

# Democratic Peace and Electoral Accountability\*

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## Abstract

This paper shows that elections are good for peace. Indeed, politicians' fear of losing office is the reason why disputes between democracies are extremely rare. We develop a simple model of self-enforcing peace between democracies and autocracies, where the crucial difference between these two political regimes is whether or not the leaders are subject to periodic elections. We show that the desire to retain power can deter politicians from engaging in costly military conflicts. Crucially, this disciplining effect can only be at work if incumbents can be re-elected, implying that democracies in which the executives are subject to term limits should be more conflict prone. To assess the validity of these predictions, we construct a large dataset of countries with executive term limits. Our analysis of inter-state conflicts for the 1816-2001 period indicates that democracies in which the leaders cannot be re-elected are as conflict prone as autocracies. Moreover, disputes involving democracies with term limits are more likely to occur in the executive's last mandate.

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# 1 Introduction

One of the few stylized facts in international relations is that democracies are much less likely to be in conflict with one another than autocracies or mixed pairs of states. This “democratic peace” phenomenon is supported by a vast empirical literature (e.g., Bremer, 1992; Maoz and Russett, 1993; Maoz, 1998) and has been described as “as close as anything we have to an empirical law in international relations” (Levy, 1988). The idea that democracies are less conflict prone can be traced back to the writings of Emmanuel Kant over two hundred years ago. In his essay on “Perpetual Peace” he argued that the leaders of non-democratic states are more likely to engage in conflicts, since they are not accountable to citizens, who are “very cautious in commencing such a poor game, decreeing for themselves all the calamities of war.”

This paper shows that Kant was right: electoral incentives are key to promoting peaceful relations; indeed, the conflict patterns of democracies in which leaders face binding term limits are indistinguishable from those of autocracies. We develop a simple theoretical model in which the desire to retain office deters politicians from breaking peaceful relations. A natural testing ground for this idea is provided by democracies in which the leaders can only serve a fixed number of mandates; since executive term limits reduce the disciplining role of electoral accountability, these democracies should tend to be more conflict prone. We collect information about different types of executive term limits for a sample of 177 countries over the 1816-2001 period and combine this information with a large dataset of inter-state conflicts. Our empirical analysis shows that disputes between democracies in which the leaders can be re-elected are less likely than disputes involving autocracies. However, democracies in which the leaders face binding term limits are as likely to be involved in military conflicts as autocracies. We also find that democracies with term limits are more conflict prone in the executive’s last mandate than in the penultimate one.

Existing theoretical explanations for the democratic peace can be divided into two broad approaches. The first approach emphasizes differences in norms and cultures. It contends that democracies are less conflict prone toward one another because they share similar norms of compromise and cooperation within their domestic governments (e.g., Maoz and Russett, 1993; Dixon, 1994; Dixon and Senese, 2002). In essence, these norms mandate nonviolent conflict resolution and negotiation. Because democratic leaders are committed to these norms they try to adopt them in the international arena rather than resorting to violence. To explain conflicts between democracies and non-democracies, this literature argues that democratic values are applied only when democracies face other democracies and are abandoned otherwise.

This paper falls within the second set of explanations—usually referred to as the institutional or structural approach—which maintains that democracies are peaceful toward one another not because of shared norms, but because of the limits placed upon leaders by government institutions (e.g., Bueno de Mesquita *et al.*, 1999; Levy and Razin, 2004; Jackson and Morelli, 2007). To the best of our knowledge, our paper is the first to provide a rationale for the democratic peace phenomenon based on what is arguably the most distinct institutional difference between democracies and autocracies, i.e. the presence or lack of periodic elections.<sup>1</sup> We show that differences in institutions—rather than norms and culture—are the reason behind the democratic peace. In particular, our findings on the effects of term limits demonstrate that elections are the institution that matters.<sup>2</sup>

Our analysis relies on the recognition that, in the absence of a supranational authority with direct powers to punish violations, governments will only refrain from aggressive military behavior if they perceive that doing so is in their interest. We build on the literature on self-enforcing international agreements, which examines how cooperative behavior between countries can be sustained by credible threats among the parties involved when they engage in long-term relationships (e.g., Dixit, 1987; Bagwell and Staiger, 1999; Maggi, 1999). However, this paper departs from the existing literature, which considers policymakers and their countries to be one and the same, by examining how electoral incentives affect the sustainability of international cooperation, in a setting in which policymakers’ objectives are allowed to differ from those of their country.

In line with an established literature in international relations (starting from Jervis, 1978) and with recent work in the economics literature on military conflicts (see Anderlini *et al.*, 2007), we describe international security relations by means of a repeated prisoners’ dilemma game between two countries. This setting reflects the fact that the use of military force is often beneficial in the short-run, but tends to have long-term detrimental consequences: each country

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<sup>1</sup>The explanation put forward by Bueno de Mesquita *et al.* (1999) is based on the idea that political leaders must satisfy their key supporters (their “winning coalition”) to remain in power: autocratic leaders, who answer to a small winning coalition, can choose to accept less favorable chances of victory because they can placate supporters with private goods; in contrast, democratic leaders with a large winning coalition are willing to go to war only when they believe they have an excellent chance of winning and thus not hurting their backers. Levy and Razin (2004) provide an explanation based on communication and trust: participation of the public and the open debate send clear and reliable information regarding the intentions of democracies to other states; in contrast, it is difficult to know the intentions of nondemocratic leaders, what effect concessions will have, and if promises will be kept. Jackson and Morelli (2007) consider a model in which autocratic leaders may find it more attractive to go to war than democratic leaders because they are more “biased”, i.e., have a higher benefit-cost ratio from war compared to that of their country as a whole.

<sup>2</sup>Theoretical models based on other institutions cannot explain why democratic leaders facing binding term limits are as conflict prone as autocratic leaders and why electoral calendars affect countries’ dispute patterns.

can gain by attacking another country to obtain a portion of its wealth and resources; however, if both countries use force, the resulting military conflict is costly compared to being at peace. In this setup, we derive predictions about the likelihood of conflict in different dyads.

Our explanation of the democratic peace phenomenon is based on electoral accountability: the threat of losing office can reduce politicians' willingness to break peaceful relations with other countries. From this perspective, term limits restricting the number of mandates that an individual can serve in office should hinder peace, since they reduce the incumbent's payoffs from future periods in office; in turn, this implies that they reduce voters' ability to punish leaders who engage in costly conflicts. Restrictions on the tenure of the executives have important consequences in our model. In particular, our theoretical analysis generates two distinct predictions: democracies in which leaders face binding term limits (i.e., they are in their last possible mandate) should be as likely to be involved in conflicts as autocracies; when democratic leaders can only serve two terms, the likelihood of being involved in a conflict should depend on whether the executive's is in the last or penultimate mandate.

Term limits on the executive are found in presidential or semi-presidential political systems. Many countries impose "strong" term limits, which rule out re-election after a *fixed* number of terms. These consist mainly of one-term limits, which rule out the possibility of re-election of the president altogether (e.g., Mexico since 1917) and two-term limits, which only allow for one re-election (e.g., the United States since 1951).<sup>3</sup> Other countries impose "weak" term limits, which restrict the number of *consecutive* terms a person can serve (e.g., Panama since 1920).

Anecdotal evidence seems to suggest that term limits may indeed hinder peace: though conflicts in democratic dyads are rare, there have been several recurrent disputes involving democracies in which the executive could not be re-elected. For example, in recent decades Honduras (one-term limit) has been involved in various conflicts (classified as occupations of territory, seizures, raids, border violations or fortifications) with Nicaragua and El Salvador.<sup>4</sup> However, as remarked by Bueno de Mesquita *et al.* (2003, p. 314), lack of data on term limits has so far prevented any systematic analysis of the effects of constraints on office holding. One of the important contributions of this paper is to construct a dataset on term limits: for each year in the 1816-2001 period, we have collected information on which country was imposing restrictions on the tenure of its leader, distinguishing between the different types of term limits.

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<sup>3</sup>Very few countries adopt three-term limits, allowing the executive to be re-elected twice. Namibia is the only democratic country in our dataset with this type of restriction (introduced in 2001).

<sup>4</sup>Other examples of recurrent conflicts between democracies include those between Costa Rica (one-term limit) and Nicaragua, Colombia (one-term limit) and Venezuela, Sri Lanka (two-term limit) and India, or South Korea (one-term limit) and Japan.

Figure 1: Number of Countries by Regime Type and Term Limits

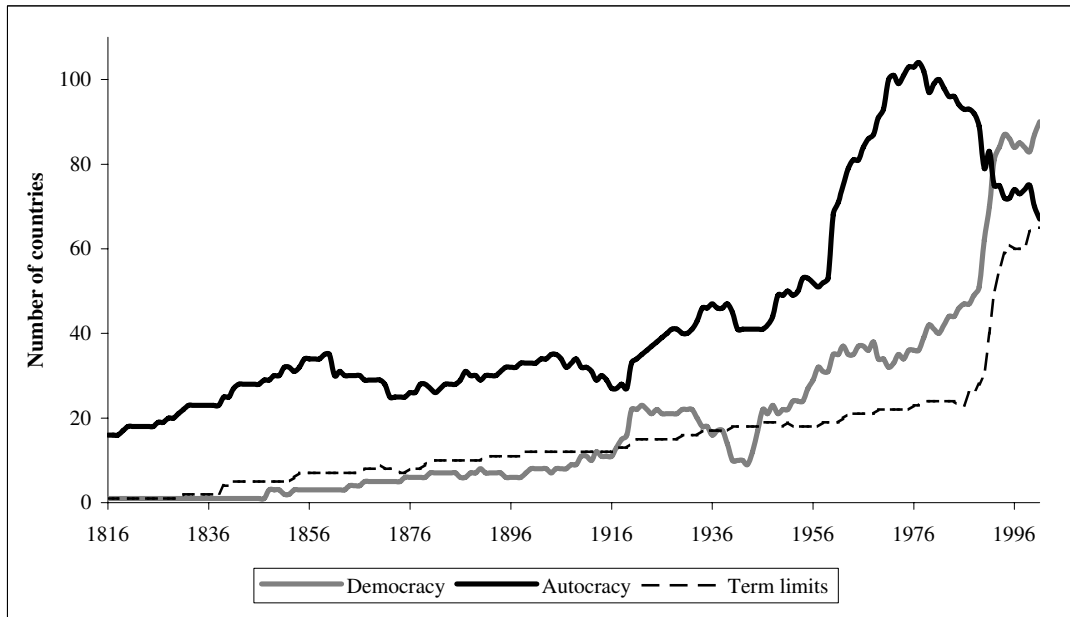
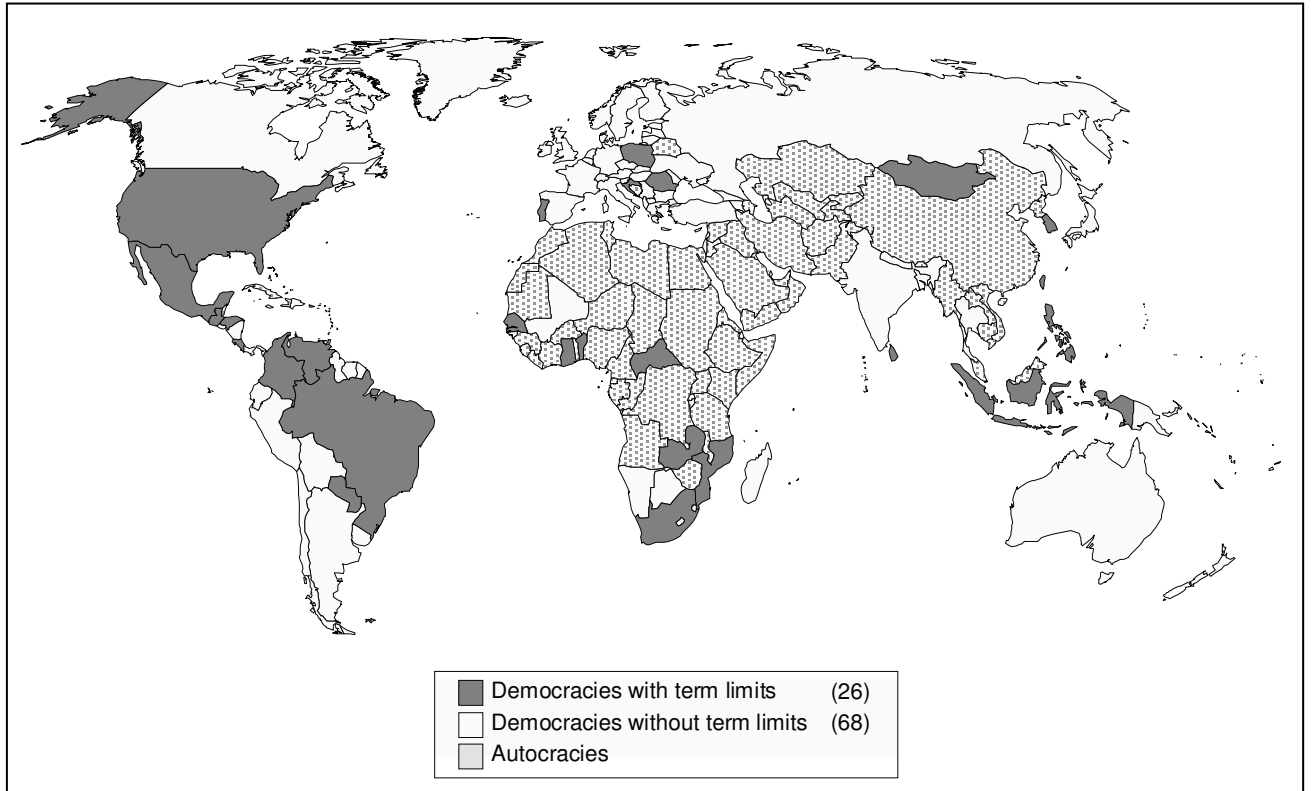


