

## Dimensions of Democracy and Military Expenditure

**Omer Faruk ORSUN**

Dr., Instructor of Social Science, New York University Abu Dhabi, Division of Social Science

**To cite this article:** Omer Faruk Orsun, “Dimensions of Democracy and Military Expenditure”, *Uluslararası İlişkiler*, Vol. 17, No. 67, 2020, pp. 61-80, DOI: [10.33458/uidergisi.772657](https://doi.org/10.33458/uidergisi.772657)

**To link to this article:** <https://dx.doi.org/10.33458/uidergisi.772657>

Submitted: 06 December 2019  
Last Revision: 18 May 2020  
Published Online: 31 July 2020  
Printed Version: 01 September 2020

Uluslararası İlişkiler Konseyi Derneği | International Relations Council of Turkey  
Uluslararası İlişkiler – Journal of International Relations

**E-mail : [bilgi@uidergisi.com.tr](mailto:bilgi@uidergisi.com.tr)**

All rights of this paper are reserved by the *International Relations Council of Turkey*. With the exception of academic quotations, no part of this publication may be reproduced, redistributed, sold or transmitted in any form and by any means for public usage without a prior permission from the copyright holder. Any opinions and views expressed in this publication are the author(s)'s and do not reflect those of *the Council*, editors of the journal, and other authors.

# Dimensions of Democracy and Military Expenditure

**Ömer Faruk ÖRSÜN**

*Dr, Instructor of Social Science, New York University Abu Dhabi, Division of Social Science, United Arab Emirates*

*E-mail: omerorsun@nyu.edu*

## ABSTRACT

Is democracy a luxury that nations cannot afford during wartime? Focusing on the dimensions of democracy separately, I argue that two main features of democracy, contestation and inclusiveness, pull war effort decisions in opposite directions. While decreasing contestation increases the available discretionary resources to leaders and generates long-term reputational incentives to fund a war effort, the inclusiveness dimension determines leaders' ability to maintain their support base at different levels of a war effort. Predictions from this new theory are tested with a panel dataset that covers all the state-years between 1950 and 2000. Statistical analyses confirm the implications of the theory.

**Keywords:** Democracy, Domestic Politics, Reputation, War, Military Expenditure

## Askeri Harcamalar ve Demokrasi

### ÖZET

Savaş sırasında demokrasi bir lüks müdür? Bu sorunun cevabını arayan bu çalışma rejim türü ve uluslararası çatışma süreçleri arasındaki ilişkinin askeri harcamalar özelinde demokrasinin iki ana ögesi olan kapsayıcılık ve rekabet tarafından nasıl şekillendirildiğini incelemektedir. Çalışma, bu iki ögenin otokrasilerde ve demokrasilerde barış ve savaş zamanı savunma harcamalarını açıklamakta önemli olduğunu ortaya koymaktadır. İç politikadaki azalan rekabet liderlerin mevcut kaynakları ihtiyari kaynaklar olarak tutmasına ve itibar oluşturma temelli savaş harcaması yapmasına olanak tanımakta iken, kapsayıcılık boyutu tabanının farklı harcama seviyelerine tepkisini ve bu sebeple liderin harcama kararını belirlemektedir. Bu kuramsal tahminler, 1950-2000 yılları arasındaki tüm devletleri kapsayan bir panel veri seti ile test edilmektedir. İstatistiksel analizler teorinin tahminlerini doğrulamaktadır.

**Anahtar Kelimeler:** Demokrasi, İç Politika, İtibar, Savaş, Askeri Harcamalar

## Introduction

There is a centuries-old debate in diplomatic history, philosophy, and political science on the relationship between regime type and military might. Alexis de Tocqueville argued that democracy is a liability when it comes to fighting prowess due to the domestic constraints that leaders face:

“I will have no difficulty in saying: it is in the leadership of the foreign interests of society that democratic governments seem to me decidedly inferior to others. ... [Democracy] is little capable of ... patiently awaiting their result ... The inclination that leads democracy in policy matters ... to abandon a long-developed plan for the satisfaction of a momentary passion clearly revealed itself in America when the French Revolution broke out.”<sup>1</sup>

Tocqueville saw the democratic foreign policymaking as “inferior to others” by highlighting democratic leaders’ limited ability to plan and implement a consistent foreign policy strategy as the main obstacle to victory in war. The momentary passion of people and democratic leaders’ survival instincts motivate leaders to abandon optimal long-term plans in favor of the vitality of the present. Focusing on the uncontested exercise of executive power and its role in military effectiveness, Niccolò Machiavelli instructed his Prince Lorenzo de Medici to expend revenues parsimoniously in a way that kept nobles loyal during peacetime and the war chest full for a future battle.<sup>2</sup>

These concerns were not destitute of foundation, as exemplified by the collapse of the Second French Empire and deposition of Louis Napoleon III after the swift defeat in Sedan by Otto von Bismarck’s army. Bismarck’s ability to divide and control the domestic opposition and his ability to repress protests in the preceding years had given him room to maneuver and plan and to keep government resources under his discretion for military expenditures. In France, the domestic balance of power favored the opposition in the *Corps Législatif* (the legislative body) over Louis Napoleon. Not only did the parliamentarians reject the army reform necessitated by Napoleon’s need to balance growing Prussian power, but they also sabotaged it, along with the opposition press, by discounting its advantages and exaggerating its negative consequences. The domestic political advantage of uncontested Bismarck rule against Louis Napoleon III’s relatively fragile rule and the subsequent Prussian victory contributed to the heated discussions on the military effectiveness of democracies.<sup>3</sup> More recent examples of Nazi Germany and Soviet Russia, both of which raised two of the most robust military forces during World War II, further illustrated and gave further credence to the autocratic advantage view. On the opposite end, recent empirical literature in international relations has focused on the mobilization advantages of democratic regimes.

1 Alexis de Tocqueville, *Democracy in America: Historical-Critical Edition of De la Démocratie en Amérique*, trans. Eduardo Nolla and James T. Schleifer, Indianapolis, Liberty Fund, 2010, p. 369-372.

2 Niccolò Machiavelli, *The Prince*, Cambridge, Cambridge University Press, 1988, p. 35.

3 A. J. P. Taylor, *The Struggle for Mastery in Europe, 1848-1918*, Oxford, Clarendon Press, 1954; Gordon Wright, “The Imperial Experiment, 1852-1870”, Brison D. Gooch (ed.) *Napoleon - Man of Destiny Enlightened Statesman or Proto-Fascist?*, New York, Holt, Rinehart and Winston, 1963.

So, are democracies better than autocracies when it comes to the war effort? The empirical literature provides a mixed answer: “yes, they are,”<sup>4</sup> “no, they are not,”<sup>5</sup> and “no, they are even worse.”<sup>6</sup> As a result, democracy’s record as an instrument of military effort is a matter of dispute. A much clearer understanding of the relationship between democracy and war effort can be obtained from a theory that disaggregates democracy into its dimensions. Focusing on the dimensions of democracy separately, I argue that contestation and inclusiveness pull the war effort decision of leaders in opposite directions. On the one hand, decreasing contestation increases the available discretionary resources to leaders and generates long-term reputational incentives to fund a war effort. On the other hand, decreasing inclusiveness diminishes leaders’ ability to maintain their support base because resources that might otherwise be allocated to supporters as patronage goods are spent for the war effort.

The article proceeds as follows: the next section reviews the previous work on regime type and its effect on wartime military expenditure. I then explain why it is essential, both theoretically and empirically, to disaggregate democracy into its components. I next test the new theory’s predictions on military expenditures. The concluding discussion explores the implications of the new theory for defense economics literature.

## **Regime Type and Wartime Militarization: The State of the Literature**

Scholars have reached little agreement about the direction of any effect that domestic institutions exert on wartime militarization. Some have argued that democracies are more likely to have a higher war effort level than autocracies. Lake, for example, argues that democracies have a greater ability to generate larger government budgets that will help them outspend their non-democratic rivals.<sup>7</sup> Others have suggested that democracies have greater access to credit, which allows for resources for wartime expenditures far beyond governments’ capacity to generate tax revenue.<sup>8</sup> Still, others have argued that leaders who are accountable to a large number of supporters, as in democracies, seek policies primarily in the form of public goods such as victory in a war.<sup>9</sup> Thus, democratic leaders prefer to increase the odds of victory by a larger war effort. In autocracies, where leaders answer to a small coalition of supporters, war effort means drastic cuts for each regime supporter, which discourages office-valuing autocratic leaders from making an all-out war effort. Finally, others have argued that the competition within the regime is the primary driver of a larger wartime military expenditure. Incentives to avoid

---

4 David A. Lake, “Powerful Pacifists: Democratic States and War”, *American Political Science Review*, Vol. 86, No 1, 1992, p. 24-37; Kenneth A. Schultz and Barry R. Weingast, “Limited Governments, Powerful States”, Randolph M. Siverson (ed.), *Strategic Politicians, Institutions and Foreign Policy*, Ann Arbor, The University of Michigan Press, 1998, p. 15–50; Bruce Bueno de Mesquita, James D. Morrow, Randolph M. Siverson, and Alastair Smith, “Testing Novel Implications from the Selectorate Theory Of War”, *World Politics*, Vol. 56, No 3, 2004, p. 363-388; Benjamin E. Goldsmith, “Defense Effort and Institutional Theories of Democratic Peace and Victory Why Try Harder?”, *Security Studies*, Vol. 16, No 2, 2007, p. 189-222.

