (7) $y^*(x) = x_0$ (veto); the underlying conditions boil down to those in Corollary 3. In cases (4) and (7) $y^*(x) = x_0$ (veto) and $z^*(x) = x_0$ (sustain) while in cases (3), (5), and (6) $y^*(x) = x_0$ (veto) and $z^*(x) = x$ (override); the underlying conditions boil down to those in Corollary 4. Because cases (1–8) are mutually-exclusive and exhaust possible combinations, this proves Corollaries 2, 3, and 4. ■

Appendix B: A model of veto incidence in legislative sessions of state governments, 1979–99

Variable	$\hat{\beta}^a$	std. error	p-value ^b
Constant	-3.20	0.33	<.001
super.dg	0.46	0.14	.001
plain.dg	0.63	0.11	<.001
div.assembly	0.14	0.11	.228
super.ug	0.16	0.11	.134
ln(election.proximity)	0.07	0.02	.002
ln(bills.passed)	0.96	0.04	<.001
item.veto	0.73	0.11	<.001
pocket.veto	-0.25	0.07	.001
special.session	-0.16	0.18	.335
Log likelihood =	-3,699		
$N =$	1,365		

Notes: (a) Maximum-likelihood negative binomial method of estimation. (b) Two-tailed tests.

References

- Bawn, Kathleen. 1999. "Money and majorities in the Federal Republic of Germany: Evidence for a veto players model of government spending." *American Journal of Political Science* 43(3):707–36.
- Bonica, Adam. 2010. "A day by day measure of legislator ideology: Non-parametric smoothing of legislator ideal points with Optimal Classification." PhD. Dissertation, NYU.
- Cameron, A. Colin and Pravin K. Trivedi. 1998. *Regression Analysis of Count Data*. New York: Cambridge University Press.
- Cameron, Charles M. 2000. *Veto Bargaining: Presidents and the Politics of Negative Power*. New York: Cambridge University Press.
- Cameron, Charles and Nolan McCarty. 2004. "Models of Vetoes and Veto Bargaining." *Annual Review of Political Science* 7:409–35.
- Cantú, Francisco, Scott Desposato and Eric Magar. 2013. "Methodological Considerations for Students of Mexican Legislative Politics: Selection Bias in Roll-Call Votes." Unpublished manuscript, ITAM-UCSD.

- Chadwick, Owen. 2003. *A history of the Popes: 1830–1914*. Oxford: Oxford University Press.
- Cohen, Linda R. and Matthew L. Spitzer. 1996. “Judicial deference to agency action: A rational choice theory and an empirical test.” *Southern California Law Review* 68:431–76.
- Conley, Richard S. and Amie Kreppel. 2001. “Toward a New Typology of Vetoes and Overrides.” *Political Research Quarterly* 54(4):831–52.
- Cox, Gary W. 1987. *The Efficient Secret: The Cabinet and the Development of Political Parties in Victorian England*. New York: Cambridge University Press.
- Cox, Gary W. 1999. “The Empirical Content of Rational Choice Theory: A Reply to Green and Shapiro.” *Journal of Theoretical Politics* 11(2):147–69.
- Cox, Gary W. and Keith T. Poole. 2002. “On measuring partisanship in roll call voting: The U.S. House of Representatives, 1877–1999.” *American Journal of Political Science* 46(3):477–89.
- Cox, Gary W. and Mathew D. McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Berkeley: University of California Press.
- Cox, Gary W. and Mathew D. McCubbins. 2002. Agenda Power in the US House of Representatives, 1877–1986. In *Party, Process, and Political Change in Congress: New Perspectives on the History of Congress*, ed. David W. Brady and Mathew D. McCubbins. Palo Alto: Stanford University Press.
- Cox, Gary W. and Mathew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the US House of Representatives*. New York: Cambridge University Press.
- Den Hartog, Chris and Nathan W. Monroe. 2011. *Agenda setting in the U.S. Senate: Costly consideration and majority party advantage*. New York: Cambridge University Press.
- Fishburn, Peter C. 1974. “Lexicographic orders, utilities, and decision rules: A survey.” *Management Science* 20(11):1442–71.
- Gelman, Andrew and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge University Press.
- Gely, Rafael and Pablo T. Spiller. 1990. “A Rational Choice Theory of Supreme Court Statutory Decisions with Applications to the *State Farm* and *Grove City* Cases.” *Journal of Law, Economics, & Organization* 6(2):263–300.
- Gerber, Elisabeth R. 1996. “Legislative Responses to the Threat of Popular Initiatives.” *American Journal of Political Science* 40(1):99–128.