Figure 1 above shows the number of countries by regime type for our sample period, where we use the Polity dataset to define democracies and autocracies (see Section 5 for a detailed description). We can observe an increase in the total number of countries in existence, as well as an increase in the number of democracies. However, these trends are subject to various fluctuations (e.g., World War II, independence of colonies in the 1960s, democratization process in the later years of the sample). Notice that as of the 1990s we observe a higher number of democracies than autocracies.

For each year in our dataset, Figure 1 also shows the total number of countries with executive term limits. This includes all types of term limits in all countries. However, in our theoretical and empirical analysis we will focus on “strong” term limits in countries classified as democracies, since only these impose clear restrictions on electoral accountability. To examine the impact of re-election motives on the sustainability of international peace, we will compare the conflict patterns of democracies without term limits with those of democracies with one-term or two-term limits. Figure 2 below illustrates which democratic countries had strong term limits in the last year of our sample period.

The empirical analysis of the determinants of inter-state conflicts during the 1816-2001 period provides strong support for the predictions of our theoretical model. In line with the existing empirical literature on the democratic peace, we find that democratic dyads are significantly less

Figure 2: One-Term and Two-Term Limits (2001)



likely to be in conflict than mixed or autocratic dyads, even when we include all the standard controls used in the empirical literature on the democratic peace. Crucially, however, we show that this result does not hold for democracies where executives cannot be re-elected, which are as likely to be involved in conflicts as autocracies. Thus, binding term limits invalidate the democratic peace result. Moreover, we find that democracies with term limits are more likely to be in a conflict in the executive's last mandate. These results are robust to the inclusion of a large set of controls and to different estimation strategies.

Our paper is related to the political agency literature originated with Barro (1973), which stresses that the desire to maintain office can help keep politicians in check. In particular, our analysis is close in spirit to Besley and Case (1995), who exploit the existence of gubernatorial term limits in the United States to examine how electoral accountability affects fiscal policy. List and Sturm (2006) provide evidence that term limits can also influence environmental policy choices. Our paper complements these studies, showing that electoral incentives can have a

crucial impact on foreign policy choices. Surprisingly, little work has been done on the link between electoral incentives and international conflicts. Notable exceptions are the papers by Hess and Orphanides (1995, 2001), which argue that democratic leaders who are in a difficult domestic political situation may be inclined to use force as a rational diversion to improve their electoral success. Our analysis shows that, rather than being detrimental to peace as suggested by Hess and Orphanides, elections are the reason behind the democratic peace phenomenon.

The remainder of the paper is organized as follows. In Section 2, we describe a simple model of international conflict and cooperation between two countries run by policymakers who care about remaining in office. Section 3 shows that electoral accountability can explain the democratic peace phenomenon. Section 4 examines the impact of term limits on the likelihood of inter-state conflicts. Section 5 describes our dataset while Section 6 presents our empirical methodology and results. Section 7 concludes, discussing possible avenues of future research.

## 2 International Cooperation and Conflicts

The aim of this section is to present a simple model of international cooperation or conflicts to generate the main insights concerning the disciplining role of electoral incentives. The key feature of the model presented below is the interaction between a country’s domestic institutions—and in particular whether or not policymakers are subject to periodic elections—and its leader’s incentives to engage in military conflicts. Our analysis rests on the fundamental assumption that, in the absence of a supranational authority with direct punishment power, international agreements cannot be binding, so peaceful relations between states must be sustained by credible threats of punishments.

### 2.1 A Repeated Prisoner’s Dilemma

Our model is closely related to the idea of “security dilemma” developed by the international relations literature (Jervis, 1978). This literature stresses that attacking another country is tempting, since it can lead to obtain a portion of its wealth and resources; however, when all countries use force, the conflict that ensues is often costly compared to a situation of peace.

In particular, we assume that each country  $i$  has wealth of  $W_i$ . Independently of the outcome of the conflict, waging a war<sup>5</sup> costs a country a fraction  $K > 0$  of its wealth. A country’s prob-

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<sup>5</sup>The term “war” should be interpreted broadly, to include conflicts of different degree of hostility. In line with the existing literature on the democratic peace, our empirical analysis focuses on various types of Militarized Interstate Disputes (MIDs), including threats of use of force, border violations, military attacks, and wars (see

ability of winning depends on the military strength it deploys relatively to that of its opponent and, if a country wins the war, it gains a fraction  $G > 0$  of the other country's wealth. The parameter  $G$  captures the extent of the spoils obtained from attacking the other country,<sup>6</sup> while the parameter  $K$  captures the extent of the military costs, including the loss of lives and the military expenses occurred during a conflict.

Our setup is close to the one described by Jackson and Morelli (2007). In their paper, military conflicts are also driven by the desire to appropriate a portion of the other country's wealth, and the probability of winning a war depends on the countries' respective wealth levels. Crucially, however, Jackson and Morelli (2007) rule out the possibility of costly stalemates, assuming that wars are always desirable for one of the two countries involved. We allow instead for the possibility that being involved in a military conflict can be costly for both countries compared to being at peace.

International security relations can thus be described by means of a repeated prisoners' dilemma game between two countries, 1 and 2. As in any standard prisoners' dilemma game, each country can choose between two strategies, either cooperate ( $C$ ), i.e., not using military force against the other country, or defect ( $D$ ), i.e., deploying military force. In a peaceful situation (when both countries play  $C$ ), each country  $i$  keeps all its wealth, without wasting any resources deploying military forces, achieving a payoff of  $\Pi_i^C = W_i$ . If country  $i$  plays  $D$  while country  $j$  plays  $C$ , the attacking country obtains a payoff equal to  $\Pi_i^D = (1 - K)W_i + GW_j$ , while the other country gets  $\Pi_j^P = (1 - G)W_j$ . In a conflict situation, in which both countries play  $D$ , the probability that a country wins a fraction of the other country's resources increases in its military strength and decreases in the other country's military strength.

Since we are interested in examining how domestic political institutions—rather than countries' relative power—affect the likelihood of conflicts, we shall focus on two countries that have the same initial wealth and access to the same military technology. In this symmetric setup, countries' payoffs are given in Table 1 below. Assuming  $G > K$ , each country is tempted to use force against the other to obtain a portion of its wealth and resources. However, both countries find it desirable to be at peace rather than being involved in a war, in which they simply waste a fraction  $K$  of their wealth, without gaining any resources from the other country. This implies that the following inequalities must hold:  $\Pi^D > \Pi^C > \Pi^N > \Pi^P$ .

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Section 5 for a detailed description of the MID's dataset from the Correlates of War Project).

<sup>6</sup>Jervis (1978) argues that the extent of the "gains from exploitation" may depend on the availability of raw materials and whether or not the occupied territories are inhabited by people of the same ethnic groups.

Table 1: Prisoners' Dilemma (Symmetric Countries)

|   |   |                    |                        |
|---|---|--------------------|------------------------|
|   |   | 1                  |                        |
|   |   | C                  | D                      |
| 2 | C | $\Pi^C = W$        | $\Pi^D = (1 - K + G)W$ |
|   | D | $\Pi^P = (1 - G)W$ | $\Pi^N = (1 - K)W$     |

The prisoners' dilemma described above constitutes the stage game, which is repeated indefinitely. We denote the current period by  $t$ , ( $t = 0, 1, 2, \dots, \infty$ ) and the actions taken at period  $t$  by  $a^t = (a_1^t, a_2^t)$ , where  $a_i^t \in A = \{C, D\}$ . The payoffs to country  $i$  are the stage payoffs of the stage game and are denoted by  $\Pi_i^t(a_i^t, a_{-i}^t)$ , where  $a_{-i}^t$  refers to the action taken at time  $t$  by the other country. We assume the payoffs are the same for each country and are time invariant. The payoffs are summarized by the vector  $\Pi = (\Pi^D, \Pi^C, \Pi^N, \Pi^P)$  defined above.

Our model of war and peace is thus a standard repeated prisoners' dilemma game between two countries. The main novelty of our framework is that the actual players at each date are the active leaders of the countries rather than the countries themselves.<sup>7</sup>

## 2.2 Policymakers' Objectives and Electoral Process

To examine how being subject to periodic elections affects policymakers' incentives to sustain international cooperation, we must first describe the objectives of the policymakers and the electoral process.

Previous studies that provide normative explanations for the democratic peace assume that democratic leaders have different preferences from autocratic leaders (e.g., Maoz and Russett, 1993; Dixon, 1994). In a way, democratic leaders are "good", while autocratic leaders are "bad". The problem with this approach is that it trivially explains the democratic peace, without providing any understanding of why and when different norms arise.

The existing literature on self-enforcing international agreements assumes instead that policymakers' payoffs always coincide with those of their countries (e.g., Dixit, 1987; Bagwell and

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<sup>7</sup>Our analysis presents similarities with the existing literature on repeated games between overlapping generations of players, which has examined the sustainability of cooperation between organizations run by agents with finite but overlapping tenures (e.g. Crémer, 1986; Salant, 1991; Kandori, 1992; Smith, 1992). Compared to this literature, the fundamental novelty of our paper is that we allow for agents' re-election, so that the life spans of the agents are *endogenously determined* by their actions rather than exogenously fixed.

Staiger, 1999; Maggi, 1999). This implies that all policymakers are equally “good”, since they only care about maximizing their countries’ welfare. The problem with this approach is that the presence or lack of periodic elections plays no role: independently of the type of regime they are in, benevolent politicians should choose what is optimal for their countries.

To focus on electoral incentives, we assume instead that all policymakers have the same preferences and abilities, so there is no intrinsic difference between democratic and autocratic leaders. In particular, all policymakers are semi-benevolent: they care about their countries’ welfare, independently of whether or not they are in office; however, in line with the literature on office-motivated politicians (e.g. Rogoff, 1990), they also care about the “ego rents” they derive while being in power.

