The Capitalist Peace

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It is widely accepted that democracies are less conflict prone, if only with other democracies. Debate persists, however, about the causes underlying liberal peace. This article offers a contrarian account based on liberal political economy. Economic development, free markets, and similar interstate interests all anticipate a lessening of militarized disputes or wars. This “capitalist peace” also accounts for the effect commonly attributed to regime type in standard statistical tests of the democratic peace.

Which Liberal Peace?

The discovery that democracies seldom fight each other has led, quite reasonably, to the conclusion that democracy causes peace, at least within the community of liberal polities. Explanations abound, but a consensus account of the dyadic democratic peace has been surprisingly slow to materialize. I offer a theory of liberal peace based on capitalism and common interstate interests. Economic development, capital market integration, and the compatibility of foreign policy preferences supplant the effect of democracy in standard statistical tests of the democratic peace. In fact, after controlling for regional heterogeneity, any one of these three variables is sufficient to account for effects previously attributed to regime type in standard samples of wars, militarized interstate disputes (MIDs), and fatal disputes.¹

If war is a product of incompatible interests and failed or abortive bargaining, peace ensues when states lack differences worthy of costly conflict, or when circumstances favor successful diplomacy. Realists and others argue that state interests are inherently incompatible, but this need be so only if state interests are narrowly defined or when conquest promises tangible benefits. Peace can result from at least three attributes of mature capitalist economies.

First, the historic impetus to territorial expansion is tempered by the rising importance of intellectual and financial capital, factors that are more expediently enticed than conquered. Land does little to increase the worth of the advanced economies while resource competition is more cheaply pursued through markets than by means of military occupation. At the same time, development actually increases the ability of states to project power when incompatible policy objectives exist. Development affects who states fight (and what they fight over) more than the overall frequency of warfare. Second, substantial overlap in the foreign policy goals of developed nations in the post–World War II period further limits the scope and scale of conflict. Lacking territorial tensions, consensus about how to order the international system has allowed liberal states to cooperate and to accommodate minor differences. Whether this affinity among liberal states will persist in the next century is a question open to debate. Finally, the rise of global capital markets creates a new mechanism for competition and communication for states that might otherwise be forced to fight. Separately, these processes influence patterns of warfare in the modern world. Together, they explain the absence of war among states in the developed world and account for the dyadic observation of the democratic peace.

¹ Additional tests of key variables, model specifications, and possible confounding factors appear in the appendix. A Stata "do" file replicating all aspects of the analysis is available from the author.


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The notion of a capitalist peace is hardly new. Montesquieu, Paine, Bastiat, Mill, Cobden, Angell, and others saw in market forces the power to end war. Unfortunately, war continued, leading many to view as overly optimistic classical conceptions of liberal peace. This study can be seen as part of an effort to reexamine capitalist peace theory, revising arguments in line with contemporary insights much as Kantian claims were reworked in response to evolving evidence of a democratic peace.

Existing empirical research on the democratic peace, while addressing many possible alternatives, provides an incomplete and uneven treatment of liberal economic processes. Most democratic peace research examines trade in goods and services but ignores capital markets and offers only a cursory assessment of economic development (Maoz and Russett 1992). Several studies explore the impact of interests, though these have largely been dismissed by democratic peace advocates (Oneal and Russett 1999a; Russett and Oneal 2001). These omissions or oversights help to determine the democratic peace result and thus shape subsequent research, thinking, and policy on the subject of liberal peace. This study offers evidence that liberal economic processes do in fact lead to peace, even accounting for the well-documented role of liberal politics. Democracy cohabitates with peace. It does not, by itself, lead nations to be less conflict prone, not even toward other democracies.

The argument and evidence provided here are bound to draw criticism. Skepticism in the face of controversial claims is natural, reasonable, even essential for the cumulation of knowledge. The democratic peace observation is supported by an exceptionally large and sophisticated body of research. At the same time, excessive deference to previous conclusions privileges conventional wisdom. A willingness to doubt that which we have come to believe is a hallmark of scientific inquiry. Indeed, the weight of existing evidence does not directly contradict this study as previous research has typically failed to address the claims of classical liberal political economists like Montesquieu, Richard Cobden, and Norman Angell. As with previous research, this study finds support for a liberal peace, though the key causal variables, and some major policy implications, are considerably changed.

Two Traditions of Liberal Peace

Liberal scholarship details two paths to peace, one dominated by democracy, the other guided by the philosophy of market economics. This article briefly reviews each tradition, offering a few critical comments.

The Political Tradition

Democratic peace research most often attributes its intellectual genesis to Kant’s essay Perpetual Peace, though scholars like Abbe de Saint-Pierre, Rousseau, and Bentham all provided similar arguments prior to Kant. Early twentieth-century scholar-statesmen like Woodrow Wilson and Nicolas Murray Butler advanced the pacific effects of democracy in their writings, and to a lesser extent in practice. After a cold war hiatus, contemporary politicians like Bill Clinton and George W. Bush have again picked up the banner of liberal peace in an era of U.S. hegemony.