5 Dan Reiter and Allan C. Stam, *Democracies at War*, Princeton NJ, Princeton University Press, 2008.

6 Jeff Carter and Glenn Palmer, “Keeping the Schools Open While the Troops are Away: Regime Type, Interstate War, and Government Spending”, *International Studies Quarterly*, Vol. 56, No 3, 2015, p. 147-157.

7 Lake, *Powerful Pacifists*.

8 Schultz and Weingast, *Limited Governments, Powerful States*.

9 Bruce Bueno de Mesquita, James D. Morrow, Randolph M. Siverson, and Alastair Smith, “An Institutional Explanation of the Democratic Peace”, *American Political Science Review*, Vol. 93, No 4, 1999, p. 791-807.

political vulnerability force leaders to ensure that they have the resources for victory, resulting in an expansion of defense expenditures during war.<sup>10</sup>

On the other hand, Carter and Palmer have brought attention to mechanisms that increase autocracies' abilities to generate war effort.<sup>11</sup> Sharing numerous commonalities with the selectorate theory, Carter and Palmer focus on the guns and butter trade-off within autocracies and democracies and the leader's problem of optimal allocation of these two goods given a particular type of coalition composition. In their theoretical model, democratic leaders need the support of the broader public, who derive more utility from social spending than elites. This prevents them from making drastic cuts in welfare spending. Autocratic leaders, on the other hand, do not have such a constraint because satisfying the small ruling elite, who place little value on receiving the benefits of a social welfare state, does not depend on social spending. Other studies further disaggregate democracies based on the redistributive battles among domestic interest groups. For example, Narizny argues that because conservative governments prefer lower taxes, their ability to significantly increase military expenditure is highly limited.<sup>12</sup> Lobell further analyzes how armament, alliance, appeasement strategies alter the domestic balance of power among interest groups and argues that outward-oriented groups prefer alliances and appeasement strategies, while inward-oriented groups prefer armament.<sup>13</sup>

The contribution of this study to this body of literature is two-fold. First, it introduces a new theory that focuses on how contestation and inclusiveness affect war mobilization. Secondly, aligning theoretical and empirical constructs is essential for accurate measurement. Bueno de Mesquita and colleagues, using a measure of coalition size, find that the inclusiveness of a polity increases war expenditure.<sup>14</sup> In an apparent contradiction, however, Carter and Palmer find that democracy, measured by the composite Polity IV index, decreases war expenditure.<sup>15</sup> This latter strategy compresses a multidimensional concept into one operational definition, placing the same coefficient

10 See Goldsmith, *Defense Effort and Institutional Theories of Democratic Peace and Victory Why Try Harder?* Empirically, Goldsmith finds that higher levels of competition lead to increases in defense effort during a conflict. However, the study's empirical strategy is flawed on several grounds: the estimation model introduces lagged dependent variable (Models 1, 3, 5, 7, 9, 11), one-year lags of some variables, and the contemporary values of some others. This potentially introduces bias, as the restrictions on the coefficients of the omitted contemporary values of variables and the omitted lagged variables are not shown to be significantly different from zero. See De Boef and Keele "Taking Time Seriously", *American Journal of Political Science*, Vol. 52, No 1, 2008, p. 184-200 for the various consequences of imposing invalid restrictions. In all models, unobserved time-invariant individual effects are also absorbed by the error term. Goldsmith, instead, opts for atheoretical regional dummies. The omission of the lagged dependent variable leads to the restrictive assumption that the effect of the variable is felt only at one specified year but not later. For further details, see Nathaniel Beck and Jonathan N. Katz, "Modeling Dynamics in Time-Series-Cross-Section Political Economy Data", *Annual Review of Political Science*, Vol. 14, 2011, p. 331-352.

11 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*.

12 Kevin Narizny, "Both Guns and Butter, or Neither: Class Interests in the Political Economy of Rearmament", *American Political Science Review*, Vol. 97, No 2, 2003, p. 203-220.

13 Steven E. Lobell, "Politics and National Security: The Battles for Britain", *Conflict Management and Peace Science*, Vol. 21, No 4, 2004, p. 269-286. Serdar Ş Güner and Dilan E. Koc, "Leverages and Constraints for Turkish Foreign Policy in Syrian War", *Uluslararası İlişkiler*, Vol. 15, No 59, 2018, p. 89-103. Burak Bilgehan Özpek, "Savaşların Açıklanmasında" Fırsat ve İsteklilik" Ön Kuramsal Çerçevesi ve Kullanım Alanları", *Uluslararası İlişkiler*, Vol. 15, No 59, 2018, p. 33-48. Murat Tinas and Özlem Tür, "Sectarian Actors in Foreign Policy Making", *Uluslararası İlişkiler*, Vol. 15, No 59, 2018, p. 129-143. For similar processes at the intrastate level, see Imren Borsuk, "From War to Peace: Northern Ireland Conflict and the Peace Process", *Uluslararası İlişkiler*, Vol. 13, No 50, 2016, p. 41-57.

14 Bueno de Mesquita, Morrow, Siverson, and Smith, *An Institutional Explanation of the Democratic Peace*.

15 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*.

in front of all of Polity IV's components, which forces a negative coefficient onto the sub-components, including inclusiveness, which was previously shown to have a positive effect.<sup>16</sup> The extra dimension captured by the Polity IV index is, therefore, likely to have a negative effect on war expenditure. From a Dahlian point of view, I show that this extra dimension is contestation.<sup>17</sup>

## Revisiting the Link between Regime Type and War Effort

Leaders operate under two types of competing forces, domestic and international, and these two forces have varying magnitudes in different periods. While leaders need to counteract domestic and international competition, they face difficulty in balancing the two and in finding a way to limit domestic political or foreign policy expenditures so that they ensure both a favorable outcome outside and the stability of the tenure inside. However, efforts to contain international challenges may diminish the ability of a leader to maintain her/his support base by using the resources for a war effort that might otherwise be given to the supporters as financial rewards and privileges. Given these resource constraints, a leader can contain international challenges only under certain conditions. Either the supporters of the leader should be interested in the successful delivery of a foreign policy good over domestic goods, or the leader should have substantive discretionary resources and reputational incentives to contain the international threat. How do domestic political institutions affect these two preconditions? To answer this question, I focus on the political institutions based on Dahl's dimensions, and then derive the implications of these two dimensions on leaders' war-expenditure calculus.<sup>18</sup>

The most often used conceptualizations of the domestic political system in the empirical research are provided by Dahl's *Poliarchy* and Schumpeter's *Capitalism, Socialism, and Democracy*.<sup>19</sup> Whereas Schumpeter's focus is primarily on the contestation feature of democracy, Dahl defines democracy more broadly as a political system with high levels of inclusiveness and contestation.<sup>20</sup> Inclusiveness refers to the proportion of the population entitled to decide on policy and leadership selection. Contestation refers to the extent of government tolerance for political opposition. Dahl conjectured that "contestation and inclusiveness vary somewhat independently," and so are best

---

16 Resat Bayer and Michael Bernhard, "The Operationalization of Democracy and the Strength of the Democratic Peace: A Test of the Relative Utility of Scalar and Dichotomous Measures", *Conflict Management and Peace Science*, Vol. 27, No 1, 2010, p. 85-101; Michael Bernhard, Ömer Faruk Örsün, and Reşat Bayer, "Democratization in Conflict Research: How Conceptualization Affects Operationalization and Testing Outcomes", *International Interactions*, Vol. 43, No 6, 2017, p. 941-966; Ömer Faruk Örsün, Reşat Bayer, and Michael Bernhard, "Democratization and Conflict", *Oxford Research Encyclopedia of Politics*, 2017. DOI: 10.1093/acrefore/9780190228637.013.351.

