# Issue Salience and International Crisis Bargaining

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August 11, 2020

#### Abstract

This paper develops a model of international crisis bargaining in the shadow of domestic constraints. The model links the pattern of domestic media strategies during international bargaining to the pattern and degree of the leader's domestic constraints. Partially constrained leaders prefer to downplay the influence of international bargaining when they are on the edge of winning or losing reelection with a small margin. They prefer to increase the salience of international bargaining when they are highly popular or extremely unpopular along other issue dimensions. The analysis also shows that while partial domestic constraint provides leverage for international bargaining, full constraint or no constraint on office-motivated leaders might be a curse that reduces social welfare and even leads to unnecessary conflicts. On October 22, 1962 at 7:00 pm EDT, six days after the beginning of the Cuban Missile Crisis, U.S. President John F. Kennedy delivered a nationwide television speech on all of the major networks announcing the discovery of the Soviet missiles deployed in Cuba, gave a detailed assessment of the situation, briefed the moves U.S. government had taken, and described the administration's plan in the next steps. The crisis was handled in a relatively transparent fashion, and accordingly it became a salient issue that attracted nationwide attention. On the other extreme, the attempted Palestinian-Israeli peace process is characterized by back-channel negotiation between Palestinian and Israeli highranking authorities in parallel with officially acknowledged front-channel bargaining. Numerous efforts were made by both sides to arrange covert bargaining meetings that avoid attention from domestic political factions, parties, military leaders, and the wider public (Wanis-St John, 2006; Dochartaigh, 2011).

Aside from the extreme cases, we more often observe international negotiations with media strategies falling in between. Neither full transparency nor total secrecy is undertaken. The existence of the crisis and negotiations is officially acknowledged, but crisis actors downplay the influence of the crisis domestically. The first Gulf of Syrte crisis between the United States and Libya in 1981 is such an example. During the 28-dayconfrontation between U.S. and Libya, President Reagan avoided mentioning the ongoing crisis in any speeches, verbal or written statements and press conferences in a national security or defense-related context, and accordingly, media coverage of the adversary decreased (Baum, 2004).

The vastly different ways leaders handle international crisis bargaining domestically

naturally lead to several questions. What explains different patterns of decision makers' media strategies during international crisis bargaining? Under what circumstances will leaders seek to conduct crisis negotiations secretly vs. publicly?

In-depth case studies on back-channel negotiation in conflict resolution literature provide useful insights to this question (Dochartaigh, 2011; Wanis-St John, 2006)), however, no general theoretical framework has been established to systematically address the above questions in international bargaining literature. Baum (2004) explores the topic empirically, and shows that American presidents prefer to avoid public scrutiny by suppressing their public discussion of the ongoing crisis and the adversary when the stakes are moderate, and they are not quite confident of military success if bargaining breaks down. One big problem with empirical studies involving secret bargaining is that they naturally suffer from selection bias. Without full access to classified documents, researchers can never be sure that they have included all the relevant cases, of which secretly conducted negotiations are a huge part.

This paper addresses the questions theoretically by analyzing a model of international crisis bargaining in which the leader of one party negotiates in the shadow of a looming election and has the option to invoke the domestic audience prior to the bargaining. The analysis links the pattern of leaders' domestic media strategies during international crisis bargaining to the pattern and degree of their domestic constraints.

Two dimensions of the leader's domestic constraints are considered. First, the leader's popularity along other issue dimensions. Second, the domestic audience's preference for the bargaining outcomes. A demanding public that holds high expectation for the bar-

gaining outcome will oust the leader if State 1's share from the settlement is not satisfying enough, thus shrinking the bargaining range acceptable to State 1 by eliminating "low" offers that are harmful to the leader's prospect for reelection. On the one hand, the leader can take advantage of this constraint, and invoke the demanding domestic audience by increasing salience of international bargaining domestically, so as to induce higher offers from State 2. On the other hand, the leader wants to avoid domestic backlash by downplaying the bargaining. This domestic backlash happens when the demanding public is over-invoked, and the bargaining range is completely eliminated so that the leader of State 1 rejects all offers to avoid losing office. The leader thus faces a trade-off between winning reelection and obtaining a better settlement. Being popular along other issue dimensions allows the leader more space to maneuver, but also makes it harder for the leader to convince his opponent that his hands are tied.

The paper makes three main contributions. First, it links the pattern of domestic media strategies during international crisis bargaining to the pattern and degree of the leaders' domestic constraints. Partially constrained leaders prefer to "go private" in terms of downplaying international bargaining and decreasing its salience domestically, when they are on the edge of losing or winning reelection with a small margin. Second, the analysis illustrates that, while partial constraint on highly office-motivated leaders can translate into advantage in international crisis bargaining, full constraint or no constraint at all turns out to be a curse that reduces the voters' welfare and even leads to unnecessary conflicts. Rather than a clear cut "domestic weakness is international strength" logic commonly recognized in the literature studying two-level politics (Fearon, 1994; Schelling, 1980; Iida, 1993)), the relationship between international bargaining and domestic politics displays a fairly complex picture. Leaders' strategic choice of invoking the domestic audience or not further complicates the issue. This paper helps to elucidate the conditions under which domestic weakness benefits or damages international bargaining. Third, it explains how war could ensue as a result of an unpopular leader's diversionary incentives. The highly office-motivated leader, being unpopular along other issue dimensions, needs to boost public support by obtaining a large share from international bargaining. However, the domestic audience is too demanding with respect to the bargaining outcome so that the opponent state cannot afford to buy off the leader. Rather than reaching an agreement unacceptable to the voters and losing office, the leader prefers to fight and therefore have some chance of remaining in power post-conflict.

Recent rationalist literature on crisis bargaining establishes that threats and commitments made under the table do not incur costs on negotiators, and therefore do not credibly reveal information or establish commitment (Powell, 2002; Schultz, 2001). Secret bargaining, by this logic, is discarded as inefficient and ineffective, because the parties involved in the bargaining process cannot credibly signal their resolve given widely present incentives to misrepresent or withhold private information (Fearon, 1995; Ramsay, 2004). A notable example of this line of argument is the audience costs theory (Fearon, 1994, 1997). Making a threat or a commitment in international bargaining carries domestic political consequences for the leaders, ranging from decreasing public support, to removal from office, or even threat of life in extreme. The domestic audience costs incurred by the decision makers' escalatory behaviors enable them to credibly signal their resolve, and therefore allow leaders to gain leverage in the bargaining process.

Two important assumptions underlie this line of reasoning. First, international bargaining is assumed to be always conducted in a public fashion, in front of international and domestic audience. Publicity of the bargaining process is an assumed fact rather than a strategic choice of the leaders (Levenotoglu and Tarar, 2005). Second, reputation-based concerns rather than preferences for the bargaining outcome remain the core of related models. In various models, audience costs are evoked either because a leader makes a threat and then back down from it, or because a negotiator publicly commits to some policy yet fails to carry it through. Reputation, national honor and avoidance of public humiliation form the basis for the public's incentive to sanction a leader who displays certain undesired behaviors in international bargaining. Bargaining outcome does not directly enter into domestic audiences' calculation (Kurizaki, 2007; Ramirez, 2013).

These assumptions seem a little problematic in light of abundant cases of secret bargaining in historical records. In countless cases, leaders choose to settle crisis and resolve conflict through under-the-table contact. Secrecy is the very soul of diplomacy (Kurizaki, 2007). Even in a time with advanced technologies of mass communication, while the government does not have full control over public opinion, leaders have the means to control the degree to which an international negotiation is exposed to the media and the public (Gilboa, 2000). Empirical studies also show that U.S. presidents tend to "go private" in the sense of avoiding speaking publicly about potential adversaries in international crises where the interests at stakes are modest. Publicity of the negotiation is indeed a strategic choice. In addition, case studies in conflict resolution literature suggest that, setting post-negotiation implementation issues aside, secret bargaining sometimes is even more effective than front-channel bargaining. Most of the major breakthroughs in Palestinian-Israeli peace process were reached through secret negotiation (Dochartaigh, 2011). Empirical studies also suggest that domestic audience does care about the contents of foreign policy other than pure national honor (Trachtenberg, 2012).

