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ELECTORAL COMPETITION UNDER THE THREAT OF POLITICAL UNREST

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Abstract

This paper investigates how threats of strikes, military coups, terrorism, riots and capital flight affect electoral outcomes. We show that with no pre-electoral platform commitment, the "threatened party" is likely to win the election when the threat is observable because the threat credibly causes it to compromise towards the center. However, when the threat is private information, fear of political unrest may cause voters to lean towards the party favored by the threatening actor. When platform commitment is possible, our main result is that the threatening party, or the party favored by the threatening actor, may adopt an extremist platform, hoping to convince voters that the threat of disruption is serious. Such posturing leads to political polarization.

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I. INTRODUCTION

This paper examines how voting and the outcomes of majority rule elections are affected by factors beyond the control of the winning party. We present a model which helps predict how threats against the electoral process influence: (1) platform choice by political parties, (2) which party wins the election, and (3) the policy outcomes finally implemented. In a democracy where the majority winner sets policy, dissatisfied groups, including groups outside the electoral process, may still be able to interfere with that policy. A losing party may organize a coup; voters may riot; unions may go on strike; investors may take their capital abroad; terrorists and foreign powers may threaten disruption and loss of life; foreign powers may withdraw aid or even impose a trade embargo. We analyze the effect of these non-electoral factors on electoral outcomes.

We consider majority rule electoral competition between two political parties with ideal policies lying to either side of the median voter's ideal policy. We only allow for a one-dimensional policy space but the disruption possibility leads to a two-dimensional outcome space.

As evident in the examples given above, the actors threatening to interfere with the winner's policy can be inside or outside the electoral system. We focus on the case where there is only one such actor and where the policy preference of the threatening actor is aligned with one of the political parties. That party's policy proposal faces no disruption threat and is called the "strong" party. The other party will be called the "weak" party. We will say that the "strong" party is "directly strong" if it controls the unrest itself (e.g. When the threatening actor and the strong party are one and the same, the threatening party is inside the system and the strong party is clearly directly strong.) It is "indirectly strong" if the threatening actor is a distinct agent, an "outsider" to the political process.[1] The distinction between direct and outsider control is only important in sections V and VI where we allow parties to commit to a platform.

"Outsider control" is the most common case. Examples include terrorist activities by private militia, labor strikes by unions and capital flight by investors responding to high taxes or restrictive regulations. Direct control is applicable when one political party controls the military or has a private militia. For instance, in the 1970 and 1980 elections in Zimbabwe, voters and political parties knew that Robert Mugabe controlled the military and could organize a coup if he lost an election. Under both direct control and outsider control, the threatening actor accepts the winner's policy if it is close enough to its own preferred policy, but otherwise rejects the policy by initiating political unrest or causing disruption.

Our first result is surprising: when parties cannot commit to the policy they will implement upon winning, the "weak party" may benefit from its own weakness. For an example with outsider control,[2] we suggest the following interpretation of the 1995 Israeli elections.[3] Netanyahu's Likud Party and Peres' Labor Party competed to set policy on disputed land, under the threat of terrorism

[1] In this "outsider control" case, the "strength" derives from the fact that the threatening actor has the same ideal point and its threats "support" the strong party's interests.

[2] When political parties cannot commit to policy platforms, the identity of the threatening actor does not affect political outcomes. When a weak party wins, it will always choose policy that is a compromise with the threatening actor (be it a party or an outsider). A winning strong party will always choose to implement its ideal policy: this incurs no risk of interference even under outsider control.

[3] This interpretation is loose since our model addresses majority rule elections but the intuition remains valid.

by Hamas. The "median voter" was less liberal on land policy than Labor and less conservative than Likud. While Hamas was much more extreme than the Labor Party, their ideal policies were both on the same side of the center so our results still apply. Why did Likud win? Voters anticipated that the threat of terrorism by Hamas would force Likud, the weak party, to compromise its conservative land policy and implement a more centrist position. (Labor was the strong party because right-wing terrorism was too weak to force a credible moderation of Labor's left-wing policy.) This more centrist position was closer to the median voter's ideal point and we suggest that voters believed Likud would compromise enough to limit Hamas's terrorist response. This suggestion is reasonable if voters believed that Likud would suffer from terrorism and was aware how much compromise would minimize the terrorism. In contrast, when the weak party does not know how much compromise is necessary, voters may not trust the weak party to limit the risk of disruption. Such uncertainty over the threat can undo the weak party's commitment advantage.

Our second result captures how uncertainty captures distrust: when the threatening party's propensity to interfere is privately known by the strong party, voters may support an extremist "strong party" to avoid the risk of disruption. This is illustrated by El Salvador's first post civil war election (see Section VII and Wantchekon (1995)): In this election, the Republican National Alliance (ARENA) overwhelmingly defeated the Farabundo Martí National Liberation Front (FMLN) even though 90% of the electorate, most of whom were peasants, considered ARENA to be in the hands of rich landlords. ARENA was believed to control the military directly, so ARENA was the strong party with direct control. In our view, the FMLN did not know exactly how much compromise was necessary, and voters feared that on winning the election, FMLN would show insufficient concern for avoiding interference by ARENA.

When political parties can commit to their platforms prior to elections, we can ask whether the platforms will converge, and which party will win the election. We find that parties converge to the median voter's ideal point when the threat is minor. When the threat is serious, they converge at the strong party's reservation policy, that is the policy outcome at which the strong party is indifferent between disrupting the political process and accepting the winner's policy proposal. Furthermore, in the case of direct control with a direct benefit to winning the election, our model predicts that the strong party wins if the threat is serious. This is because the strong party can offer a policy that is a little closer to the median voter's ideal point than the weak party can offer while credibly avoiding the risk of political unrest. The strong party is able to create unrest to undo its own policy but it would lose its direct benefits from winning so it can credibly promise a more centrist undisrupted policy than can the weak party.

The convergence result under outsider control can be seen in a number of elections where redistribution is the central political issue and there is a threat of capital flight. Capital flight has become increasingly problematic as globalization of the world economy has increased capital mobility. For instance, when a leftist party establishes a high tax policy, capitalists may take their capital abroad. The threat of capital flight interferes with the redistributive aim of the leftist party. The rightist party is the "strong party" because its preference for a low tax rate is shared by the capitalists. An example is Sweden, which faced threats of capital flight when restrictions on capital mobility were removed in the late 1980s. As a result, the Social Democratic Party proposed lower tax rates in order to avoid the "interference" losses from capital flight (see Moses [1994]).

Our model also allows us to predict when platforms will diverge in an election. When there is uncertainty over the credibility of the interference threat, "posturing" by a strong party with private information about the risk of "unrest" can lead to polarization. We can illustrate this novel explanation of platform divergence by applying the model to the 1974 election in the U.K.

In this election, voters were concerned that the Conservative Party's aim to fight inflation and union militancy by limiting wage increases might cause a general strike. The risk of such policy interference by the labor unions was better known by the Labour Party which had close connections with the unions. Ted Heath, leader of the "weak" Conservative Party, offered a low-wage policy platform because he was not convinced that the unions would respond with a general strike. The Labour Party proposed a high-wage policy platform, hoping that voters would be sufficiently afraid of union militancy to be dissuaded from voting for Heath.

Irrespective of actual militancy, Labour (and the unions) had an incentive to act as if the unions were militant. Divergence occurred because militant unions that demand an extremist platform and Labour have postured such militancy even if aware that the unions were not so militant. Voters might have doubted the threat so it may have been rational when the Conservatives did not cave in by converging to the same platform.

The paper is organized as follows: Section II describes the basic model, which involves two competing parties that differ in their ability to interfere in the political process. Section III analyzes the equilibrium behavior of the basic model, assuming that the two parties' costs of political unrest are exogenous and known by everyone. Section IV shows the equilibrium outcome when parties' costs of disrupting the political process are private information. Sections V and VI extend the basic model to the case where parties can choose policy platforms before the election. With fixed party costs of disruption, platforms tend to converge. However, reintroducing private information in Section VI, we can explain divergent platforms even when the direct benefits from power are arbitrarily large. Section VII discusses two applications of the model. Section VIII concludes, and all proofs are in the Appendix.

II. THE MODEL

We consider a simple majority rule election, with two political parties and a large number of voters. One set of actors can induce political unrest as a response to electoral defeat. The threat of unrest or "interference" may be controlled by a political party or by an outsider. Examples of such outsiders include unionists who strike, terrorists who cause civil disruption, or foreign investors who divest their capital.

Preferences. We assume that voters are risk neutral and have single peaked political preferences represented by an ideal point, $\theta \in [-2,2]$, with constant marginal disutility for deviation from this ideal point. We assume that the median voter denoted M has an ideal point at $\theta = 0$. Furthermore, voters have a fixed negative payoff, $-c_\theta$, whenever political unrest takes place.

Under direct control, one of the two parties, s, is strong and earns $-c_s$ if it initiates political unrest. The other party, w, is weak and gains a lower payoff $-c_w$ if political unrest occurs ($-c_w < -c_s$).[4] When unrest is controlled from outside

[4] In the case of a military coup by the strong party, one could argue that $-c_s$ would be

the electoral system, the outsider, denoted z, gets a payoff $-c_z$ by initiating unrest. In the case of outsider control, c_z is small while c_s is large, so that only the outsider poses a credible threat and conversely for the case of direct control. The weak party has its ideal point at +2, while the strong party and the threatening outsider have their ideal point at −2.[5] We denote the strong party's policy platform by x_s and the weak party's by x_w. The winning party's identity is denoted by i. The winning party i's policy proposal is denoted by y. The losing party's interference response, r, is defined as the probability of interference. Thus, the outcome of the election can be characterized by the triple: (y, r, i).

Time sequence. There are four stages to the electoral process. First, parties set their platforms. (This stage of the game is irrelevant when parties cannot commit to a platform, as in sections III and IV). Second, the electorate votes for the weak party or the strong party. Third, the majority winner chooses a policy. (This stage is trivial when parties commit to a platform at stage 1 as in sections V and VI: they are simply forced to set the policy stated as their platform.) Fourth, the threatening actor accepts the policy or responds with a disruptive interference (political unrest).