Early statistical work questioned the liberal conviction that democracies are generally less warlike (cf. Wright 1942). Babst (1964, 1972) was the first to identify the special dyadic observation. Small and Singer (1976) drew attention to the topic, paradoxically by seeking to establish that Kant was wrong. Rummel (1979, 1983, 1985) argued for a libertarian peace, incorporating, among other things, free markets: “The more freedom that individuals have in a state, the less the state engages in foreign violence” (1983, 27). Doyle (1983a, 1983b, 1997) examines three traditions of liberalism exemplified by Kant, Machiavelli,  

2Empirical regularity cannot be the only reason for broad interest in the democratic peace. As Cederman (2003) points out, the relationship between the frequency and intensity of wars is also "lawlike" (literally a power rule). This relationship has generated little interest and received almost no attention since its discovery by Richardson (1960).

3Accumulation is not cumulation. Replication offers a limited form of robustness. As one author puts it, "Is it surprising that repeatedly testing the same primary independent and dependent variables generally produces the same results?" (Van Belle 2006, 14). Jervis (1976) offers an entertaining parable based on the writings of A. A. Milne. While out hunting "woozles," Piglet and Winnie-the-Pooh mistake their own tracks in the snow for those of their elusive prey. As the two frightened characters circle back on their own trail, the "evidence" of wozles mounts.

4See Jacob (1974) for a compilation of essays. Ceadel notes of the period that “The argument that ‘republican’ regimes were necessary for peace, . . ., was already a near-commonplace of Anglo-American radicalism” (2000, 16).

5"Ultimately, 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” (Clinton 1994). “Democracies don’t go to war with each other. . . . I’ve got great faith in democracies to promote peace” (Bush 2004).

6Even proponents appear to acknowledge that democratic pacifism is at best a considerably weaker phenomenon than the dyadic relationship (Benoit 1996; Chan 1984; Ray 2001; Rousseau et al. 1996; Rummel 1996; Weede 1984).

Theories of democratic peace have also proliferated, in no small part because of the difficulty in accounting for the special dyadic nature of the observation. Initial accounts focused on linking domestic liberal norms or institutions to constraints on the use of force. Institutional explanations assert that elements of the apparatus of liberal government interfere with the exercise of military foreign policy (Bueno de Mesquita and Lalm 1992; Maoz and Russett 1993; Russett 1993). Kant ([1795]1957) 7 chooses Schumpeter (1950, 1955) because his views differ from the tradition of liberal political economy and because he “saw the interaction of capitalism and democracy as the foundation of liberal pacifism” (Doyle 1986, 1152). Thus, even Doyle’s attempt at synthesis assumes away an independent effect of capitalism on peace.

Waltz asserts that “theories explain laws” (1979, 6), suggesting a need in international relations for more laws or fewer theories. Part of the intellectual appeal of the democratic peace is that it is something to explain.


“The growing consensus that democracies rarely if ever fight each other is not matched by any agreement as to how best to explain this strong empirical regularity” (Levy 2002, 359). Lipson quips about the democratic peace that “We know it works in practice. Now we have to see if it works in theory!” (2005, 1).

Old democratic dyads appear about as dispute prone as newer dyads (Entelie 1998; Ward and Gleditsch 1998).

Kaysen (1990) offers a critique of Mueller’s theory and an underappreciated perspective on the liberal peace.

The argument potentially applies to autocratic regimes with a common identity (Peceny, Beer, and Sanchez-Terry 2002).

Liberal leaders (or populations) can also intentionally downplay the “democraticness” of another regime (Oren 1995). “Simply because it won the votes of a desperate people is no reason to grant even the slightest scrap of legitimacy . . . to Hamas” (Mortimer B. Zukerman, U.S. News and World Report, February 13, 2006, page 63).

Mousseau (2003) argues that capitalism creates a culture of contracts, which then conditions democratic peace. Strangely, his analysis focuses on an interaction term between democracy and economic development, rather than examining free market activity, laissez-faire policies, or the availability or enforceability of contracts. Trading democracies should presumably also be affected, since trade involves extensive contracting. However, Mousseau, Hegre, and Oneal report that the interaction term between democracy and trade dependence is statistically insignificant (2003, Table 2, 296).

Constraint theories have been criticized as ad hoc and deductively flawed (Bueno de Mesquita et al. 1999; Gates, Knutsen, and Moses 1996; Layne 2003; Rosato 2003). Note that the statement “democracies behave differently toward each other than toward nondemocracies” characterizes, in broad strokes, both the observation and many of the theories designed to explain the observation. Efforts to avoid a circularity between theory and evidence benefit most from new empirical content (Huth and Allee 2003). Work by Mousseau (2000), Hegre (2000), and Mousseau, Hegre, and Oneal (2003), for example, restricts the domain of the democratic peace to states with advanced industrialized economies. It is not obvious from existing explanations for the democratic peace why norms, institutions, or other factors would inhibit conflict among rich democracies but fail to do so for poor democratic states. 16