This paper relaxes these assumptions to investigate leaders' strategic choice of publicity in international crisis bargaining. It speaks to a broader literature of two-level games that link diplomacy and domestic politics. Instead of making the domestic opposition a signaling device (Schultz, 2001), or granting domestic actors ratification power (Putnam, 1988; Iida, 1993; Milner and Rosendorff, 1997), or allowing for possibility of renegotiation after leader change (Smith and Hayes, 1997) in trade negotiation, I explore the influence of domestic audience with the ability to punish the leader post-negotiation in an international crisis setting.

The paper also directly speaks to the diversionary theory of war, which hypothesizes that unpopular leaders generate foreign policy crises or fight wars to both divert the public attention away from the internal mess and bolster their political career through a rally-around-the-flag effect (Tir, 2010; Russett, 1990; Tarar, 2006; Levy, 1988; Morgan and Anderson, 1999). In my model, domestically unpopular leaders in the face of losing office seek to "go public" by raising the salience of international bargaining. In doing so, they expose their domestic constraints and pressure their opponents to maker larger concessions. However, the diplomatic maneuver could get out of control and a war is therefore inevitable when the distribution of the domestic audience's preferences on the issue in

dispute are highly skewed towards large demands that their opponent is unable to meet. In line with the diversionary theory of war, unpopular leaders have incentives to divert domestic discontents with international disputes. However, war might not be in their original plan if they could manage to strike a great deal that helps gather domestic support and win the reelection.

# 1 Model Setup

Two states, labeled State 1 and State 2, bargain over a perfectly divisible pie of size 1. Prior to the negotiation, State 1 chooses a transparency level  $t \in T = [0, 1]$ , with 0 indicating complete secrecy and 1 total publicity. After observing State 1's chosen transparency level, State 2 makes an offer  $(x, 1 - x) \in [0, 1]^2$ , where  $x \in [0, 1]$  denotes State 1's share. State 1 can choose to accept or reject the offer. If State 1 accepts the offer, each state receives a share of pie equal to the proposed division, and the game moves to the domestic stage, where the leader of State 1 faces retrospective voting. If State 1 rejects the offer, a war ensues and State 1 wins the war with probability *p*. After the war, the domestic audience in State 1 will decide the fate of their leader on the basis of war outcome.

In the domestic stage, domestic audience in State 1 votes to decide whether their leader remains in office or not. The leader of State 1 wins reelection if he manages to gather at least half of the votes. The domestic stage relates to international bargaining through issue salience. The more transparent the international bargaining process is, the more likely that it becomes a salient issue domestically and has an impact on the leader's prospect for reelection. I distinguish the behaviors of two groups of voters, the informed voters and the uninformed voters. The informed voters pay attention to the substantive bargaining outcome, and vote for or against the leader according to their preferences for the outcome. The uninformed voters do not pay attention to the bargaining outcome, and vote according to their preferences along other issue dimensions. This speaks to the observation that voters have underlying preferences over the outcome of an international bargaining, but do not always pay attention to what is going on internationally. Voters are more likely to punish or reward the leader for her international performance when international bargaining hits the headline and becomes a salient issue domestically. Otherwise, they will vote according to their preferences along other issue dimensions.

Formally, a continuum of voters is assumed. Each voter, indexed by  $i \in [0, 1]$ , has an ignorance level  $t_i \in [0, 1]$ , which is the critical salience level that the voter pays attention to international bargaining and observes the outcome, and a preference point  $\hat{x}_i \in [0, 1]$ , which is the lowest share of pie that the voter expects the leader to achieve in the bargaining. The joint distribution of the ignorance level and the preference of the voters in State 1 is  $f(t) \cdot g(x)$ , the product of two marginal distributions.

Therefore, for a given transparency level t, F(t) is the fraction of voters who observe the bargaining outcome, i.e., informed voters; and 1 - F(t) is the fraction of voters who do not observe the outcome, i.e., uninformed voters. The more transparent the bargaining process is, the higher the fraction of informed voters is. F(t) is assumed to be strictly increasing in t with additional normalization that F(0) = 0 and F(1) = 1.

The distribution of voters' preferences in State 1 is g(x). I assume that g(x) is strictly

positive over X = [0,1], thus the cumulative density function G(x) is strictly increasing, and the inverse function  $G^{-1}$  exists. Upon observing the outcome, an informed voter will vote for the leader if the negotiated outcome satisfies  $x \ge \hat{x}_i$ , and will vote against the leader if  $x < \hat{x}_i$ . Thus, for any bargaining outcome x, the leader of State 1 gets vote share G(x) among the informed voters<sup>1</sup>. Uninformed voters will vote according to their preferences along other issue dimensions. In this case, the leader obtains vote share  $q \in$ (0, 1) among the informed voters. q can be loosely interpreted as the leader's domestic popularity or general support rate.

If State 1 chooses to accept State 2's offer, for a given pair of (t, x), the leader of State 1 wins the reelection and remains in office if  $F(t)G(x) + [1 - F(t)]q \ge 0.5$ , i.e., the total vote share is greater than or equal to 0.5. Settlement payoffs are linear in the settlement division. With a settlement division (x, 1 - x) that follows t, the leader of State 1's utility for peaceful agreement is then a convex combination of his payoff from remaining in office (or not) and the settlement payoff  $u_1(A|t, x) = \alpha I (F(t)G(x) + [1 - F(t)]q \ge 0.5) + (1 - \alpha)x$ , where  $I(\cdot)$  is an indicator function, and  $\alpha \in (0, 1)$  is the weight the leader puts on officerelated payoff. Higher  $\alpha$  indicates that the leader is more office-motivated. State 2's utility

<sup>&</sup>lt;sup>1</sup>Just like there are hawks and doves in the government, there are hawkish and dovish voters. However, this is consistent with a setup that assumes voters unequally bear the costs of war. Suppose, for example, each voter  $i \in [0, 1]$  pays a cost  $c_i$  if the bargaining breaks down and a war ensues. And the distribution of costs among the voters is h(c) over support  $[c, \bar{c}]$ . Voter i votes for the leader if  $x \ge p - c_i$ , and votes against the leader otherwise. Then with a settlement division (x, 1 - x), the leader can gather vote share 1 - H(p - x), which can be transformed into G(x). Notice that G(x) takes a generic form, and in principle could be consistent with a large class of distributions of costs.

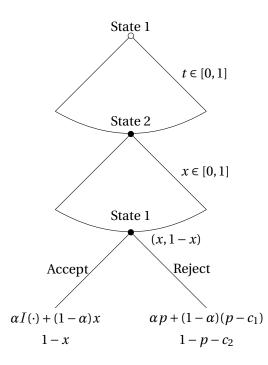


Figure 1: Model Setup and Sequence of Play

for the peaceful settlement is simply 1 - x.

If State 1 chooses to reject State 2's proposal, a war breaks out. Let  $p \in (0, 1)$  denote the probability that State 1 wins, and let  $c_1, c_2$  be the costs of war for each state accordingly. Whoever wins the war gets the whole prize, and both have to pay the costs. Therefore, the war payoff for State 1 is  $p - c_1$  and that for State 2 is  $1 - p - c_2$ .

If a war breaks out, all voters observe the outcome. The leader remains in office if State 1 wins the war, and loses power if State 1 loses the war. The leader of State 1's utility for war is then a convex combination of his payoff from remaining in office (or not) and his war payoff  $u_1(R) = \alpha p + (1 - \alpha)(p - c_1)$ .

The sequence of the game is presented in Figure 1. First, State 1 chooses a trans-

parency level  $t \in [0, 1]$ . Next, upon observing the chosen transparency level, State 2 proposes an offer (x, 1 - x). Then, State 1 can accept the offer, leading to peaceful agreement, or reject the offer, resulting in a war. Finally, in light of the bargaining outcome, a retrospective election determines the fate of the leader of State 1.