17 Michael Coppedge, Angel Alvarez, and Claudia Maldonado, "Two Persistent Dimensions of Democracy: Contestation and Inclusiveness," *Journal of Politics*, Vol. 70, No 3, 2008, p. 632-647.

18 Robert A. Dahl, *Poliarchy: Participation and Opposition*, New Haven, Yale University Press, 1971.

19 *Ibid.*; Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy*. New York, Harper, 1950.

20 Based on these two dimensions, Dahl created a typology of four ideal-types. First, the closed hegemons, for example, Saudi Arabia, North Korea, Syria, and Nigeria, do not allow any contestation or deny a significant proportion of citizens the right to select the leader. Second, inclusive hegemons, such as Iran, Iraq, Kazakhstan, Pakistan, and Belarus, encourage mass participation in selecting the government without allowing an unimpaired ability to contest the government. Third, competitive oligarchies have a high degree of contestation but with a very low level of participation. Examples include the USA and most European monarchies in the 19th century, Denmark in the early 20th century, and Ecuador and Egypt until the end of World War II. Finally, polyarchies have both high levels of contestation and inclusiveness in selecting a leader, e.g., Australia, Belgium, Sweden, and Norway.

treated as two separate dimensions.<sup>21</sup> Therefore, I include these two dimensions as separate sources of variation in a given domestic political setting.<sup>22</sup>

Leaders care about their supporters' evaluation of war expenditures and outcomes. Assume leaders decide on the amount of resources to allocate to their supporters and the amount to keep in their discretionary budgets in each period. As in the selectorate account, leaders distribute two goods: public goods, which benefit everyone within the polity, and patronage goods, which benefit only the recipients in the polity. Depending on the leader's allocation decision, the supporters decide whether to defect to a domestic political challenger. To stay in office, the leader needs the support of a simple majority of citizens in inclusive systems or the support of a group comprised of civilian/military elites in exclusive systems. In their deposition decision, supporters evaluate the extent to which they have a credible outside option by weighing both the benefits and costs of removing the leader.<sup>23</sup>

The cost of defection depends on political institutions and can vary from no punishment to imprisonment, torture, execution of defectors, and challengers. This cost is conceptually related to contestation, which is defined as the absence of repression. Empirically, measures of the contestation dimension are highly correlated with the absence of political violence to suppress domestic opposition.<sup>24</sup> Given this relationship, the cost of defection decreases as the regime allows for more contestation.

This cost decreases the ability of supporters to depose the leader. In response, the leader does not distribute beyond the proposal of the domestic challenger discounted by the costs of defection. The leader amasses the remainder as a discretionary budget for three main reasons. First, generosity on the part of the leader strengthens the pivotal allies in the long run. This shift in power allows supporters to ask for more resources from the leader. Thus, leaders have strong incentives to avoid distributing any direct financial reward beyond *efficiency wages*. Secondly, the leader's long-term discretionary resources strengthen their position against coalition members. This shift in power allows the leader to gain a higher level of autonomy to the extent that they change the position of key supporters from pivotal allies into administrators who are entirely subservient to the regime. This allows leaders to change the system from the politics of *primus inter pares* to an uncontested one-person rule.<sup>25</sup> Third, leaders use these resources as insurance to contain future adverse shocks.<sup>26</sup> The accumulated discretionary budget enables leaders to move beyond a myopic vision and make plans

21 Dahl, *Poliarchy*, p. 4.

22 For detailed empirical evidence for this conjecture, see Coppedge, Alvarez, and Maldonado, *Two Persistent Dimensions Of Democracy*.

23 In terms of the benefits of defection, the selectorate account focuses on the loyalty norm, the probability that a current member of the leader's coalition would be included into the challenger's winning coalition given the challenger replaces the leader. This probability of inclusion increases as the size of the winning coalition increases, and the size of the selectorate decreases. This probability increases the benefits of defection to the current leader. Marcum and Brown find no evidence that loyalty norm affects coalition members incentives to defect (orchestrate a coup) against leaders. See Anthony S. Marcum and Jonathan N. Brown, "Overthrowing the 'Loyalty Norm' The Prevalence and Success of Coups in Small-coalition Systems, 1950 to 1999", *Journal of Conflict Resolution*, Vol. 60, No 2, 2016, p. 256-282. Accordingly, I focus on the costs of defection and analyze how these costs vary within different domestic political settings and their implications on leaders' actions.

24 Daniel W. Hill, "Democracy and the Concept of Personal Integrity Rights", *The Journal of Politics*, Vol. 78, No 3, 2016, p. 822-835.

25 Milan W. Svobik, *The Politics of Authoritarian Rule*, Cambridge, Cambridge University Press, 2012.

26 Daniel Yuichi Kono and Gabriella R. Montinola, "Does Foreign Aid Support Autocrats, Democrats, Or Both?", *Journal of Politics*, Vol. 71, No 2, 2009, p. 704-718.

for the long-term stability of their regimes. To summarize, decreases in the contestation dimension increase the available discretionary resources of leaders, which extend the temporal horizon of leaders' optimization problem.

How does the temporal horizon of a leader affect their mobilization decisions? A longer time horizon induces the leader to weigh the future implications of their current war effort more heavily because the mobilization decision in a given war becomes the basis of inferring likely behavior in future wars by opponents.<sup>27</sup> A high level of militarization in a given war will create a reputation that fighting with the leader will be highly costly and victory hard to achieve. In this way, the leader does not only ensure a favorable outcome for the current war by investing in military expenditure, but also deters future challenges and minimizes their disruptive effect on their future distributive politics.<sup>28</sup> Hence, it is hypothesized that

**Hypothesis 1:** *Contestation in a polity is likely to decrease wartime military expenditure.*

This deduction explains the characteristics of political regimes that give autocrats a freehand in their foreign policy and associated spending. The leader's ability to contain the international threat depends on their discretionary resources, which negatively depend on the level of contestation within the polity. For example, the famous iron-blood speech of Otto von Bismarck and the subsequent decreases in contestation in the Prussian polity had a strong influence on Bismarck's domestic and foreign policies. In his speech on 30 September 1862 against the parliament's rejection of the new military reform and associated military expenditure, Bismarck declared that "the great questions of the day are not decided by speeches and majorities—that was the big mistake of 1848 and 1849—but by iron and blood."<sup>29</sup> His first act was to detach the parliament's budgetary prerogative and relink the issue to the *de facto* prerogative of the executive body and thus fund his government's expenditures without the approval of the parliament from 1862 to late 1866 (during the Schleswig-Holstein War of 1864 against Denmark and the Seven Weeks War of 1866 against Austria). Because Bismarck's continued disregard of parliamentary decisions on government expenditures removed the only operational competence of the parliament, in September 1866, the parliament retrospectively legalized the government's spending from 1862 to 1866 with the Prussian Indemnity Act by a vote of 230 to 75. This meant that all subsequent budgetary decisions, including expenditures on the Franco-Prussian War of 1870-71, would be conducted under the shadow of this act.<sup>30</sup> Figure 1 presents the Prussian defense expenditure at the time. As can be seen, Bismarck steeply increased Prussian defense

---

27 Thomas C. Schelling, *Arms and Influence*, New Haven, Yale University Press, 1966.; Barry Nalebuff, "Rational Deterrence in an Imperfect World", *World Politics*, Vol. 43, No 3, 1991, p. 313-335; Paul K. Huth, "Deterrence and International Conflict: Empirical Findings and Theoretical Debates", *Annual Review of Political Science*, Vol. 2, No 1, 1999, p. 25-48.

28 I assume reputations are specific to leaders. As a result, this means that a leader turnover should lead to a sudden change in reputational beliefs. For an extensive overview of the literature in this area, see Allan Dafoe, Jonathan Renshon, and Paul Huth, "Reputation and Status as Motives for War", *Annual Review of Political Science*, Vol. 17, No 1, 2014, p. 371-393.