Bueno de Mesquita et al. (1999, 2003) offer an elaborate and carefully constructed explanation in which
leaders intent on remaining in office seek to retain the support of a winning coalition drawn from the group of politically relevant citizens (the selectorate). Size matters in this theory, as leaders in societies with small winning coalitions (autocracies) can efficiently target benefits to key supporters, while leaders facing big winning coalitions (democracies) are better off providing public goods to stay in power. Democracies fight harder because leaders with large winning coalitions are more likely to be replaced in the event of defeat. Two democracies, taken together, promise particularly expensive contests, leading democrats more often to prefer negotiated settlements.17

Comparisons of the costs or risks of war often tell us more about who gets what than about whether force is needed to get there. Since disputes typically end in some division of the stakes, the democratic peace can be described in terms of the timing of bargains, rather than about tactics. Several authors view democracies as more transparent (Mitchell 1998; Small 1996; Van Belle 1997).18 Others argue that “audience costs” or opposition groups allow democracies better to signal resolve (Fearon 1994; Schultz 1998, 1999; Smith 1998). Properly understood, however, these explanations anticipate monadic democratic pacifism, not the dyadic democratic peace relationship. Contests should be less likely in all dyads possessing at least one democratic state, regardless of the regime type of the dyadic partner.19 As Schultz acknowledges, domestic signaling arguments “ . . . are fundamentally claims about democratic states, rather than democratic dyads” (1999, 243).20

Which explanations for the democratic peace are most nearly “right?” Given so many accounts, it is a safe bet that at least some theories must be in error. Still, whittling away at the panoply of plausible arguments has proven difficult. Textbook social science begins with deductive theories, implications of which are then tested empirically. The evolution of democratic peace research has been messier, with the bulk of explanations coming in response to the observation. Several authors seek to critically evaluate democratic peace theory (Gates, Knutsen, and Moses 1996; Layne 1994; Rosato 2003), but culling theories deductively is problematic. A poorly crafted argument could still be fundamentally sound. Conversely, explanations that are seen to be flawed are often revised, escaping intellectual death. Other theories might be deductively coherent, but remain products, rather than predictors, of the observation. It is not clear, for example, how to reconcile the persuasive theory of Bueno de Mesquita et al. (2003) about large selectorates, with the persuasive evidence of Mousseau, Hegre, and Oneal (2003) that only some large selectorates matter. Given the malleability of assumptions, one should be able to develop numerous logically coherent explanations for almost any given empirical relationship. Indeed, given the flexibility of assumptions, and the number of bright minds engaged, it is rather a riddle that the democratic peace has yet to produce numerous logically coherent theoretical explanations.

Statistical testing is necessary to substantiate any theoretical claim that is at variance with the established democratic peace observation.21 This same evidence is also sufficient to challenge existing theories of the democratic peace. Rather than seek to show that every conceivable attribute of democracy cannot possibly influence the propensity toward interstate violence—an impossible task—this article focuses on comparing democratic and capitalist variants of the liberal peace empirically.

### The Economic Tradition

What else but democracy could account for liberal peace? One answer might be capitalism. The association

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17 To my knowledge, Bueno de Mesquita et al. (2003) are unique in providing a formal logic consistent with the democratic peace observation. To achieve this result, however, the authors appear to essentially turn Kant’s original intuition on its head. Where Kant argues that war “does not require of the ruler . . . the least sacrifice” and is “a poor game” for citizens “decreeing for themselves all the calamities of war” including, among other things, “having to pay the costs of war from their own resources” ([1795] 1957, 11), Bueno de Mesquita et al. assume elites bear the burden of improving the war effort: “By trying harder, B’s leader reduces the amount of resources available to reward her supporters through private goods” (2003, 232). Where Kant sees sovereigns and their key followers as the principal beneficiaries of victory, Bueno de Mesquita et al. treat the spoils of war as public goods: “A military victory benefits everyone in nation B” (2003, 233). Kant sees war as redistributing welfare from the population to political elites. Bueno de Mesquita et al. argue that war is costly to elites and victory profitable to populations.

18 Finel and Lord (1999) argue, and provide some evidence, that transparency can lead to greater noise and confusion.

19 Rational actors with common priors, and the same information, should have identical beliefs (Myerson 1991, 67–83).

20 Domestic opposition groups can reveal information, or pool, confusing observers, depending on electoral conditions (Ramsay 2003; Trager 2004). Increased credibility also provides new incentives for leaders to bluff (Nalebuff 1991).