Remark: When platform commitment is possible (stage 1 is active), the ma-

positive because this party takes power and gets the direct benefits of office. However we will assume that "interference" generally involves some costs for all parties. Note that there are two reasons why a party might cause disruption: to obtain direct benefits of office and to shift the policy implemented. In the outsider control case, only the policy shifting reason is valid but our analysis applies equally given the assumptions we make.

[5]This assumes that no voter is more extreme than either party, but this simplification can easily be removed.

jority winner has no choice but to set its platform policy. But we never allow commitment by the threatening actor over the disruption decision which can interfere with policy implementation. There is a further commitment perturbation to be considered. We have assumed that the winning party is committed to its policy choice at stage 3 even in the case without platform commitment at stage 1. If instead we assumed that the winning party can change its policy at any point, our result that stage 1 platform commitment can hurt the weak party may be reversed (see pages 15 and 16).[6]

Insert Figure 1 here

Payoffs. Players' utility functions depend on (1) the distance between their ideal points and the policy outcomes, (2) the cost of political unrest and (3) the probability of political unrest. The payoff for a voter with ideal point θ is given by

$$-\left[(1-r)\cdot|y-\theta|+r\cdot c_{\theta}\right].$$

Political parties have preferences of the same form but they may also value winning per se. That is, we allow for the addition of a benefit, R, to the winning party's payoff, conditional on the winner not facing interference.[7] But this direct benefit is irrelevant when parties cannot commit to a platform so we set $R=0$

[6] For example, if the weak party can disarm its opponents or impose restrictions on capital flow shortly after winning and before choosing its policy, then the threatening actor can only carry out its threat of unrest straight after the election. In this case, the order of stages 3 and 4 is reversed. Unrest will generally follow the election of a weak party if the weak party cannot commit to a platform at stage 1. We are grateful to Oliver Hart for recommending this alternative commitment assumption.

[7] To simplify, we assume that payoffs on the interference do not depend on which party won.

without loss of generality until Section V. Noting that $|y-(-2)| = 2+y$ and $|y-2| = 2-y$, the strong party's payoff is given by

$$-\left[(1-r)\cdot(y+2+R\cdot I_s)+r\cdot c_s\right]$$

where $I_s = 1$ if s wins the election and $I_s = 0$ if it loses. Meanwhile, the weak party's payoff is

$$-\left[(1-r)\cdot(2-y+R\cdot I_w)+r\cdot c_w\right].$$

Again, $I_w = 1$ if w wins and $I_w = 0$ otherwise. For z, the payoff is

$$-\left[(1-r)\cdot(y+2)+r\cdot c_z\right].$$

Note that if there is no unrest, each party is guaranteed a payoff of at least -4, and the median voter is guaranteed a payoff of at least -2: at the most extreme, one party wins the election and implements its ideal point, its payoff is R, its opponent's payoff is -4, and the median voter's payoff is -2.

We assume that political unrest is more costly to the weak party than to the threatening actor. We also assume that interference by the threatening actor imposes such large costs on all other parties that they prefer any policy to one which always leads to interference. This assumption simplifies the analysis and is appropriate to major threats such as coups and widespread strikes, terrorist activity and capital flight.[8] Meanwhile, $-c_s$ is sufficiently high that the strong party interferes with the electoral outcome if the weak party does not compromise towards -2; Putting this into numbers we use assumption 1 for and assumption $1'$ for

[8] A small subset of voters who are not so hurt by the interference is plausible but should not undo our results.

ASSUMPTION 1: $c_w > 4$, $c_s \in (0, 4)$

ASSUMPTION 1$'$: $c_w, c_s > 4$, $c_z \in (0, 4)$

The first elements of each assumption capture the fact that the weak (and the indirectly strong) party have a vested interest in maintaining peace and never initiate disruption. We use $c_s > 4$ in assumption $1'$ to ensure that even in the case of outsider control there is no political disruption whenever s wins, because s knows the outsider's preferences and strictly prefers to avoid disruption. The second elements capture the fact that the threatening party or actor, respectively s or z, can interfere after the election.

The median voter M is said to be decisive if and only if the strong party s (respectively the weak party w) wins whenever M strictly prefers s (respectively w). The following assumption enables us to derive conditions under which the median voter is decisive. We decompose the cost of political unrest on voters, c_θ into two components: a fixed component c and a "variable" component $|y_c - \theta|$ reflecting the same concern for a policy "compromise" y_c as for policies without interference'. Assumption 2 then ensures that political unrest imposes such a large cost on voters that they prefer any policy to one that always leads to political unrest.

ASSUMPTION 2: $c_\theta = c + |y_c - \theta|$ for all θ, for some $c \geq 4$ and $y_c \in [-2, 2]$.

We solve for the Subgame Perfect Equilibrium extending the solution concept to Perfect Bayesian Equilibria when private information is present. We rule out non-credible threats by adding the mild assumption that no player follow a weakly dominated strategy. In particular, ASSUMPTION AA: s, w and z never adopt a weakly dominated strategy.

This allows us to use A1 and A2 to prove our key lemma showing that the median voter is decisive in the case of direct control, even though the post-electoral outcome has two dimensions, y and r. For the case of outsider control (A1 replacing A1$'$), we need to be sure that s can always predict what z will do. We assume throughout that s knows $\bar{y}$ and to avoid having z follow a mixed strategy which s cannot predict, we assume that z is peaceful when indifferent:

ASSUMPTION AB: s observes $\bar{y}$ and z never creates unrest when indifferent, i.e. when $y = \overline{y}$.[9]

The lemma is stated below. We are able to prove decisiveness of the median voter using the fact that when s wins the election, voters anticipate that there will be no unrest. This is what part (i) shows. The proof is in two parts because we have to treat the cases with and without platform commitment separately. Part (ii) is the key result and again we prove it both when platform commitment is and is not possible.

LEMMA 1: Under both direct (A1,A2 and AA) and outsider (A1$'$,A2, AA, and AB) control, (i) $r = 0$ at any policy potentially set by s; (ii) the median voter is decisive.

The proof is in the Appendix. We can now derive our results. In the next 2 sections, we solve for equilibrium when neither party can commit to a platform.

III. NO PLATFORM COMMITMENT AND NO PRIVATE INFORMATION

[9]The corresponding assumption for the direct control case is not needed for Lemma 1. Nonetheless, we can prove that it is satisfied on all Perfect Bayesian Equilibrium paths.

Each party seeks to maximize its payoff, subject to the constraints imposed by the political environment. We assume that players are rational agents. But for the next two sections, we assume that they cannot commit themselves to future actions. Sequential rationality determines the behavior of the two parties, the outsider and the median voter. The equilibrium outcome is solved in three stages by backward induction. We first describe the case in which s is indirectly strong (the case with A1$'$ in place of A1). The stage 4 disruption decision is then made by an outside, threatening actor, z. We then explain why the equilibrium is exactly the same when s is directly strong.

Suppose that y is the policy chosen at stage 3 by the majority winner. At stage 4, the threatening actor, z, initiates political unrest if unrest gives z a higher payoff than does y. This is so if $-c_z > -2 - y$. We define $\overline{y} \equiv c_z - 2$ so that the two payoffs are equated at $y = \overline{y}$. Given Assumption AB, z's best response is to initiate political unrest if $y > \overline{y}$ and not to initiate political unrest if $y \leq \overline{y}$.[10]

When w wins and chooses y at stage 3, w anticipates a payoff of $-c_w$ from setting $y > \overline{y}$ and $y - 2$ from setting $y \leq \overline{y}$. It is optimal for w to avoid unrest with the least possible policy compromise by setting $y = \overline{y}$. Using * to identify w's equilibrium strategies, we have $y_w^* = \overline{y}$. In contrast, when s wins and chooses the policy, s can choose its ideal point since z is sympathetic and will not cause unrest against this policy. Thus, the policy outcome is $y_s = -2$ if s wins and $y_w = \overline{y}$ if w wins. At stage 2, voters anticipate these electoral outcomes. By

[10] Note that there is only one threatening actor: w never "interferes" because even the payoff of -4 from $y = -2$ is greater than the $-c_w$ which w would get from causing unrest. Similarly, s never interferes (even after $y = 2$) under assumption A1$'$.

A1′, $\bar{y}$ is closer to the median voter's ideal point than -2, so the median voter prefers w to win. So, by Lemma 1, w wins. The policy implemented is $\bar{y}$ and the probability of unrest, $r = 0$. Note that there is no risk of unrest because w dislikes unrest and is perfectly aware how much compromise is required.

Before stating this result as a proposition, we explain why the result is equally true under A1 (the direct control case). There is now no outside party to threaten unrest but s takes over z's role, and since s has no commitment when setting its policy, sequential rationality unfolds in exactly the same way. We only need to note the unsurprising fact that while $-c_s$ is higher under A1 than under A1′, s still sets $y_s = -2$ at stage 3 because this guarantees it its highest possible payoff. The outcome is exactly as above only now with $\bar{y} = c_s - 2$. We will refer to $\bar{y}$ as the *reservation policy* of the threatening actor. It is the minimal policy compromise which w (or w and s) must make to prevent s (or z) from causing trouble.

PROPOSITION 1. Under A1 (respectively A1′), there is a unique Subgame Perfect Equilibrium: the weak party wins the election, implements the strong party's (respectively, threatening actor's) *reservation policy*, and there is no political unrest, i.e., $i = w$; $y_w^* = \bar{y} \equiv c_s - 2$ (respectively $c_z - 2$) and $r = 0$.

Proposition 1 shows that the threat of collapse in the political process can prevent the winner from "taking all" even in a majoritarian system. Under complete information, the median voter prefers the weak party because she anticipates that the weak party will be moderated toward her ideal point by the fear of political unrest.[11] As a result, the median voter does not necessarily vote

[11] This is an example of (ex post) moderation of policy outcomes. The moderation is inde-

for the party whose ideal policy position is the closest to her ideal point. For example, if we shift the weak party's ideal point to +3 and assume $c_z = 3$ so that $\bar{y} = 1$, $\theta_s = -2$ and $\theta_w = 3$, the median voter still prefers the weak party even though θ_s is closer to her ideal point.[12]

The median voter is decisive in the one-dimensional context where political unrest never occurs because preferences are single peaked and identical up to translations of the ideal point. If the strong party, or threatening outsider, could credibly commit against creating unrest after the election, the median voter would anticipate that, if elected, the weak party would implement its ideal policy. In this case, the median voter would vote for the strong party in the last example. The strong party's electoral loss comes from its inability to commit not to interfere after the election.