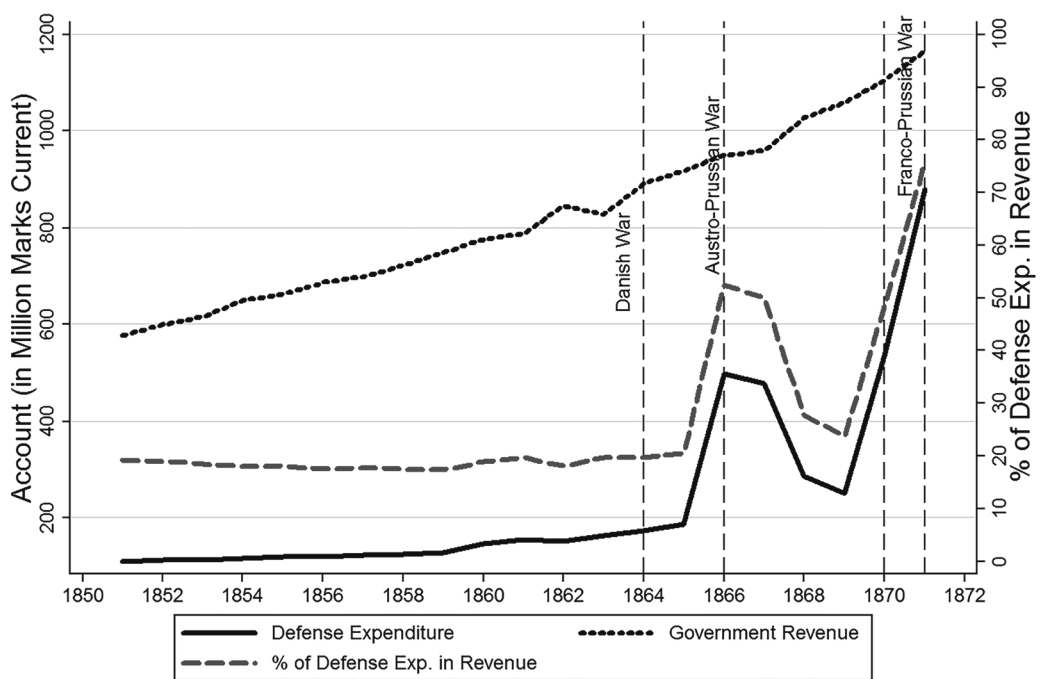
29 See Louis L. Snyder, *Documents of German History*, New Brunswick, New Jersey, Rutgers University Press, 1958, p. 203. Carr indicates that liberals had nothing but to accept the policies of the new minister because a revolution similar to the one in 1848 was beyond possibility against a king with some 200,000 well-trained soldiers and newly obedient bureaucrats behind him. See William Carr, *A History of Germany, 1815-1945*, New York, Palgrave Macmillan, 1969.

30 Gordon Craig, a leading historian of modern Germany, interprets the Indemnity Act of September 1866 as "the capitulation from which middle-class liberalism never recovered ... [without which] ... the defeat of the liberals would have been accompanied by the termination of the constitutional system and a retreat to a system of complete absolutism." See Gordon Alexander Craig, *The Politics of the Prussian Army 1640-1945*, Oxford, Clarendon Press, 1955, p. 137. For details on the Indemnity Act, see Snyder, *Documents of German History*, p. 210.



expenditure during the Austro-Prussian War (1866), which had critical reputational effects on his foreign policy. The military effort of Bismarck during the Austro-Prussian War and the swift defeat of Franz Joseph's army in Sadowa during the Seven Weeks War overturned the Austro-Prussian equality of power sharply in favor of Prussia and generated heated concerns for France for the first time since 1815.<sup>31</sup> To survive in a war with such an adversary, hence, Louis Napoleon III needed to surround himself with allies and turned to Austria, Italy, Russia, and Britain for help, but could not find support from any party. More prominently, Franz Joseph of Austria, afraid of defeat, was not even willing to take part in this alliance before important signals of the defeat of the Prussian army.<sup>32</sup>

**Figure 1:** Prussian Defense Expenditure, 1850-1871



**Source:** The data on absolute defense expenditure and government revenue are acquired from Hoffman, Grumbach, and Hesse.<sup>33</sup>

On the other hand, higher levels of contestation mean that regime supporters face fewer costs in replacing the leader; hence, the leader needs to expend a significant fraction of the budget in the current year to secure their office. In such a setting, the most pressing question at hand is reselection in the current period; thus, to avoid deposition, the leader's war effort decisions depend primarily on supporters' preferences. The leader can devote resources to the war effort, which increases the victory probability in the current war and establishes a reputation to deter future opponents, which, in turn, leaves the distributive politics in the regime undisrupted in the future. However, depending

31 Philip Guedalla, *The Second Empire: Bonapartism, The Prince, The President, The Emperor*, London, Constable and Company Ltd., 1923.

32 Michael Eliot Howard, *The Franco-Prussian War: The German Invasion of France, 1870-1871*, New York, Macmillan, 1961.

33 Walther G. Hoffmann, Franz Grumbach, and Helmut Hesse, *Das Wachstum der Deutschen Wirtschaft seit der Mitte des 19. Jahrhunderts (Enzyklopadie der Rechts- und Staatswissenschaft / Abteilung Staatswissenschaft)* (German Edition), Springer, 1965.

on the make-up of the political system (primarily, the level of inclusiveness), a war effort may diminish the leader's ability to maintain their support base because doing so decreases the resources that can be distributed to the supporters as patronage goods. The implications of this setting are similar to the conclusions of the selectorate account.<sup>34</sup> Inclusive systems push leaders to increase a war effort to produce the public good of victory, whereas exclusive systems push leaders to devote resources as patronage goods for their supporters because the war effort requires a relatively smaller sacrifice in terms of the foregone benefits from regime supporters in inclusive systems. This leads to the conclusion that inclusive regimes allocate more resources to the war effort than exclusive regimes. Hence, it is hypothesized that

**Hypothesis 2:** *Inclusiveness in a polity is likely to increase wartime military expenditure.*

The next section outlines the study's empirical strategy for testing these two hypotheses. After presenting the data, I describe the estimation technique and discuss the results.

## **Dimensions of Democracy and War Effort: An Empirical Analysis**

To measure the proportion of a nation's economic resources devoted to the military, previous studies used the proportion of military expenditure in gross domestic products (GDP).<sup>35</sup> I also employ this definition of military burden, as leaders operate on a fixed resource-base from which they allocate military expenditures. This operationalization also allows for the possibility a state can increase the tax effort and hence expand the government budget during wartime. For robustness checks, I also operationalize military burden as a share of government spending. Even though military expenditures are subject to error due to secrecy and strategic manipulation, the Stockholm International Peace Research Institute (SIPRI) provides the most comprehensive and the best-documented dataset on military expenditures.<sup>36</sup> Hence, to measure these figures, I utilize SIPRI's military expenditure dataset.

To measure *Inclusiveness* and *Contestation*, I utilize a dataset that conducts factor analysis from the existing 13-15 widely used democracy indicators to extract these two dimensions.<sup>37</sup> The dataset covers all states between 1950 and 2000. Contestation reflects government tolerance for political opposition and measures "the ability of citizens to gather independent information, band together in groups such as parties, compete in elections free of government interference, influence the selection of executive and have their interests and rights protected by courts and legislative representatives."<sup>38</sup> Data for inclusiveness dimension are acquired from the same dataset, which measures adult suffrage and "captures the size of the group that chooses the executive or the legislature and holds them accountable."<sup>39</sup> For ease of interpretation, I normalize both variables on a scale of 0-1. Following

---

34 Bueno de Mesquita et al. *An Institutional Explanation of The Democratic Peace*.

35 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*; Benjamin O. Fordham and Thomas C. Walker, "Kantian Liberalism, Regime Type, and Military Resource Allocation: Do Democracies Spend Less?", *International Studies Quarterly*, Vol. 49, No 1, 2005, p. 141-157; Mancur Olson and Richard Zeckhauser, "An Economic Theory of Alliances", *The Review of Economics and Statistics*, Vol. 48, No 3, 1966, p. 266-279.

36 Ron P. Smith, "Military Expenditure Data: Theoretical and Empirical Considerations", *Defence and Peace Economics*, Vol. 28, No 4, 2017, p. 422-428.

37 Coppedge, Alvarez, and Maldonado, *Two Persistent Dimensions of Democracy*.

38 *Ibid.*, p. 637.

39 *Ibid.*

this step, I reverse the contestation variable so that higher values mean lower levels of contestation. *Interstate War* is coded one if there is a militarized interstate dispute with hostility at war level,<sup>40</sup> zero if otherwise. To test the effects of inclusiveness and contestation during peace and war, I use two interactive terms, *Inclusiveness\*Interstate War* and *Contestation\*Interstate War*.