- Groseclose, Tim and Nolan McCarty. 2001. "The Politics of Blame: Bargaining Before an Audience." *American Journal of Political Science* 45(1):100–19.
- Huber, John D. 1996. "The Vote of Confidence in Parliamentary Democracies." *American Political Science Review* 90(2):269–82.
- Indridason, Indridi H. 2000. Process, Politics and Institutions: Three Essays in Positive Political Theory Ph.D. dissertation University of Rochester.
- Jackman, Simon. 2000. "Estimation and Inference via Bayesian Simulation: An Introduction to Markov Chain Monte Carlo." *American Journal of Political Science* 44(2):375–404.
- Jones, Mark P. and Wonjae Hwang. 2005. "Party government in presidential democracies: Extending cartel and CPG theory beyond the U.S. Congress." *American Journal of Political Science* 49(2):267–82.
- Kiewiet, D. Roderick and Mathew D. McCubbins. 1988. "Presidential Influence on Congressional Appropriations." *American Journal of Political Science* 32:713–36.
- Krehbiel, Keith. 1991. *Information and Legislative Organization*. Ann Arbor: Michigan University Press.
- Lee, Jong R. 1975. "Presidential Vetoes from Washington to Nixon." *The Journal of Politics* 37(2):522–46.
- LeLoup, Lance T. and Steven A. Shull. 1999. *The President and Congress: Collaboration and Combat in National Policymaking*. Boston: Allyn and Bacon.
- Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven: Yale University Press.
- Londregan, John B. 2000. *Legislative Institutions and Ideology in Chile's Democratic Transition*. New York: Cambridge University Press.
- Madison, James. 1961. The Federalist LI. In *The Federalist Papers: Hamilton, Madison, Jay*, ed. Clinton Rossiter. New York: Penguin pp. 320–25.
- Magar, Eric. 2007. "The Incidence of Executive Vetoes in Comparative Perspective: The Case of American State Governments, 1979-1999." *SSRN eLibrary* <http://ssrn.com/abstract=1491112> .
- McCarty, Nolan M. 1997. "Presidential Reputation and the Veto." *Economics and Politics* 9(1):1–26.
- Morgenstern, Scott. 2003. *Patterns of Legislative Politics: Roll-Call Voting in Latin America and the United States*. New York: Cambridge University Press.
- Peress, Michael. n.d. "Estimating Proposal and Status Quo Locations using Voting and Cosponsorship Data." Working paper, University of Rochester.

- Polybius. 1922. *The histories of Polybius (book VI) / English translation by W.R. Paton*. Cambridge, MA: Harvard University Press <http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Polybius/>.
- Poole, Keith T. 2005. *Spatial models of parliamentary voting*. New York: Cambridge University Press.
- Poole, Keith T. and Howard Rosenthal. 1985. "A spatial model for legislative roll call analysis." *American Journal of Political Science* 29(2):357–84.
- R Dev. Core Team. 2011. "R: A Language and Environment for Statistical Computing." R Foundation for Statistical Computing <http://www.R-project.org>.
- Rasmusen, Eric. 1989. *Games and Information: An Introduction to Game Theory*. 2nd ed. Cambridge: Blackwell.
- Richman, Jesse. 2011. "Parties, pivots, and policies: The status quo test." *American Political Science Review* 105(1):151–65.
- Romer, Thomas and Howard Rosenthal. 1978. "Political resource allocation, controlled agendas, and the status quo." *Public Choice* 33:27–44.
- Roth, Alvin E. 1995. Bargaining Experiments. In *The Handbook of Experimental Economics*, ed. John H. Kagel and Alvin E. Roth. Princeton: Princeton University Press pp. 253–348.
- Shepsle, Kenneth A. and Barry R. Weingast. 1987. "The Institutional Foundations of Committee Power." *American Political Science Review* 81(1):85–104.
- Spiegelhalter, David, Andrew Thomas, Nicky Best and Dave Lunn. 2007. "WinBUGS version 1.4.3." <http://www.mrc-bsu.cam.ac.uk/bugs>.
- Sturtz, Sibylle, Uwe Ligges and Andrew Gelman. 2005. "R2WinBUGS: A Package for Running WinBUGS from R." *Journal of Statistical Software* <http://www.jstatsoft.org> 12(3):1–16.
- Tocqueville, Alexis de. 1988. *Democracy in America*. New York: Harper Perennial.
- Venables, W. N. and B. D. Ripley. 2002. *Modern Applied Statistics with S*. Fourth ed. New York: Springer <http://www.stats.ox.ac.uk/pub/MASS4>. ISBN 0-387-95457-0.
- Weingast, Barry R. and Mark J. Moran. 1983. "Bureaucratic discretion or Congressional control? Regulatory policymaking by the Federal Trade Commission." *Journal of Political Economy* 91(5):765–.
- Wright, Gerald C. and Brian F. Schaffner. 2002. "The Influence of Party: Evidence from the State Legislatures." *American Political Science Review* 96(2):367–79.
- Zeileis, Achim and Torsten Hothorn. 2002. "Diagnostic Checking in Regression Relationships." *R News* <http://CRAN.R-project.org/doc/Rnews/> 2(3):7–10.