Robustness: On the issue of robustness, we note two possibilities which reverse this surprising result. Adjusting A1 to include $c_s < 0$, w would be unable to compromise enough to avoid political unrest and voters would vote for s instead of w. Secondly, as mentioned above, one might want to consider the case in which the order of stages 3 and 4 is reversed. For example, if policy choice only becomes fixed some time after the election and the electoral winner can neutralize the threat of s or z in this interim (sometimes militias can be disarmed and new legislation can constrain unions or prevent capital flight), the interference decision must be made before the policy choice is observed. Unrest must pre empt the "disarmament." Now that the electoral winner sets the policy after the unrest

pendent of voter behavior in contrast to Alesina, Rosenthal (1995) in which moderation arises because voters select a president and then select an opposing group of legislators.

[12]In equilibrium w wins because $y = -2$ if s is elected and $y = 1$ if w is elected.

decision has been made, w will set $y = 2$ at stage 4. Anticipating this, s (or z) would create unrest as soon as w wins (before being "disarmed"). Voters then prefer to vote for s than w because $y = 2$ is better than $r = 1$. In this case, w suffers from being unable to commit to a policy. Keeping this new timing, w would benefit when platform commitment becomes possible at stage 1. In contrast, section V shows that under our timing choice, platform commitment can actually hurt w.[13] We focus on the timing as stated because a party's policy plan often becomes clear before the party is able to neutralize interference threats but the alternative timing is an interesting avenue for further research.

Proposition 1 can help make sense of electoral outcomes in new democracies where the most "peaceful" party with the weakest military support has been elected. For instance, in Chile in 1990, Patricio Alwin's Center-Left coalition won against Hernán Büchi's strong right-wing party which had close ties to the armed forces. Upon winning, Alwin implemented relatively conservative economic policies and continued the market reforms started under General Pinochet. We suggest that sixteen years of Pinochet made his party's reservation policy relatively predictable and that this policy compromise was necessary to prevent a military coup. For this reason voters could trust Alwin's party to compromise enough to avoid a coup. As we show in the next section, when the reservation policy is private information, the weak party may lose because voters know that it would risk causing unrest.

Another example for the current section is provided by the 1994 South African election won by Nelson Mandela's African National Congress (ANC). In these elections, Frederic de Klerk's National Party (NP) controlled the official army

[13] Again, thanks to Oliver Hart for suggesting further investigation of this commitment issue.

so the NP could be seen as the stronger party.[14] We argue that the round table negotiations between the ANC and the NP were successful in settling the military conflict between these two parties. The reservation policies of the various political groups became sufficiently clear that the ANC could compromise enough to avoid a violent response from the NP (and Inkatha). In the next section, we consider the case where the parties' abilities to cause political unrest is private information.

IV. NO PLATFORM COMMITMENT AND THE STRONG PARTY HAS PRIVATE INFORMATION.

In this section, we allow the strong party to have private information over the ability of the threatening actor to disrupt the political process. We show that the strong party may win because of people's fear of such disruption. For the direct control case, it is assumed that the strong party alone knows the true value of c_s and hence its reservation policy, $\bar{y}$. This assumption makes good sense when c_s is reinterpreted as the strong party's subjective expectation (at stage 4) of its cost from interference. The strong party chooses whether or not to initiate political unrest based on this subjective expectation. The strong party's expectation is naturally best known to itself. The weak party and voters care about the strong party's subjective expectation so it is the distribution of these

[14] That the National Party was the stronger party is suggested by a November 1992 internal document of the ANC Executive Committee: "The [National Party] regime commands vast state and military resources, continues to enjoy the support of powerful economic forces. [There is a need] to accept that even after the adoption of the new constitution, the balance of forces and the interests of the country may still require us to consider the establishment of a government of national unity."

subjective beliefs which determines the distribution of $\overline{y}$. The strong party may also have objectively better information over the effectiveness of its interference power and its potential benefit from the policy compromise following political unrest, but the argument based on the relevance of s's subjectivity is the most convincing.

For the case of outsider control, we have to assume that the outsider shares its information with the strong party. The above argument then supports the assumption that only s and z know the true value of c_z and hence $\overline{y}$. There is no difference between the results under direct control and outsider control so we simply describe the case of direct control.

We assume that voters and the weak party know the prior cumulative distribution $F(\cdot)$ of $\overline{y}$ on the interval $[-2,2]$. We also assume that $F(\cdot)$ is continuously differentiable with density $f(\cdot)$. Let $\text{supp}(f) \subseteq [a,b]$ denote the support of f for some $[a,b] \subseteq [-2,2]$. The probability of political unrest if w is elected is now given by,

$$r(y_w) = \Pr\{\overline{y} \leq y_w\} = F(y_w).$$

We define $Y_w^* \equiv \arg\max_y \{u_w(y)(1 - F(y)) - c_w \cdot F(y)\}$. We focus on cases where the weak party's optimal policy, $y_w^* \in Y_w^*$ is unique.[15] We denote by r^e the equilibrium probability of political unrest. We set $R = 0$ without loss of generality because introducing $R > 0$ is equivalent in strategic terms to raising c_w by R. R only matters in sections V and VI.

When w wins, w no longer faces such an abrupt threat of interference; $r(y_w)$

[15] That is Y_w^* is a singleton in all the specific cases that we look at. In more general cases, one might make progress by assuming that w chooses the policy most preferred by M among those in this optimal set. For example, if $c_0 > c_w - 2$, $y_w^* \equiv \min Y_w^*$.

was a step function in the case with symmetric information. Now w faces a smoother trade-off and may seek a more favorable policy at the cost of an increased risk of interference. It should be clear that w will generally risk some interference (Lemma 2 in the appendix presents a sufficient condition for w election to imply $r > 0$). Moving back to stage 2 to solve for the Perfect Bayesian Equilibria, we now have voters calculating the interference risk occurring when w wins. Proposition 2 present a sufficient condition for the occurrence of political unrest in equilibrium. Proposition 3 describes the electoral outcome. Proposition 2 has two parts: 2(i) points out that if w wins, the risk of unrest would decrease to 0 with c_w because w becomes more concerned to avoid $-c_w$ in the trade-off between policy gain (y closer to 2) and interference loss (increased r). 2(ii) points out that even if w risks interference, the equilibrium risk of interference must go to 0 as c_0 gets large.[16] This is because voters can always vote for s which always sets $y = -2$ so that $r = 0$. At $\hat{c}_0$ defined immediately below,[17] the median voter would switch from voting for w to voting for s.

DEFINITION 2: $\hat{c}_0 \equiv \dfrac{2 - |y_w^*|(1 - r^*)}{r^*}$ and $\hat{c}_w \equiv \inf\{c_w : a \in Y_w^*(c_w)\}$.

PROPOSITION 2: *(i)* When the weak party wins, the probability of political unrest, r^*, monotonically decreases with the cost of political unrest for the weak party, c_w, and $r^* \to 0$ as $c_w \to \infty$. *(ii)* Furthermore, the equilibrium probability r^e is a decreasing step function in the cost of political unrest for the median voter, c_0, and $r^e = 0$ for sufficiently large c_0.

When the cost of political unrest for the weak party is sufficiently large, that is if $c_w \geq \hat{c}_w$, then the weak party will win the election by credibly promising

[16] Shifts in c_0 refer to shifts in c where we are still assuming that $c_\theta = c + |y_c - \theta|$.

[17] Lemma 2(ii) presents a sufficient condition under which $r^* > 0$ and $\hat{c}_0$ is finite.

to set $y_w = a$, leading to $r^* = 0$ (and $r^e = r^* = 0$). When $c_w < \hat{c}_w$, the weak party will set $y_w > a$. This leads to a positive probability of interference when the weak party wins, $r^* > 0$. As a result, if $c_w < \hat{c}_w$, and $c_0 < \hat{c}_0$, then the weak party wins. Otherwise, the strong party wins. When $c_0 = \hat{c}_0$ each party wins with probability $\frac{1}{2}$. For the sake of emphasis, we state the corollary as a proposition:

PROPOSITION 3: The strong party wins when both $c_w < \hat{c}_w$ and $c_0 > \hat{c}_0$.

The result shows that if c_w is sufficiently large, the weak party never risks causing political unrest and will always win exactly as in the first proposition. If c_0 is small, the median voter is not overly concerned by political unrest. As a result, the median voter will vote for the weak party, even though this choice can lead to political unrest. So for the strong party to win, c_0 must be large relative to c_w.

The strong party has an incentive to scare voters (make them feel that c_0 is large) but also to obfuscate its willingness to create unrest. The uncertainty surrounding its own (or the threatening actor's) militancy creates an atmosphere of insecurity if c_w is sufficiently small that voters believe w will then be willing to risk unrest. This compels voters to lean toward the strong party if they believe that $c_0 \geq \hat{c}_0$.

Figures II and III illustrate the equilibrium policy y_w^* and the equilibrium probability of unrest, r^*, as functions of c_w in the uniform density case.[18]

[18] We have not discussed the case in which $c_w < 4$. We have to adjust the model to include two costs: we assume that when w initiates unrest, w faces a higher cost, c_w', which we must continue to assume is greater than 4 so that the analysis is as before. Then $y_w = 2$ is possible with $u_w = -c_w$. w still never wants to initiate unrest but the solution to the first order condition,

Insert figures II and III here

Proposition 3 reflects on electoral behavior in the first democratic elections of a country trying to move forward after a period of civil war. For instance, in Liberia in 1997, restoration of civil order was the main motive behind the massive vote for the former warlord, Charles Taylor. The same can be said about ARENA's victory in the 1994 presidential elections in El Salvador (see Section VII). Even in Western democracies faced with serious outside challenges (such as France in 1958) or the threat of internal collapse (Weimar in the 1930s), concerns about the survival of the democratic process may lead the electorate to prefer politicians who have strong ties to the armed forces and can enforce some form of civil order. The rise of fascism or military-style government in some Western democracies before and immediately after the Second World War can be seen as cases where $c_0 > \hat{c}_0$ led to the electoral victory of a strong party.