The key to solving the game is the patten and degree of the leader of State 1's domestic constraints. These constraints come from two sources. First, the domestic audience's preference for the bargaining outcome. Second, the leader of State 1's domestic popularity along other issue dimensions. A demanding public that holds high expectation for the bargaining outcome will oust the leader if State 1's share from the settlement is not satisfying enough, thus shrinking the bargaining range acceptable to State 1 by eliminating "low" offers that are harmful to the leader's prospects for reelection. On the one hand, the leader can take advantage of this constraint, and invoke the demanding domestic audience by increasing transparency, so as to induce higher offers from State 2. On the other hand, the leader wants to avoid domestic backlash by downplaying international bargaining. This domestic backlash happens when the demanding public is over-invoked, and the bargaining range is completely eliminated so that the leader of State 1 has to reject all offers to avoid losing office. The leader thus faces a trade-off between winning reelection and obtaining a better settlement. Being popular along other issue dimensions allows the leader more space to maneuver, but also makes it harder for the leader to convince the opponent that his hands are tied.

To understand the degree of a leader's domestic constraints, notice that both states will never agree to a settlement division that gives them less than what they can obtain if the bargaining breaks down. This determines each state's reservation value. State 2's reservation value is simply  $\bar{x} = p + c_2$ , i.e., it will never offer any x larger than  $\bar{x}$  that leads to an agreement. For simplicity, assume  $p + c_2 \in (0, 1)$ .

State 1's situation is more complicated since the leader is also concerned with his prospect for reelection. Let  $\underline{x}_w$  and  $\underline{x}_l$  denote the share of pie that makes State 1 just indifferent between accepting and rejecting if the leader wins and loses reelection, respectively. For simplicity, assume that State 1 always accepts when it is indifferent. If the leader wins reelection, the division has to satisfy  $\alpha + (1-\alpha)\underline{x}_w = \alpha p + (1-\alpha)(p-c_1)$ , which yields  $\underline{x}_w = \frac{p-\alpha}{1-\alpha} - c_1$ . Similarly, if the leader loses reelection, the division has to satisfy  $(1-\alpha)\underline{x}_w = \alpha p + (1-\alpha)(p-c_1)$ , which yields  $\underline{x}_l = \frac{p}{1-\alpha} - c_1$ . Hence, State 1 will never accept any offer strictly less than  $\underline{x}_w$  if the leader loses reelection, and it will never accept any offer strictly less than  $\underline{x}_l$  if the leader loses reelection.

It is easy to verify that  $\underline{x}_l > \underline{x}_w$  and  $\overline{x} > \underline{x}_w$ . Any peaceful settlement has to be between  $\underline{x}_w$  and  $\overline{x}$ . The relationship between  $\underline{x}_l$  and  $\overline{x}$  varies with  $\alpha$ .  $\underline{x}_l \ge \overline{x}$  if  $\alpha \ge \frac{c_1+c_2}{1+c_1+c_2}$ , and  $\underline{x}_l < \overline{x}$  if  $\alpha < \frac{c_1+c_2}{1+c_1+c_2}$ . Regardless of the costs of war, with sufficiently large  $\alpha$ , the former will always be the case. Without further qualification, all the results presented in Section 3 will be based on the assumption that  $\alpha \ge \frac{c_1+c_2}{1+c_1+c_2}$ . Those achieved under the latter condition  $\alpha < \frac{c_1+c_2}{1+c_1+c_2}$  follow a similar logic, but are less interesting. So they are supplemented in the appendix, and will only be briefly discussed at the end of Section 2 and in Section 3 to examine the welfare implications of leaders' incentives.

For any settlement division (x, 1 - x), the leader gathers vote share G(x) among the informed voters. Let  $\hat{x} = G^{-1}(0.5)$  denote the median voter's preference. The relative posi-

tion of  $\hat{x}$ ,  $\bar{x}$ ,  $\underline{x}_l$  and  $\underline{x}_w$  is crucial to solving the game. We establish the following definition.

Definition 1. We say the domestic audience of State 1 is

(1) <b>demanding</b>	$\text{if } \hat{x} > \min\{\underline{x}_l, \bar{x}\},\$
(2) satiable	$\text{if } \min\{\underline{x}_l, \bar{x}\} \ge \hat{x} \ge \underline{x}_w$
(3) undemanding	if $\underline{x}_w > \hat{x}$ .

## 2 Equilibrium Analysis

This section does two things. First, it characterizes the Subgame Perfect equilibria (SPE) of the game and identifies the parameter space in which each set of SPE exist. Second, it examines the relationship between patterns of international bargaining behavior and the degree of the leader's domestic constraints.

A domestically popular leader of State 1 facing demanding audience chooses a transparency level that induces State 2 to make the most generous offer, accept it, and win reelection with exactly one half vote share. In this scenario, the leader's equilibrium transparency level increases in his domestic popularity. The leader turns to go private (i.e., choose a small t), and downplay international bargaining if he is on the edge of winning reelection with a small margin and the domestic audience is demanding with respect to the bargaining outcome. And the leader will go public and increase the salience of international bargaining (i.e., choose a large t) if they are very popular domestically along other issue dimensions and the audience is demanding or satiable. Proposition 1 and Corollary 1.1 state the results formally. **Proposition 1.** If the domestic audience of State 1 is demanding  $(\hat{x} > \min\{\underline{x}_l, \overline{x}\})$ , q > 0.5, and  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ , there exists a SPE, in which State 1 chooses transparency level  $t^* = F^{-1}(\frac{q-0.5}{q-G(x^*)})$ , State 2 offers  $x^* = \overline{x} = p + c_2$ , and State 1 accepts all  $x \ge x^*$  and rejects any-thing less than  $x^*$ .

The intuition behind is straightforward. State 2 is the one making offers, it can either buy State 1 off or offer a division unacceptable to State 1 and hence start a war. In an ultimatum type of game with complete information, State 2 prefers to buy off its opponent because it can make an offer that leaves State 1 just indifferent between accepting and rejecting, and keep all the surplus saved from not fighting to itself. In the original ultimatum game without the prior choice of transparency and the domestic stage of State 1, this amount will just be  $p-c_1$ . However, with the additional structure, State 1 now can manipulate the indifference condition to advantage its bargaining position. When the domestic audience is demanding,  $\bar{x} < \hat{x} = G^{-1}(0.5)$ , any offer State 2 is willing to make does not win half of the votes. By choosing a higher transparency level, the leader of State 1 risks losing reelection by exposing the unfavorable bargaining outcome to the audience whose expectation is too high and hence losing vote share. Since  $\underline{x}_l > \overline{x}$ , State 2 cannot make any offer acceptable to State 1 when the leader of State 1 loses reelection. The leader of State 1, by increasing transparency, induces State 2 to make a higher settlement offer that partially satisfies its domestic audience and makes sure he gets reelected. However, he cannot over invoke the domestic audience to the extent that the largest offer State 2 can offer is not high enough to please the voters. Formally, the following conditions need to

be satisfied.

$$\begin{cases} F(t)G(x) + (1 - F(t))q \ge 0.5\\ \bar{x} \ge x \ge \underline{x}_w, \end{cases}$$
(1)

If t = 0, the first part is always satisfied since q > 0.5. For  $t \neq 0$ , the first part of equation 1 can be written as  $G(x) \ge \frac{0.5-q}{F(t)} + q$ . Since q > 0.5, the right hand side is strictly decreasing in t. State 1 wants to increase t to induce a higher offer from State 2 but the offer cannot exceed  $\bar{x}$ . In equilibrium, it is optimal for State 1 to set the transparency level as such that induces the highest offer of State 2,  $\bar{x}$ . Thus in equilibrium,  $F(t)G(\bar{x}) + [1 - F(t)]q = 0.5$ , which yields  $t^* = F^{-1}(\frac{q-0.5}{q-G(\bar{x})})$ .

However, if the domestic audience is satiable, and can be pleased with an offer less than the largest amount State 2 is willing to offer, the leader of State 1 will choose the maximum transparency level, and accept the offer enough to satisfy the domestic audience and win reelection. This gives the following corollary.

**Corollary 1.1.** (*Maximum Transparency Equilibrium*) If the domestic audience of State 1 is satiable (min{ $\underline{x}_l, \bar{x}$ } >  $\hat{x} \ge \underline{x}_w$ ), q > 0.5, and  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$ , there exists a SPE, in which State 1 chooses  $t^* = 1$ , State 2 offers  $x^* = \hat{x} = G^{-1}(0.5)$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

The next corollary characterizes the change in equilibrium transparency level as *q*, the domestic popularity along other issue dimensions for the leader of State 1, shifts.