21 While some quantitative critiques of the democratic peace challenge its statistical validity (Spiro 1994), cultural bias (Henderson 1998), or generalizability (Henderson 2002), other studies treat democracy as a product of peace (James, Solberg, and Wolfson 1999; Thompson 1996). Critics also offer a variety of alternatives, including alliance structures (Gowa 1994, 1995), the cold war (Farber and Gowa 1995; Gowa 1999), satisfaction with the global status quo (Kacowicz 1995; Lemke and Reed 1996), and common interstate interests (Farber and Gowa 1997; Gartzke 1998, 2000). Mansfield and Snyder (1995a, 1995b, 2002a, 2002b) and Braumoeller (1997) argue that new democracies are more warlike, while accepting that mature republics are peaceful. Enterline (1996) and Thompson and Tucker (1997) attempt to counter this argument.
between economic freedom and interstate peace has deep intellectual roots, though the liberal political economy tradition has received little attention in recent decades.\footnote{Notable exceptions include, but are not limited to, Mousseau (2000), Tures (2004), and Weede (2003, 2004, 2005).} Enlightenment figures like Montesquieu and Smith argued that market interests abate war. Paine wrote that “commerce diminishes the spirit, both of patriotism and military defense” (cited in Walker 2000, 59). Cobden called trade “the grand panacea” (1867) 1903, 36). Mill saw market forces as “rapidly rendering war obsolete” (1902, 390). Angell argued that it had become “impossible for one nation to seize by force the wealth or trade of another . . . war, even when victorious, can no longer achieve those aims for which peoples strive” (1933, 60).

Angell (1933) serves as a useful point of departure in identifying how capitalism contributes to interstate peace. Angell highlights two processes thought to diminish the appeal of conquest among countries with modern industrial economies. First, changes in the nature of production make it difficult to cheaply subdue and to profitably manage modern economies through force. Industrial economies are increasingly dependent on inputs that are more easily and cheaply obtained through commerce than through coercion. Relating tales of Viking raids on the English countryside, Angell asks why, now that the tables have turned, he did not see “our navy loading up a goodly part of our mercantile marine with the agricultural and industrial wealth of the Scandinavian peninsular” (1933, 103). Governments, like individuals, choose between trade and theft in obtaining needed goods and services. Modernity made it easier to profit from production and trade, and harder to draw wealth from conquered lands or confiscated loot.\footnote{The first edition appears in 1909 under the title \textit{Europe’s Optical Illusion}. Subsequent printings appeared in 1910/1912 as \textit{The Great Illusion}. The world wars are widely viewed as having repudiated Angell’s capitalist peace thesis, along with the claims of Kant and Wilson (see Gartzke 2007).}

The second process Angell outlines involves economic globalization. The integration of world markets not only facilitates commerce, but also creates new interests inimical to war. Financial interdependence ensures that damage inflicted on one economy travels through the global system, afflicting even aggressors. Angell imagines a Teutonic army descending on London: “the German General, while trying to sack the Bank of England, might find his own balance in the Bank of Germany had vanished, and the value of even the best of his investments reduced” (1933, 106–7). As wealth becomes less tangible, more mobile, distributed, and more dependent on the good will of investors, it also becomes more difficult to coerce (Brooks 1999; Rosecrance 1985).

The chief challenge to the arguments of Angell and other political economists is that they turned out to be wrong (Carr 1939; Morgenthau 1948). Two world wars and associated economic upheaval reversed the trend toward globalization and dissolved optimism about a capitalist peace.\footnote{Kant himself is pessimistic about human nature: “the natural state is one of war.” Citizens curb the warlike tendencies of leaders, the same citizens that are in turn constrained by government. Kant explicitly rejects the notion that individuals or nations are able to cooperate spontaneously. “A state of peace, therefore, must be established” (Kant [1795] 1957, 10).} Cold war tensions ensured that scholarship was preoccupied with balancing and deterrence (Jervis 1978; Richardson 1960; Snyder 1961; Waltz 1959, 1979), and that subsequent generations of researchers remained skeptical about the prospects for liberal peace (Waltz 1970, 1999, 2000). These same events led to the long hiatus in democratic peace research. However, when interest in liberal peace returned, attention centered on democracy. Kantian theory was given a thorough rewrite in an attempt to conform to the evolving evidence, while the capitalist peace received little attention.

Of the factors emphasized by liberal political economists, trade has been by far the most closely evaluated in contemporary scholarship (Bliss and Russett 1998; Keohane and Nye 1989; Oneal and Ray 1997; Oneal et al. 1996; Oneal and Russett 1997, 1999a; Polachek 1980, 1997; Polachek, Robst, and Chang 1999). Yet, of the elements of global capitalism, trade is arguably the least important in terms of mitigating warfare. Classical political economists had yet to consider the strategic nature of conflict (Schelling 1966). If trade makes one partner more pliant, it should allow other states to become more aggressive (Morrow 1999; Wagner 1988), so that the overall decline in warfare is small or nonexistent (Beck, Katz, and Tucker 1998; Gartzke, Li, and Boehmer 2001). Economic development, financial markets, and monetary policy coordination all arguably play a more critical role in promoting peace (Gartzke and Li 2003). Much of the impact of free markets on peace will be missed if much of what comprises capitalism is omitted or ignored.

What are the “aims for which peoples strive,” which Angell mentions? Much like realists, classical political economists assumed that warfare results from resource competition. If there are other reasons why nations fight, then some wars will occur, despite the basic validity of capitalist peace arguments. It is then necessary to revise, rather than reject out of hand, economic explanations for liberal peace. This article next offers the outlines of a revised theory of capitalist peace.