To incorporate the fact that countries are run by policymakers whose identity may change overtime, we assume that in each country there is a pool of identical politicians. We denote by  $k_i^t$  the identity of the policymaker in power in country  $i$  at time  $t$ , with  $k_i \in K_i = \{1, 2, 3, \dots\}$ . The payoff of policymaker  $k$  of country  $i$  can be written as

$$U_i^k = \sum_{t=0}^{\infty} \delta^t \Pi_i^t(a_i^t, a_{-i}^t) + \sum_{\substack{t=0 \\ k_i^t=k}}^{\infty} \delta^t Z, \quad (1)$$

where  $\delta$  is the factor by which politicians discount future payoffs and  $Z$  represents the fixed rents they obtain whenever they hold office, which could be interpreted as rewards associated with high social status and power.

Notice that in our formulation of policymakers’ incentives we make no normative assumptions about differences in values or goals of democratic leaders compared to authoritarian leaders. All politicians are opportunistic and rent-seeking, and also care about national interests. The crucial difference is that democratic policymakers are subject to “contract renewal” through re-election, while autocratic leaders are not. Our analysis will show that the fear of losing office and the rents associated with it can explain why democratic leaders tend to be less conflict-prone. The general argument is that democratic leaders risk removal from office after costly wars and that this risk is much lower for autocratic leaders.

We introduce a recursive electoral process that defines which policymaker is in power in a given country at any point in time. We denote by  $e^t = (e_1^t, e_2^t)$  the vector of electoral results at time  $t$ . The result  $e_i^t = 0$  corresponds to a situation in which the identity of the policymaker in power in country  $i$  at time  $t$  does not change, either because there is no election in that period, or because the incumbent is re-elected. The result  $e_i^t = 1$  corresponds instead to situations in which

there is an election and the incumbent  $k$  loses office and is replaced by policymaker  $k_i^t + 1$ . The changes in the identity of the policymakers result from exogenous electoral rules. We thus do not explicitly model voters as players of the game, who choose actions to optimize their payoffs. However, we do allow the voting process to depend on the history of the game and to implicitly reflect different voting behaviors.

Let us denote with  $h^t = (a^0, a^1, a^2, \dots, a^t; e^0, e^1, e^2, \dots, e^t)$  the history of the game up to time  $t$ . The space of all possible histories at time  $t$  is given by  $H^t$  and the space of all histories is  $H = \cup_{t \geq 1} H^t$ . The electoral rule in country  $i$  at time  $t$  is described by the function  $p_i^t: H^t \times A^2 \rightarrow [0, 1]$ . This means that, for each possible history up to time  $t$  and given the actions in that period, the electoral rule gives the probability that the incumbent policymaker is re-elected ( $e_i^t = 0$ ).

A strategy of the policymaker of country  $i$  is a function  $\sigma_i : H \rightarrow A$ . Note that there is no explicit mention of the identity of the policymaker playing at each period in the strategies. This is not necessary, since the recursive formulas take into account the election results which are incorporated in the history. Hence, the strategies take into account the identity of the policymakers, which depend on histories.<sup>8</sup>

## 2.3 Equilibrium

The main idea of sustaining cooperation in repeated games is that, when players are patient enough, short-run opportunism is more than compensated by the long-run gains of maintaining peaceful relationships. It is well known that in repeated games many equilibria are possible. In what follows, we examine the sustainability of the efficient equilibrium, along which the two countries are always at peace with each other. By comparing conditions under which international peace can be sustained in different political regimes, we will show that electoral incentives can provide a simple theoretical explanation for the fact that democracies almost never fight each other.

Equilibrium strategies must satisfy incentive constraints that involve a comparison between short-run defection gains and long-run punishment losses. The easiest way to enforce the cooperative equilibrium is to punish deviations as harshly as possible. In the context of a prisoners' dilemma, maximal punishments take a simple form: they correspond to the infinite repetition of the static Nash equilibrium. In the next two sections, we thus focus on Nash-reversion punishment strategies.<sup>9</sup>

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<sup>8</sup>This also implies that policymakers who enter the game observe and remember everything that happened in the past. The role of memory in a repeated "game of conflict" is considered by Anderlini *et al.* (2007).

<sup>9</sup>Starting from Dixit (1987), these strategies have been studied extensively in the context of self-enforcing

### 3 Electoral Incentives and the Democratic Peace

The goal of this section is to show that electoral accountability can explain the democratic peace phenomenon. For autocratic and democratic political regimes, we examine the conditions under which cooperation can be sustained as a subgame perfect equilibrium in trigger strategies.

We consider first the case of autocracies, which we define as regimes in which policymakers are not subject to periodic elections. In the framework described above, this is equivalent to a setting in which incumbent policymakers are re-elected with certainty, i.e.,

**Assumption 1** *Autocratic leaders have no re-election incentives:  $p_i^t(h^t, a^t) = 1$  for any  $h^t, a^t$ .*

In the case of autocracies, international peace can be supported by Nash-reversion punishment strategies as long as the following incentive constraint is satisfied:

$$\Pi^D - \Pi^C \leq \delta\Omega_A, \quad (2)$$

where

$$\Omega_A \equiv \frac{\Pi^C - \Pi^N}{1 - \delta}. \quad (3)$$

From (2) we can derive the critical discount factor,  $\delta_A$ , which allows autocratic leaders to sustain international peace. This represents a measure of the difficulty to sustain international cooperation: the lower is  $\delta_A$ , the less weight policymakers need to attach to future periods for the efficient cooperative equilibrium to be sustainable.

It is straightforward to show that larger costs of deploying military force and smaller benefits from attacking the other country make it easier to sustain peace ( $\partial\delta_A/\partial K < 0$ ,  $\partial\delta_A/\partial G > 0$ ); the sustainability of peace between autocracies does not depend instead on the extent of the office rents derived from being in office ( $\partial\delta_A/\partial Z = 0$ ). Therefore, when policymakers are not subject to re-election, the extent of their opportunism does not affect their incentives to enter a military conflict. As shown below, this is not the case for democratically-elected leaders, who can lose office and the associated rents.

Let us turn to the analysis of the sustainability of peace between democratic countries, in which the leaders are subject to periodic elections. In general, mandates can last several periods. For simplicity, we will focus on the case in which policymakers are subject to re-election every

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international cooperation. As stressed by Farrel and Maskin (1989), although Nash reversion represents a credible threat—since playing noncooperatively indefinitely is always an equilibrium strategy in the continuation game—it may be considered implausible. As shown in an earlier version of the paper, the main results of our analysis carry through if we consider renegotiation-proof punishment strategies as in Van Damme (1989).

period, though our analysis can be readily extended to more general electoral calendars. In this section, we focus on democracies in which incumbent policymakers can always be re-elected; the case of democracies in which the executive faces term limits is considered in the next section.

We shall consider scenarios in which the chances that incumbent policymakers retain office are endogenously determined by their foreign policy actions.<sup>10</sup> We denote the probabilities that the leader of country  $i$  is re-elected at the end of period  $t$  as follows:  $p^C \equiv p_i^t(h^t, (C, C))$ , if the two countries are at peace;  $p^N \equiv p_i^t(h^t, (D, D))$ , if the two countries are involved in a conflict; and  $p^D \equiv p_i^t(h^t, (D, C))$ , if country  $i$  defects from peace.

The incentive constraint of democratic politicians can be written as

$$\Pi^D - \Pi^C \leq \delta\Omega_D, \quad (4)$$

where

$$\Omega_D \equiv \frac{\Pi^C - \Pi^N}{1 - \delta} + Z \left( \frac{p^C}{1 - p^C\delta} - \frac{p^D}{1 - p^N\delta} \right). \quad (5)$$

Equation (4) yields a critical discount factor,  $\delta_D$ , above which democratic leaders can sustain peace. It can be shown that, as in the case of autocracies, higher costs of deploying military force and gains to be achieved from attacking another country make it easier to sustain peace between democracies ( $\partial\delta_D/\partial K < 0$ ,  $\partial\delta_D/\partial G > 0$ ). However, the incentives of democratic leaders to break peace depend crucially on the extent of the office rents  $Z$ .

We want to formalize Kant's argument that democratic leaders are less conflict prone because they are accountable to voters, who dislike costly conflicts. We thus assume that democratic leaders are more likely to be re-elected in periods of mutual cooperation (during which their countries' payoffs are equal to  $\Pi^C$ ) than in periods of mutual defection (during which their countries obtain a payoff of  $\Pi^N$ ):

**Assumption 2** *Democratic leaders have higher chances of being re-elected in peaceful periods than during costly conflicts:  $p^C > p^N$ .*

Under Assumption 2, costly conflicts reduce policymakers' *long-run* chances to hold on to power. To verify this, notice that breaking peace at time  $t$  implies a reversion to a costly stalemate situation forever after. In turn, this lowers the chances of being re-elected from period  $t + 1$  onwards ( $p^N < p^C$ ), implying a loss in terms of expected rents.

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<sup>10</sup>It is straightforward to show that, if the probability that a policymaker retains office does not depend on his or her actions, electoral incentives cannot provide an explanation for the democratic peace phenomenon.

So far, we have made no restrictions concerning the probability of re-election in case of defection,  $p^D$ . There are two possible scenarios, depending on the comparison between  $p^D$  and  $p^C$ . Consider first the case in which breaking peaceful relations leads to a fall in re-election chances ( $p^D < p^C$ ). In this case, it is straightforward to verify that  $\partial\delta_D/\partial Z < 0$ , implying that the fear of losing office unambiguously works as a discipline device, deterring democratic policymakers from entering military conflicts.

Consider now the alternative scenario, in which defecting from peace increases the chances of immediate re-election ( $p^D > p^C$ ).<sup>11</sup> In this case, electoral incentives give rise to a short-term “electoral boost” effect, since attacking the other country at time  $t$  increases the probability that the deviating policymaker gets re-elected at the end of that period. In turn, this implies a higher probability of getting the rents from being in office in period  $t + 1$ . Thus, *short-run* electoral incentives can be detrimental to peace. However, even in this case, electoral accountability can help to discipline policymakers, since costly military conflicts reduce policymakers’ *long-run* chances to hold on to power.

For electoral incentives to help sustaining peace, the following condition must hold:

$$p^D - p^C \leq \delta p^D \frac{p^C - p^N}{1 - \delta p^N}. \quad (6)$$

The left-hand side of (6) represents the one-time electoral boost generated by defecting from peace. On the right-hand side, the term  $p^C - p^N$  captures the electoral punishment endured by the defecting policymaker from  $t + 1$  onwards, with the term  $\frac{p^C - p^N}{1 - \delta p^N}$  representing the compounded punishment. Since the electoral punishment starts one period after the defection, this term must be discounted with rate  $\delta p^D$  when we compare it to the electoral boost. Notice that, if voters punish policymakers who break peaceful relations with other countries ( $p^D < p^C$ ), the above condition is always satisfied.