V. PLATFORM COMMITMENT AND NO PRIVATE INFORMATION

In Sections III and IV above, parties were unable to commit to a policy platform. Voting was determined by the parties' ideal points, and the distribution of the threatening actor's reservation policy. Here and in the next section, we assume that while parties cannot commit against initiating political unrest, they can commit to a policy platform. Platform commitment in this case means the winning party will implement the policy proposed in its campaign platform, as

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$y_w = \dfrac{b+2-c_w}{2} \equiv y$, gives $U = (y-2)\left(\dfrac{b-y}{b-a}\right) - c_w\left(\dfrac{y-a}{b-a}\right)$.

Now $U \geq -c_w \Leftrightarrow (b-y)\,c_w \geq (2-y)\,(b-y) \Leftrightarrow c_w \geq 2-y$

$\Leftrightarrow c_w \geq 2-b$ and $y = b$ at $c_w = 2-b$. Meanwhile, y_w reaches a when $c_w = \hat{c}_w \equiv b+2-2a$.

long as there is no political unrest. This assumption is more plausible for stable countries such as the United Kingdom, Sweden, Norway and Chile since the 1980s.

In order to motivate platform commitment, we argue that in stable democracies, repeated elections allow parties to try to build a reputation for honoring their campaign promises (see Alesina 1988). For the case of directly controlled threats, we must further argue that it is harder to build a reputations for creating unrest.[19] Alternatively, we can assume that choice of party leader provides a credible commitment to the policy platform represented by the leader's specific ideology and either someone else controls the disruption decision or the leader's specific willingness to disrupt is not observable to the voters and the weak party.

All four stages of the model are now active. There are two stages of backward induction left to be solved. Even after parties choose their platforms x_s and x_w, voters have to anticipate how the strong party would respond if the weak party won the election. Additionally, the parties choose their platforms in anticipation of the electoral and political outcomes that will follow. Now that policy commitment is possible before the election, the direct benefit from winning the election, R, cannot be "normalized" to 0. We denote the probability that s wins by $\pi(x_s, x_w) \equiv \Pr(i = s \mid x_s, x_w)$.

For simplicity, we focus on the outsider control case (assumption A1$'$) but we describe the insider control case afterwards. As mentioned before, we assume

[19] The winner of an election in a stable democracy might be better controlled than the loser. For instance, an executive who violates the constitution can be impeached, while an opposition leader who breaks the law might have less to lose. If we really believed in this direct legal enforcement of platform commitments, we would focus on unrest which is against the enforcement system itself reling out commitment over unrest.

that z, the outsider, has an ideal point of -2, but a less extreme outsider would give similar results. The outsider z receives a payoff of $-c_z$ by initiating political unrest. This gives the reservation policy $\overline{y} \equiv c_z - 2$. We show that, with platform commitment and certainty over $\overline{y}$, convergence is attained at $\min(0, \overline{y})$. In order to rule out uninteresting knife edge equilibria in which one party never wins (equally ruled out by trembling hand perfection arguments), we temporarily assume,

ASSUMPTION AC: Voters mix between s and w when indifferent.

PROPOSITION 4: Under outsider control of political unrest with no private information, party platforms converge at $\min(0, \overline{y})$. There is no political unrest, and either party may win the election.

As explained in the appendix, assumption AC was simply used to ensure uniqueness of equilibrium platforms and thereby to simplify Proposition 4 but the policy outcomes are the same even when we drop AC. We therefore drop AC henceforth. Proposition 4 shows that in an environment where parties can commit to their platforms, we should observe more platform convergence. The result is driven by the fact that both parties can now credibly make enough policy compromise in order to win the election, in contrast to the no-commitment case (section III) where only the weak party can make any credible policy compromise. The result is valid even under direct control of political unrest. In this case, platform convergence still occurs at $\min(0, \overline{y})$ and now, for the case where $\overline{y} < 0$, the strong party always wins in equilibrium. This is because the strong party can deviate to $\overline{y} + \varepsilon$ for $\varepsilon < R$ and pick up votes whereas the weak party cannot win with such a deviation from the convergent policies because voters know that

s would initiate political unrest against $\bar{y} + \varepsilon$. In summary,

PROPOSITION 5: Under direct control of political unrest with no private information, the policy outcome is still at min $(0, \bar{y})$ and there is still no political unrest. The interesting novelty arises when $\bar{y} < 0$ in which case only s can win the election in contrast to the case of outsider control where either party could win the election.

Our results help explain platform choices in the 1990 Chilean elections mentioned above, in which the two candidates adopted essentially the same platform on the main policy issues, especially tax reform. The same logic applies to the 1992 and 1995 elections in Sweden, where increased capital mobility due to liberalization and integration of international capital markets led social democrats and conservatives to converge toward fiscal discipline and less generous welfare and wage policies. This has been described as "ideological abdication" by the political left (Moses [1994]). As the next section shows, when voters are less fearful of the risks of capital flight or other forms of disruption, such "ideological abdication" becomes less likely and platform divergence will occur.

VI. PLATFORM COMMITMENT WHEN THE STRONG PARTY HAS PRIVATE INFORMATION

In this section we show that the strong and weak parties may choose divergent policy positions. This is in contrast to the well-known result that platform commitment leads to convergence. Roemer [1994] and Calvert [1985] have shown that incomplete information over voter preferences can explain some polarization. However, they point out that convergence of equilibrium platforms is a relatively robust result when parties value winning per se, and uncertainty about the median voter's location is not great.[20] In the case of outsider control, we derive a strong polarization result which holds even when uncertainty about voter preferences is arbitrarily small and the benefit from winning is arbitrarily large. While other explanations of polarization are compelling in other situations, our novel result has a useful predictive power whenever key factors threatening some form of unrest can be discerned. For the sake of clarity, we continue to focus on the more plausible case of outsider control. We explain how our results change for the "insider" control case at the end.

Parties can commit to their platforms as in the previous section but now the level of intransigence of the outsider is imperfectly observed by the weak party and the voters. We show that polarization arises on account of posturing by the (indirectly) strong party. Even when the outsider is relatively weak, the strong party can pretend to know that the outsider is militant in the hope that voters will be fooled. The strong party signals this claim of militancy by adopting an extremist platform (it is less willing to converge when the outsider threat really is militant). When the voters are swayed by this posturing, they accept the strong party's extreme platform. The weak party will not converge to that platform because voters may be less afraid of the strong party than the strong party had hoped. The weak party then gains from having offered a platform closer to its own ideal point.

We model the uncertainty over the threatening actor's intransigence by allowing c_z and therefore the outsider's reservation policy to vary. We assume that $c_z = a + 2$, with probability p, and that $c_z = b + 2$, with probability $1 - p$. Thus

[20] See Alesina, Rosenthal [1995] for further discussion of the literature.

z can take one of two types: z_1 is militant and has $\overline{y} = a$; z_2 is weaker and has $\overline{y} = b$. Only s (and z) are assumed to learn the actual realization of c_z before the election is held. Since we are in the outsider control case, we have assumption A1$'$ with stochastic c_z. Note that while c_s is fixed for this case, we write $s = s_1$ when s learns that z is "militant" (has low cost $c_z = a + 2$) and $s = s_2$ when z is "soft." In summary,

$$\bar{y} = \begin{cases} a, & \text{Pr } p \\ b, & \text{Pr } 1 - p \end{cases}$$

where in order to focus our analysis on the case where all types of the outsider have reservation policies relatively close to their ideal point of -2, we assume that the softer type of the strong party's reservation policy is located to the left of the median voter,

ASSUMPTION 3: $-2 \leq a < b < 0$.

If voters are sufficiently afraid of a militant threat (p is high and or c_0 is high), s_1 and s_2 might pool on $x \leq a$ and always win so that w might as well converge. The following assumption rules out the pooling equilibria which allow this convergence,

ASSUMPTION 4: $p < \widehat{p} \equiv \dfrac{b-a}{b+c_0}$.

If the weak party is too averse to unrest (high c_w), it may avoid all risk of unrest by offering only its preferred safe platform, $x = a$. Assumption A5 is used to ensure that the weak party is not too fearful.

Finally, we assume that the weak party is sufficiently willing to risk political unrest by not converging to the "strong" outsider's reservation policy, a, in the hope that z is only type z_2. Note that this assumption gets monotonically weaker as R increases and is reasonable even for R close to 0.

ASSUMPTION 5: $c_w < c_0 + 2 + \left(\frac{c_0-2}{b+2}\right) R$

We prove that platforms must diverge and that this divergence prediction is robust to an arbitrarily large direct benefit of winning.

PROPOSITION 6: Under outsider control of political unrest, all PBE (in undominated strategies) exhibit platform divergence of at least $b - a$, a fraction no less than $\min\left(p \cdot \frac{R}{2R+b+2}, 1-p\right)$ of the time. In particular, this strict divergence result is robust to arbitrarily large R.

Remarks: The proof shows that, given our assumptions, one can guarantee that s takes an extremist position when s knows that z is militant (it never offers a policy to the right of a because such a policy would lead to certain unrest in this case) and w (and perhaps s when aware that z is relatively soft) will compete away to platform b with probability bounded below.

We have assumed that w does not observe x_s when setting its platform but w is only directly affected by its platform "bid," x_w, when it wins the election and w knows that it only wins the election on a relatively centrist platform if x_s leads the voters who do observe x_s before voting to believe that the risk of militancy is relatively low. Shifting to a time structure in which w and s observe each other's platforms and can shift their platforms up until the final moment of the election would be an interesting extension for further research.[21] We adopted the simultaneous platform approach as the simplest way in which to remain agnostic

[21] Robustness looks reasonable from a couple of first stage inspections: If s moves first and cannot shift its platform thereafter, w would converge with s when s offers b but s does not

over whether either party is able to force the other to commit to a policy first. This approach facilitates comparison with the literature on political competition.

The equilibrium in which s_1 and s_2 pool at a while w offers b and always wins is one of many which cannot arise in the case of direct control. This is because s_2 can only offer $b+\varepsilon$ and win when directly controlling unrest. In the case of direct control, the equilibria can be pinned down more tightly. Unfortunately, when $R \to \infty$, we cannot rule out divergence so easily as explained below.

The case of direct control: Platform divergence can also occur when the strong party directly controls political unrest. For instance, for arbitrarily large R, there exists a Perfect Bayesian Equilibrium in which the stronger type of the strong party chooses $x_{s_1} = a$, the weaker type of strong party randomizes between $x_{s_2} = a$ and $x_{s_2} = b$, and the weak party chooses $x_w = b$. In this equilibrium, the weak party sometimes wins when the platforms diverge but always loses when the platforms converge at b.