\footnote{See McMillan (1997) and Mansfield and Pollins (2001) for reviews of the literature on interdependence and conflict.}
Capitalism as Pacifism

The security dilemma implies that insecurity is a durable facet of international affairs. War can result as each country fears for its own security, even when neither state intends aggression (Glaser 1997; Jervis 1978). Yet, insecurity is predicated on the expectation that at least some countries are revisionist powers. Even “pessimistic” conceptions of world affairs appear more sanguine as we relax the assumption that insecurity is ubiquitous and immutable. The task before peace theorists, then, is to identify when and how nations are liberated from the security dilemma. The argument here is that capitalism resolves insecurity by creating “powerful pacifists” (Lake 1992), countries possessing military strength ensuring that they are largely free from foreign influence or domination, but equally that they lack incentives to act aggressively abroad, at least under certain circumstances.26

Warfare results from two stages of interaction. First, states must possess the willingness and ability to compete. Second, states must be unable, or unwilling, to resolve differences through diplomatic means.27 Capabilities constrain weak, distant states (Belize and Burundi do not fight each other), but weakness alone is often insufficient, given the relativity of power. Indeed, weakness is an attractive attribute in a target. For similar reasons, an unwillingness to fight must also be mutual. For the purposes of exposition, imagine that the motives for war are divided between zero-sum (private goods) and nonzero-sum (goods with public properties). Private goods competition involves things like attempts to conquer or control material resources (land, labor, minerals).28 Competition can also occur over efforts to influence or compel policies (norms, alignments, leaders).29 The allocation of resources is inherently conflictual; two states that claim the same territory must compromise, fight, or delay a decision. The allocation of policies may or may not generate significant friction, depending on whether, or to what extent, state objectives are compatible. While it would be odd to speak of countries as having substantially compatible interests when drawing a common geographic boundary (cf. Collins and Lapiere 1997; Holbrooke 1998), it would be strange not to consider the existence (or absence) of common cause in assessing such topics as ideology, norm enforcement, terrorism, or the organization of the global or regional economy.

At least three mechanisms associated with capitalism are capable of addressing the security dilemma and mitigating the causes of war. States with similar policy goals have no need to fight to establish policy since little can be gained from victory, or lost in defeat. States always have dissimilar interests when it comes to resource or territorial issues, but changes in modern economies often make these differences trivial, as resources can be had more easily through commerce. There can be no basis for agreement between two passersby about who should collect a quarter lying on the sidewalk, but fighting over 25 cents makes little sense. If, however, a sack of $100 bills falls from the sky, landing on the quarter, then it is entirely possible that a fight will ensue over who can collect their bag of riches. Yet, even the sack of money need not lead to violence if the passersby can agree on how to divide up the windfall. States willing and able to fight can still avoid a contest if competitors are able to foresee the likely consequences of fighting and identify appropriate bargains.

Economic Development

Conflict is inherent in the allocation of resources among two or more parties, but need not result in violence if the stakes are literally “not worth fighting over” or when bargains preempt fighting. Imagine two countries attempting to divide up a bundle of goods (resources, territory). Comparison of available allocations is zero-sum; any shift from one allocation to another benefits one country only at the expense of the other country. In this framework, a mutual preference for peace requires that the value of winning be small relative to the cost of fighting (Morrow 1989; Powell 1999).

Peace advocates have long championed factors thought to make war prohibitively expensive. Cobden, for example, claimed optimistically that “Should war break out between two great nations I have no doubt that the immense consumption of material and the rapid destruction of property would have the effect of very soon bringing the combatants to reason or exhausting their resources” (1867) 1903, 355). Yet, if war is a process where competitors inflict costs on one another, making war more expensive will affect who wins, or how long fighting lasts, but not whether a contest occurs (Levy and Morgan 1984).

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26Capitalism, like democracy, means many things. The term is used here as shorthand for the three processes discussed in the theory.
27Cost-benefit calculus is insufficient to explain war (Fearon 1995), but can be sufficient to explain the lack of war. Conflict exists in bargaining theory as the result of a set of necessary conditions. The absence of any of these conditions is sufficient to explain the absence of fighting.
28Territory can also have strategic (Fazal 2004), symbolic (Toft 2003), or reputational (Walter 2003, 2006) value.
29A “sphere of influence” suggests precisely a desire to control the choices, though not necessarily the territory, of another state.
War costs are also endogenous; if fighting is prohibitive, countries will make themselves a “nice little war.” Increasing the cost of fighting, or alternately increasing the benefits of peace—even when possible—shape what each actor will accept in lieu of fighting, but do not tell us which bargains are forged before warfare, and which after. Even the prospect of nuclear annihilation did not deter disputes during the cold war (Schelling 1960).

If, on the other hand, the value of resources in dispute is small or varies with ownership, then states can be disinclined to fight. Nations have historically used force to acquire land and resources, and subdue foreign populations. War or treaties that shifted control of territory changed the balance of resources, and power. Sovereigns, and to a lesser extent citizens, prospered as the state extended its domain. Development can alter these incentives if modern production processes de-emphasize land, minerals, and rooted labor in favor of intellectual and financial capital (Brooks 1999, 2005; Rosecrance 1996). If the rents from conquest decline, even as occupation costs increase, then states can prefer to buy goods rather than steal them. As the U.S. invasion of Iraq illustrates, occupying a reluctant foreign power is extremely labor intensive. If soldiers are expensive, then nations can be better off “outsourcing occupation” to local leaders and obtaining needed goods through trade.