In what follows, we shall assume that condition (6) is satisfied, implying

**Assumption 3** *Even if defecting from peace can boost short-run electoral chances, this effect is small enough compared to the long-run electoral punishment for being in a costly conflict.*

Under Assumptions 2 and 3, the punishment faced by democratic leaders who break peaceful relations is unambiguously more severe than the corresponding punishment faced by autocratic leaders, i.e.,  $\Omega_D > \Omega_A$ . In turn, this implies that the critical discount factor above which peace

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<sup>11</sup>This is consistent with scenarios in which the chances that incumbent policymakers get re-elected depend on the economic benefits they managed to bring to their constituencies during their previous terms in office (e.g., Fiorina, 1981; Lewis-Beck and Stegmaier, 2000).

can be sustained between democracies ( $\delta_D$ ) is lower than the corresponding discount factor for autocracies ( $\delta_A$ ). It follows that, everything else equal, conflicts between pairs of democratic countries (democratic dyads) should be less likely than conflicts between non-democratic countries (autocratic dyads). If we consider pairs of democratic and autocratic countries (mixed dyads), autocrats will tend to be more tempted to trigger a military conflict. Under the assumption that policymakers are all identical in terms of their degree of patience, the incentive constraint of autocrats will always be the binding one.<sup>12</sup> We can thus state the following:

**Proposition 1** *The Democratic Peace: conflicts between democracies in which the leaders can be re-elected are less likely than conflicts involving autocracies.*

Therefore, our analysis generates predictions which are in line with the two key empirical findings of the existing literature on the democratic peace (e.g., Bremer, 1992; Dixon, 1994; Maoz, 1998): first, democracies almost never fight other democracies; second, democracies regularly fight non-democracies.<sup>13</sup> Our theoretical model provides a simple rationale for these findings based on Kant's original idea that electoral accountability can act as a discipline device. Compared to alternative institutional explanations of the democratic peace (e.g., Bueno de Mesquita *et al.*, 1999; Levy and Razin, 2004; Jackson and Morelli, 2007), the main appeal of our model rests on the fact that it is based on the essential institutional difference between democratic and autocratic political regimes, i.e., the presence or lack of periodic elections.

## 4 Term Limits and Inter-State Conflicts

The previous section shows that electoral accountability drives democratic leaders toward peaceful action. However, since this discipline effect works through the threat of losing power, it can be limited or even eliminated by the presence of executive term limits. In this section, we consider the case of democracies in which the leaders face restrictions on the number of mandates they can serve, and examine the effect of different types of term limits on the likelihood of conflicts in different dyads. This will allow us to derive predictions that can be brought to the data to verify whether electoral accountability is indeed behind the democratic peace phenomenon.

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<sup>12</sup>Denoting with  $F(\delta)$  the distribution of discount factors, the probability of conflicts in democratic dyads is then given by  $F(\delta_D)$ , while the probability of conflicts in autocratic and mixed dyads is  $F(\delta_A) > F(\delta_D)$ .

<sup>13</sup>The model presented above predicts that, in equilibrium, two countries will always be either at war or at peace with each other. An earlier version of the paper shows that, by introducing a stochastic component in the countries' payoffs, we can reproduce the democratic peace result, while at the same time generating the possibility of fluctuations between war and peace along the equilibrium path.

As mentioned in the introduction, many countries impose legal restrictions on the number of terms a person may serve in a particular elected office. Term limits on the executive are found in presidential and semi-presidential systems<sup>14</sup> and usually take one of these three forms: some countries rule out the possibility of re-election altogether (one-term limits); others allow for re-election only once (two-term limits); in other countries, there exists only a restriction on the number of consecutive terms a person can serve.<sup>15</sup>

In our theoretical and empirical analysis, we will compare the conflict behavior of democracies leaders who face no term limits with that of democratic leaders who are subject to “strong” term limits (one-term or two-terms limits). This will allow us to evaluate the effects of electoral incentives on the sustainability of peace between countries.<sup>16</sup>

Consider first a scenario in which the executive faces a binding term limit. Let us denote with  $T$  the last period in which the executive can be in office. Notice that leaders of countries with one-term limits are always, by definition, at  $T$ ; so are the leaders of democratic countries with two-term limits during their second mandate. The incentive constraint of a democratic leader at  $T$  can be written as

$$\Pi^D - \Pi^C \leq \delta \Omega_D^T, \quad (7)$$

where

$$\Omega_D^T = \frac{\Pi^C - \Pi^N}{1 - \delta}. \quad (8)$$

Comparison of (7) with (2) reveals that the punishment faced by democratic policymakers at  $T$  coincides with that faced by autocratic leaders. This implies that the critical discount factor above which a democratic leader at the end of his last mandate is able to sustain peace is equal to  $\delta_D^T = \delta_A$ . Hence, a democratic leader in his final period in office has the same incentives to break international peace as an autocratic leader. The intuition behind this result is that in both cases incumbent politicians are not accountable to the electorate: autocratic leaders, no matter what they do, retain office and continue to receive rents  $Z$ ; democratic leaders at  $T$ , no matter what they do, lose office and the associated rents. We can thus state the following:

**Proposition 2** *Democracies in which the executive faces binding term limits are as conflict*

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<sup>14</sup>Countries with a parliamentary system of government are less likely to employ executive term limits. This is because their leaders often do not have set “terms”; rather, they serve as long as they have the confidence of the parliament.

<sup>15</sup>Various countries ban “immediate re-election”, allowing an individual to serve again after an interruption of one or two terms.

<sup>16</sup>We do not consider the case of democracies with “weak” term limits—which allow for re-election after a period of interruption—which is somewhat intermediate between scenarios with no term limits and scenarios with “strong” term limits.

*prone as autocracies.*

It is worth stressing that Proposition 2 relies solely on the assumptions that politicians are office motivated and that autocratic leaders cannot be removed from office. Since re-election chances play no role when policymakers face binding term limits, this result does not depend on Assumptions 2 and 3 above.

Consider next the case of democracies with two-term limits. In this scenario, our analysis suggests that the patterns of inter-state conflicts should depend on whether the executive is in his first or second mandate.

The incentive constraint at  $T - 1$  can be written as

$$\Pi^D - \Pi^C \leq \delta \Omega_D^{T-1}, \quad (9)$$

where

$$\Omega_D^{T-1} = \frac{\Pi^C - \Pi^N}{1 - \delta} + \delta Z(p^D - p^C). \quad (10)$$

Comparing (10) with (8), it is straightforward to verify that whether democratic policymakers in their penultimate mandate are more or less tempted to break peace than policymakers in the last term depends on whether or not a defection boosts immediate re-election chances: if attacking the other country at  $T - 1$  increases the incumbent's chances of getting one last term ( $p^D > p^C$ ), then we should expect conflicts to be more likely in the penultimate mandate; if instead voters punish aggressive behavior ( $p^D < p^C$ ), we should expect conflict to be more likely in the last period. In either case, our analysis suggests that country leaders who can be re-elected once should behave *differently* than leaders who cannot be re-elected at all. It follows that

**Proposition 3** *The likelihood of conflicts involving democracies with term limits depends on whether the executive is in the penultimate or in the last mandate.*

Term limits have thus very distinct consequences in our model. It should be stressed that the predictions contained in Propositions 2 and 3 could not be generated by alternative theoretical explanations of the democratic peace that are not based on electoral accountability. For example, according to the model of Levy and Razin (2004), in which democratic peace is the consequence of communication between the leaders and the population, there should be no link between military conflicts and the electoral calendar; similarly, the model of Jackson and Morelli (2007) does not allow to draw clear conclusions about the effect of term limits on the likelihood of military conflicts in different dyads.

## 5 Dataset and Variables

We now move to the empirical analysis, in which we assess the validity of the predictions of our theoretical model. In this section, we describe our dataset and the variables used in our analysis; the empirical methodology and the results are presented in the next section.

### Conflicts

The data on inter-state conflicts come from the Correlates of War project (COW hereafter). This makes available (at <http://cow2.la.psu.edu/>) a very large array of datasets related to armed conflicts and country characteristics. The original dataset from Jones *et al.* (1996) records whether a given country is engaged in a Militarized Interstate Dispute (MID) in a given year. In our model, the incentives to be aggressive depend on the regime type of each pair of countries. Hence, we use the dyadic form of the data from Maoz (2005), which records if a given country-pair is in conflict in a given year for the period 1816-2001. Since our theory does not address the duration of conflicts, we drop all dyad-year pairs corresponding to ongoing disputes.

Each MID is coded with a hostility level ranging from 1 to 5 (1=No militarized action, 2=Threat to use force, 3=Display of force, 4=Use of force, 5=War). In the COW project, war is defined as a conflict with at least 1,000 deaths of military personnel. By this standard, around 100 interstate wars have been fought in the period 1816-2001. Since the small number of warring country pairs inhibits the creation of truly robust estimates of the determinants of wars, we follow the practice common in the empirical literature to analyze the determinants of conflicts using a broader definition—which includes display of force, use of force and war itself. Examples of display of force (level 3 of a MID) include a decision of mobilization, a troop or ship movement, a border violation or a border fortification. These are government-approved and non-accidental decisions. Examples of use of force (level 4 of a MID) include blockades, seizures, occupation of territory or attacks.

Our dependent variable is  $MID_{ijt}$ , which is equal to 1 (and zero otherwise) if a MID of hostility level 3, 4 or 5 occurs at date  $t$  between countries  $i$  and  $j$ .<sup>17</sup> Our sample consists, for each year in the 1816-2001 period, of all country pairs in existence. As it appears from Table 2 above, it contains 547,972 observations, out of which 2,945 (0.54%) are in conflict according to

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<sup>17</sup>Our theoretical analysis suggests that the likelihood of conflicts in different dyads should indeed be the relevant variable of interest—rather than who initiates the conflict. This is because, if country leaders know each other's incentive constraints, they would always start a conflict simultaneously. The COW dataset provides some information about conflict initiation (see Reiter and Stam, 2003), though the use of this variable is notoriously problematic (see Gowa, 1999, for a discussion).

Table 2: Number of conflicts by dyads

|                     | Full Sample |
|---------------------|-------------|
| Non-fighting dyads  | 545,027     |
| Fighting dyads      | 2,945       |
| Hostility:          |             |
| 3: Display of force | 725         |
| 4: Use of force     | 1,855       |
| 5: War              | 365         |
| Total               | 547,972     |

Notes: the number of observations excludes years of ongoing conflicts; sample period: 1816-2001.

our definition. The data in our sample comprise an unbalanced panel, in that not all dyads are observed for the same number of years due to missing data or entry and exit from the system.<sup>18</sup>

## Political regimes

Data on regime characteristics are from the Polity dataset by Monty and Jagers (2002). This dataset provides a composite index that ranks each country on a  $-10$  to  $+10$  scale in terms of democratic institutions, where 10 represents the highest score for a democracy. The latest version, Polity IV, contains coded annual information on regime characteristics for all independent states (with a population greater than 500,000) and covers the years 1800-2004.

Since in our theoretical model the definition of a democracy is based on the presence of periodic and open elections, in our baseline specification we define a country as being democratic if it has a Polity index higher than 4;<sup>19</sup> countries with lower scores will be considered as being autocratic. In various robustness checks we will experiment with alternative definitions of democracies.

Since we distinguish between two types of regimes, we have three possible dyad types: two autocracies ( $AA$ ), two democracies ( $DD$ ), and mixed dyads ( $AD$ ). Independently of how restrictive the definition of democracy is, Table 3 below shows that democratic dyads (i.e.,  $DD$ ) are

<sup>18</sup>A total of 177 countries are included in our dataset. However, the number of countries can change year by year, often as a result of countries breaking up (e.g., the Soviet Union, Yugoslavia) or gaining independence (e.g., former colonies).

<sup>19</sup>For example, following our definition, Britain becomes a full democracy only in 1880. Before that date, Britain had a Parliament, but even after the Great Reform Act of 1832, only about 200,000 people were allowed to vote, and those who owned property in multiple constituencies could vote multiple times. In the Polity dataset, Britain has an index of  $-2$  before 1836, an index of 3 from 1837 till 1879, and an index of 7 from 1880.

a minority: they account for 13.54 percent or 9.25 percent of all dyads, depending on whether democracies are defined as those countries with a Polity score above 4 or above 6, respectively. Instead, *AA* and *AD* dyads account for a very similar share of our observations. The summary statistics in Table 3 are already suggestive of the democratic peace phenomenon, since the likelihood of conflicts within *DD* dyads is less than half (i.e., 0.28) than the corresponding probability for dyads which include at least one autocratic regime.<sup>20</sup>

Table 3: Countries and conflicts by regime type

|       |             | (1)        | (2)        |
|-------|-------------|------------|------------|
|       |             | Polity > 4 | Polity > 6 |
| DD    | % dyads     | 13.54      | 9.25       |
|       | % conflicts | 0.28       | 0.31       |
| AD    | % dyads     | 42.77      | 40.27      |
|       | % conflicts | 0.58       | 0.58       |
| AA    | % dyads     | 43.69      | 50.48      |
|       | % conflicts | 0.58       | 0.54       |
| Total | % dyads     | 100.00     | 100.00     |
|       | % conflicts | 0.54       | 0.54       |

Notes: statistics based on 547,972 observations; conflicts defined as  $MID_{ij} > 2$ ; sample period: 1816-2001.