Previous studies link the higher war expenditure of democracies to their ability to manage the economy more effectively and to have greater access to credit.<sup>41</sup> To distinguish these effects, I control for *Wealth*, operationalized as GDP per capita.<sup>42</sup> I also add a control for a state's ability to attract greater credit. To measure the creditworthiness of a state, I use *Credit Ratings* published by Institutional Investor magazine.<sup>43</sup> The make-up of the ruling coalition might obscure the hypothesized relationship between contestation and military expenditures, as leaders in military regimes are significantly more likely to allocate more resources to military expenditures and are also highly uncontested.<sup>44</sup> To account for the role of this alternative causal mechanism, I introduce *Military Regime*, which equals one if a given regime is identified as a military regime.<sup>45</sup> Furthermore, the defense economics literature identifies associations between various other factors and military burden. Accordingly, I include two other control variables frequently used in prior studies to be sure that the models do not suffer from omitted variable bias, *Capability of Allies*, *Capability of Rivals*. The data on these variables are acquired from Fordham and Walker, where fuller descriptions and justifications can be found.<sup>46</sup>

As I will elaborate more below, all these control variables account for the extant explanations on military burden and allow us partial out potentially confounding and intervening effects they may exert on the hypothesized relationships. In this way, significant findings for the regime dimension variables should provide strong evidence in support of the theoretical propositions. The inclusion of the main independent variables yields a dataset for 159 countries from 1950 to 2000. The summary statistics are presented in the appendix in Table A1. Following the literature, I adopt the following specification to estimate military burden:

$$\ln M_{it} = a_0 + \phi \ln M_{it-1} + \beta_0 I_{it} + \beta_1 C_{it} + \beta_2 IW_{it} + \beta_3 CW_{it} + \beta_4 W_{it} + \lambda x_{it} + \delta_t + \eta_i + \varepsilon_{it}$$

where  $M_{it}$  is the log of military expenditure as a share of GDP of state  $i$  in period  $t$ ,  $I$  is the level of inclusiveness,  $C$  is the reverse of contestation, and  $W$  is a dummy variable, where 1 indicates that state  $i$  in period  $t$  is in a war,  $x_{it}$  is a vector of the control variables,  $\delta_t$  is the time-specific fixed effects which captures common shocks to military expenditure for all countries in a given year,  $\eta_i$  is the unobservable country-specific time-invariant fixed effects, and  $\varepsilon_{it}$  is the error term.<sup>47</sup>

40 Daniel M. Jones, Stuart A. Bremer, and J. David Singer, "Militarized Interstate Disputes, 1816-1992: Rationale, Coding Rules and Empirical Patterns", *Conflict Management and Peace Science*, Vol. 15, No 2, 1996, p. 163-213.

41 Schultz and Weingast, *Limited Governments, Powerful States*; Lake, *Powerful Pacifists*.

42 Angus Maddison, *The World Economy Volume 1: A Millennial Perspective Volume 2: Historical Statistics*, Paris, Academic Foundation, 2007.

43 Matthew DiGiuseppe, "Guns, Butter, and Debt", *Journal of Peace Research*, Vol. 52, No 5, 2015, p. 680-693.

44 Vincenzo Bove and Jennifer Brauner, "The Demand for Military Expenditure in Authoritarian Regimes", *Defence and Peace Economics*, Vol. 27, No 5, 2016, p. 609-625.

45 Barbara Geddes, Joseph Wright, and Erica Frantz, "Autocratic Breakdown and Regime Transitions: A New Data Set", *Perspectives on Politics*, Vol. 12, No 2, 2014, p. 313-331.

46 Fordham and Walker, *Kantian Liberalism, Regime Type, and Military Resource Allocation*.

47 From a war-making state-making perspective, one may think that endogeneity between political institutions and military

## **Main Results**

The findings reveal strong support for both hypotheses.<sup>48</sup> I begin by examining the null model in Table 1.<sup>49</sup> The findings in the model indicate that while *Inclusiveness* has no robust statistical effect on overall military burden, decreasing *Contestation* has a positive (0.10) and significant effect ( $p < 0.01$ ). More substantively, decreasing contestation from its maximum to minimum increases overall military burden by 10.7 percent. The presence of interstate war has a positive (0.08) and significant ( $p < 0.01$ ) effect, increasing the military burden on average by 9.2 percent.

The next model introduces the baseline specification to test the role of inclusiveness and contestation on military burden conditional on war. Given the model includes an interaction term, the coefficients are not illuminating on their own, and I calculate the substantively meaningful marginal effects and standard errors for each specification. Following the practice suggested by Kam and Franzese, I report the effect of inclusiveness and contestation on military burden given war and peace as well as their effect on the difference in military burden given war and peace in Table 2.<sup>50</sup>

Calculations of the marginal effect of *Contestation* given *War* in column 2 show that leaders in more uncontested regimes are significantly more likely to increase wartime military effort than those in more contested regimes ( $0.26, p < 0.001$ ) as expected by Hypothesis 1. More substantively, changing political institutions from highly contested to highly uncontested increases war military burden by 29.9 percent.<sup>51</sup> Moreover, as expected, leaders operating in more inclusive regimes are more likely to increase their war effort than those in less inclusive regimes ( $0.31, p < 0.001$ ). Substantively, changing the regime from the most exclusive to the most inclusive leads to a 37.6 percent increase in the wartime military burden. These findings also clarify the puzzle of the role of regime type on the war effort

---

burden can pose a threat to our inferences. As a result, the anticipation of war and expenditures may lead to increases in inclusiveness and decreases in contestation. See Elizabeth Kier and Ronald R. Krebs, *In War's Wake: International Conflict and The Fate Of Liberal Democracy*, New York, Cambridge University Press, 2010, p. 7. This anticipation mechanism indicates that leaders can manipulate institutional configurations to make them more conducive to higher military burden. This mechanism is a feature confirming the theory's military burden implications rather than a statistical problem confounding these conclusions.

48 Analyses with different lag lengths produced no substantial changes in the results reported here. The current zero-lag specification reported here outperforms (with Bayesian Information Criteria (BIC) of -1784.24) specifications that include cumulative lags ( $BIC_1 = -1756.74$ ,  $BIC_2 = -1734.37$ ,  $BIC_3 = -1698.58$ , where subscript denotes the cumulative lag length). Analyses with different lag specifications are reported in the replication set. Moreover, I test the presence of unit-roots with Fisher's panel unit-root test and conduct Augmented Dickey-Fuller (ADF) unit-root tests on each panel. According to Choi the inverse normal Z statistic offers the best trade-off between size and power. See In Choi, "Unit Root Tests for Panel Data", *Journal of international money and Finance*, Vol. 20, No 2, 2001, p. 249-272. All four tests produced by the ADF procedure reject the null hypothesis that all panels contain unit-roots for military burden. The results are available in the appendix in Table A2.

49 Replication files are available at the following address: <https://doi.org/10.7910/DVN/50A92J>

50 Cindy Kam and Robert J. Franzese, *Modeling and Interpreting Interactive Hypotheses in Regression Analysis*, Ann Arbor, University of Michigan Press, 2007.

51 The theoretical argument is based on the following premise: by investing in a higher level of militarization, leaders not only increase the probability of a favorable outcome in the given war but also deter future wars from occurring and minimize their disruptive effect on their future distributive politics. This has two implications: (1) leaders operating under uncontested regimes expend more resources during wars as confirmed above, and (2) these leaders are more likely to fight these wars early in their tenures if they do so to build a reputation for being tough. I test this additional implication in Appendix Table A3 and Figure A1. The marginal effect of *Contestation* on war involvement is positive in the first six years of tenure, and the effect starts changing sign by the seventh year, then, becomes negative as expected by (2). Combining the two findings, this means that uncontested leaders are likely to fight early in their tenures and expend high war effort to deter disruption in their future distributive politics.

decision in previous research, which indicates that inclusiveness increases the war effort,<sup>52</sup> composite Polity IV index decreases it.<sup>53</sup> The findings here also indicate that democracy, operationalized as a unidimensional concept, masks two crucial opposing statistical associations.<sup>54</sup>