At the same time that development leads states to prefer trade to theft, developed countries also retain populations with common identities, cultural affinities, and political, social, and economic ties. These states may be reluctant to conquer their neighbors, but they are equally opposed to arbitrary contractions of their borders. Residents of Gibraltar, for example, prefer British rule, even while Spain, which has fought over this lump of rock for centuries, is today unwilling to provoke a war. The combination of a lack of motive for territorial expansion and continued interest in serving and protecting a given population ensures a decline in conflict among states with developed economies, especially where developed countries are geographically clustered (Gleditsch 2003). Since most territorial disputes are between contiguous states (Vasquez 1993), I hypothesize that developed, contiguous dyads are more powerful than either developing or noncontiguous dyads.

H1: Development leads contiguous dyads to be less likely to experience conflict.

While development decreases incentives for territorial aggrandizement, it greatly enhances the technological ability of states to project power. Nations with ships and aircraft can engage in distant disputes inconceivable for poor countries. Development may also lead to increased willingness to pursue policy conflicts. If development is clustered and neighbors no longer covet territory, capabilities can be devoted to pursuing the nation’s secondary or tertiary interests. Distributed production networks and greater economic, social, or political integration naturally also create incentives to seek to influence the foreign policies of other countries, sometimes through force. In contrast to the blanket assertion of classical political economists, I expect that development actually leads countries to be more likely to engage in conflicts far from home. Iraq invaded and occupied Kuwait in August 1990, intent on securing its “nineteenth province” and wresting Kuwaiti oil wealth from local leaders. The United States and its Coalition allies also invaded Kuwait, not to conquer and keep, but to return the Emirate to its previous leadership. While Coalition objectives were couched in moralistic rhetoric, the United States was clearly concerned about who governed Kuwait, while preferring not to govern the country itself. Similarly, European colonial powers have repeatedly intervened in Africa, Asia, and elsewhere to prop up or dethrone regimes, impose settlements, or otherwise meddle in the affairs of developing countries.

H2: Development leads noncontiguous dyads to be more likely to experience conflict.

30In Gunga Din (1939), Sgt. Archibald Cutter (Cary Grant) asks, “How can we get a nice little war going?”
31Boix (2003) argues that development reduces elite opposition to democratization as the bases for wealth become more mobile.
32The original U.S. war plan was for Iraqi oil assets to be quickly returned to local control (Woodward 2004, 322–24). What commerce cannot do— where force is still efficacious—is to supplant obstreperous leaders or to undermine inimical policies.
33As rentier activity becomes unprofitable with economic development, political units default to cultural variables. Ambivalence about being British has been a near constant in Scotland and Wales, but official acceptance of autonomy is a novelty. Conversely, independence in Northern Ireland is resisted more robustly as it confronts Protestant identity.
34Results are comparable to separate regressions of territorial and nonterritorial MIDs (Gartzke 2006a). The contiguity interaction term is convenient here (most territorial disputes involve contiguous states). For further discussion of the relationship between territory and contiguity, see Hensel (2000).
35Contrasting effects of development are spatially distinct and temporally sequenced. Technology shocks beginning in the fifteenth century propelled Europeans abroad in search of loot, land, and labor. Imperialism first flowed and then ebbed as the cost of maintaining armies exceeded the value of rents from occupation (Gartzke and Rohner 2006a).
Similar Interests

There is a second salient difference between the two sets of motives for invading Kuwait. Suppose that Iraq had formed an alliance, like the U.S. Coalition. Spoils from the conquest of Kuwait would have had to be divided up in some manner. Each new member of an Iraqi-led alliance would dilute the spoils, diminishing each member’s “slice.” By going it alone, Iraq kept all of the wealth of Kuwait to itself, at least for a little while. In contrast, U.S. objectives were not much diluted by the size of its coalition. Since there was no resource “pie” to distribute, the size of the Coalition was not a hindrance in allocating benefits, though reasons for reconstituting Kuwait differed markedly among the members, another source of tension that could have led to conflict (Baker 1995).

Students of war often treat state interests as largely uniform, and largely incompatible. International competition forces nations—large and small—to be security seekers (Waltz 1959, 1979), or to lust after power (Mearsheimer 2001). A different conception of interests comes from utilitarianism (Bentham 1781 2000; Mill 1861 1998) and rational theory (Black 1948; Downs 1957; Riker 1963), one in which interests are variable and are often logical primitives. Many countries may share to a greater or lesser extent compatible worldviews or objectives (cf. Keohane and Nye 1989). Conversely, strong policy differences can lead to conflict, and possibly to war (Bueno de Mesquita 1981, 1985, 1989; Morrow 1985). For example, World War II and the cold war were “ideological contests” which pitted coalitions of countries with incompatible visions of an appropriate world order against each other. Since policy interests vary, while interests over resource allocations are more nearly constant (in their fundamental incompatibility), policy conflict should also vary. The range of policy issues over which state preferences might vary is literally innumerable. This article adopts an axiomatic approach, making the broadest theoretical claim, and then using a policy interest index to operationalize interest affinity in testing.