**Corollary 1.2.** If the domestic audience of State 1 is demanding  $(\hat{x} > \min\{\underline{x}_l, \bar{x}\})$ , q > 0.5, and  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$ ,  $t^*$  is strictly increasing in q. *Proof.* Taking the first partial derivative of  $t^* = F^{-1}(\frac{q-0.5}{q-G(x^*)})$  with respect to q yields

$$\frac{\partial t^*}{\partial q} = \frac{0.5 - G(x^*)}{f[F^{-1}(\frac{q - 0.5}{q - G(x^*)})](q - G(x^*))^2}.$$
(2)

The denominator is strictly positive. The numerator is also positive because

$$G(x^*) = G(\bar{x}) < G(\hat{x}) = G(G^{-1}(0.5)) = 0.5.$$

Higher popularity along other dimensions indicates that the leader of State 1 is less constrained domestically, but it also makes it hard for him to convince State 2 that his hands are tied. To induce the most generous offer from State 2, State 1 then needs to further increase transparency. As q goes to 0.5,  $t^*$  goes to 0 in equilibrium. A leader of State 1 who is just on the edge of winning reelection with a small margin prefers to go private and avoid over-invoking the audience. Otherwise he will end up with a "no-win" situation where any offer State 2 can afford is unacceptable to the voters, and the leader can either reject the offer and get the two states into a war that could have been avoided, or accept the offer and lose office. Neither of them is satisfactory to the leader of State 1.

An unpopular leader also has the incentive to make use of international bargaining to change his disadvantageous domestic standing. In equilibrium, a domestically unpopular leader of State 1 facing satiable or undemanding audience chooses a transparency level that induces the largest offer of State 2, accepts it, and wins reelection. In this case, the equilibrium transparency level decreases in the leader's domestic popularity. The leader will go public (choose a large t) if he is extremely unpopular and therefore needs to cut

a good deal to boost domestic support, and the domestic audience is not too demanding so that State 2 can afford offering a division enough for pleasing the domestic audience of State 1. Similar to the reason discussed earlier, if the leader of State 1 is moderately unpopular, he will choose a small *t* so as to avoid domestic backlash. Proposition 2 states the result formally.

**Proposition 2.** If the domestic audience of State 1 is satiable  $(\min\{\underline{x}_l, \bar{x}\} > \hat{x} \ge \underline{x}_w)$  or undemanding  $(\underline{x}_w > \hat{x})$ , q < 0.5, and  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$ , there exists a SPE, in which State 1 chooses  $t^* = F^{-1}(\frac{0.5 - q}{G(x^*) - q})$ , State 2 offers  $x^* = \bar{x} = p + c_2$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

**Corollary 2.1.** If the domestic audience of State 1 is satiable  $(\min\{\underline{x}_l, \overline{x}\} > \hat{x} \ge \underline{x}_w)$  or undemanding  $(\underline{x}_w > \hat{x})$ , q < 0.5, and  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$ ,  $t^*$  is strictly decreasing in q.

Corollary 2.1 characterizes the change in equilibrium transparency level  $t^*$  as the domestic popularity q changes. Notice the equilibrium  $t^*$  here has the same form as that characterized in Proposition 1, and therefore yields the same partial derivative. The only difference is that now  $G(x^*) = G(\bar{x}) > G(\hat{x}) = G(G^{-1}(0.5)) = 0.5$ , resulting in a negative numerator.

Taking advantage of international bargaining to boost domestic support can help the leader of State 1 win reelection which he was not expected to win without international bargaining. But this can only happen when the domestic audience is satiable or undemanding. When the audience is demanding, the settlement division enough to satisfy the voters and help the leader of State 1 win reelection exceeds the largest offer State 2 is willing to make. Therefore, the bargaining range disappears, no peaceful settlement is reached in equilibrium, and a war ensues. This is formally stated in Proposition 3.

**Proposition 3.** (*War Equilibrium*) If the domestic audience of State 1 is demanding  $(\hat{x} > \min\{\underline{x}_l, \bar{x}\})$ , q < 0.5, and  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ , there exists a set of SPE, in which State 1 chooses any transparency level  $t^* = [0, 1]$ , State 2 proposes any offer that is rejected by State 1.

If  $t^* \neq 0$ , State 2 offers any  $x^* = \left[0, \min\{G^{-1}(t'), \underline{x}_l\}\right)$ , and State 1 accepts all  $x \ge \min\{G^{-1}(t'), \underline{x}_l\}$ and rejects anything less than  $\min\{G^{-1}(t'), \underline{x}_l\}$ , where  $t' = \min\left\{\max\{0, \frac{0.5-q}{F(t^*)} + q\}, 1\right\}$ . If  $t^* = 0$ , State 2 offers any  $x^* \in [0, 1]$  if  $\underline{x}_l > 1$  and  $x^* \in [0, \underline{x}_l)$  if  $\underline{x}_l \le 1$ , and State 1 accepts all  $x \ge \underline{x}_l$  and rejects any offer strictly less than  $\underline{x}_l$ .

Figure 2 summerizes the intuition of Proposition 3. There are two cases. In both cases, if t = 0, since q < 0.5, the leader of State 1 loses relection for sure; for any  $t \neq 0$ , the amount needed for helping the leader of State 1 gather enough votes and stay in office is  $G^{-1}(t')$ , which is strictly greater than  $\bar{x}^2$ , the largest share State 2 is willing to offer. In either case, State 2 wants to propose an offer that is rejected by State 1, because she can obtain higher expected utility by fighting than making a unbearably huge concession. The range of rejected offer differs for **Case a** and **b**. In **Case a**, the amount needed for helping the leader of State 1 just indifferent between accepting and rejecting when he loses relection. Thus, State 1 will accept  $x \in [x_l, G^{-1}(t'))$ , even if the leader loses relection with an agreement in that range.

<sup>&</sup>lt;sup>2</sup>For q < 0.5,  $\frac{0.5-q}{F(t)} + q$  is strictly positive, so  $G^{-1}(0)$  is ruled out.  $G^{-1}(1) > \bar{x}$  follows from the assumptions that  $p + c_2 \in (0, 1)$  and that  $G(\cdot)$  is strictly increasing.  $G^{-1}(\frac{0.5-q}{F(t)} + q) > \bar{x}$  follows from the fact that  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  is strictly decreasing in t and its minimum  $G^{-1}(\frac{0.5-q}{F(t)} + q)|_{t=1} = G^{-1}(0.5) > \bar{x}$ .

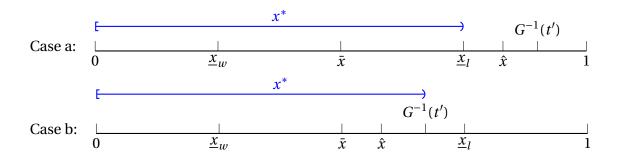


Figure 2: Intuition for Proposition 3

It is then optimal for State 2 to offer something strictly less than  $\underline{x}_l$ . In **Case b**, for any t, the amount needed for helping the leader win reelection is smaller than  $\underline{x}_l$ . Thus State 1 will accept any offer that gives it at least  $G^{-1}(t')$ , and it is then optimal for State 2 to offer a division strictly less than x'. Combining **Case a** and **b**, depending on  $t^*$ , it is optimal for State 2 to offer anything strictly less than the smaller one of  $\underline{x}_l$  and  $G^{-1}(t')$ . In **War Equilibrium**, bargaining breaks down because the leader of State 1 is unpopular along other issue dimensions and therefore in the face of losing relection, and any offer State 2 can afford to make is not satisfactory enough for the demanding doemstic audience of State 1. Highly-office motivated leader of State 1 would rather fight a war that leaves him some hope for remaining in the office (he wins relection with probability p if bargaining breaks down) than reaching any settlement agreement unacceptable to the voters that results in him losing office for sure.