**Table 1:** Inclusiveness, Contestation and Military burden given War and Peace

	<i>Base Model</i>	<i>Null Model</i>	<i>Plus Wealth</i>	<i>Plus Credit Rating</i>	<i>Plus Cap. of Allies</i>	<i>Plus Cap. of Rivals</i>	<i>Plus Military Regimes</i>
<i>ME(Contestation War)</i>		0.26*** (0.07)	0.23*** (0.07)	0.39*** (0.10)	0.26*** (0.07)	0.26*** (0.07)	0.24*** (0.07)
<i>ME(Inclusiveness War)</i>		0.32*** (0.09)	0.28*** (0.09)	0.38** (0.19)	0.31*** (0.09)	0.32*** (0.09)	0.32*** (0.09)
<i>Contestation</i>	0.10*** (0.04)	0.09*** (0.04)	0.10*** (0.04)	0.14** (0.06)	0.09*** (0.04)	0.09** (0.04)	0.08** (0.04)
<i>Inclusiveness</i>	-0.002 (0.04)	-0.011 (0.04)	0.003 (0.04)	0.03 (0.08)	-0.01 (0.04)	-0.01 (0.04)	-0.001 (0.04)
<i>Contestation*War</i>		0.16** (0.07)	0.13** (0.07)	0.26*** (0.09)	0.17** (0.07)	0.17** (0.07)	0.16** (0.07)
<i>Inclusiveness*War</i>		0.33*** (0.10)	0.28*** (0.09)	0.35* (0.17)	0.33*** (0.09)	0.33*** (0.10)	0.32*** (0.09)
<i>War</i>	0.08*** (0.02)	-0.20** (0.08)	-0.16** (0.08)	-0.29** (0.14)	-0.20** (0.08)	-0.20** (0.08)	-0.19** (0.08)
<i>Wealth</i>			-0.02 (0.03)				
<i>Credit Rating</i>				-0.001 (0.00)			
<i>Cap. of Allies</i>					0.10 (0.10)		
<i>Cap. of Rivals</i>						0.38*** (0.12)	
<i>Military Regime</i>							0.02 (0.02)
<i>Military Burden<sub>t-1</sub></i>	0.80*** (0.03)	0.80*** (0.03)	0.80*** (0.04)	0.67*** (0.08)	0.80*** (0.03)	0.80*** (0.03)	0.81*** (0.04)
<i>Intercept</i>	-0.83*** (0.14)	-0.76*** (0.13)	-0.64*** (0.18)	-1.33*** (0.33)	-0.77*** (0.14)	-0.78*** (0.14)	-0.76*** (0.15)
Observations	4418	4418	4197	1937	4417	4417	4176
R <sup>2</sup> -within	0.73	0.73	0.72	0.62	0.73	0.73	0.72
# of Countries	159	159	150	129	159	159	144

Standard errors clustered for countries are presented in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Contestation refers to the reverse of contestation for ease of interpretation. The shaded rows present the calculated marginal effect of regime variables given a war.

52 Bruce Bueno de Mesquita, Alastair Smith, Randolph M. Siverson, and James D. Morrow, *The Logic of Political Survival*, Cambridge, MA, The MIT Press, 2004.

53 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*.

54 I also find that moving the composite Polity IV index from minimum to maximum given war is associated with a 7.8 percent decrease in the military burden, which is highly small compared to the findings for individual dimensions.

**Table 2:** Calculation of the Marginal Effects

	Mean	95% CI	p-value
<i>Contestation</i>			
Wartime Military burden	29.9%	(12.9, 46.9)	0.001
Peacetime Military burden	10.2%	(2.4, 17.9)	0.010
Difference between War and Peace	19.7%	(3.45, 35.9)	0.018
<i>Inclusiveness</i>			
Wartime Military burden	37.6%	(13.2, 61.8)	0.002
Peacetime Military burden	-0.8%	(-7.7, 6.11)	0.816
Difference between War and Peace	38.4%	(13.5, 63.3)	0.002

**Note:** The quantities of interest are calculated by increasing the variable of interest from its minimum to maximum using Table 2, Column 2. Contestation refers to the reverse of contestation for ease of interpretation.

Even though the theory’s implications are limited to wartime military expenditure, these findings have implications for the military burden during the peacetime.<sup>55</sup> As can be seen in column 2, while inclusiveness has no robust statistical effect on peacetime defense expenditure, decreasing contestation leads to an increase (0.10,  $p < 0.05$ ). More substantively, a transition from a highly contested regime to a highly uncontested one leads to a 10.2 percent increase in peacetime military burden. The extant literature using the Polity IV index indicates that democratic regimes have smaller military burdens.<sup>56</sup> From a Dahlian point of view, this finding is driven by the contestation feature of democracy. A further comparison of wartime and peacetime defense expenditures shows that decreasing contestation from its maximum to minimum increases the military burden by an additional 19.7 percent ( $p = 0.02$ ) during wartime as compared to peacetime. Moreover, increasing inclusiveness from its minimum to maximum increases the military burden difference between wartime and peacetime to 38.4 percent ( $p < 0.01$ ).

### ***Ruling Out Alternative Causal Mechanisms***

Several other factors are proposed in the literature to explain a state’s military burden, which might obscure the hypothesized effects. I report the modifications on this null model in the next columns models and present the substantive effects of contestation and inclusiveness for these models in Figure

55 My theory’s implications for the peacetime expenditure are indeterminate. Leaders in inclusive regimes need the support of the larger public, who derive greater utility from social or infrastructure spending, thus, need to spend less on military. Leaders in exclusive regimes need the support of a small group (military or civilian elite) to stay in power. While the military elite might derive greater utility from military expenditure, leading to a prediction of higher military expenditure, civilian business elite might derive utility from state subsidies, social spending, and infrastructure, leading to a prediction of low military expenditure. As a result, predictions on the inclusiveness dimension would be indeterminate without focusing on the composition of the coalition. Contestation dimension might also have an indeterminate effect on peacetime military expenditure: in uncontested regimes leaders are likely to keep a large budget for the military to repress potential dissent from the public. But it may also work in the opposite direction as well: leaders, having created a reputation for being tough after a large wartime military budget, can decrease the military expenditure and remain equally free from foreign threats. Alternatively, to compensate for the reduced military power due to war, the leader may need to increase military expenditure again for repression purposes.

56 Fordham and Walker, *Kantian Liberalism, Regime Type, and Military Resource Allocation*.

2. First, I suspect that economic development might have a potentially intervening effect between regime dimensions and military expenditure. Previous studies link the higher war expenditure of democracies to their ability to manage their economies more effectively, which allows them to outspend their non-democratic rivals.<sup>57</sup> Moreover, economic development is likely to be a product of political institutions and allows states to accommodate significant military investments without undermining other sectors in the economy.<sup>58</sup> Economic development might also allow governments to organize their military more effectively; thus, they can allocate fewer resources to the war effort and derive similar levels of benefits as the less developed ones. In addition, to the extent that economic development determines political institutions, it might have a confounding status. I introduce *Wealth* into the third column and find that *Wealth*, operationalized as GDP per capita, has no discernible effect on the military burden. In this model, the marginal effects of *Contestation* and *Inclusiveness* given *War* are significant and positive.

Greater access to credit might also have an intervening status between political institutions and military expenditures as it might allow governments to harness resources far beyond their tax-generation capacity,<sup>59</sup> which might be used to expand military expenditures during a war.<sup>60</sup> For example, given the rise of Prussia in the 1860s, Franz Joseph needed to borrow money to fund necessary military expenditures, but this did not seem possible until the government budget came under the control of parliament. As a result, Austria under Franz Joseph adopted a series of democratic reforms that extended the franchise to men with property to be able to borrow more loans abroad with the increased backing of the bourgeoisie in the political system.<sup>61</sup> To account for the role of this alternative causal mechanism linking inclusiveness to military expenditure, the fourth model includes *Credit Rating* into the null model. Despite the substantial sample change due to the list-wise deletion in the model, the main results remain robust to the inclusion of sovereign creditworthiness.

The military power of allied states also might obscure the hypothesized relationships to the extent that alliance formation and honoring alliance commitments vary by political institutions.<sup>62</sup> The calculus of military expenditures may depend on power shifts favoring allied states. Alliances with powerful states may yield a favorable dispute outcome while allocating a relatively small amount of resources for defense expenditure.<sup>63</sup> Hence, to account for the role of alliances on the relationship between political institutions and military expenditures, I include *the Capability of Allies* in the next model in Table 1. The inclusion of alliance capability into the null model does not change the main results. The main results do not also change when *Capability of Rivals* is introduced into the null model.

---

57 Lake, *Powerful Pacifists*.

58 Michael Beckley, "Economic Development and Military Effectiveness", *Journal of Strategic Studies*, Vol. 33, No 1, 2010, p. 43-79.

59 Schultz and Weingast, *Limited Governments, Powerful States*.

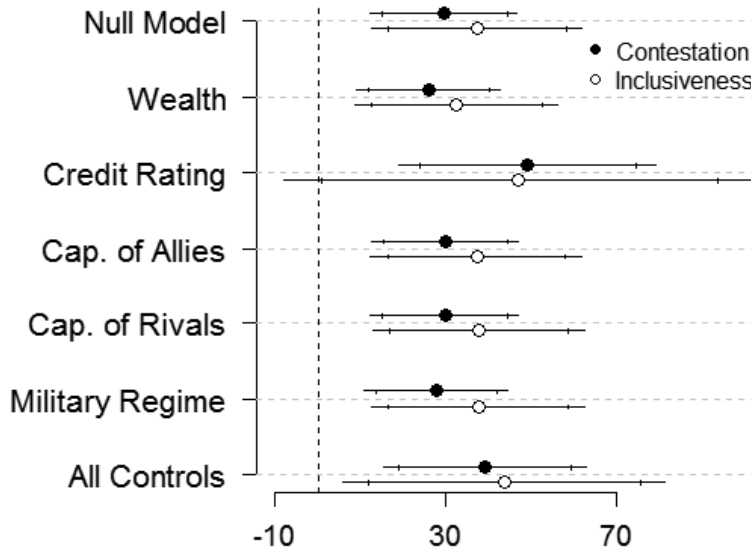
60 DiGiuseppe, *Guns, Butter, and Debt*.