$H_3$: Similar state policy interests lead dyads to be less likely to experience conflict.

Globalization of Capital

While policy differences or resource competition can generate conflict, they need not produce contests if states can resolve differences diplomatically. Liberal theory emphasizes the pacifying effect of cross-border economic linkages. Markets are arguably most relevant as mechanisms for revealing information, however, rather than for adding to the risks or costs of fighting (Gartzke and Li 2003; Gartzke, Li, and Boehmer 2001). Competition creates incentives to bluff, to exaggerate capabilities or resolve. Anarchy makes it difficult for states to compel honest answers from one another except through the threat or imposition of harm. Contests inform by being costly, forcing actors to choose between bearing the burden of competition and backing down. Of course, one can signal by “burning money,” expending valuable resources autonomously, but such acts create a relative as well as absolute loss. Tactics that impart costs only as a byproduct of imposing costs on an opponent can produce relative gains, while tactics such as burning money only harm the initiator. States with economies integrated into global markets face autonomous investors with incentives to reallocating capital away from risk. A leader’s threats against another state become costly when threats spark market repercussions. Participants learn from watching the reactions of leaders to the differential incentives of economic cost and political reward. Two economically integrated states can more often avoid military violence, since market integration combines mechanisms for revelation and coercion. An economically integrated target can be coerced by the threat of losing valuable exchange, but a nonintegrated initiator cannot make its threats credible or informative. Conversely, a globalized initiator can signal but has little incentive to hamper its own markets when a nonintegrated target does not suffer (Gartzke 2006b).

$H_4$: Financial or monetary integration leads dyads to be less likely to experience conflict.

Research Design

I next analyze the hypotheses in a standard statistical test of the democratic peace, using a sample of all dyad years (1950–92). This sample is well documented by previous studies. The democratic peace is thought to be most robust in the post–World War II period.36 Unless noted, variables are coded as described in Oneal and Russett (1999a). Adopting the assumptions of this canonical research program allows for ready comparison of results and diminishes the danger that my findings result from idiosyncrasies in coding or model specification. Oneal and Russett (1999a) appear to offer the most appropriate baseline for the analysis. Subsequent research focuses on other aspects of their Kantian tripartite liberal explanation.

36 If the democratic peace exists anywhere, the post–World War II period is the obvious place to look. “Indeed, the past several decades ‘when there were the most democracies’ provide the best temporal span to give ‘the hardest test of the proposition that democracies do not make war on each other’” (R. J. Rummel, International Studies Association, Foreign Policy Internet Communication, 20 January 1995),” cited in Kegley and Hermann (1996, 312).
Democracy corrects for coding errors in the MID 2.1 dataset.\(^{39}\) I estimated coefficients using logit and GEE in \textit{Stata} (v. 8) with Huber/White robust standard errors, though for brevity only the logit estimates are reported. Results using GEE are generally equivalent or more favorable to the hypotheses. Independent variables are lagged one year behind the dependent variable to control for endogeneity. The Beck, Katz, and Tucker (1998) method of temporal spline variables was adopted to control for duration dependence.\(^{37}\)

**Dependent Variable**

Zeev Maoz’s construction of dyadic militarized interstate disputes (DYMID) is used as the dependent variable, with the standard dichotomous coding of “1” for the initial year of a MID in the dyad and “0” otherwise (Gochman and Maoz 1984; Jones, Bremer, and Singer 1996).\(^{38}\) The Maoz data are intentionally formatted in dyads. Maoz also corrects for coding errors in the MID 2.1 dataset.\(^{39}\)

**Key Independent Variables**

- **Democracy:** Researchers differ over how to measure democracy, both monadically and dyadically. I rely on three different datasets and three variable constructions to represent dyadic democracy. The standard in democratic peace research is the Gurr Polity IV data (Jaggers and Gurr 1995). I first prepared monadic values by combining Polity democracy (DEMOC) and autocracy (AUTOC) scales as follows: \(\left[\left(\text{DEMOC}_i - \text{AUTOC}_i\right) + 10\right]/2, \) where \(i \in \{A,B\}\). The variable differs modestly from Oneal and Russett in that I add 10 so that all values are nonnegative and divide by 2 to yield the 0–10 range of Polity variables. DEMOCRACY (LOW) and DEMOCRACY (HIGH), respectively, report the lower and higher of democracy values in the dyad. DEMOCRACY \(A \times B\) is the product of monadic values. BOTH DEMOC. \((\geq 7)\) equals one (“1”) if each dyad member has a monadic score of at least seven and zero (“0”) otherwise.

- **Markets:** Democratic peace research examines trade interdependence (Oneal et al. 1996, 2003; Oneal and Russett 1997, 1999a, 1999b, 1999c; Russett and Oneal 2001). Capital and monetary integration may be more relevant to conflict than trade (Gartzke and Li 2003; Gartzke, Li, and Boehmer 2001). Liberalization creates valuable linkages and institutional constraints on a state’s ability to intervene in market processes. Because states may be tempted to interfere with market responses to interstate crises, \textit{both} robust markets and \textit{laissez-faire} policies matter.