## Term limits

One of the important contributions of this paper is the construction of a dataset on executive term limits. This allows us to perform a systematic analysis of the impact of term limits on inter-state conflicts and assess the validity of Propositions 2 and 3 of our theoretical model.

We collect information on the existence of term limits for all the 177 countries in our dataset. However, in our empirical analysis we restrict our attention to the effects of term limits in democracies, which impose clear restrictions on electoral accountability.<sup>21</sup>

We proceed in four steps:

<sup>20</sup>Notice that, if democracies are identified by a Polity index above 4, a randomly selected pair of countries should be a *DD* at war with a probability of 0.073. Given that there are 207 conflicts between democracies out of a total of 547,972 observations, the actual probability of two democracies being in conflict out of the full sample is 0.038, roughly half of the theoretical probability based on uniform distribution of conflicts among dyads.

<sup>21</sup>In some instances, countries that are classified as being autocratic according to the Polity dataset officially restrict the number of mandates that the executive can serve, but these term limits are often ignored. For example, Paraguay introduced two-term limits in 1940. General Alfredo Stroessner came to power in a coup d'état in 1954 and remained in power until 1989, after eliminating term limits in 1967. He was re-elected eight times, appearing alone on the ballot on some occasions, and winning by implausibly high margins in others. During his entire tenure, the Polity index of Paraguay ranges between -9 and -5.

1. For all countries included in our sample for the period 1816-2001, we identify those classified as being democratic in a given year, based on the Polity dataset described above.
2. We then identify those democracies which are presidential or semi-presidential. To collect this information, we use the dataset provided by Golder (2005), supplemented by other sources for the years before 1946.
3. We then verify which of these countries has term limits and of which type (one-term or two-term limits). Information on term limits comes from various sources (e.g., countries' constitutions and various amendments).<sup>22</sup>
4. Finally, for those countries with two-term limits, we determine whether, in a given year, the executive is in his first or second mandate. To this end, we collect information about the identity of the executives in a given year and the length of their tenure.<sup>23</sup>

Table 4 below provides some summary statistics on democratic countries. In particular, our dataset includes 112 countries that are classified as democratic for at least one year during the sample period. Within this set, 60 countries have had a presidential or semi-presidential regime during their democratic experience. As shown in Table 4, 11 countries prohibited at some point in time their president to stand for more than one term, while a larger number of democracies (i.e., 24) limited the time in office to two terms. The residual category (“Others”) consists of various arrangements. Most often, it refers to the possibility of multiple, but not consecutive, terms in office (e.g., a third term is allowed after skipping one or two terms). Notice though, that the same country may be counted in more than one of these categories since provisions concerning term limits can change over time.<sup>24</sup>

On the basis of the information collected, we construct two term-limit variables. The first variable, denoted with  $Term_{it}^T$ , is a dummy variable which takes a value of 1 if the executive of country  $i$  is in his last possible mandate in office in year  $t$ . Notice that for countries that do not allow the executive to be re-elected, this variable always takes the value of 1; in the case of countries with two-term limits,  $Term_{it}^T$  takes a value of 1 only for the executives who are in

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<sup>22</sup>As an illustration, South Korea is recorded as democratic since 1988; two-term limits were introduced in 1963 and removed altogether in 1973; since 1987, the executive is subject to one-term limit.

<sup>23</sup>For example, in the case of Unites States, two-term limits were introduced in 1951, when the Twenty-second Amendment of the U.S. Constitution was ratified in Congress. Since then, only four presidents have served two four-year terms: Dwight D. Eisenhower, Ronald Reagan, Bill Clinton, and George W. Bush.

<sup>24</sup>For example, Panama never allowed immediate re-election of its president, and since 1994 it requires that two terms be skipped before an outgoing president can stand for election again.

Table 4: Number of democracies and term limits

|   |     |
|---|-----|
| Democracies   | 112 |
| Presidential/semi-presidential democracies                  | 60  |
| Presidential/semi-presidential democracies with term limits |     |
| One-term limit  | 11  |
| Two-term limit  | 24  |
| Others  | 24  |

Notes: democracy defined as Polity > 4; statistics based on 547,972 observations; sample period: 1816-2001; a country may be counted more than once if political system/term limits change over time.

their second mandate. We also construct a variable denoted by  $Term_{it}^{T-1}$ , which takes a value of 1 if country  $i$ 's executive is in his penultimate mandate.

We then combine these term-limit variables with the definition of dyad types, to construct the following dummy variables: the variable  $DD_{ijt}^T$ , which takes the value of 1 for democratic dyads in which at least in one of the two countries the executive faces binding term limits at time  $t$ ;<sup>25</sup> and the variable  $DD_{ijt}^{T-1}$ , which is equal to 1 for democratic dyads in which at least one of the two executives is in his penultimate term in office.

## Other controls variables

In our empirical analysis, we include all the standard controls used in the empirical literature on the democratic peace. A first set of these variables is available for the entire period of our sample (1816-2001) and is mostly taken from the COW dataset (see Table 5 for a detailed description of the variables and sources):

Since geographic factors are known to play an important role in conflicts, we include the log of the distance between capital cities,  $Ln\ distance$ , as well as a dummy variable,  $Border$ , which indicates whether the country pair shares a common border.

Major powers may have a big incentive to engage in MIDs, if they think they can escape retaliation. We thus include the dummy variable  $Major\ power$ , which equals one if at least one of the two countries in a dyad is a major power, as defined by the COW.<sup>26</sup>

<sup>25</sup>Our theoretical model suggests that, if policymakers are all equally patient and only differ with respect to the institutional constraints they face, conflicts in democratic dyads in which one of the two executives cannot be re-elected should be as likely as conflicts in democratic dyads in which both leaders face binding term limits.

<sup>26</sup>These include the United States (1898-2001), the United Kingdom (1816-2001), France (1816-1940, 1945-2001), Germany (1816-1918, 1925-1945, 1991-2001), Austria (1816-1918), Italy (1860-1943), Russia (1816-1917, 1992-2001), USSR (1922-1991), China (1950-2001), and Japan (1895-1945, 1991-2001).

An imbalance of military power may also foster conflicts. To capture the difference in military capabilities between countries, we use the variable *Military balance*. This is given by the absolute difference between the military capability of the two countries in each dyad. Military capability is a composite of six indicators (i.e., military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population) and is constructed by Singer (1987).

We also include the dummy variable *Alliance*, which is equal to 1 if two countries are formally allied by a non-aggression or neutrality treaty. This variable is also taken from the COW dataset.

In some regressions, we also include a second set of controls commonly used in the literature. Unfortunately, since these variables are only available on a large scale for the period 1950-2000, their inclusion substantially reduces our dataset:

In order to take into account the level of development of the countries, we include the variable *GDP*, defined as the absolute difference in their per capita GDP.

Since various studies have emphasized the importance of trade in deterring recourse to force (e.g., Martin *et al.*, 2008), we include the variable *Trade* to capture the extent of trade flows between country pairs. This variable is defined as the lower between the two ratios of bilateral trade over GDP.

It is also well known that colonial relationships are particularly important. Thus, we include the dummy variable *Colony* that takes the value of 1 if the country pair has ever been involved in a colonial relationship.

Finally, since the likelihood of inter-state conflicts should increase with the extent of the “exploitation gains” (captured by the parameter  $G$  in our model), we include the dummy variable *Oil*, which takes a value of one if at least one country in the dyad is an oil exporter, as defined by the IMF (i.e., 11 countries for the post 1949 period).

## 6 Empirical Methodology and Results

Our theoretical model gives rise to the following predictions (Propositions 1-3 above):

- 1) Conflicts in democratic dyads should be less likely than conflicts in other dyad types;

Table 5: Definition of variables and sources

| Variable                        | Definition   | Source                                      |
|---------------------------------|--|---|
| $MID_{ijt}$                     | Dummy variable equal to 1 if Militarized Interstate Dispute greater than 2   | Maoz (2005)                                 |
| $DD_{ijt}$                      | Dyad composed of two democracies. A country is democratic if it has a Polity IV score higher than 4 (on the -10/+10 scale); autocratic otherwise | Monty and Jagers (2002)                     |
| $DD_{ijt}^T$                    | Dummy equal to 1 if at least one executive is in last mandate  | Various sources                             |
| $DD_{ijt}^{T-1}$                | Dummy equal to 1 if at least one executive is in penultimate mandate   | Various sources                             |
| $AD_{ijt}$                      | Dyad composed of one democracy and one autocracy   | As for $DD_{ijt}$                           |
| $\ln \text{ distance}_{ij}$     | Log of one plus the great circle distance between capital cities   | Gleditsch and Ward (2001) and other sources |
| $\text{Border}_{ijt}$           | Dummy equal to 1 if the countries share a common border  | Stinnett <i>et al.</i> (2002)               |
| $\text{Major power}_{ijt}$      | Dummy equal to 1 if at least one country is a major power  | Major power defined by COW (2005)           |
| $\text{Military balance}_{ijt}$ | Log of absolute difference of National Capability scores   | Singer (1987)                               |
| $\text{Alliances}_{ijt}$        | Dummy equal to 1 if the countries are in an alliance   | Gibler and Sarkees (2004)                   |
| $\text{GDP}_{ijt}$              | Absolute difference of GDP per capita  | Barbieri (2002) and WDI                     |
| $\text{Trade}_{ijt}$            | Minimum of ratios of bilateral trade (i.e., sum of bilateral imports) over GDP   | Barbieri (2002) and IMF DOT statistics      |
| $\text{Colony}_{ij}$            | Dummy equal to 1 if countries have ever been in a colonial relationship  | CEPII                                       |
| $\text{Oil}_{ij}$               | Dummy equal to 1 if at least one country is an oil exporter  | IMF   |
| $\text{Presidential}_{ijt}$     | Dummy equal to 1 if at least one democracy is (semi) presidential  | Golder (2005) and other sources             |

- 2) Democracies in which the executive faces binding term-limits (i.e., no possible re-election) should be as likely to be involved in military conflicts as autocracies;
- 3) For democracies with term limits, the likelihood of being involved in a military conflict should depend on whether the executive is in the last or in the penultimate mandate.

## 6.1 The Democratic Peace

The objective of this section is to illustrate the well-established result of the democratic peace literature, i.e., that democratic pairs of countries are more likely to maintain peaceful relations with each other than any other pairs of countries.<sup>27</sup>

We estimate the probability that a militarized dispute occurs in a pair of countries  $i$  and  $j$ , in a given year  $t$ . In particular, we use the following logit regression model:<sup>28</sup>

$$Pr(MID_{ijt} = 1) = G(\beta_0 + \beta_1 DD_{ijt} + \beta_2 AD_{ijt} + \beta_3 \mathbf{X}_{ijt} + \beta_4 \mathbf{M}_{ij}), \quad (11)$$

where  $G$  is the logistic distribution. The omitted category is the dyad type  $AA$ ,  $\mathbf{X}_{ijt}$  is a matrix of dyad-specific and time-varying controls (e.g., *Major power*, *Military balance*, *Alliance*, *Border*, *Trade*, *GDP*), and  $\mathbf{M}_{ij}$  is a matrix of dyad-specific but time-invariant controls (e.g., *Ln distance*, *Colony*, *Oil*); and the  $\beta$ s are the parameters to be estimated. In many specifications, we also include country-pair and year fixed effects. Propositions 1 of our model predicts that the coefficient  $\beta_1$  should be negative and significant, reflecting the discipline effect of electoral accountability in democratic countries.