61 Anatol Murad, *Franz Joseph I of Austria and His Empire*, New York, Twayne Publishers, 1968; A. J. P Taylor, *The Habsburg Monarchy, 1809-1918: A History Of The Austrian Empire And Austria-Hungary*, Chicago, University of Chicago Press, 1976.

62 Brett Ashley Leeds, "Alliance Reliability in Times of War: Explaining State Decisions to Violate Treaties", *International Organization*, Vol. 57, No 4, 2003, p. 801-827.

63 Olson and Zeckhauser, *An Economic Theory Of Alliances*.

Figure 2: Marginal Effects of Inclusiveness and Contestation given War



**Note:** The figure shows the marginal effect of *Contestation given War* as well as *Inclusiveness given War* on military burden and the corresponding 90 and 95 confidence intervals. Black dots and white dots represent respectively, the results for *Contestation* and *Inclusiveness*. *Contestation* refers to the reverse of contestation for ease of comparison. The quantities are based on the estimates from Table 1.

Military burden might systematically differ between regimes with different coalition compositions as variation in the make-up of the ruling coalition determines the optimal allocation of resources to military spending, hence, conditional on military spending, leader survival.<sup>64</sup> Dictators care about the small winning coalition and have more resources left to invest in the military. Moreover, since dictators' survival in military regimes is tied to military elites' support, large military expenditures, and patronage, good provision to supporters may not have to be regarded as mutually exclusive. In other words, members of the military elite derive direct private benefits from military expenditure, and the under-provision of resources to military increases the risk of losing power.<sup>65</sup> The make-up of the ruling coalition, therefore, might obscure the hypothesized relationships as leaders in military regimes are significantly likely to allocate more resources to military expenditures and are also highly uncontested and exclusive.<sup>66</sup> To account for the role of this alternative causal mechanism, in the next model, I introduce *Military Regime* dummy into the null model and find that the main results remain unchanged, whereas the effect of *Military Regime* becomes indistinguishable from zero.<sup>67</sup>

64 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*; Daniel Hewitt, "Military Expenditures Worldwide: Determinants and Trends, 1972–1988", *Journal of Public Policy*, Vol. 12, No 2, 1992, p. 105-152.

65 Erica Frantz and Natasha Ezrow, *The Politics of Dictatorship: Institutions and Outcomes in Authoritarian Regimes*, Boulder, Colo, Lynne Rienner Pub, 2011; Jonathan Powell, "Determinants of the Attempting and Outcome of Coups d'état", *The Journal of Conflict Resolution*, Vol. 56, No 6, 2012, p. 1017-1040.

66 Carter and Palmer, *Keeping the Schools Open While the Troops are Away*; Bove and Brauner, *The Demand for Military Expenditure in Authoritarian Regimes*.

67 In the absence of inclusiveness and contestation variables, *Military Regime* has a positive (0.04) and a statistically significant effect ( $p < 0.05$ ) on military burden. Moreover, the inclusion of the interaction of *Military Regime* with *War* does not change the substantive results regarding *Contestation* and *Inclusiveness*.



Among the additional controls considered, *Capability of Rivals* has a statistically significant effect on military burden, indicating that power shifts in favor of rival states create crucial incentives for a larger military burden. In addition to controlling for alternative explanations within the literature, I also conducted an extensive set of robustness checks in Appendix Table A4 to ensure that the results are also robust to alternative specifications. These results hold even when alternative explanations are taken into account and are robust to a variety of alternative specifications used within the literature.

## Conclusions

This study has shown that the variation in war effort across different regimes can be explained substantively within the contour of contestation and inclusiveness features of democracy and that these two dimensions pull leaders' capacity to allocate fiscal resources for a war effort in opposite directions. Is democracy a luxury that nations cannot afford during wartime? Leaders in uncontested regimes can amass larger discretionary budgets and have a longer time horizon than contested regimes. These two mechanisms give them the ability and incentives to increase military effort to contain not only the present foreign policy crisis but also deter future ones. On the other hand, if the regime is contested, leaders' war effort allocation decision depends primarily on their supporters' preferences. Leaders operating in inclusive regimes allocate more resources for a war effort than those in exclusive regimes. The statistical evidence covering all state years between 1950 and 2000 suggests that inclusiveness and the uncontested decision-making ability of leaders in a polity independently increase a leader's ability and incentives to divert fiscal resources towards a war effort.

The findings suggest that the focus of previous scholarship on the variation in aggregate composite democracy measures masks the constituent disaggregate relationships. The pay-off of this conceptual disaggregation and the empirical differentiation is to corroborate the two seemingly mutually exclusive theoretical positions in the literature. The implications of the empirical analysis extend beyond the literature on wartime defense expenditures. The findings suggest that lower levels of peacetime defense expenditure of democracies in the previous literature are explained by the contestation feature of poliarchy; hence, the insights ingrained in Kant's *Perpetual Peace* on the demilitarizing aspect of democracy finds its manifestations within the inclusiveness feature of polity.

## Appendix

**Table A1:** Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Max
<i>Military burden</i>	4418	-3.61	0.75	-5.90	-0.72
<i>Contestation</i>	4418	0.43	0.29	0.00	0.97
<i>Inclusiveness</i>	4418	0.65	0.21	0.00	1.00
<i>War</i>	4418	0.04	0.20	0.00	1.00
<i>Wealth</i>	4197	8.10	1.05	5.37	10.34
<i>Credit Rating</i>	1937	42.49	25.76	4.05	98.40
<i>Cap. of Allies</i>	4417	0.11	0.13	0.00	0.62
<i>Cap. of Rivals</i>	4417	0.01	0.03	0.00	0.30
<i>Military Regimes</i>	4176	0.11	0.31	0.00	1.00

**Table A2:** ADF Panel Unit-Root Tests for Democracy

Test $\chi^2$	Test Statistics
<i>Inverse</i>	579.07***
<i>Inverse Normal Z Statistics</i>	-2.98***
<i>Inverse Logit L* Statistics</i>	-4.96***
<i>Modified Inverse <math>\chi^2</math></i>	10.46***

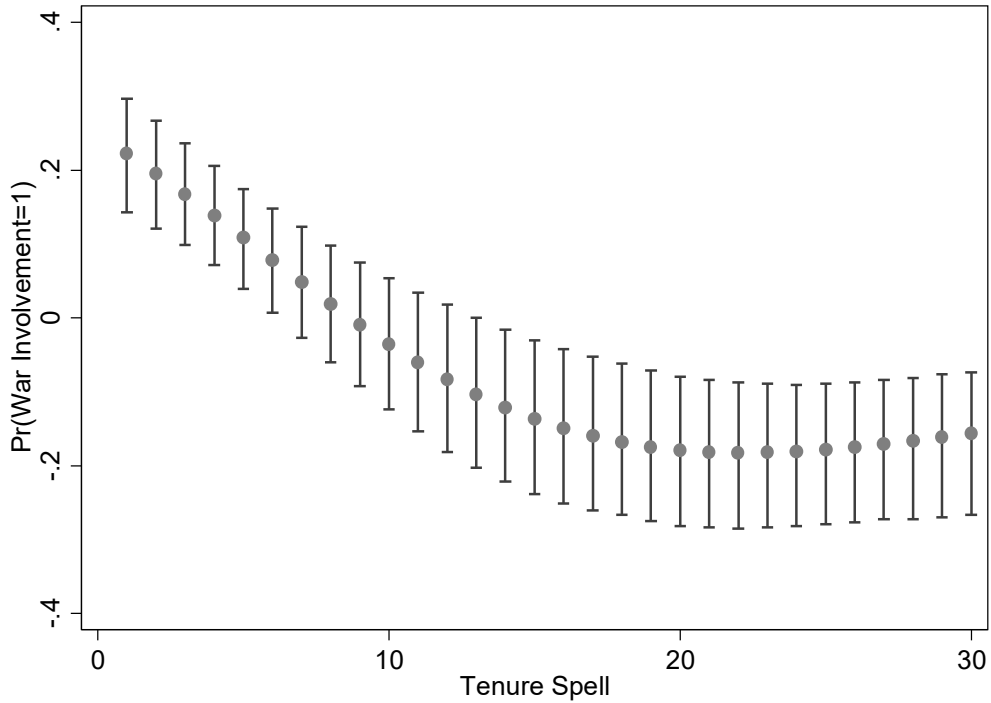
\*\*\*  $p < 0.001$ . Significant test statistics reject the null hypothesis that all panels contain unit-roots.