However, we can no longer rule out the existence of convergent equilibria as $R \to \infty$. The problem is that s_1 can now offer x to the right of a because s_1 will not revolt against itself for any $x < a + R$ even though it revolts against w for any $x > a$.[22] As $R \to \infty$, we lose the upper bound on s_1's platform and can

always offer b: if we now assume that voters randomize when indifferent, we would still predict divergence for large R. If w moves first and cannot then shift its platform, we can predict divergence of at least $b-a$ with probability at least p (for p not too large and R not too small) because w always loses to s_2 unless it offers b. Such extensions are attractive because they rule out the unintuitive, mixed strategy equilibria in which s and w sometimes offer policies which are each closer to the other's ideal point. But some restriction on platform shifting does seem appropriate given that parties may suffer from appearing to be excessively opportunistic or if platform shifting requires a change of leadership.

[22]This is because when s wins, it stands to lose the political benefit R which is contingent on

no longer guarantee divergence. An equilibrium refinement such as Universal Divinity might ensure divergence but we do not pursue this possibility here.[23] In either case, divergence arises as a result of private information about the strength of a threat and we now use the model to help understand platform divergence under the threat of disruption without worrying exactly how much control the strong party has over that threat.

Examples: Platform divergence is particularly likely in new democracies. For example, Communists in Russia can fight a harder line against market reform when the threat of economic disruption is greater. Proposition 6 also sheds light on some of the puzzles of the 1996 election in Taiwan which took place under Chinese military threats. One might ask why China's threats caused the pro-reunification National Party and the pro-independence Kuo-Min-Tan to adopt divergent platforms. Our model suggests the NP and KMT took divergent positions because voters were uncertain about the real intentions of the "outsider", the Chinese government.[24] For the Russian example one would also have to examine ideological explanations and recognize that the recent economic collapse may be changing voter preferences and making Calvert's explanation more credible. A more telling illustration of how voter ambivalence about threats of disruption can lead to platform divergence is found in the 1974 British election. The next section, uses Proposition 6 to offer an interpretation of the platform

winning power without resorting to extra-political means.

[23]If instead, we assume that s_1 wins R by rioting and s_2 still does not, then we can have $c_{s_1} = A + 2 - R$ and $c_{s_2} = b + 2$ for fixed $A < b$. Under this strong assumption, we will have divergence of at least $b - A$ for arbitrary R. The weak party always offers b and the strong party mixes between $x = b$ and $x \leq A$.

[24]See Wantchekon and Lam [1996] for more details.

divergence between the Conservative and Labour Parties in that election. We also provide more detail on how the analysis of section III sheds light on the case of El Salvador in 1994.

VII. APPLICATIONS

A. Great Britain, 1974.

A central question in the February 1974 elections in Great Britain was: "who could control the unions?" The Labour party presented itself as the party most capable of negotiating the kind of pact with the unions that would guarantee an end to serious labor disruption. On February 17, 1974, Labour Party leader Harold Wilson, declared the creation of a "social contract" with the union leadership. The following day, however, the leader of the Trade Unions Council (TUC), denied having reached any such an agreement (Butler et al., p. 98). In fact, Wilson was referring to the 1973 agreement between Labour and the unions which "provided that, in return to various social policies and the repeal of the Industrial Relations Act, the unions would show voluntary restraint" (p. 55). On the other hand, the Conservative Party and the incumbent prime minister Edward Heath wanted a mandate to fight inflation and union militancy by limiting wage increases (Butler and Kavanagh [1974], p. 265). According to Butler and Kavanagh [1974], the electorate was ambivalent about the unions. The median voter appeared to favor the Conservative Party which could "stand up to the unions which push for large wage claims", yet the median voter did not want "the inconvenience which would attend dispute" (p. 256). In the election, the Labour Party narrowly won by promoting a pact with the unions.

The evidence compiled by Dorfman [1978] and Butler et al. [1974] suggests that public ambivalence regarding the unions resulted in a platform divergence between the two parties on the election's main issue: how to fight inflation. While the Conservatives stressed the need to control wages, Labour pressed for price controls and limits on profits (Butler et al., p. 55). Our model provides the rationale for this platform divergence between the two parties. Because Labour thought that voters were fearful enough of disruptive strikes, it had no incentive to adopt a moderate position. In contrast, the Conservatives hoped that voters would doubt the threat of strikes, and showed no leniency towards the unions. In the wake of contradictory statements between unions and labor leaders on the existence of "social contract," Heath spoke scornfully of a "non-existent" agreement and confirmed their uncompromising position on controlling wage increases (Butler et al., p. 98).

B. El Salvador, 1994.

In this election, the issue of land reform was the most polarizing and the most important problem facing the country. Land reform was discussed in the peace accords between the FMLN and ARENA but at the time of the 1994 election there was still much uncertainty as to how the issue would be addressed (Stahler-Stolk [1995]). According to a 1994 survey, 51 percent of the rural population had no land, and 2.9 percent of the landowners held 46 percent of the land (Montgomery [1995]). The peasants had consistently and unequivocally favored a comprehensive land reform policy (see Montgomery [1995] and Stahler-Stolk [1995]). In light of this evidence, we conclude that the median voter in rural areas was a landless or near-landless peasant who favored land reform (i.e. $\theta_M > 0$). Nonetheless, in the 1994 election this voter preferred ARENA, a party opposed to land reform, that is

Given that uncertainty over the implementation of the peace accords was the deciding factor in the peasants' decision to support ARENA (this puts us into section IV of the paper), voters must have perceived violence under an ARENA government to be less likely than violence under an FMLN government ($r^* > 0$ in the formalization of the model). According to 1994 polls, a plurality of voters (31.1 percent) thought the peace accords would be implemented if ARENA were elected. 65.6 percent of the electorate believed that this party was backed by the military (UCA [1994]). Even some top FMLN officials thought that a victory by their party could endanger the country's stability (Vickers and Spence [1994]). From 1992 to 1994, six top-ranked FMLN leaders were assassinated by right-wing militias. In this environment, rural poor voters believed that FMLN victory would jeopardize the peace accords and lead to a collapse of the democratic process. These concerns about stability and order led them to prefer Arena ($c_0 > \hat{c}_0$), even though Arena would implement policies that hurt their interests regarding land reform (i.e. $y_s^* = -2$).

Our model suggests that as threats of violence become less of an issue (i.e. $c_0 < \hat{c}_0$), ARENA should lose its decisive advantage vis-à-vis the FMLN and the political process should become more competitive. Consistent with our analysis is the outcome of the March 1997 congressional elections in the country. The FMLN won 32.1% of the vote, as compared to 33.3% for ARENA. In the mayoral elections, the FMLN more than quadrupled the number of municipalities under its control (54), including the city of San Salvador and its suburbs where more than one-fifth of the country's population lives.

VIII. CONCLUSION

This paper analyzes electoral incentives and outcomes when parties face threats of political unrest. We find that without platform commitment, the weaker party is moderated towards the center and wins the election. But when the risk of disruption is privately known by the strong party, it becomes more likely to win as voter fear of disruption grows. With platform commitment and no private information, platform convergence occurs and either party can win unless the strong party has direct control over a threat which is serious enough to credibly challenge the median voter's ideal policy. In that case, the strong party always wins on the convergent policy. Finally, when the strong party has private information, we can explain platform divergence as a result of signalling. When the threat is controlled by an outsider, this divergence is robust to arbitrarily large direct benefits of office.

We have illustrated the main results of the model with the cases of Great Britain and El Salvador. In the 1994 Presidential elections in El Salvador, peasants who favored land reform voted strategically for a party opposed to this reform in order to minimize the risk of post-election violence. In the 1974 parliamentary election in Great Britain, Labour took a high-wage position, hoping that voters would believe this redistribution to be necessary to avoid further strikes. Meanwhile, the Conservatives took a divergent position hoping that voters would doubt the credibility of the strike threats. The recent convergence of the Labour and Conservative Parties under Blair's leadership coincides with a weakening of union power in a manner not inconsistent with our model. In conclusion, the model helped predict which party would win when one party is stronger than the other in the sense that it, or an outsider with similar preferences, can react to electoral defeat by creating unrest. We have shown how private information, commitment ability and the control of unrest determine electoral and policy outcomes. Furthermore, the model provides a novel explanation of platform divergence which has robust predictive power.

APPENDIX

Notation: When the letter j denotes party s (respectively, w), $-j$ will denote party w (respectively, s). Recall that i denotes the winner of the election. We will write sMw (respectively, $s\theta w$) to denote "the median voter (respectively, voter θ) strictly prefers s to w." We will write "$+\varepsilon$" when we want to suppress the phrase, "for sufficiently small, positive ε." We define $\overline{y} \equiv c_z - 2$ for the case of outsider control and, for the case of direct control, $\overline{y} \equiv c_s - 2$. For the case of direct control when platform commitment is possible, we further define $\bar{x} \equiv \bar{y} + R$ which is the greatest platform, x_s, against which s would not create unrest against itself after winning. $\mu(\cdot)$ is the measure function on the space of voters for which $\mu(\theta : \theta \in [-2, 2]) = 1$.

For sections V and VI, $\pi(x_s, x_w)$ is the probability that s wins the election when s and w have committed to that pair of platforms. X_s and X_w denote the supports of s and w's strategies and for section VI, X_1, X_2 are the supports for s when $s = s_1$, $s = s_2$ respectively. Recall that for the outsider control case, $s = s_1$ implies that (s knows that) z is militant and $s = s_2$ implies that (s knows that) z is soft. Recall that p is the prior weight on $s = s_1$, $p = \Pr(s = s_1)$. Denote by η, the common posterior weight on $s = s_1$ in the beliefs of voters and w after observing x_s.

Proof of Lemma 1

(i) We first prove that voters anticipate $r = 0$ whenever s wins the election.

(a) Under outsider control: throughout this paper, s knows $\bar{y}$ and will never set a policy (platform) greater than $\bar{y}$ as part of an undominated strategy because such a choice leads to $r = 1$ (see page 13) and hence to s's guaranteed lowest payoff ($-c_s < -4$ by A1$'$). It is weakly dominating to replace any such strategy with one in which those policies above $\bar{y}$ are replaced by (say) $y = -2$ ($x = -2$ in the platform commitment case) and to hope that voters vote for s. Note that z will not create unrest at $\bar{y}$ by assumption AB and so $r = 0$ for all policies at or to the right of $\bar{y}$.