As we have seen from Proposition 1 and 2, domestic constraints on the leader, if well manipulated, can turn into leverage in international bargaining, and pressure the opponent into maximum concession. The key is that the leader can be constrained on one aspect while there is plenty of space for maneuver on the other aspect. In the context characterized by Proposition 1, on the one hand, the leader of State 1 is severely constrained because the domestic audience is demanding. On the other hand, high domestic support along other issue dimensions allows the leader to manipulate the indifference condition by increasing transparency of the bargaining. For a leader in the situation characterized by Proposition 2, he faces little pressure from the domestic audience on the international issue in dispute since the audience is satiable or undemanding. However, he is severely constrained by low support rate along other issue dimensions. The equilibrium result again is favorable to the leader since he can boost domestic support by cutting a good deal in international bargaining. If the leader is unfortunately constrained on both aspects, the result, as shown by Proposition 3, would be that the bargaining range evaporates, and a war breaks out.

A question naturally arises, what if the leader is unconstrained on both aspects? Contrary to what people would imagine that free of domestic handcuffs leaders could have more discretion and perform better in international bargaining, unconstrained leaders actually get a smaller share from the opponent. Next proposition states the result formally.

**Proposition 4.** (*Guaranteed Reelection Equilibrium*) If the domestic audience is undemanding  $(\underline{x}_w > \hat{x})$ , q < 0.5, and  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$ , there exists a set of SPE, in which State 1 chooses any transparency level  $t^* \in [0, 1]$ , State 2 offer  $x^* = \underline{x}_w = \frac{p - \alpha}{1 - \alpha} - c_1$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

The intuition is straightforward. Any offer enough to buy off State 1 should be at least

as large as  $\underline{x}_w$ . Since the audience is undemanding, for any  $x \ge \underline{x}_w$ , the vote share from informed voters is strictly larger than 0.5 ( $G(x) \ge G(\underline{x}_w) > G(\hat{x}) = G(G^{-1}(0.5)) = 0.5$ ). For any transparency level t, the leader of State 1 is able to gather vote share F(t)G(x) + (1 - F(t))q, strictly greater than 0.5, and thus guaranteed to win reelection. The choice of transparency level does not affect the leader's prospect for reelection, so any transparency level could be supported in equilibrium. Aware of this, it is optimal for State 2 to offer  $\underline{x}_w$ , that leaves State 1 just indifferent between accepting and rejecting when its leader wins reelection. The resulting settlement division to State 1  $\underline{x}_w$  is even smaller than what it could have obtained in a standard Ultimatum game without the choice of transparency and the retrospective voting stage.

However, this is a rare case. Notice that for this equilibrium to exist,  $\underline{x}_w = \frac{p-\alpha}{1-\alpha} - c_1 > 0$ has to be satisfied, which yields  $p > (1-\alpha)c_1 + \alpha > \alpha > c_1^3$ . Either it will be a lopsided war in favor of State 1 (State 1's probability of victory *p* is very high), or the cost of war is low and the leader of State 1 does not care too much about staying in office or not.

The equilibria under different sets of parameters are summarized in Figure 3. The upper graph presents the set of SPE obtained under the assumption  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ , which we discussed in detail in this section, while the lower one displays the set of SPE obtained under  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ . Before stepping into the welfare implications in the next section, it is worth a little while clarifying the logic behind results obtained under the latter assump-

<sup>&</sup>lt;sup>3</sup>It is easy to obtain  $p > (1 - \alpha)c_1 + \alpha > \alpha$  and  $p > c_1$ . To get  $\alpha > c_1$ , notice that  $\frac{p-\alpha}{1-\alpha} - \alpha = \frac{\alpha^2 - 2\alpha + p}{1-\alpha} = \frac{(\alpha - 1)^2 + p - 1}{1-\alpha} > \frac{(\alpha - 1)^2 + (\alpha - 1)}{1-\alpha} = -\alpha < 0$  is strictly negative. Since  $\frac{p-\alpha}{1-\alpha} - c_1$  is positive,  $\frac{p-\alpha}{1-\alpha} - c_1 > \frac{p-\alpha}{1-\alpha} - \alpha$  yields  $\alpha > c_1$ .

tion. The formal results and proofs are supplemented in the appendix, but the intuition follows a similar logic. The only difference is that now  $\bar{x} > \underline{x}_l$ . This means that State 2 now can afford to buy off the leader of State 1 when he loses reelection. Aware of this, State 1 would choose a transparency level *t* that induces State 2 to offer exactly this amount and help the leader win reelection. State 1 cannot push further by invoking more audience, because State 2 would still propose  $\underline{x}_l$ , an offer State 1 will accept even its leader loses reelection. By invoking more audience, the leader of State 1 is worse off, because he gets the same share of pie but loses power. State 1 also cannot retreat by invoking fewer audience, because State 2 now prefers to offer something that guarantees exactly half of the voters for the leader of State 1. But by assumption, this amount will be strictly less than  $\underline{x}_l$ .

In sum, the model establishes that while partial domestic constraint can turn into advantage in international bargaining, full constraint or no constraint at all is a curse for the leader's position in international crisis bargaining. The next section examines how the leader's office-seeking incentive and the voters' preferences affect State 1's settlement share.

### **3 Welfare Implications**

This section explores the welfare implications of leaders' office motivation and the median voter's preference. State 1's welfare, denoted  $W_1$ , is defined as State 1's final share from the bargaining (or breakdown of bargaining) minus its cost in case of a fight.

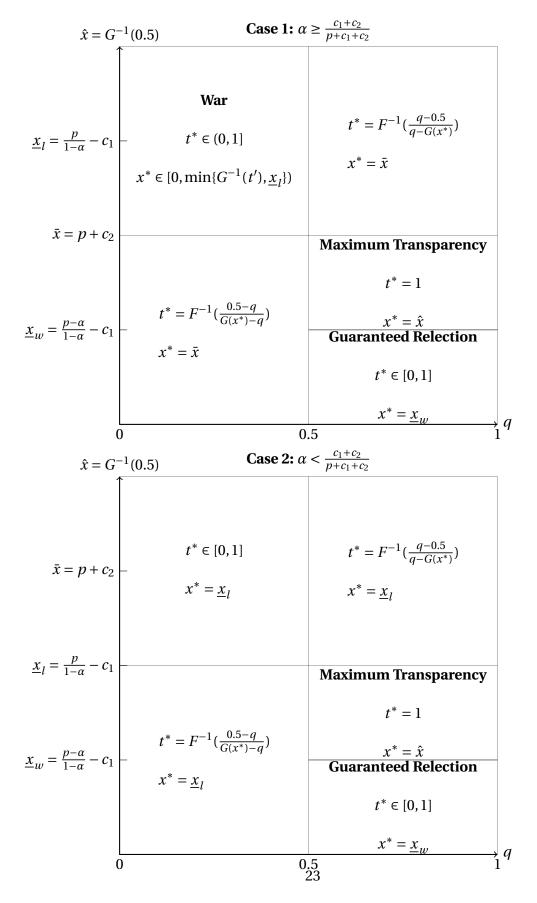


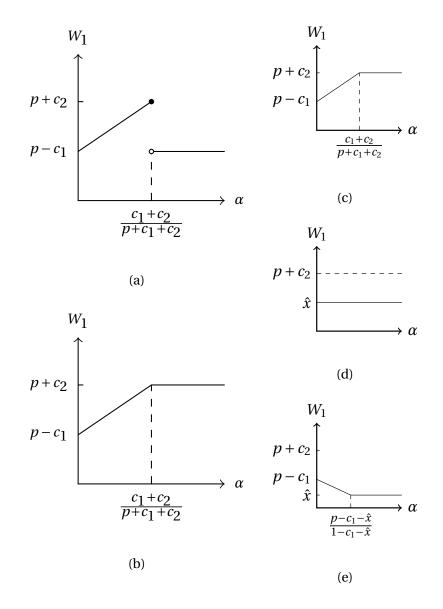
Figure 3: SPE of the game

### 3.1 Office incentive

As we have seen, the leader's incentive structure is reshaped once we account for his office motivation. In choosing between war and peace, instead of comparing solely the settlement offer to the war payoff, the leader now has to consider a weighted sum of the settlement payoff and the office-related payoff. How international bargaining proceeds depends crucially on the weight a leader puts on his political career. Several questions naturally follow. Is the leader's career incentive beneficial or detrimental to the state's welfare? Is it possible that the office-seeking leader trades international concessions for domestic support? Will the leader initiate unnecessary conflict at the price of the social welfare to avoid career failure? If so, under what conditions? To address these questions, we need a comprehensive examination of how State 1's welfare changes in response to change in  $\alpha$ , the weight the leader puts on office-related payoff.

