Presidential veto power and its consequences for information transmission in the legislative process

Extended abstract

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"[The Presidential veto] establishes a salutary check upon the legislative body, calculated to guard the community against the effect of faction, precipitancy, or any impulse unfriendly to the public good." (Alexander Hamilton, Federalist No. 73)

1 Introduction

The passage of federal legislation in the United States is a complex process. Although bills originate on the floor of the House or the Senate, almost all of them are actually drafted by specialized standing committees before returning to the floor. If passed by the floor, the President can either sign the bill into law or veto it. If the President issues a veto, the bill is sent back to the floor where a two-thirds majority can override the veto. However, such overrides in the US Congress are extremely rare and unlikely. From 1789 until 1996, 41 Presidents exercised their veto authority 2532 times. Congress challenged the President's veto 306 times and succeed in overriding only on 105 occasions.

Uncertainty and asymmetry of information are pervasive in the US legislative process. First of all, the relationship between policies and outcomes is not straightforward. The precise impact of a bill depends on many factors, and without detailed investigation it is hard to predict its consequences. Typically, the committee drafting the bill carries out this investigation and therefore has access to better information about its likely outcome than those who vote on it. Committees hold many hearings and acquire a degree of knowledge not necessarily enjoyed by the other legislative agents.

Several papers (see e.g. Gilligan and Krehbiel (*Amer. J. Polit. Sci.* 1989) and Krishna and Morgan (*Amer. Polit. Sci. Rev.* 2001)) have analyzed the amount of information passed from the informed committee to the uninformed floor, building on Crawford and Sobel's (*Ecta.* 1982) seminal analysis of strategic information transmission. A key result states that the closer aligned the preferences of the two bodies, the more detailed is the information flow. In particular, as long as there is any divergence of interest (in which case we say the committee is *biased*), not all available information will be revealed. The role of the presidential veto, however, has been largely ignored.

In this paper, we show that this veto power can have a substantial impact on the final outcome. First, the presidential veto directly influences the bills passed by congress who need approval from the president before their bills become law; second, this has an indirect (though potentially large) effect on the information transmission process. Depending on the strength and direction of the president's bias compared to that of the committee, more or less information may be transmitted. Counter-intuitively, it is even possible that the president may be harmed by her own veto power: although the president is able to veto bills he dislikes, if committee's draft bill is sufficiently less informative, he might suffer a welfare loss overall. Furthermore, the very existence of the veto threat can sometimes induce the legislature to use what information they have less effectively (from their point of view) than would otherwise be the case.

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2 The model

Formally, we consider a game with three players, the committee, c; the legislature, l; and the president, p. The move order of the game is as follows:

1. Nature chooses the value θ of a random variable. $\theta \sim U[0,1]$.
2. The committee observes θ and sends a draft bill, $d \in \mathbb{R}$ to the legislature.
3. The legislature observes d but not θ and passes a bills $b \in \mathbb{R}$.
4. The president observes d and b but not θ, and can veto the bill or not.

The random variable θ is designed to represent uncertainty as the effects a given bill will produce: the resulting outcome if bill b is passed and ratified by the president is $x = b - \theta$; if the bill is vetoed, the *status quo* b_0 remains in place, and the outcome $x = b_0 - \theta$. The committee, however, has acquired specific expertise (during the course of often very lengthy hearings), and so knows the outcome a given bill will produce (i.e. the committee is assumed to know the exact value of θ), but the legislature and the president make the policy in the absence of such knowledge.

All players care only about the final policy outcome x. Preferences are given by

$$U_c = -(x - x_c)^2; \qquad U_l = -x^2; \qquad U_p = -(x - x_p)^2$$

Each player has a preferred policy, or *ideal point*, x_c, 0 and x_p for the committee, legislature and president respectively. x_c and x_p can therefore the thought of as the *bias* of the committee and the president compared to the legislature. Without loss of generality, we assume that $x_c > 0$, and consider the following three cases: (a) $x_c > 0 > x_p$; (b) $0 < x_p < x_c$; and (c) $0 < x_c < x_p$. Note that the (expected) utility of each player can be decomposed into two elements, the first representing the *informational losses* which arise because (in equilibrium) the bill b chosen is not perfectly responsive to the state θ, causing some variance in the final outcome x; and the second representing *distributional losses*, which arise when the expected value of final outcome is not equal to the player's ideal value:

$$U_i = -var(x) - (E[x] - x_i)^2$$

for $i \in \{c, l, p\}$ (where $x_l = 0$). We shall use the common element in each utility function, $-var(x)$, as a measure of the *informativeness* of a given equilibrium. A higher variance is harmful for all the the players, *ceteris paribus*, but the will typically face a trade-off between the two types of losses as we compare equilibria with and without the veto.

A strategy for the committee, $d(\theta)$ specifies a draft bill to propose for each state. These bills have no value other than the information they convey: they are cheap talk. A strategy for the legislature, $b(d)$ specifies which bill they pass given the draft bill sent by the committee: they are free to amend the draft in any way they choose. Finally, a strategy for the president involves a decision $A(d, b)$, which takes the value 1 when the president ratifies the bill and the value 0 when he vetoes it.

There are typically several types of partially pooling equilibria of this game, with varying degrees of information being revealed by the committee. As is standard in cheap talk games, we focus attention on the most informative of these, which we call a *legislative equilibrium with veto*. To analyze the precise effect of the presidential veto, we compare this with the most informative equilibrium of the game in which the president has no veto power, a *legislative equilibrium without veto*. Theorem 1 summarizes our results.