(b) Under direct control, the argument is slightly different. s can always create unrest at stage 4 so while unrest now has a higher payoff ($-c_s > -4$ by A1), that is still the lowest payoff which s need ever accept. As before, a policy or platform choice which ends up with s creating unrest can again be replaced by y or $x_s = -2$ and this new strategy weakly dominates the old one.

(ii) Using part (i), we can cut down the number of cases we need to deal with in proving that M is decisive. We henceforth use r to refer only to the probability of unrest when w wins. When s wins, the policy/political unrest outcome is of the form $(y_s, 0)$ and when w wins the outcome is of the form (y_w, r) where we use the letter y even though for the case of platform commitment $y = x$ so x might be more appropriate. To show that M is decisive we show that whenever M strictly prefers s (denoted sMw), at least half the remaining voters strictly prefer s too (i.e. $sMw \Rightarrow \mu(\theta : s\theta w) \geq \frac{1}{2}$ where μ is the measure function giving voter proportions) and that $wMs \Rightarrow \mu(\theta : w\theta s) \geq \frac{1}{2}$. As $\theta = 0$ is the median, the two sets $\theta > 0$ and $\theta < 0$ each constitute a measure $\frac{1}{2}$ of voters. We will prove M's decisiveness using these two sets but, by making distributional assumptions we could prove decisiveness under weaker conditions.

We prove the result in a sequence consisting of six cases: we take all 6 orderings of y_s, y_w and 0 and then we note that as all voters are risk neutral we can simply integrate over the common distribution over pairs of $y_s$and y_w anticipated by voters in the case with no commitment; in the case of platform commitment, the voters know what policies will be implemented and while their beliefs about $\bar{y}$ depend on the platform offered by s, they are assumed to form common beliefs given their common information sets and so these beliefs determine a well defined risk of unrest which we label as r and do not need to further characterize.

There are four distinct forms of the preference inequalities which we list as cases a, b, c and d:

$$y_s, y_w < \theta : u_\theta(s) \geq u_\theta(w) \Leftrightarrow y_s - \theta \geq (y_w - \theta) \cdot (1 - r) - r \cdot c_\theta$$
$$\Leftrightarrow y_s \geq y_w \cdot (1 - r) - r \cdot (c_\theta - \theta) \qquad (a)$$

$$y_s < \theta < y_w : u_\theta(s) \geq u_\theta(w)$$
$$\Leftrightarrow y_s - \theta \geq (\theta - y_w) \cdot (1 - r) - r \cdot c_\theta \qquad (b)$$

$$\theta < y_s, y_w : u_\theta(s) \geq u_\theta(w) \Leftrightarrow \theta - y_s \geq (\theta - y_w) \cdot (1 - r) - r \cdot c_\theta$$
$$\Leftrightarrow y_s \leq y_w \cdot (r - 1) + r \cdot (c_\theta + \theta) \qquad (c)$$

$$y_w < \theta < y_s : u_\theta(s) \geq u_\theta(w)$$
$$\Leftrightarrow \theta - y_s \geq (y_w - \theta) \cdot (1 - r) - r \cdot c_\theta \qquad (d)$$

In order to put a sign on $u_\theta(s) - u_\theta(w)$, it is helpful to define,

$$\Delta \equiv (u_\theta(s) - u_\theta(w)) - (u_0(s) - u_0(w))$$

Case A: $y_s < y_w < 0$. Note that, for $y_s < y_w < \theta < 0$, we have case (a), and A2 implies,

$$\Delta = -\theta + r\,(c_\theta - c_0) + \theta\,(1-r) = r\,(c_\theta - c_0 - \theta) = r\,(|y_c - \theta| - |y_c| - \theta)$$

Since $\theta < 0$, we have $|y_c - \theta| \geq |y_c| + \theta$, therefore $\Delta \geq 0$.

For $y_s < \theta < y_w < 0$, we have case b, but shifting θ down from 0 (corresponding to M) only increases the preference for s relative to the previous case so s wins if sMw. For $\theta < y_s < y_w < 0$, we have case c, so that s wins because $\theta - y_s > \theta - y_w$ and because $c_\theta \geq 4, \theta - y_s > -c_\theta$. Thus, $sMw \Rightarrow s\theta w$ for all $\theta < 0$ and so M's vote is the same as the outcome.

Conversely, if wMs, then for all $\theta > 0$, we have case (a) so $\Delta \leq 0$ using A2 exactly opposite to the above.

Case B: $y_s < 0 < y_w$. First, note that $\theta < y_s$ clearly prefer s, $c_\theta \geq 4$ by A2. Second, for $\theta \in (y_s, 0)$, we have case (b) so,

$$\Delta = -\theta - \theta\,(1-r) + r\,(c_\theta - c_0) = r\,(c_\theta - c_0) - \theta\,(2-r) > r\,(c_\theta - c_0 - \theta)$$

Now $c_\theta - c_0 - \theta = |y_c - \theta| - (|y_c| + \theta)$ by A2. In addition, since $\theta < 0$, $2 - r > r$ and $|y_c - \theta| \geq |y_c| + \theta$, we have $\Delta \geq 0$.

Conversely, if wMs, first for $\theta > 0$, we have case (b) again but now $\theta > 0$. Since, $|y_c - \theta| \leq |y_c| + \theta$, therefore $\Delta < r\,(|y_c - \theta| - |y_c| - \theta) \leq 0$ by A2. Second, for $\theta > y_w > y_s$, case (a) holds and $\Delta = r\,(c_\theta - c_0 - \theta) \leq 0$ by A2.

Case C: $0 < y_s < y_w$. For all $\theta < 0$, have case (c). $y_s < y_w$ and $\theta - y_s > -c_\theta$ for all θ since $c_\theta \geq 4$. Thus $s\theta w$ for all $\theta < 0$. Conversely, wMs can be ignored because it cannot arise.

Under outsider control: it is clear that $r = 0$ when $y_s > y_w$ so median voter decisiveness is immediate from single peakedness in the single dimensional policy space. Under direct control, the proofs continue in a similar vein:

Case D: $y_w < y_s < 0$. All, $\theta > 0$ prefer s because $y_s - \theta > y_w - \theta$ and $> -c_\theta$ given that $c_\theta \geq 4$. Conversely, wMs cannot arise.

Case E: $y_w < 0 < y_s$. sMw implies $s\theta w$ $\forall\theta > y_s$ and $\forall\ \theta \in (0, y_s)$, we have case (*d*) so that

$$\Delta = \theta + \theta(1-r) + r(c_\theta - c_0) = r(c_\theta - c_0 - \theta) + 2\theta \geq 2\theta + c_\theta - c_0 - \theta \geq c_\theta - c_0 + \theta$$

As before by A2, $\Delta = c_\theta - c_0 + \theta = |y_c - \theta| - |y_c| + \theta$. In addition, since $\theta > 0$, we have $|y_c - \theta| \geq |y_c| - \theta$, and therefore $\Delta \geq 0$.

All, $\theta > 0$ prefer s because $y_s - \theta > y_w - \theta$ and $> -c_\theta$ given that $c_\theta \geq 4$. Conversely, wMs cannot arise.

Case F: $0 < y_w < y_s$. sMw implies $s\theta w$ $\forall\theta > 0$: First, $\theta > y_s$ prefer the policy outcome posed by s as well as the avoidance of the risk of unrest (given $c_\theta \geq 4$) so that $s\theta w$ is clear here. Second, for $\theta \in (y_w, y_s)$, we have case (*d*), so that

$$\Delta = \theta - 2(1-r)y_w + \theta(1-r) + r(c_\theta - c_0) = 2(1-r)(\theta - y_w) + r(c_\theta - c_0 + \theta).$$

Since $\theta \geq y_w$, $\theta > 0$ and $c_\theta - c_0 + \theta = |y_c - \theta| - |y_c| + \theta \geq 0$ by A2, we have $\Delta \geq 0$. Hence, $s\theta w$ for all $\theta > 0$ and s wins.

Conversely, wMs: when $\theta < 0$, $\theta < y_w, y_s$ so we have case (*d*) and by A2

$$\Delta = \theta - \theta(1-r) + r(c_\theta - c_0) = r(c_\theta - c_0 + \theta) = r(|y_c - \theta| - |y_c| + \theta)$$

Since $\theta < 0$, $|y_c - \theta| \leq |y_c| - \theta$ and therefore $\Delta \leq 0$. ■

Proof of Proposition 1

When s wins, s takes its ideal point, $y = -2$: w's best response is not to initiate political unrest, because $-c_w \leq (-2) - 2 = -4$ by A1. When w wins, w always seeks to avoid political unrest because $c_w \geq 4$. Therefore, $y_w \leq \bar{y}$ and since w gains by increasing y_w on the range $[-2, \bar{y})$, the equilibrium must have $y_w = \bar{y}$ and $r(\overline{y}) = 0$. With $r(\overline{y}) = 0$, w prevents unrest by implementing exactly $\overline{y}$. All voters with $\theta > \frac{\overline{y} - 2}{2}$ prefer w. Since $\overline{y} = c_s - 2 < 2$ by A1, this includes all voters with $\theta \geq 0$, and hence at least 50% of the electorate so w wins. (We could have used Lemma 1 here, but we wrote out the above proof to show that c_θ is irrelevant.) This is the unique SPE. ■

Proof of Lemma 2

LEMMA 2: (i) $y_w \in [a, b)$; (ii) $f(a) < \frac{1}{a + c_w - 2} \Rightarrow y_w^* > a$ and $r^* > 0$.[25]

Proof. (*i*) is trivial: $r = 1$ if $y_w \geq b$ so $y_w = a$ dominates such a strategy. (If we allowed an atom at b we could have $y_w = b$ as an optimal strategy.) (*ii*) Differentiating $U(y, c_w) \equiv u_w(y) \cdot (1 - F(y)) - c_w \cdot F(y)$ with respect to y at a, the derivative is $-(-2 + a + c_w) f(a) - (1 - F(a))$. Now $F(a) = 1$ so this is greater than 0 when $f(a) < \frac{1}{a + c_w - 2}$.