Figure 4 presents the relationship between  $W_1$  and  $\alpha$  for different sets of parameters. Each sub-figure corresponds to the region in Figure 3. Notice that when  $\alpha = 0$ , the game becomes the standard Ultimatum game where State 2 makes the offer, and the standard result  $x^* = p - c_1^4$  for State 1 is obtained. The first four sub-figures just display the settlement share or the war payoff for State 1 when we move from a cell in Case 2 of Figure 3 to the corresponding cell in Case 1. The last sub-figure in the lower-right corner needs further explanation. Suppose the median voter's preference  $\hat{x}$  is smaller than  $p - c_1$ .  $\underline{x}_w = \frac{p-\alpha}{1-\alpha} - c_1$  is strictly decreasing in  $\alpha$ . For a range of  $\alpha$  small enough,  $\underline{x}_w > \hat{x}$  holds, and

<sup>&</sup>lt;sup>4</sup>For simplicity,  $p - c_1 > 0$  is assumed. All the results follow through with  $p - c_1 < 0$ .



## Figure 4: State 1's welfare as a function of $\alpha$

the **Guaranteed Reelection** equilibrium is obtained. As  $\alpha$  continues increasing, at some point  $\underline{x}_w$  becomes smaller than  $\hat{x}$ , and we are in the **Maximum Transparency** equilibrium thereafter. Solving for  $\hat{x} = \underline{x}_w$  yields the point of change  $\frac{p-c_1-\hat{x}}{1-c_1-\hat{x}}$ .

Three observations follow from the above welfare analysis. First, Figure 4 displays an interesting pattern consistent with our previous observation. That is, while partial or moderate domestic constraint is a blessing for international bargaining, severe constraint and no constraint turn out to be a curse. When the leader is partially constrained domestically (Figure 4b and 4c), State 1's welfare is weakly increasing in  $\alpha$ ; when the leader is not constrained (Figure 4e), State 1's welfare is weakly decreasing in  $\alpha$ ; when the leader is fully constrained (Figure 4a), State 1's welfare first increases with  $\alpha$ , then experiences a sudden downward jump after  $\alpha = \frac{c_1 + c_2}{p + c_1 + c_2}$ , and remains constant thereafter. Second, the leader never deliberately trades concession for vote shares. Notice that in any peaceful agreement reached under partial domestic constraint, State 1's share is at least as large as it would have obtained when the leader completely does not care about reelection  $(p - c_1)$ when  $\alpha$ =0). In the situation characterized by Figure 4c, the leader sacrifices part of the votes (but not enough for him to lose office) to pressure for a better deal. In that characterized by Figure 4b, the leader boosts domestic support by cutting a better deal rather than making unnecessary concessions. For a situation illustrated by Figure 4e, State 1 ends up with a settlement share even smaller than it could have obtained when the the leader has no office incentive. This happens not because he makes concession to exchange for staying in office. Rather, the leader is guaranteed to win reelection and faces no pressure from the undemanding domestic audience. Extreme favorable domestic environment leaves the leader no room for manipulating the indifference condition, and therefore he has to accept the least favorable settlement offer. Third, there exists situation where the leader fights an unnecessary war to avoid losing office. This happens when the leader is unpopular along other dimensions (q < 0.5), and the domestic audience is demanding with respect to international bargaining outcome, i.e., when the leader is fully constrained. A leader with low  $\alpha$  would accept the fact of losing reelection and reach an peaceful agreement with the opponent that gives his state a fair share<sup>5</sup>, as characterized by the left half of Figure 4a. However, a highly office-motivated leader prefers to gamble for resurrection by fighting a war, where he has some hope for remaining in office with probability p.

### 3.2 Voters' preferences

State 1's welfare as a function of the median voter's preference when  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}^6$  is presented in Figure 5. When the leader is popular along other issue dimensions, State 1's welfare is weakly increasing in the median voter's preference  $\hat{x}$ ; when the leader is unpopular domestically, State 1's welfare is weakly decreasing in the median voter's preference. A right-skewed distribution of voters' preferences can be used by the leader to demonstrate his inability to make concessions and induce the most generous offer from the opponent.

<sup>&</sup>lt;sup>5</sup>Renegotiation under the new government is not considered here. I shall argue that this is an valid assumption in the case of crisis bargaining that calls for a swift resolution. Once an agreement is reached and the tension of crisis eased, it is less likely to reopen negotiation unless one side challenges by initiating another crisis.

<sup>&</sup>lt;sup>6</sup>That for  $\alpha < \frac{c_1 + c_2}{p + c_1 + c_2}$  is supplemented in the appendix.

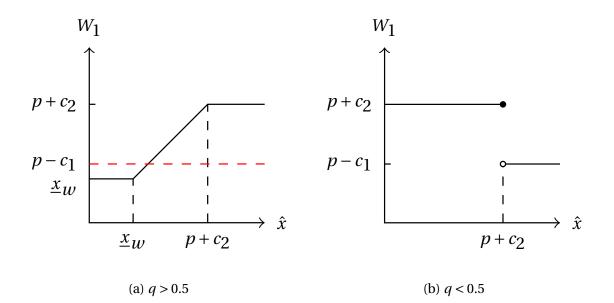


Figure 5: State 1's welfare as a function of the median voter's preference with  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ However, it can also cause bargaining breakdown when the leader has low support rate along other issue dimensions.

This might add another explanation to why territorial disputes are so difficult to solve peacefully. Voters generally have extraordinarily high preferences for territorial disputes, because they are emotionally attached to the territory, or because they are instilled with the idea of territorial integrity, or because of various other reasons. In addition, because of its high stakes, territorial dispute is a natural candidate for salient issue. Chances are that domestic backlash happens, and the territorial dispute easily hits the national headline. The leader is then confronted with a choice between a peaceful agreement unacceptable to the voters that will cause him to lose reelection and a war that leaves him some chance of remaining in power. A highly office-motivated leader naturally prefers the latter.

### **4** Conclusion

The model of international bargaining under domestic constraints developed in this paper shows that while partial domestic constraint provides leverage for international bargaining, full constraint or no constraint on office-motivated leaders might be a curse that reduces voters' welfare and even leads to unnecessary conflicts.

The article makes three main contributions. First, it links the pattern of domestic media strategies during international crisis bargaining to the pattern and degree of the leaders' domestic constraints. Partially constrained leaders prefer to "go private" in terms of downplaying international bargaining and decreasing its salience domestically, when they are on the edge of losing or winning reelection with a small margin. Second, the analysis illustrates that, rather than a clear cut "domestic weakness is international strength" logic commonly recognized in the literature studying two-level politics, the relationship between international bargaining and domestic politics displays a fairly complex picture. Leaders' strategic choice of invoking the domestic audience or not further complicates the issue. This paper helps to elucidate the conditions under which domestic weakness benefits or damages international bargaining. Third, it explains how war could ensue as a result of an unpopular leader's diversionary incentives. The highly office-motivated leader, being unpopular along other issue dimensions, needs to boost public support by obtaining a large share from international bargaining. However, the domestic audience is too demanding with respect to the bargaining outcome so that the opponent state cannot afford to buy off the leader. Rather than reaching an agreement unacceptable to the voters

and losing office, the leader prefers to fight and therefore have some chance of remaining in power post-conflict.

# Appendix

# A Proofs

This section provides proofs for the propositions and major corollaries in the main text. I begin by formalizing the players' strategies. A strategy for State 1 specifies its choice of transparency level in the first stage and the acceptance/rejection rule in the third stage as a function of the transparency level and the offer proposed by State 2. A strategy for State 2 specifies its offer as a function of the transparency level chosen by State 1. Formally, a pure strategy of State 1 is  $s_1 = (t, \alpha(t, x))$ , where  $\alpha : T \times X \to \{0, 1\}$  is the acceptance function such that  $\alpha(t, x)$  is the probability State 1 accepts an offer  $x \in [0, 1]$  given a chosen transparency level t. A pure strategy of State 2 is an offer function  $x : T \to [0, 1]$ . I look for Subgame perfect equilibria (SPE), and the game is solved by backward induction.