Table 6 reports the results of alternative specifications of (11). Column (1) presents our baseline specification. The first prediction of the theoretical model is clearly confirmed in the data, as the estimated coefficient for  $\beta_1$  is negative and significant at 1 percent level. Notice that this result carries through in all the alternative specifications reported in columns (2)-(8). In columns (2)-(4), we include dyad fixed effects, year fixed effects, or both. Dyad fixed effects

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<sup>27</sup>Various studies have examined the possibility of a reverse causality from peace to democracy. Reiter (2001) shows that the transition from autocracy to democracy is not influenced by the fact that a country may have been involved in recent conflicts, while a country's level of economic development and the democratization of its neighboring countries significantly increase the probability of such transition. The possibility of reverse causality is also excluded by Mousseau and Shi (1999): they argue that the reversal would only occur if countries tend to become autocratic in preparation for wars, and they verify that this is not the case. Reuveny and Li (2003) show evidence consistent with simultaneous causation, but confirm that the empirical relevance of the democratic peace is not the result of spurious correlation, as it is robust to the treatment of potential endogeneity problems.

<sup>28</sup>To take into account the fact that MIDs, even when defined more broadly than wars, are rare events, we have also tried using a relogit regression model (see King and Zeng, 2001). The qualitative results of our analysis remained unchanged.

account for unobserved heterogeneity between the various country pairs.<sup>29</sup> Year fixed effects account for time varying factors common to all country pairs, such as global economic shocks.

We also experiment with alternative definitions of what constitutes a democracy, using both a more stringent definition (column (5)), and a less stringent definition (column (6)).<sup>30</sup> Finally, in column (7), we included the variables *GDP*, *Trade*, *Colony* and *Oil* to our baseline set of controls; notwithstanding the fact that we lose many observations since the sample is now restricted to the years 1950-2000, the estimated coefficient for democratic dyads remains negative and highly significant. Therefore, in line with what has been documented by previous empirical studies on the democratic peace, we find that democratic dyads are significantly less conflict prone than autocratic or mixed dyads.

The democratic peace result holds in a series of other regressions that we have performed, as in alternative specifications suggested in the literature.<sup>31</sup> In particular, the coefficient on democratic dyads remains negative and highly significant when we use a more stringent definition of military conflicts, focusing only on MIDs which are coded with a hostility level of 5 (i.e., wars). The results of our baseline regression are also unchanged when we exclude dyads involving the United States, when we consider only “politically relevant” dyads (i.e., involving contiguous states or major powers), or when we exclude “seizures” (i.e., the capture by one state of another state’s material goods or personnel, which often consist of disputes related to fishing areas). In order to account for the possible temporal dependence of conflicts within dyads, following Beck *et al.* (1998), we also tried adding a cubic spline of the number of years since the last conflict occurred. With the exception of the alliance variable which becomes insignificant, we find no qualitative change in our results. To allow for the possibility of diversionary motives for conflicts, we also introduced as an extra control the variable  $Growth_{ijt}$ , defined as the minimum of the two-year growth rate of GDP (lagged one period) of the two countries in the dyad. In line with previous studies, our results show that economic conditions do affect the likelihood that two democracies experience a conflict (i.e., bad economic conditions are more conducive to conflicts). Autocratic and mixed dyads are unaffected by economic conditions. In any case, this result does not invalidate the finding that conflicts in democratic dyads are much less likely than conflicts in other dyads (see also Oneal and Tir, 2006). We have also tried clustering standard

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<sup>29</sup>Columns (2) and (4) report the results of conditional logit estimations; OLS regressions with dyadic fixed effects yields qualitatively similar estimates (these results are available upon request). Notice that including a separate dummy for each dyad implies dropping all country pairs that never fight, and thus a much smaller number of observations.

<sup>30</sup>In the specification reported in column (5), a country qualifies as a democracy if it has a Polity index higher than 6; for the results presented in column (6), democracies are characterized by a Polity index above 2.

<sup>31</sup>These results are not reported to save space, but are available upon request.

Table 6: Results for the Democratic Peace

|                                 | (1)                  | (2)                  | (3)                  | (4)                  | (5)                  | (6)                  | (7)                  |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                 | Baseline             | Dyad FE              | Year FE              | Dyad & Year FE       | Polity > 6           | Polity > 2           | 1950-2000            |
| $DD_{ijt}$                      | -0.779***<br>(0.169) | -0.440***<br>(0.105) | -1.062***<br>(0.203) | -0.760***<br>(0.125) | -0.736***<br>(0.183) | -0.542***<br>(0.155) | -0.913***<br>(0.264) |
| $AD_{ijt}$                      | 0.392***<br>(0.101)  | 0.093<br>(0.063)     | 0.200*<br>(0.106)    | -0.144**<br>(0.073)  | 0.431***<br>(0.102)  | 0.436***<br>(0.102)  | 0.554***<br>(0.144)  |
| $\ln \text{ distance}_{ij}$     | -0.541***<br>(0.054) |                      | -0.658***<br>(0.063) |                      | -0.539***<br>(0.055) | -0.532***<br>(0.054) | -0.722***<br>(0.095) |
| $\text{Border}_{ijt}$           | 2.149***<br>(0.166)  | 0.239<br>(0.177)     | 2.126***<br>(0.170)  | 0.125<br>(0.177)     | 2.157***<br>(0.167)  | 2.171***<br>(0.165)  | 2.476***<br>(0.238)  |
| $\text{Major power}_{ijt}$      | 1.295***<br>(0.171)  | 0.867***<br>(0.124)  | 1.528***<br>(0.174)  | 0.617***<br>(0.129)  | 1.261***<br>(0.171)  | 1.314***<br>(0.171)  | 1.482***<br>(0.287)  |
| $\text{Military balance}_{ijt}$ | 4.367***<br>(0.867)  | 1.565***<br>(0.579)  | 4.028***<br>(0.913)  | 0.588<br>(0.608)     | 4.511***<br>(0.856)  | 4.136***<br>(0.869)  | 4.386**<br>(1.959)   |
| $\text{Alliance}_{ijt}$         | -0.333**<br>(0.135)  | -0.456***<br>(0.071) | -0.587***<br>(0.138) | -0.877***<br>(0.079) | -0.331**<br>(0.133)  | -0.333**<br>(0.134)  | -0.562**<br>(0.200)  |
| $\text{GDP}_{ijt}$              |                      |                      |                      |                      |                      |                      | 0.006<br>(0.009)     |
| $\text{Trade}_{ijt}$            |                      |                      |                      |                      |                      |                      | 0.000<br>(0.000)     |
| $\text{Colony}_{ij}$            |                      |                      |                      |                      |                      |                      | 0.184<br>(0.388)     |
| $\text{Oil}_{ij}$               |                      |                      |                      |                      |                      |                      | 1.545***<br>(0.405)  |
| Dyad fixed effects              | no                   | yes                  | no                   | yes                  | no                   | no                   | no                   |
| Year fixed effects              | no                   | no                   | yes                  | yes                  | no                   | no                   | no                   |
| Observations                    | 547,972              | 58,450               | 546,248              | 58,450               | 547,972              | 547,972              | 335,828              |
| Log likelihood                  | -14,531.04           | -8,707.14            | -13,812.64           | -8106.38             | -14,552.78           | -14,544.68           | -6,575.90            |
| Pseudo $R^2$                    | 0.21                 | 0.25                 | 0.25                 | 0.30                 | 0.21                 | 0.21                 | 0.26                 |
| $\chi^2$                        | 1,598.76***          | 159.33***            | 4,041.49***          | 1360.85***           | 1,473.89***          | 1,535.29***          | 1,580.51***          |

Notes: dependent variable =1 if  $MID_{ijt} > 2$  and 0 otherwise; standard errors clustered by dyad in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level. Column (2) and (4) report the results of conditional logit estimations.

errors by year rather than by dyad and our estimation results were unaffected.<sup>32</sup>

We can now move to the discussion of other results reported in Table 6. Notice that our model of self-enforcing peace predicts that the democratic peace should be a dyadic rather than a monadic phenomenon: while democracies should rarely fight each other, conflicts between a democracy and an autocracy should not be less likely than conflicts between autocracies. In line with previous studies, we find that the comparison between autocratic and mixed dyads is not very robust: the estimated coefficient for  $\beta_2$  is insignificant in some specifications, and significantly positive or negative in others.<sup>33</sup>

The coefficients for the main set of controls are all significant and have the expected signs: countries that are contiguous and closer in distance tend to fight more; the likelihood of a military conflict between two countries increases if at least one of the two is a major power; similar military capabilities and joint membership in a military alliance tends to reduce the likelihood of a military conflict. Of the remaining controls, only *Oil* is significant; its positive coefficient suggest that oil-rich countries might frequently be the target of military attacks and that appropriation motives might drive many inter-state conflicts.

When it comes to the economic significance, calculating the marginal effects reveals that the estimated coefficient for  $\beta_1$  in the baseline specification of Table 6 implies a 60 percent decrease in the average predicted probability of conflict for a democratic dyad (DD) in comparison to an autocratic dyad (AA). If compared to some of the control variables included in the same specification, this impact is double than the role played by alliances, but much smaller, in absolute terms, than the effect of two countries sharing a border or of one of them being a major power, which lead to a seven-fold and a 225 percent increase in the probability of conflict, respectively.

## 6.2 The Impact of Term Limits

We now turn to the core of our empirical analysis, in which we focus on democracies where electoral accountability is limited by the existence of executive term limits.

We first want to assess the validity of Proposition 2 above, according to which democracies in which executive face binding term-limits (i.e., no possible re-election) should be as likely to

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<sup>32</sup>With respect to some other concerns raised in the literature (e.g., Gowa, 1999), we also find the democratic peace result to hold when we restrict our analysis to the period before 1939 or after 1989 (post Cold War), and when we exclude “general wars”.

<sup>33</sup>Even when the  $\beta_2$  coefficient is negative and significant (see column (4)), it is statistically different from  $\beta_1$ , showing that democratic pairs are always less conflict prone than both autocratic and mixed dyads.