Proof of Proposition 2:

(i) If w wins and proposes policy y, its payoff is

$$U(y, c_w) \equiv u_w(y) \cdot (1 - F(y)) - c_w \cdot F(y)$$

[25]Under the monotone hazard condition (that the hazard rate, $\frac{f(y_w)}{1 - F(y_w)}$, is increasing in y_w) the $\Rightarrow$ in condition (ii) can be replaced by $\Leftrightarrow$.

Suppose there exists $c'_w < c_w$, with $r' \equiv r(c'_w) < r \equiv r(c_w)$. We will derive a contradiction. $r' < r \Rightarrow y'_w < y_w$. Now

$$\left[U\left(y'_w, c_w\right) - U\left(y_w, c_w\right)\right] - \left[U\left(y'_w, c'_w\right) - U\left(y_w, c'_w\right)\right] \leq 0$$

because the first bracket is non-positive by optimality of y_w given c_w and the second bracket is non-negative by optimality of y'_w given c'_w. But the right hand side equals,

$$\left(c_w - c'_w\right)\left[F\left(y_w\right) - F\left(y'_w\right)\right] = \left(c_w - c'_w\right)\left(r - r'\right) > 0$$

This contradiction implies that r is monotonically decreasing in c_w.

Secondly, suppose that $r \not\longrightarrow 0$ as $c_w \to \infty$. Then $\exists\ \bar{r} > 0$ such that for arbitrarily large c, $\exists c_w > c$ such that $r > \bar{r}$. This implies that w is choosing y, giving a payoff of

$$U\left(y, c_w\right) \equiv u_w\left(y\right)\left(1 - r\right) - c_w \cdot r \leq -c_w \cdot r < -c \cdot \bar{r}$$

but w could instead choose $y = -2$ giving a payoff of $U = -4 > -c \cdot \bar{r}$ for $c > \dfrac{4}{\bar{r}}$. This contradiction proves that $r \longrightarrow 0$ as claimed.

(ii) $c_w, \tilde{c}_s$ (respectively, $\tilde{c}_z$ for outsider control case) determine r, the risk of disruption when w wins the election. When s wins, this risk is 0. Note that r is independent of c_0. When $r = 0$ there is nothing to prove. When $r > 0$, we will now show that r^e is a step function which shifts down from r to 0 at a critical level of c_0. In Subgame Perfect Equilibrium, M is decisive and chooses between $(y_s, r_s) = (-2, 0)$ and $(y_w, r_w) = (y_w, r)$. When s wins $(i = s)$, M has payoff -2 and there is no equilibrium risk of disruption, $r^e = 0$. When w wins $(i = w)$, M has payoff $u_0\left(y_w, r\right) = -\left|y_w\right| - r \cdot c_0$. If $r > 0$, $\dfrac{\partial u_0\left(y_w, r\right)}{\partial c_0} = -r < 0$ while $u_0\left(s\right)$ is independent of c_0. Hence, M may prefer w for low values of c_0 but whenever

$r > 0$, M prefers s for sufficiently high values of c_0 and the shift in preference occurs at some value $\hat{c}_0 \in [2, \infty)$. This proves that when $r > 0$ there exists,

$$\hat{c}_0 \in [2, \infty) : \begin{cases} i = s \text{ and } r^e = 0, c_0 > \hat{c}_0 \\ i = w \text{ and } r^e = r, c_0 < \hat{c}_0 \end{cases}$$

In particular, r^e declines monotonically as c_0 rises and $r^e \to 0$ as $c_0 \to \infty$ (in fact it reaches 0 at $\hat{c}_0$). ■

Proof of Proposition 4

In proving lemma 1, we showed that s never causes $r > 0$ so $\sup X_s \leq \bar{y}$. Similarly, if w offers a platform to the right of $\bar{y}$, w knows that if it wins it gets its lowest possible payoff of $-c_w$. By deviating to platform $\bar{y}$, it does strictly better if it ever wins (as $R > 0$ and $\bar{y}$ is the best policy it can hope for) and it can do no worse (even if it started to lose more often, it would benefit from that). Thus $\sup X_w \leq \bar{y}$. Using these two implications of assumption AA (that weakly dominated strategies are avoided), we separate the proof into two cases.

Case $\bar{y} \leq 0 : \sup X_s \leq \bar{y} \Rightarrow w$'s best response is $\bar{y}$ because against $x_s < \bar{y}$, this uniquely gives w its highest possible payoff given the threat, while against $x_s = \bar{y}$ the policy cannot be improved for w and no deviation could increase w's chance of winning. If w can never win we must have $X_s = \{\bar{y}\}$ and $\pi(\bar{y}, \bar{y}) = 1$ (s cannot offer any policy closer to 0 than $\bar{y}$ either) but this contradicts assumption AC. Since w can win, $X_w = \{\bar{y}\}$. The only best response for s in turn is also $\bar{y}$ unless $\pi(\bar{y}, \bar{y}) = 0$ in which case s is willing to offer any platform. We designed AC to ensure that $\pi(\bar{y}, \bar{y}) \neq 0$. Using AC, we have a unique best responses of $\bar{y}$ so that there is a unique PBE with convergence of platforms at $\bar{y}$. Without using AC, there would simply be an additional range of equilibria in which only w wins and

s adopts any strategy it likes or only s wins and w randomizes over strategies (which must have significant weight on $\bar{y}$). In these equilibria, the winner always offers $\bar{y}$ so the policy outcome is still at the "convergence point," $\bar{y}$.

Case $\bar{y} > 0$: Given that all strategies use only platforms $x \leq \bar{y}$, the problem reduces to platform competition on the restricted policy space, $[-2, \bar{y}]$ and where the extra dimension created by the risk of unrest can be neglected since no party ever offers a platform with $r > 0$. The median voter's ideal point, 0, lies strictly inside this range and we can apply the well known median convergence theorem - see Roemer [1994] for a proof which treats a case in which parties are ideological but also value winning the election for its own sake and therefore encompasses our model. ■

Proof of Proposition 5

We only prove the novel result arising in the case where $\bar{y} < 0$ (we omit proofs for the uninteresting case of $\bar{y} \geq 0$). We still have $\sup X_w \leq \bar{y}$ but s will not create unrest against itself so readily because the benefits of office, R, are contingent on "peace" so assumption AA only gives the weaker restriction: $\sup X_s \leq \bar{x} = \bar{y} + R$.

If w ever wins, w's only possible best response is $\bar{y}$ because against $x_s < \bar{y}$, this gives w its highest possible payoff given the threat (losing to s with $x_s = \bar{y}+R$ is as good but no better for w than winning at $x_w = \bar{y}$ which is the only platform w can win on and get its highest payoff), while against $x_s \in [\bar{y}, \bar{y} + R]$, w at least weakly prefers to win and either there is no deviation which could increase w's chances of winning or w is already winning at $\bar{y}$. Thus $X_w = \{\bar{y}\}$. If $\pi(\bar{y}, \bar{y}) < 1$, s would like to offer a platform just closer to the median voter than $\bar{y}$ so that the policy outcome is the same and s wins for sure. With a discrete policy space, such a platform would exist and s would always win. With a continuous platform, s has no best response unless $\pi(\bar{y}, \bar{y}) = 1$. This is why we have to drop assumption AC (used to narrow down equilibria in Proposition 4). The unique equilibrium outcome is now $X_s = \{\bar{y}\}$ with s always winning. w may place some weight on platforms which never win (but must place sufficient weight on $\bar{y}$ otherwise s would deviate towards -2). ■

Proof of Proposition 6

We assume that s always knows $\bar{y}$ and so, exactly as in the proof of proposition 4, undominatedness (assumption AA) requires that $\sup X_1 \leq a$ and $\sup X_2 \leq b$; meanwhile, w only knows that $\bar{y} \leq b$, so we can only know that, $\sup X_w \leq b$: any platform above b guarantees w its lowest payoff when it wins and is weakly dominated by offering b which gives w the highest payoff it can hope for when it wins. Thus assumption AA gives $\sup X_w \leq b$ and $\sup X_1 \leq a$ while $\sup X_2 \leq b$. We now derive further restrictions on equilibrium form.

1. *Suppose s pools on a single platform, x.* Then $x \leq a$ else s_1 will never choose x. Furthermore, $\eta(x) = p$ since voters learn nothing. We now consider what w's responses can give: (i) if $x_w = b$ then w wins because $p < \hat{p}$ by A4 implies that,

$$p(-c_0) + (1-p)\,b > -\hat{p} \cdot c_0 + (1-\hat{p})\,b = b - (b-a) = a \geq x$$

and so w gets a payoff of $u_w \equiv -p \cdot c_w + (1-p)(b - 2 + R)$; (ii) if $x_w < x$ then s wins ($r = 0$ either way) and so w gets a payoff of $u_w' \equiv x - 2 \leq a - 2$. Now $p < \hat{p}$, $c_w + a - 2 > 0$ and since $\left(\frac{c_0 - 2}{b+2}\right) \leq \left(\frac{c_0 + a}{b-a}\right) = \frac{1}{\hat{p}} - 1$, A5 guarantees that

$c_w \leq c_0 + 2 + R\left(\frac{1}{\hat{p}} - 1\right)$ so,

$$\begin{aligned} u_w - u'_w &\geq (1-p)(b-a+R) - p(c_w + a - 2) \\ &> (1-\hat{p})(b-a+R) - \hat{p}\left(c_0 + 2 + R\left(\frac{1}{\hat{p}} - 1\right) + a - 2\right) \\ &= b - a - \hat{p}(b + c_0) = 0 \end{aligned}$$

(iii) For $x < a$, $x_w \in [x, a)$ is dominated by $x_w = a$ as $R + a - 2 > x - 2$ (when $x = a$, $[x, a)$ is empty); (iv) For $x_w \in (a, b)$, w gets a convex combination of $u_w - (b - x_w)$ and u'_w both of which are worse than u_w so that would be a dominated response.

It follows that w's best response is restricted to $x_w \in \{a, b\}$. Now if $x_w = a$ with probability 1 then, either $\pi(x, a) < 1$ in which case s_2 would deviate to $a + \varepsilon$ or $\pi(x, a) = 1$ but then w would deviate to b to get u_w which is greater than $a - 2$. So we must have $b \in X_w$.