Theorem 1 (a) *if* $x_c > 0 > x_p$, *the legislative equilibrium without veto is at least as informative as the legislative equilibrium with veto.*

(b) *if* $x_c > x_p > 0$, *the legislative equilibrium with veto is at least as informative as the legislative equilibrium without veto.*

(c) *if* $x_p > x_c > 0$, *the legislative equilibrium with veto may be more or less informative than the legislative equilibrium without veto.*

Consider part (a) of the theorem. First recall that, in the model without veto threats, Crawford and Sobel show that a more informative equilibrium is possible when the agents interests are more closely aligned. Although our analysis of the effects of the presidential veto fixes preferences and focuses on the impact of the president's veto threat, something similar is going on. When the president has the opposite bias to the committee, his veto power can force the legislature to choose bills that are closer to his own interests than they would like; and these bills are further away from the committee's interests, effectively driving a larger wedge between the bills chosen by the legislature and the committee's preferred choices than there would be without the veto threat. An important implication of this result is that the overall effect on the president's utility is ambiguous: when the informational losses outweigh the distributional gains, his veto power actually harms him!

The following example provides an illustration of parts (b) and (c) of the theorem.

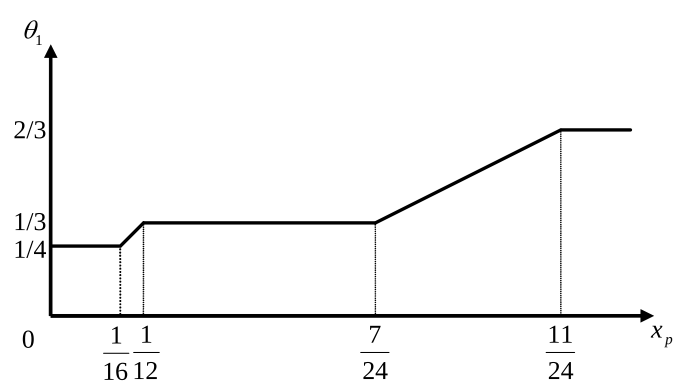
Example 1: Suppose the committee's bias is $x_c = x_p = \frac{1}{8}$ and the status quo $b_0 = \frac{3}{4}$.

The legislative equilibrium without veto is characterized by the intervals $\left[0, \frac{1}{4}\right)$ and $\left[\frac{1}{4}, 1\right]$, with the draft bill sent by the committee revealing (only) in which interval θ lies. With no fear of a veto, the legislature chooses its favorite bill in each case, which is simply the midpoint of the relevant interval. (This is equivalent to the most informative equilibrium in the Crawford and Sobel model).

This cannot be a legislative equilibrium with veto, however. In the second interval, the expected value of θ for the legislature and president is $\frac{5}{8}$, and therefore their preferred bills are $\frac{5}{8}$ and $\frac{3}{4}$ respectively. Since the *status quo* is also $\frac{3}{4}$, the president will veto any bill passed by the legislature! This in turn alters the incentives of the committee: specifically, for values of $\theta \in \left[\frac{1}{4}, \frac{5}{16}\right]$, the committee (whose preferred bill is $\theta + \frac{1}{8}$) would pretend that θ lies in the lower interval, with resulting bill $b = \frac{1}{8}$, rather than the higher interval, with resulting bill $b = \frac{3}{4}$.

The legislative equilibrium with veto is in fact characterized by the intervals $\left[0, \frac{1}{3}\right)$ and $\left[\frac{1}{3}, 1\right]$. In the first interval, the legislature passes their favorite bill $b = \frac{1}{6}$ without fear of presidential veto; in the second interval, the legislature's ideal bill is $b = \frac{2}{3}$ while the president wants $b = \frac{19}{24}$. The best bill for the legislature that will not be vetoed is actually the status quo bill $b_0 = \frac{3}{4}$: anything lower than this will be vetoed. To confirm the optimality of the committee's strategy, we need to check that the committee is indifferent between these two bills when $\theta = \frac{1}{3}$, the boundary between the intervals: when $\theta = \frac{1}{3}$, the committee's ideal bill is $b = \frac{11}{24}$, which is the midpoint of $\frac{1}{6}$ and $\frac{3}{4}$, as required.

Figure 1 illustrates the legislative equilibrium with veto for different values of x_p. The graph shows the boundary θ_1 between the two intervals for values of $x_p \in \left[0, \frac{1}{2}\right]$. As we have just seen, when $x_p = \frac{1}{8}$, this boundary lies at $\frac{1}{3}$, and the equilibrium with veto is more informative than the equilibrium without veto (where $\theta_1 = \frac{1}{4}$). As x_p gets larger, the boundary shifts to the right, reaching $\frac{1}{2}$ (the most informative two-step equilibrium) when $x_p = \frac{3}{8}$. For values of $x_p > \frac{3}{8}$ the equilibrium starts of become less informative again. Note than even for very large values of x_p, however, the equilibrium $\left(\left[0, \frac{2}{3}\right) \text{ and } \left[\frac{2}{3}, 1\right]\right)$ is still more informative with than without veto. In general, this will not be the case: if x_c is small, so that the legislative equilibrium without veto consists of many (rather than just two) steps, then the equilibrium with veto for large x_p will typically be much less informative.



Length of first interval as a function of presidential bias (*example 1*)