I first establish some general results for all subgames of offer and acceptance/rejection, and then use the results to prove the propositions and corollaries.

Lemma 1. Given any t and x, State 1's acceptance rule is

$$\alpha(t,x) = \begin{cases} 1 & \text{if } t = 0 \text{ and } x \ge \underline{x}_{w}^{\delta} \underline{x}_{l}^{1-\delta}, \text{ or } x \ge \min\left\{\max\{\underline{x}_{w}, G^{-1}(\tilde{t})\}, \underline{x}_{l}\right\} \\ 0 & \text{otherwise,} \end{cases}$$
(A.1)

where  $\tilde{t} = \min\left\{\max\{0, \frac{0.5-q}{F(t)} + q\}, 1\right\}$ , and  $\delta = 1$  if  $q \ge 0.5$  and  $\delta = 0$  if q < 0.5.

*Proof of Lemma* **1***.* Consider an arbitrary subgame with transparency level *t* and offer *x*.

For State 1 to accept, one of the following conditions must hold. Either

$$\begin{cases} F(t)G(x) + [1 - F(t)]q \ge 0.5\\ x \ge \underline{x}_w, \end{cases}$$
(A.2)

or

$$\begin{cases} F(t)G(x) + [1 - F(t)]q < 0.5\\ x \ge \underline{x}_l, \end{cases}$$
(A.3)

is true.

For t = 0, if  $q \ge 0.5$ , the first inequality of A.2 holds, and if q < 0.5, that of A.3 holds. Together with the second inequality of each equation, we obtain that State 1 accepts if t = 0 and  $x \ge \underline{x}_{w}^{\delta} \underline{x}_{l}^{1-\delta}$ .

For  $t \neq 0$ , F(t)G(x) + [1 - F(t)]q = 0.5 yields  $G(x) = \frac{0.5 - q}{F(t)} + q$ , which is admissible if  $\frac{0.5 - q}{F(t)} + q \in [0, 1]$ . Consider the admissible case first. Equation A.2 implies  $x \ge \max\{\underline{x}_w, G^{-1}(\frac{0.5 - q}{F(t)} + q)\}$ , and equation A.3 implies  $x \in [\underline{x}_l, G^{-1}(\frac{0.5 - q}{F(t)} + q))$ . Taking together, it yields

$$x \ge \min\left\{\max\{\underline{x}_{w}, G^{-1}(\frac{0.5-q}{F(t)}+q)\}, \underline{x}_{l}\right\}.$$

Now turn to the inadmissible case. If  $\frac{0.5-q}{F(t)} + q < 0$ , the first inequality of A.2 holds for all x, and together with  $x \ge \underline{x}_w$  leads to  $x \ge \max\{\underline{x}_w, G^{-1}(0)\}$ . We can rewrite  $G^{-1}(0)$ as  $G^{-1}(\max\{0, \frac{0.5-q}{F(t)} + q\})$  in this case. Similarly, if  $\frac{0.5-q}{F(t)} + q > 1$ , the first inequality of A.3 is always true. Together with  $x \ge \underline{x}_l$ , it implies  $x \in \left[\underline{x}_l, G^{-1}(\min\{\frac{0.5-q}{F(t)} + q, 1\})\right)$ . Taking together, we obtain  $x \ge \min\left\{\max\{\underline{x}_w, G^{-1}(\tilde{t})\}, \underline{x}_l\right\}$ . **Lemma 2.** Suppose the career incentive of State 1's leader is sufficiently high ( $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ ). In an arbitrary subgame starting with t, State 2 offers

$$x(t) = \begin{cases} \max\{0, \underline{x}_{w}\} & if \ t = 0 \\\\ \underline{x}_{w} & if \ G^{-1}(\tilde{t}) \leq \underline{x}_{w} \\\\ G^{-1}(\tilde{t}) & if \ \underline{x}_{w} < G^{-1}(\tilde{t}) \leq p + c_{2} \\\\ \left[0, G^{-1}(\tilde{t})\right) & if \ p + c_{2} < G^{-1}(\tilde{t}) \leq \underline{x}_{l} \\\\ \left[0, \underline{x}_{l}\right) & if \ G^{-1}(\tilde{t}) > \underline{x}_{l} \end{cases}$$
(A.4)

*if*  $q \ge 0.5$ *, and offers* 

$$x(t) = \begin{cases} x_w & if G^{-1}(\tilde{t}) \le x_w \\ G^{-1}(\tilde{t}) & if \underline{x}_w < G^{-1}(\tilde{t}) \le p + c_2 \\ \left[0, G^{-1}(\tilde{t})\right] & if p + c_2 < G^{-1}(\tilde{t}) \le \underline{x}_l \\ [0, \underline{x}_l) & if G^{-1}(\tilde{t}) > \underline{x}_l, \text{ or } t = 0 \text{ and } \underline{x}_l \le 1 \\ [0, 1] & if t = 0 \text{ and } \underline{x}_l > 1 \end{cases}$$
(A.5)

*if q* < 0.5.

*Proof of Lemma 2*. Since State 2 makes the offer, whenever possible, it will propose the lowest offer that State 1 will accept and leave whatever surplus saved from no fight to itself.

If t = 0, from Lemma 1 we know that it is optimal for State 2 to offer max $\{0, \underline{x}_w\}$  if  $q \ge 0.5$ . If q < 0.5, no offer can guarantee successful reelection. But  $\alpha \ge \frac{c_1 + c_2}{p + c_1 + c_2}$  means

 $\bar{x} \le \underline{x}_l$ , implying what State 2 can afford to offer cannot satisfy the leader of State 1 that loses reelection. Thus State 2 wants to make an offer rejected by State 1, which is [0, 1] if  $\underline{x}_l > 1$  and  $[0, \underline{x}_l)$  if  $\underline{x}_l \le 1$ .

 $\begin{aligned} x(t) &= \underline{x}_w \text{ if } G^{-1}(\tilde{t}) \leq \underline{x}_w \text{ and } x(t) = G^{-1}(\tilde{t}) \text{ if } \underline{x}_w < G^{-1}(\tilde{t}) \leq p + c_2 \text{ for both } q \geq 0.5 \text{ and} \\ q < 0.5 \text{ follow directly from Lemma 1. For both cases, if } G^{-1}(\tilde{t}) > p + c_2, \text{ State 2 prefers to} \\ \text{make an offer that is rejected by State 1, which is } \left[0, G^{-1}(\tilde{t})\right] \text{ if } G^{-1}(\tilde{t}) \leq \underline{x}_l, \text{ and is } [0, \underline{x}_l] \text{ if } \\ G^{-1}(\tilde{t}) > \underline{x}_l. \end{aligned}$ 

*Proof of Proposition* **1**. Since q > 0.5, the acceptance rule A.4 of Lemma **2** applies. We only need to consider the situation where the leader of State 1 wins reelection, otherwise he will get the war payoff  $\alpha p + (1 - \alpha)(p - c_1)$ , which is weakly less than what he could obtain from any peaceful agreement  $\alpha + (1 - \alpha)x$ , since  $x \ge \underline{x}_w$  in all peaceful agreements.

Thus, forward-looking State 1 compares  $\alpha + (1 - \alpha)x(t)$  to  $\alpha p + (1 - \alpha)(p - c_1)$ . The former is strictly greater than the latter for t such that  $\underline{x}_w < G^{-1}(\tilde{t}) \leq p + c_2$  holds. In that range,  $G^{-1}(\tilde{t})$  equals either  $G^{-1}(0)$  or  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  with the latter being admissible<sup>7</sup>.  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  is strictly increasing in t for q > 0.5. Thus it is optimal for State 1 to choose t such that  $G^{-1}(\frac{0.5-q}{F(t)} + q) = p + c_2$ , yielding  $t^* = F^{-1}(\frac{q-0.5}{q-G(p+c_2)})$ , which is admissible since  $G(p + c_2) < G(\hat{x}) = G(G^{-1}(0.5)) = 0.5 < q$ . And State 2 offers  $x^* = G^{-1}(\frac{0.5-q}{F(t*)} + q) = p + c_2$ . Note that this is strictly better than choosing t such that  $G^{-1}(\tilde{t}) = G^{-1}(0)$ , since  $x^* = G^{-1}(\frac{0.5-q}{F(t*)} + q) > G^{-1}(0)$  because  $\frac{0.5-q}{F(t*)} + q$  is strictly positive.