Suppose that $x_w = b$ with probability 1 and $\pi(b, b) > 0$. Then s_2 would deviate to b to increase its payoff by $\pi(b, b) R$. There is a set of equilibria in which $X_w = \{b\}$, $X_s = \{x\}$ (with $x \leq a$) and $\pi(b, b) = 0$. In these equilibria, w always wins but the platforms must exhibit divergence of at least $b - a$ so we store this result.

2. Now we must study *non-singleton strategies for s*. We begin with a corollary of the above: *w cannot always lose*: an equilibrium in which w always loses would have to have pure pooling (if $X_1 \cup X_2$ contained more than one platform we can derive a contradiction because both types of s would strictly prefer offering, and winning on, the more extreme of any two such platforms) but the above argument proved that w must always win in any pure pooling equilibrium.

3. We can show that *w's best response lies in $\{a,b\}$ in any PBE.* We define X_w^* to be the set of $x_w \in X_w$ for which w wins with strictly positive probability in the hypothesized PBE. We know that $X_w^* \neq \emptyset$, the null set, because w cannot always lose.

For $x_w \in X_w^* \cap [-2, a)$, we want to consider a deviation to $x_w = a$. We have to consider the consequences of the deviation for all possible $x_s \in X_s$ (of course, some of the cases may not arise) and integrate using the weights in s's strategy to compare the expected return to x_w with that from the deviation: (i) Against $x_s > a$, w loses both at x_w and at the suggested deviation (s's platform will be closer to 0 given that $x_s \leq b$ and s wins because s never causes unrest by Lemma 1(i)). (ii) Against those $x_s < a$ to which w was losing at x_w, w will win by deviating because $r = 0$ when $x_w = a$ and $|a| < |x_s|$, this gives a "benefit gain" of R and a "policy gain" of $a - x_s$. (iii) Against those $x_s < a$ at which w was winning at x_w, w still wins and has a policy gain of $a - x_s$. (iv) Against $x_s = a$, w would have been losing and a deviation to a implies no policy change and possibly some benefit gain. Now by the definition of X_w^*, we know that w must have been sometimes winning so the expectation places positive weight on case (iii) where $x_w = a$ brings a strict improvement and since this deviation causes no losses in the other cases it is strictly optimal for w to deviate. This contradiction proves that $X_w^* \cap [-2, a) = \emptyset$.

With a little more difficulty, we can also prove that $X_w^* \cap (a, b) = \emptyset$. Take $x_w \in X_w^* \cap (a, b)$ and consider the deviation to $x_w = b$. (i) Against $x_s \in (a, b)$, $\eta = 0$ and w wins at b with a policy gain of $b - x_s$ (and benefit gain of R if w was losing). (ii) Against $x_s = b$, w was losing and may now win R with no policy change. (iii) Against those $x_s \leq a$ to which w was losing, either w continues to lose or w now wins at b and the key question is whether w wants to start winning. To answer this, note that w only starts winning if $\eta(x_s) = \eta$ satisfies

$$x_s < \eta(-c_0) + (1-\eta)\,b$$
$$\Rightarrow \eta < \frac{b - x_s}{b + c_0}$$

Using assumption A5 to substitute for c_w,

$$\begin{aligned}
&\eta(-c_w) + (1-\eta)(b - 2 + R) - (x_s - 2)\\
&> \frac{(b - x_s)\left(-c_0 - 2 - \left(\frac{c_0-2}{b+2}\right)R\right) + (c_0 + x_s)(b - 2 + R) - (x_s - 2)(b + c_0)}{b + c_0}\\
&= \frac{-\left(\frac{c_0-2}{b+2}\right)b + x_s\left(1 + \frac{c_0-2}{b+2}\right) + c_0}{b + c_0}\cdot R, \text{ which, noting that } x_s \geq -2,\\
&\geq \frac{\left(\frac{c_0-2}{b+2}\right)(-b-2) + (c_0 - 2)}{b + c_0}\cdot R = 0
\end{aligned}$$

from which we see that w only starts to win when w is strictly better off by winning. (iv) Against those $x_s \leq a$ at which w was winning, w makes a policy gain of $b - x_s$. Again, we have that the deviation never hurts and because case (iii) cannot be the only case, we know that w strictly gains from the deviation. This contradiction proves that $X_w^\star \cap (a, b) = \emptyset$.

4. Combining the results, we have $\emptyset \neq X_w^\star \subseteq \{a, b\}$. Now if $b \in X_w^\star$, w is strictly better off at b than at any platform at which w is sure to lose ($b \in X_w^\star$, $\exists\, x_s : x_s < \eta(-c_0) + (1-\eta)\,b$ and part (iii) of the last argument proved that w strictly benefits from winning here for all x_s against which it wins). Meanwhile, if $a \in X_w^\star$, w is strictly better off at a than at any platform at which w always loses because, for all x_s at which w wins, $x_s < \eta(-c_0) + (1-\eta)\,a$ and from this we can use the fact that,

$$A5 \Rightarrow c_w < c_0 + 2 + \left(\frac{c_0 - 2}{a + 2}\right)R$$

to repeat the argument of case (iii) above, substituting a for b throughout. This proves that $X_w = X_w^* \subseteq \{a, b\}$.

5. Suppose that w mixes with probability weight q on a and $1-q$ on b, for some $q \in [0,1]$

(i) If $q = 0$ then we have divergence of at least $b - a$ a fraction at least p of the time because $x_s \leq a$ whenever $s = s_1$. Next, we define $\bar{q} \equiv \frac{R+b+2}{2R+b+2}$ which lies strictly between 0 and 1 for any $R > 0$. If $0 < q \leq \bar{q}$, then $1 - q \geq \frac{R}{2R+b+2}$ and we have divergence of at least $b - a$ a fraction at least $\frac{R}{2R+b+2} \cdot p$ of the time. If $q > \bar{q}$, we must treat two cases.

(ii) If $q > \bar{q}$ and $\pi(a,a) = 1$ then we must have some s sometimes offer a platform with $x < a$ else w would always be losing at a, contradicting the result in point 4 above. But either type of s can get a payoff bounded below by,

$$q(-2-a+R) + (1-q)(-2-b) \qquad ((1))$$

by adopting platform a. While an upper bound to the payoff available from a platform to the left of a is,

$$q(-2-a) + (1-q)(-2+2+R) \qquad ((2))$$

and this is strictly lower than the lower bound given $q > \bar{q}$:

$$q > \frac{R+b+2}{2R+b+2} \Rightarrow q \cdot R + (1-q)(-b-2-R) > 0$$

(iii) If $q > \bar{q}$ and $\pi(a,a) < 1$ then s_2 has no best response[26] unless it is b: s_2's best response cannot lie in (a, b) because $\eta(x) = 0$ for all x in this range

[26] If the policy space is discrete, s_2 could have a best response just to the right of a (at "a^+") and s_1 could be setting a platform of a but in this case w offers b because w then wins against s_2 and not against s_1, implying that w gains $b - a^+$ with probability $1-p$ and R with probability $1 - p - p \cdot \pi(a,a)$ which is unambiguously positive if $p \leq \frac{1}{2}$.

and w only offers a or b so moving closer to a would always increase s_2's payoff; furthermore, s_2's best response cannot lie in $[-2, a)$ because s_2 would lose to w when w offers a as above and deviating to $a+\varepsilon$ for sufficiently small ε arbitrarily closely approximates the same lower bound payoff as in (2) above, so we have the same result. Finally, s_2's best response cannot equal a because s_2 does strictly better (a gain within ε of $R \cdot \pi(a, a)$) by deviating to $a + \varepsilon$. Hence, s_2's best response is b as claimed. So we have divergence of at least $b - a$ with probability at least $(1 - q)p + q(1 - p)$ ($\geq \min(p, 1 - p)$, for all q) of the time.

Putting the results together, we have divergence of at least $b - a$ a fraction no less than $\min\left(p \cdot \frac{R}{2R+b+2}, 1 - p\right)$ of the time. In conclusion, we have a strictly positive lower bound on the occurrence of divergence for any $R > 0$. ■

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Figure I:

Timeline of the Political Competition

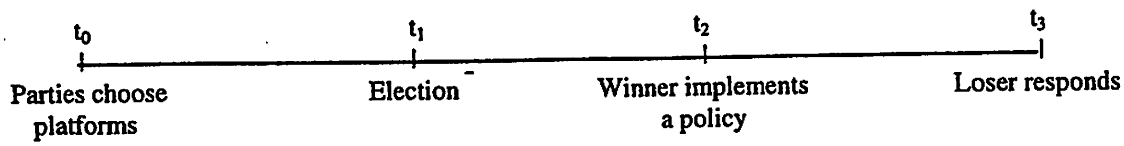

Figure II:

Equilibrium Probability of Unrest as a Function of the Cost of Unrest

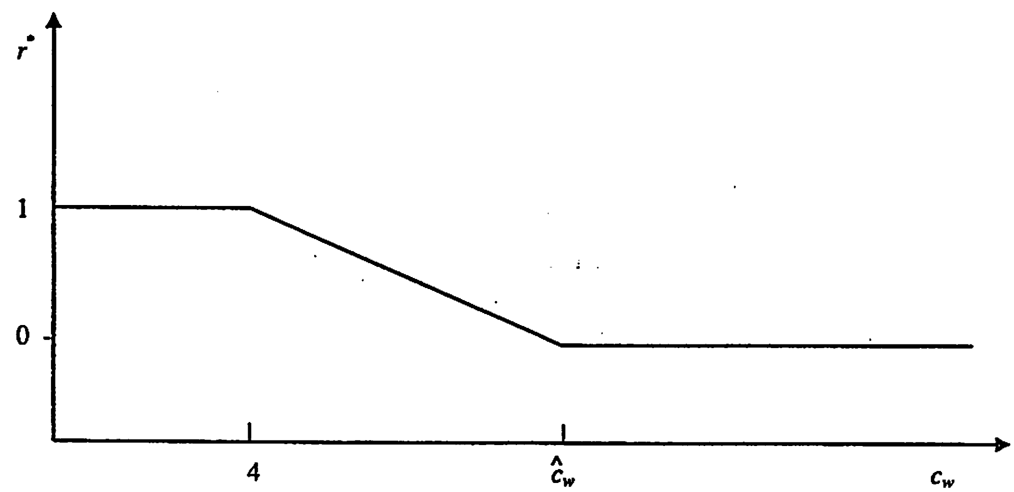

Figure III

Equilibrium Policy as a Function of the Cost of Unrest