Table 7: Results for term limits (final mandate)

|  | (1)                  | (2)                  | (3)                  | (4)                  | (5)                  |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
|  | Baseline             | Dyad FE              | Year FE              | Dyad & Year FE       | 1950-2000            |
| $DD_{ijt}$                                 | -1.062***<br>(0.167) | -0.588***<br>(0.104) | -1.312***<br>(0.196) | -0.716***<br>(0.112) | -1.452***<br>(0.268) |
| $DD_{ijt}^T$                               | 0.848***<br>(0.267)  | 0.417**<br>(0.207)   | 1.061***<br>(0.288)  | 0.513**<br>(0.207)   | 1.340***<br>(0.363)  |
| Ln distance $_{ij}$                        | -0.533***<br>(0.054) |                      | -0.671***<br>(0.064) |                      | -0.741***<br>(0.105) |
| Border $_{ijt}$                            | 2.104***<br>(0.165)  | 0.234<br>(0.177)     | 2.092***<br>(0.168)  | 0.136<br>(0.177)     | 2.325***<br>(0.237)  |
| Major power $_{ijt}$                       | 1.323***<br>(0.174)  | 0.839***<br>(0.123)  | 1.567***<br>(0.176)  | 0.637***<br>(0.128)  | 1.577***<br>(0.326)  |
| Military balance $_{ijt}$                  | 4.193***<br>(0.901)  | 1.370**<br>(0.570)   | 3.990***<br>(0.924)  | 0.636<br>(0.607)     | 4.892**<br>(2.225)   |
| Alliance $_{ijt}$                          | -0.397***<br>(0.136) | -0.458***<br>(0.071) | -0.633***<br>(0.139) | -0.877***<br>(0.079) | -0.588**<br>(0.200)  |
| GDP $_{ijt}$                               |                      |                      |                      |                      | -0.001<br>(0.010)    |
| Trade $_{ijt}$                             |                      |                      |                      |                      | 0.000<br>(0.000)     |
| Colony $_{ij}$                             |                      |                      |                      |                      | 0.312<br>(0.398)     |
| Oil $_{ij}$                                |                      |                      |                      |                      | 1.357***<br>(0.410)  |
| Dyad fixed effects                         | no                   | yes                  | no                   | yes                  | no                   |
| Year fixed effects                         | no                   | no                   | yes                  | yes                  | no                   |
| $\chi^2$ test: $DD_{ijt} + DD_{ijt}^T = 0$ | 0.89                 | 0.83                 | 1.12                 | 1.09                 | 0.03                 |
| Observations                               | 547,972              | 58,450               | 546,248              | 58,450               | 335,828              |
| Log likelihood                             | -14,568.20           | -8,706.32            | -13,813.39           | -8,105.51            | -6,680.19            |
| Pseudo R <sup>2</sup>                      | 0.21                 | 0.25                 | 0.25                 | 0.30                 | 0.25                 |
| $\chi^2$                                   | 1,598.76***          | 160.97***            | 3,983.22***          | 1,362.59***          | 1,007.97***          |

Notes: dependent variable =1 if  $MID_{ijt} > 2$  and 0 otherwise; standard errors clustered by dyad in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level. Column (2) and (4) report the results of conditional logit estimations.

be involved in conflicts as autocracies. To this purpose, we estimate the following logit model:

$$Pr(MID_{ijt} = 1) = G(\gamma_0 + \gamma_1 DD_{ijt} + \gamma_2 DD_{ijt}^T + \gamma_3 \mathbf{X}_{ijt} + \gamma_4 \mathbf{M}_{ij}), \quad (12)$$

where the omitted category comprises all dyads including an autocracy. The matrices  $\mathbf{X}_{ijt}$  and  $\mathbf{M}_{ij}$  include all the controls used in our estimation of (11).

The results of our estimations are presented in Table 7 above. Notice that our democratic peace result (Proposition 1) still holds, since the estimated coefficient for  $\gamma_1$  is always negative and significant at the 1 percent level.

For Proposition 2 to hold, democracies in which leaders cannot be re-elected should be as likely to be involved in a military dispute as autocracies; in turn, this implies that the estimate for the coefficient  $\gamma_2$  should be positive and the sum of the coefficients  $\gamma_1$  and  $\gamma_2$  should not be statistically different from zero. For each specification in Table 7,  $\gamma_2$  is positive and significant (at least at the 5 percent level) and the  $\chi^2$  test is not significant. This shows that binding term limits completely *eliminate* the democratic peace result, suggesting that the threat of losing office is what deters politicians' from breaking peaceful relations with other countries. This finding provides strong empirical support for Proposition 2 for our explanation of the democratic peace.

This result holds not only in our baseline specification (column (1)), but also when we introduce dyads and year fixed effects (columns (2)-(4)), and when we perform our estimation on the reduced dataset, including the second set of controls (column (5)). Notice that all the controls included in our baseline specification—*Border*, *Ln distance*, *Majorpower*, *Military balance*, and *Alliance*—are always significant and have the expected sign.<sup>34</sup>

Let us next turn our attention to the last prediction of our theoretical model (Proposition 3), according to which the dispute patterns of democracies with strong term limits should depend on whether the executive is in his last or penultimate mandate. To assess the empirical validity of this prediction, we estimate the following logit model:

$$Pr(MID_{ijt} = 1) = G(\lambda_0 + \lambda_1 DD_{ijt} + \lambda_2 DD_{ijt}^T + \lambda_3 DD_{ijt}^{T-1} + \lambda_4 \mathbf{X}_{ijt} + \lambda_5 \mathbf{M}_{ij}), \quad (13)$$

where, as in the model described by equation (12), the omitted category comprises both autocratic and mixed dyads. The results for this set of estimations are reported in Table 8 below.

Proposition 3 implies that the coefficients  $\lambda_2$  and  $\lambda_3$  should be different from each other.

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<sup>34</sup>In terms of economic significance, the marginal effect for the estimated coefficient  $\beta_1$  in the baseline specification of Table 7 implies a 75 percent decrease in the average predicted probability of conflict for democratic dyads in comparison to dyads involving autocracies or democratic dyads with binding term limits.

Table 8: Results for term limits (penultimate and final mandate)

|  | (1)                  | (2)                  | (3)                  | (4)                  | (5)                  |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|
|  | Baseline             | Dyad FE              | Year FE              | Dyad & Year FE       | 1950-2000            |
| $DD_{ijt}$                                   | -1.067***<br>(0.187) | -0.535***<br>(0.111) | -1.333***<br>(0.217) | -0.683***<br>(0.117) | -1.478***<br>(0.303) |
| $DD_{ijt}^T$                                 | 0.850***<br>(0.270)  | 0.380*<br>(0.209)    | 1.067***<br>(0.291)  | 0.488**<br>(0.210)   | 1.415***<br>(0.376)  |
| $DD_{ijt}^{T-1}$                             | 0.038<br>(0.269)     | -0.307<br>(0.237)    | 0.172<br>(0.287)     | -0.209<br>(0.240)    | 0.151<br>(0.356)     |
| $\ln \text{ distance}_{ij}$                  | -0.533***<br>(0.054) |                      | -0.671***<br>(0.064) |                      | -0.742***<br>(0.105) |
| $\text{Border}_{ijt}$                        | 2.104***<br>(0.165)  | 0.233<br>(0.177)     | 2.092***<br>(0.168)  | 0.136<br>(0.177)     | 2.326***<br>(0.237)  |
| $\text{Major power}_{ijt}$                   | 1.323***<br>(0.174)  | 0.847***<br>(0.123)  | 1.569***<br>(0.176)  | 0.642***<br>(0.128)  | 1.583***<br>(0.330)  |
| $\text{Military balance}_{ijt}$              | 4.189***<br>(0.905)  | 1.376**<br>(0.569)   | 3.971***<br>(0.931)  | 0.643<br>(0.607)     | 4.835**<br>(2.270)   |
| $\text{Alliance}_{ijt}$                      | -0.397***<br>(0.136) | -0.455***<br>(0.071) | -0.634***<br>(0.138) | -0.875***<br>(0.079) | -0.589**<br>(0.200)  |
| $\text{GDP}_{ijt}$                           |                      |                      |                      |                      | -0.001<br>(0.008)    |
| $\text{Trade}_{ijt}$                         |                      |                      |                      |                      | 0.000<br>(0.000)     |
| $\text{Colony}_{ij}$                         |                      |                      |                      |                      | 0.312<br>(0.398)     |
| $\text{Oil}_{ij}$                            |                      |                      |                      |                      | 1.357***<br>(0.410)  |
| Dyad fixed effects                           | no                   | yes                  | no                   | yes                  | no                   |
| Year fixed effects                           | no                   | no                   | yes                  | yes                  | no                   |
| $\chi^2$ test: $DD_{ijt}^T = DD_{ijt}^{T-1}$ | 6.87***              | 5.42**               | 7.72***              | 5.49**               | 11.54***             |
| Observations                                 | 547,972              | 58,450               | 546,248              | 58,450               | 335,828              |
| Log likelihood                               | -14,568.18           | -8,705.43            | -13,813.09           | -8,105.12            | -6,680.04            |
| Pseudo R <sup>2</sup>                        | 0.21                 | 0.25                 | 0.25                 | 0.30                 | 0.25                 |
| $\chi^2$                                     | 1,614.13***          | 162.74***            | 4,001.44***          | 1,363.37***          | 1,015.32***          |

Notes: dependent variable =1 if  $MID_{ijt} > 2$  and 0 otherwise; standard errors clustered by dyad in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level. Column (2) and (4) report the results of conditional logit estimations.

For all specifications of Table 8, the point estimate of  $\lambda_2$  is always positive and larger than the estimates for  $\lambda_3$ , and the results of the  $\chi^2$  test reject the null hypothesis that  $\lambda_2 = \lambda_3$ , at least at the 5 percent significance level.

The results reported in Table 8 suggest that breaking peaceful relations tends to reduce the chances that incumbent policymakers retain office, rather than boosting their re-election prospects. Notice that this finding differs from Hess and Orphanides (1995), who show that the United States has been more apt to be involved in an international crisis when the economy was in recession and the President had the opportunity to be re-elected.<sup>35</sup> However, this is in line with various studies that have found conflicting evidence on the diversionary use of force (see Oneal and Tir (2006) for a review) and that have raised some doubts on the empirical evidence offered by Hess and Orphanides (1995).

### 6.3 Robustness Checks

In what follows, we present the results of a series of additional estimations to assess the robustness of our empirical results on term limits.

First, since our main goal is to examine whether electoral accountability can explain the democratic peace phenomenon, we have included all dyad types in our analysis of inter-state conflicts. This has allowed us to verify that democratic pairs of countries are indeed much less likely to engage in conflicts compared to other autocratic dyads and mixed dyads, but only if their leaders are not subject to binding term limits. We have also tried to examine the effects of term limits on conflicts in democratic dyads only. The results of our analysis, reported in columns (1) and (2) of Table 9 below, confirm that conflicts involving democracies in which the leader cannot be re-elected are significantly more likely than conflicts between democracies with no term limits.

We have also estimated models (12) and (13) using a more stringent definition of democratic countries (i.e., having a Polity index higher than 6). The results of these specifications, reported in columns (3)-(4), confirm our previous findings on the effects of term limits on inter-state conflicts.

Columns (5)-(6) report the results of estimations in which we narrowed the analysis to politically relevant dyads, which are more likely to engage in military conflicts. As mentioned above,

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<sup>35</sup>The results of Table 8 continue to hold if we control for economic conditions when policymakers can be re-elected: to check for possible diversion motives, we have tried including an interaction term between the variable  $Growth_{ijt}$  defined above and the dummy variable  $DD_{ijt}^{T-1}$ ; the coefficient on this term was always insignificant, the estimates for  $\lambda_2$  were always positive and significant, and larger than the estimates for  $\lambda_3$ .