*Proof of Corollary* **1.1**. The analysis above still holds. But now  $F^{-1}(\frac{q-0.5}{q-G(p+c_2)})$  is no longer

 $<sup>^{7}</sup>G^{-1}(1)$  is ruled out because our assumption that  $p + c_{2}$  is strictly between 0 and 1.

admissible, since  $G(p + c_2) \le G(\hat{x}) = 0.5$ . For  $t \in (0, 1]$ ,  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  is strictly smaller than  $p + c_2$ . Since  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  increases in t, it is optimal for State 1 to choose  $t^* = 1$ that maximizes x(t) as well as  $\alpha + (1 - \alpha)x(t)$ . State 2's offer is then  $x^* = G^{-1}(\frac{0.5-q}{F(1)} + q) =$  $G^{-1}(0.5)$ .

*Proof of Proposition 2.* Since q < 0.5, the acceptance rule A.5 of Lemma 2 applies. For the same reason as in the proof of Proposition 1, we only need to consider the case in which the leader of State 1 wins reelection. The rest of the proof follows the same logic as in that of Proposition 1.

*Proof of Proposition 3.* Since q < 0.5, the acceptance rule A.5 of Lemma 2 applies. Since  $G^{-1}(\tilde{t}) > p + c_2^{-8}$ , for all t, any offer large enough to guarantee successful reelection is beyond State 2's ability. Also,  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$  implies that there does not exist an equilibrium in which State 1 accepts an offer and its leader loses reelection. Thus, we only need to consider the situation where State 2 proposes an offer that is rejected by State 1. This leaves us with the last three conditions of A.5. A combination of them, together with the acceptance rule outlined in Lemma 1, yields the equilibria characterized by Proposition 3.

*Proof of Proposition 4.* Since q > 0.5, the acceptance rule A.4 of Lemma 2 applies. First, observe that  $G^{-1}(\tilde{t}) < \underline{x}_w$ . For q > 0.5,  $\frac{0.5-q}{F(t)} + q$  is strictly increasing in t, and the maximum 0.5 is obtained at t = 1. Thus  $G^{-1}(1)$  is ruled out.  $G^{-1}(0) < G^{-1}(0.5) < \underline{x}_w$  follows from the

<sup>&</sup>lt;sup>8</sup>See footnote 2.

assumptions that  $G(\cdot)$  is strictly increasing and that  $\hat{x} < \underline{x}_w$ .  $G^{-1}(\frac{0.5-q}{F(t)} + q)$  is also strictly increasing in t, and its maximum  $G^{-1}(\frac{0.5-q}{F(t)} + q)|_{t=1} = G^{-1}(0.5) < \underline{x}_w$ . This indicates that we only need to consider the first two conditions of A.4. Since  $G^{-1}(\tilde{t}) < \underline{x}_w$  holds for all t, it is optimal for State 1 to choose any  $t \in [0, 1]$ , and State 2 will offer  $\underline{x}_w$ <sup>9</sup>. It also follows from  $G^{-1}(\tilde{t}) < \underline{x}_w$  that, for all  $t \in (0, 1]$ , min  $\{\max\{\underline{x}_w, G^{-1}(\tilde{t})\}, \underline{x}_l\} = \underline{x}_w$ . And for t = 0, since  $q > 0.5, \underline{x}_w^{\delta} \underline{x}_l^{1-\delta} = \underline{x}_w$ . Applying Lemma 1 gives State 1's equilibrium acceptance/rejection rule directly.

### **B** Additional results

This section supplements results derived under the assumption  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ . The proofs are analogous to their conterparts under assumption  $\alpha \ge \frac{c_1+c_2}{p+c_1+c_2}$ , and therefore are omitted.

**Lemma 3.** Suppose the career incentive of State 1's leader is low ( $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ ). In an arbi-

<sup>&</sup>lt;sup>9</sup>Here if t = 0, State 2 still offers  $\underline{x}_w = \max\{0, \underline{x}_w\}$ , because  $\underline{x}_w > 0$  is implied by the assumption that  $\hat{x} < \underline{x}_w$ .

trary subgame starting with t, State 2 offers

ſ

$$x(t) = \begin{cases} \max\{0, \underline{x}_{w}\} & if t = 0 \text{ and } q \ge 0.5 \\\\ \max\{0, \underline{x}_{l}\} & if t = 0 \text{ and } q < 0.5 \\\\ \underline{x}_{w} & if G^{-1}(\tilde{t}) \le \underline{x}_{w} \\\\ G^{-1}(\tilde{t}) & if \underline{x}_{w} < G^{-1}(\tilde{t}) \le \underline{x}_{l} \\\\ \underline{x}_{l} & if G^{-1}(\tilde{t}) > \underline{x}_{l}. \end{cases}$$
(B.1)

**Proposition 5.** Suppose  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ , if one of the following conditions is satisfied,

(1)  $\hat{x} > \min\{\underline{x}_l, \bar{x}\}$  and q > 0.5,

(2)  $\hat{x} \le \min\{\underline{x}_l, \bar{x}\}$  and q < 0.5,

there exists a SPE, in which State 1 chooses transparency level  $t^* = F^{-1}(\frac{q-0.5}{q-G(x^*)})$ , State 2 offers  $x^* = \underline{x}_l = \frac{p}{1-\alpha} - c_1$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

**Corollary 5.1.** Suppose  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ , the equilibrium transparency level t\* is strictly increasing in q under Condition 1 in Proposition 5, and it is strictly decreasing in q under Condition 2 in Proposition 5.

**Proposition 6.** (*Maximum Transparency Equilibrium*) Suppose  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ , if the domestic audience of State 1 is satiable  $(\min\{\underline{x}_l, \overline{x}\} \ge \hat{x} \ge \underline{x}_w)$ , and q > 0.5, there exists a SPE, in which State 1 chooses  $t^* = 1$ , State 2 offers  $x^* = \hat{x} = G^{-1}(0.5)$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

**Proposition 7.** Suppose  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ , if the domestic audience of State 1 is demanding ( $\hat{x} > \min\{\underline{x}_l, \bar{x}\}$ ), and q < 0.5, there exists a set of SPE, in which State 1 chooses any transparency

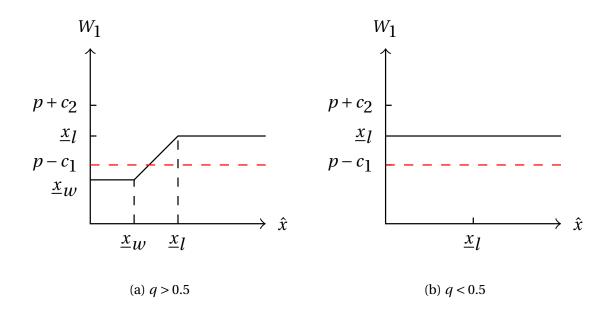


Figure 6: State 1's welfare as a function of the median voter's preference with  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ level  $t^* = [0,1]$ , State 2 offers  $x^* = \underline{x}_l = \frac{p}{1-\alpha} - c_1$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

**Proposition 8.** (*Guaranteed Reelection Equilibrium*) Suppose  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ , if the domestic audience is undemanding  $(\underline{x}_w > \hat{x})$ , and q < 0.5, there exists a set of SPE, in which State 1 chooses any transparency level  $t^* \in [0,1]$ , State 2 offers  $x^* = \underline{x}_w = \frac{p-\alpha}{1-\alpha} - c_1$ , and State 1 accepts all  $x \ge x^*$  and rejects anything less than  $x^*$ .

Figure 6 graphs the change in State 1's welfare in response to shift of the median voter's preference  $\hat{x}$  under the assumption  $\alpha < \frac{c_1+c_2}{p+c_1+c_2}$ .

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