**Table A3:** Contestation, Tenure Spell and War Involvement

<i>Contestation</i>	0.85*** (0.15)
<i>Tenure Spell</i>	0.11*** (0.02)
<i>Contestation*Tenure Spell</i>	-0.10*** (0.02)
<i>CINC Score</i>	0.22*** (0.02)
<i>Peace Years</i>	-0.39*** (0.03)
<i>Peace Years<sup>2</sup></i>	0.03*** (0.00)
<i>Peace Years<sup>3</sup></i>	-0.00*** (0.00)
<i>Constant</i>	-0.62*** (0.12)
<i>Observations</i>	8061
<i>R<sup>2</sup></i>	0.20

Standard errors clustered for countries are presented in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . *Contestation* refers to the reverse of contestation for ease of interpretation.

**Figure A1:** Marginal Effect of Contestation on War Involvement given Tenure Spell



Note: The figure shows the marginal effect of *Contestation* and the corresponding 95% confidence intervals across different values of *Tenure Spell*. The difference in the marginal effects is significant, with an average reduction of 40.2% (95% CI: 29.8%, 50.0%) in war involvement when we change *Tenure Spell* from 1 to 30. *Contestation* refers to the reverse of contestation for ease of interpretation. The quantities are based on the estimates from Table A3.

*Robustness Tests*

In addition to controlling for various explanations within the literature, I also conducted an extensive set of robustness tests to ensure that the results are robust to alternative specifications. I report these analyses and the marginal effects of *Contestation* and *Inclusiveness* given *War* on military burden in Table A4. First, taking a broader definition of patronage to include domestic spending that might be targeted to politically valuable constituencies, I use the share of defense expenditures in the government budget in column 1 of Table A4. As can be seen, the main results remain unscathed. Secondly, Nordhaus et al. warn that SIPRI might underestimate the spending of post-USSR countries.<sup>68</sup> As a result, I drop these country-years in the next column. The results are highly robust to the exclusion of these countries. In the next model, I use Bueno Mesquita et al.’s measure of coalition size, *W*, as the measure of inclusiveness. The main conclusions from this model are similar: the marginal effect of *Contestation* given *War* is still significant at  $p < 0.05$ , the marginal effect of *Inclusiveness* given *War* is significant at  $p < 0.1$  (one-tailed). In the following model, I use Vanhanen’s polyarchy dataset as an alternative operationalization of *Contestation* and *Inclusiveness* measures, which respectively gauge the share of the smaller parties and independents

68 William Nordhaus, John R. Oneal, and Bruce Russett, “The Effects of the International Security Environment on National Military Expenditures: A Multicountry Study”, *International Organization*, Vol. 66, No 03, 2012, p. 491–513.

in the parliament and the percentage of the adult population that voted in the election.<sup>69</sup> Even though these are highly limited definitions of the two dimensions, the main conclusions from this model are similar: *Contestation* given *War* is still highly significant, the marginal effect of *Inclusiveness* given *War* is significant at  $p < 0.1$  (one-tailed). Despite the consistency of the results with the main expectations, Bayesian information criteria choose the null specification (BIC=-1664.7), which uses Coppedge et al., outperforms the Vanhanen specification (BIC=-1647.7).<sup>70</sup> This is sensible given Coppedge et al.'s data contain more theoretically relevant information on the two dimensions than Vanhanen's measures. Furthermore, given the correlation between *Contestation* and *Inclusiveness*, I employ a set of robustness checks to address that multicollinearity and find that it does not pose a serious threat to the statistical inference.<sup>71</sup> Moreover, I also conduct two additional checks: first, I report analyses that respectively include *Contestation* and *Inclusiveness* in separate models. The main results, even though less robust for inclusiveness, are similar. The marginal effect of *Contestation* given *War* is still highly significant, that of *Inclusiveness* given *War* is significant at one-tailed  $p < 0.1$ . Moreover, the presence of the lagged dependent variable in the within-group estimator used in the null model means that the transformed lagged dependent variable might potentially be negatively correlated with the transformed error term, and this leads the within-group estimator to be downwardly biased.<sup>72</sup> To address this problem, I use system generalized method of moments (System GMM) estimator, which simultaneously estimates a differenced and a level equation by instrumenting the current values of the former with the lagged levels and those of the latter with lagged differences.<sup>73</sup> The main results do not change, except, the marginal effect of inclusiveness given peace now becomes significant. Finally, King and Roberts recommend the use of classical standard errors in addition to robust standard errors to diagnose model misspecification.<sup>74</sup> The substantive inferences derived from this additional robustness check are also consistent with the main results. As an additional robustness test, I employ panel-corrected standard errors.<sup>75</sup> The findings from this specification are also in line with those reported in the null model. The results of these three last specifications are available in the replication set.

---

69 Tatu Vanhanen, "The Polyarchy Dataset: Vanhanen's Index of Democracy". 2000

70 Coppedge, Alvarez, And Maldonado, *Two Persistent Dimensions of Democracy*.

71 Variance inflation factor for both variables is reported as 1.58, which is well below the usual rule-of-thumb indicator of multicollinearity of 10 or more.

72 Stephen Nickell, "Biases in Dynamic Models with Fixed Effects", *Econometrica: Journal of the Econometric Society*, 1981, p. 1417-1426.

73 Richard Blundell And Stephen Bond, "Initial Conditions And Moment Restrictions In Dynamic Panel Data Models", *Journal of Econometrics*, Vol. 87, No 1, 1998, p. 115-143.

74 Gary King and Margaret E. Roberts, "How Robust Standard Errors Expose Methodological Problems They Do Not Fix, And What to Do About It", *Political Analysis*, 2014.

75 Nathaniel Beck and Jonathan N. Katz, "What to Do (and not to Do) With Time-Series Cross-Section Data", *The American Political Science Review*, Vol. 89, No 3, 1995, p. 634-647.

**Table A4:** Alternative Specifications for Robustness Checks

	<i>Mil. Exp/ Govt Budget</i>	<i>Exclude Post- USSR Countries</i>	<i>W</i>	<i>Van-hanen</i>	<i>Cont. Only</i>	<i>Inclus. Only</i>
<i>ME(Contestation War)</i>	0.65*** 0.19	0.25*** 0.07	0.31** (0.15)	0.18** (0.08)	0.13** (0.06)	
<i>ME(Inclusiveness War)</i>	0.80** 0.33	0.31*** 0.09	0.17+ 0.10	0.16+ 0.10		0.12+ (0.09)
<i>Contestation</i>	0.30*** (0.09)	0.10*** (0.04)	0.10*** (0.04)	0.013 (0.02)	0.10*** (0.03)	- -
<i>Inclusiveness</i>	0.08 (0.13)	-0.01 (0.04)	0.0032 (0.03)	-0.047* (0.02)	- -	-0.06** (0.03)
<i>Contestation*War</i>	0.35** (0.16)	0.16** (0.06)	0.22* (0.12)	0.16** (0.08)	0.033 (0.05)	- -
<i>Inclusiveness*War</i>	0.72** (0.28)	0.32*** (0.09)	0.17 (0.11)	0.21** (0.11)	- -	0.18* (0.09)
<i>War</i>	-0.57** (0.23)	-0.19** (0.08)	-0.11 (0.12)	-0.08 (0.08)	0.07** (0.03)	-0.03 (0.06)
<i>Military Burden<sub>t-1</sub></i>	0.48*** (0.06)	0.81*** (0.03)	0.80*** (0.01)	-0.81*** (0.01)	0.80*** (0.03)	0.81*** (0.03)
<i>Intercept</i>	-1.52*** (0.19)	-0.81*** (0.15)	-0.81*** (0.05)	-0.74*** (0.04)	-0.83*** (0.13)	-0.75*** (0.13)
Observations	1014	4317	4278	4702	4418	4418
R <sup>2</sup> -within	0.35	0.73	0.72	0.73	0.73	0.72
# of Countries	128	144	159	160	159	159

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$  (two-tailed), +  $p < 0.10$  (one-tailed) Standard errors are presented in parentheses. Contestation refers to the reverse of contestation for ease of interpretation. The shaded rows present the calculated marginal effect of regime variables given a war.