Table 9: Robustness Checks (a)

|  | (1)                   | (2)                  | (3)                  | (4)                  | (5)                        | (6)                  |
|--|-----------------------|----------------------|----------------------|----------------------|----------------------------|----------------------|
|  | Democratic dyads only |                      | Polity > 6           |                      | Politically relevant dyads |                      |
| $DD_{ijt}$                                   |                       |                      | -0.990***<br>(0.183) | -1.023***<br>(0.207) | -1.190***<br>(0.166)       | -1.162***<br>(0.183) |
| $DD_{ijt}^T$                                 | 0.728***<br>(0.290)   | 0.734**<br>(0.299)   | 0.796***<br>(0.314)  | 0.808***<br>(0.318)  | 0.917***<br>(0.283)        | 0.906***<br>(0.288)  |
| $DD_{ijt}^{T-1}$                             |                       | 0.063<br>(0.277)     |                      | 0.253<br>(0.288)     |                            | -0.190<br>(0.357)    |
| Ln distance $_{ij}$                          | -0.853***<br>(0.121)  | -0.858***<br>(0.124) | -0.527***<br>(0.054) | -0.527***<br>(0.054) | -0.262***<br>(0.064)       | -0.261***<br>(0.064) |
| Border $_{ijt}$                              | 1.353***<br>(0.378)   | 1.350***<br>(0.383)  | 2.106***<br>(0.166)  | 2.106***<br>(0.166)  | 0.999***<br>(0.234)        | 0.999***<br>(0.234)  |
| Major power $_{ijt}$                         | 0.205<br>(0.380)      | 0.209<br>(0.383)     | 1.294***<br>(0.175)  | 1.296***<br>(0.175)  | -0.262<br>(0.204)          | -0.265<br>(0.204)    |
| Military balance $_{ijt}$                    | 7.338***<br>(2.253)   | 7.299**<br>(2.322)   | 4.387***<br>(0.891)  | 4.366***<br>(0.896)  | 2.400***<br>(0.730)        | 2.415***<br>(0.732)  |
| Alliance $_{ijt}$                            | -0.010<br>(0.304)     | -0.014<br>(0.305)    | -0.390***<br>(0.135) | -0.392***<br>(0.135) | -0.465***<br>(0.116)       | -0.463***<br>(0.116) |
| $\chi^2$ test: $DD_{ijt} + DD_{ijt}^T = 0$   |                       |                      | 0.49                 |                      | 0.26                       |                      |
| $\chi^2$ test: $DD_{ijt}^T = DD_{ijt}^{T-1}$ |                       | 4.29**               |                      | 2.66*                |                            | 7.54***              |
| Observations                                 | 74,215                | 74,215               | 547,972              | 547,972              | 78,150                     | 78,150               |
| Log likelihood                               | -1,174.64             | -1,174.60            | -14,603.51           | -14,602.98           | -10,022.82                 | -10,022.53           |
| Pseudo R <sup>2</sup>                        | 0.18                  | 0.18                 | 0.20                 | 0.20                 | 0.07                       | 0.07                 |
| $\chi^2$                                     | 277.18***             | 318.85***            | 1,503.22***          | 1,518.50***          | 265.74***                  | 269.51***            |

Notes: dependent variable =1 if  $MID_{ijt} > 2$  and 0 otherwise; standard errors clustered by dyad in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level. Politically relevant dyads are defined as those involving contiguous states or major powers.

these include pairs of contiguous states and pairs of states in which at least one is classified as a major power. The results confirm that democracies in which the leaders can be re-elected are less conflict prone than autocracies, but this is not true for democracies in which the leaders face binding term limits. Once again, we find that democracies with term limits are more often involved in military disputes during the executive's last mandate.

One might be concerned that our empirical results are due to an omitted variable, driving both the fact that some countries adopt term limits and that they are more belligerent. A first argument to dismiss this concern comes from the comparison of the term limits results for the final and penultimate mandates in Tables 8-10: in line with Proposition 3 of our model, these results indicate that re-election incentives have a crucial impact on inter-state conflicts; if countries with term limits were intrinsically more bellicose, we would not expect electoral calendars to matter (i.e., there should be no difference between  $T$  and  $T - 1$ ).

Further arguments against the spuriousness of our results on term limits come from a second series of robustness checks, the results of which are reported in Table 10 below. First, since term limits are only present in countries with presidential or semi-presidential political systems, one might be concerned that our finding that democracies with term limits are more conflict prone may be driven by the centralization of power in the hands of the executive, rather than by the fact that the executive is not accountable. Columns (1) and (2) of Table 10 report the results of specifications in which we included the variable  $Presidential_{ijt}$ , which is equal to 1 if at least one of the two countries in a democratic dyad has a presidential or semi-presidential political system. Notice that term limits continue to have the effects predicted by our model, even after controlling for the type of political regime in which they arise.

Second, in recent decades many countries have become democracies and have adopted term limits (see Figure 1). To make sure that our results are not driven by young democracies, which may be more prone to violence, we have estimated models (12) and (13) eliminating recent democracies (i.e., less than ten years since the transition from autocracy to democracy). The results of these specifications, reported in columns (3)-(4), confirm our previous findings on the effects of term limits on inter-state conflicts.

Finally, one might be concerned about the possibility of reverse causality, i.e., military conflicts leading to the adoption of term limits.<sup>36</sup> To address this issue, we have eliminated from our

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<sup>36</sup>For various countries, this concern can be easily dismissed, since the introduction of term limits was clearly driven by domestic political motives. For example, as mentioned above, in the United States term limits were put in place in 1951, after Franklin Roosevelt had occupied the presidency for four consecutive terms. Congressional debates at the time clearly show that the introduction of the Twenty-second Amendment was meant to guarantee rotation in office (see Grimes (1978) for a discussion).

Table 10: Robustness Checks (b)

|  | (1)                  | (2)                  | (3)                            | (4)                  | (5)                             | (6)                  |
|--|----------------------|----------------------|--------------------------------|----------------------|---------------------------------|----------------------|
|  | Presidentialism      |                      | Excluding<br>young democracies |                      | Excluding<br>recent term limits |                      |
| $DD_{ijt}$                                   | -1.202***<br>(0.181) | -1.102***<br>(0.196) | -1.641***<br>(0.266)           | -1.727***<br>(0.293) | -1.046***<br>(0.174)            | -1.053***<br>(0.186) |
| $DD_{ijt}^T$                                 | 0.814***<br>(0.266)  | 0.814**<br>(0.271)   | 1.462***<br>(0.371)            | 1.487***<br>(0.367)  | 0.720**<br>(0.334)              | 0.717**<br>(0.332)   |
| $DD_{ijt}^{T-1}$                             |                      | 0.004<br>(0.277)     |                                | 0.675<br>(0.414)     |                                 | 0.088<br>(0.346)     |
| $\ln \text{ distance}_{ij}$                  | -0.537***<br>(0.054) | -0.537***<br>(0.054) | -0.490***<br>(0.055)           | -0.491***<br>(0.055) | -0.527***<br>(0.054)            | -0.527***<br>(0.054) |
| $\text{Border}_{ijt}$                        | 2.104***<br>(0.165)  | 2.104***<br>(0.165)  | 2.066***<br>(0.173)            | 2.067***<br>(0.173)  | 2.118***<br>(0.166)             | 2.118***<br>(0.166)  |
| $\text{Major power}_{ijt}$                   | 1.327<br>(0.380)     | 1.327<br>(0.383)     | 1.394***<br>(0.175)            | 1.397***<br>(0.175)  | 1.314<br>(0.204)                | 1.315<br>(0.204)     |
| $\text{Military balance}_{ijt}$              | 4.125***<br>(0.899)  | 4.125**<br>(0.901)   | 3.890***<br>(0.914)            | 3.850***<br>(0.921)  | 3.883***<br>(0.913)             | 3.877***<br>(0.918)  |
| $\text{Alliance}_{ijt}$                      | -0.401***<br>(0.137) | -0.401***<br>(0.137) | -0.392***<br>(0.145)           | -0.399***<br>(0.146) | -0.410***<br>(0.139)            | -0.411***<br>(0.139) |
| $\text{Presidential}_{ijt}$                  | 0.095<br>(0.146)     | 0.095<br>(0.147)     |                                |                      |                                 |                      |
| $\chi^2$ test: $DD_{ijt} + DD_{ijt}^T = 0$   | 1.40                 |                      | 0.30                           |                      | 0.25                            |                      |
| $\chi^2$ test: $DD_{ijt}^T = DD_{ijt}^{T-1}$ |                      | 6.93***              |                                | 3.77*                |                                 | 1.83                 |
| Observations                                 | 547,972              | 547,972              | 424,022                        | 424,022              | 523,747                         | 523,747              |
| Log likelihood                               | -14,566.37           | -14,566.37           | -12,266.04                     | -12,264.29           | -14,124.95                      | -14,124.90           |
| Pseudo $R^2$                                 | 0.21                 | 0.21                 | 0.20                           | 0.20                 | 0.20                            | 0.20                 |
| $\chi^2$                                     | 1,609.65***          | 1,616.13***          | 1,485.16***                    | 1,490.58***          | 1,591.10***                     | 1,593.92***          |

Notes: dependent variable =1 if  $MID_{ijt} > 2$  and 0 otherwise; standard errors clustered by dyad in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level. Young democracies are defined as countries that have been democratic for more than ten years. Term limits are classified as recent if they have been adopted in the previous ten years.

analysis all dyads involving democracies with “recent” term limits (i.e., less than ten years since their introduction).<sup>37</sup> The results of these specifications, reported in columns (5)-(6), indicate no statistical difference in the likelihood of conflicts between the executive’s penultimate and last mandate. However, we still find strong support for Propositions 1 and 2 of our model, i.e., democracies are less conflict prone than autocracies, but only if their leaders can be re-elected.

We have also performed a series of other robustness checks, which are not reported in Tables 9 and 10. For example, we have experimented with various permutations of the baseline regressions in Tables 7 and 8: excluding dyads involving the United States, excluding events classified as seizures, excluding general wars, clustering standard errors by year and adding a spline function to correct for possible autocorrelation. The main results were not affected.

## 7 Conclusions

This paper provides a simple theoretical rationale for the fact that democracies never or very rarely fight one-another, based on Kant’s original idea that electoral incentives can act as a discipline device. Our empirical analysis provides strong support for the predictions of our model, emphasizing the importance of electoral accountability in deterring the use of force.

The general result that emerges from our paper is that domestic political institutions can have a crucial impact on international security relations, since they determine how leaders gain and retain office. In democracies without term limits, periodic elections provide the means by which the electorate can hold opportunistic political leaders accountable for their foreign policy decisions. Conversely, in autocracies and democracies with term limits, where there is no option of mandate renewal, politicians are freer to adopt unpopular policies, knowing that this will have no repercussion on whether or not they are able to stay in power. Some caution is clearly warranted in interpreting the results of this paper. Though our analysis shows that political systems in which the leaders are subject to re-election are good for peace, this should not be taken to imply that democratization of dictatorships will automatically lead to peace, as often argued by politicians.<sup>38</sup>

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<sup>37</sup>This implies, for example, dropping all dyads involving the United States for the period 1951-1961 (unless the other country in the dyad is a democracy with “old” term limits).

<sup>38</sup>For example, in his 1994 State of the Union address, former President Bill Clinton stated that “the best strategy to ensure our security and to build a durable peace is to support the advance of democracy elsewhere. Democracies don’t attack each other.” More recently, President George W. Bush argue that “the reason why I’m so strong on democracy is democracies don’t go to war with each other. And the reason why is the people of most societies don’t like war, and they understand what war means.... I’ve got great faith in democracies to promote peace. And that’s why I’m such a strong believer that the way forward in the Middle East, the broader Middle

Many issues remain to be addressed to fully understand the links between domestic politics and conflicts. First, it would be interesting to examine the role of political parties, which this paper has abstracted from. As argued by Besley and Case (1995), party loyalty may extend the time horizon of policymakers and mitigate the effects of term limits. Our empirical findings show that policymakers who cannot be re-elected behave very differently with respect to conflicts from policymakers who can still run for office, suggesting incomplete party discipline. If party loyalty matters, than our coefficients, can be interpreted as a lower bound for the effects of executive term limits.

Another interesting avenue for further research is the comparison between different types of political systems. From a theoretical point of view, it is far from clear whether presidential or majoritarian parliamentary systems—which tend to be characterized by a strong executive—may be more or less conflict prone than proportional parliamentary systems—which tend to be more fractionalized.<sup>39</sup>

More attention should also be devoted to study how the information available to the public can affect policymakers' incentives to sustain international cooperation. In this respect, it would be interesting to explore the impact of media coverage of conflicts on electoral accountability. Finally, our dataset on term limits could be used to investigate the impact of electoral accountability on other policy dimensions, such as trade or environmental policy.

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East, is to promote democracy" (White House Press Release "President and Prime Minister Blair Discussed Iraq, Middle East", November 12, 2004).

<sup>39</sup>Empirically, one would need to collect more information on different types of political systems. Available datasets on political systems, including Golder (2005) and Persson and Tabellini (2003), are quite incomplete. Golder's dataset covers the years 1946-2000, but information is missing for many countries; the dataset by Persson and Tabellini (2003) only considers 60 countries for an even shorter period (i.e., 1960-1998).

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