The International Monetary Fund (IMF) provides several indicators of market size, robustness, and liberalization. The IMF publication \textit{Annual Reports on Exchange Arrangements and Exchange Restrictions (AREAER)} lists a series of variables measuring economic openness. I use an index evaluated in previous studies that takes the difference between eight and the sum of eight types of government restrictions on foreign exchange, current, and capital accounts (Gartzke and Li 2003; Gartzke, Li, and Boehmer 2001). IMF FIN. OPEN. (LOW) reports the lower monadic score in the dyad.\(^{40}\) High values of IMF FIN. OPEN. (LOW) are thus expected to reduce the likelihood of militarized disputes. The IMF only reports data on member countries, systematically reducing variance and biasing against statistical significance.

I also include indicators of trade to assess whether trade influences militarized disputes independent of capital liberalization. I use both the trade data provided by Oneal and Russett, and data from Gleditsch (2002).\(^{41}\) Again, I follow the Oneal and Russett operationalization. Monadic values are first constructed using a ratio of bilateral trade over GDP to measure the importance of trade relative to a state’s total economy. TRADE DEP. (LOW) denotes the lower trade dependence statistic in the dyad (Bliss and Russett 1998; Oneal and Russett 1997, 1999a, 1999b). Trade interdependence is expected to modestly decrease MID propensity.

- **Development:** Economic development leads to a secular decline in the valuation of conquerable resources while intellectual and financial capital critical to productivity in modern economies must be enticed rather than coerced. Conversely, wealth and the technology effect allow for greater power projection. Poor countries seldom fight abroad because they cannot, and because

\(^{37}\)A \textit{Stata} “do” file is available from the author replicating all aspects of data construction and analysis.

\(^{38}\)MID coding rules produce a selection bias (Smith 1998). For example, a state that threatens and then uses force is only coded as using force. Whether threats become uses also depends on whether a target acquiesces or resists.

\(^{39}\)DYMID is available at http://spirit.tau.ac.il/poli/faculty/maoz/dyamid.html. In subsequent research, I will extend analysis to the new MID 3 data (once other variables are coded or made available), and the ICB data.

\(^{40}\)Bilateral data on financial openness is not available for a large sample of countries. Signaling should occur monadically, though two integrated economies probably increase the effect. Unlike democracy, economic freedom has a monadic effect (Gartzke 2005a).

\(^{41}\)Oneal, Russett, and Berbaum (2003) advocate use of the Gleditsch (2002) data since these data contain fewer missing observations.
their governments are preoccupied with existing territory. Development brings with it the ability to project power, encouraging contests over both policy and resources, while the richest states lose much of their willingness to steal resources associated with territory.

Early quantitative studies of the democratic peace included GDP/pop (the consensus measure of development), but the variable was not found to be significant (Maoz and Russett 1992). I argue that per capita GDP has contrasting effects on disputes. Gartzke and Rohner (2006b) examine this argument directly by splitting the sample of disputes between territorial and nonterritorial conflicts, and by looking at initiators and targets. Here, however, I need to adhere to an established research design. To parse out the contrasting effects of development on war and peace, I include two variables. GDPPC (LOW) measures the lower of the two monadic population weighted gross domestic product statistics for a given dyad (Gleditsch 2002). I also examine the natural log of GDPPC (LOW) to limit multicollinearity among variables.42 A second variable isolates the effect of wealth on likely subjects of territorial aggression. GDPPC × CONTIG (LOW) interacts contiguity and the development variable. It is most likely that a decline in the value of conquest will manifest itself in relations with neighbors, where territorial claims are most common and aggression most practical.43

Interest Similarity: Many students of international relations reject as excessively narrow the realist emphasis on uniform, monolithic interests and argue instead that state objectives vary with a complex variety of factors (cf. Moravcsik 1997). Relations between the United States and Israel, and between the United States and India have been quite different in the post–World War II period, even accounting for capabilities, geography, regime type, and so on. National interests also change over time; elections in Bolivia and Germany resulted in two very different leaders, one who is moving her country closer to the United States, and one who is moving farther away.

Ideally, researchers in international relations would possess a model of state interests that would estimate the effects of a number of relevant causal variables. The same could be said for democracy, however, and for measures of national capabilities, economic development, alliance ties, and so on. There exists no consensus theory of national preferences, nor is one likely to be constructed in a reasonable time. Empirical research on conflict must thus choose between measuring interests imperfectly, and not measuring them at all. I have chosen the former, while being mindful of the many potential pitfalls involved in this approach. The argument supplied here is consistent with other research in arguing that variable state interests are an important indicator of foreign policy behavior (cf. Bueno de Mesquita 1981; Voeten 2000). If we cannot know the myriad causes of preferences, we can at least go some way in measuring their manifestation and their effects.

Measuring interests provides a number of empirical challenges. Preferences are not directly observable, so one must identify conditions that appear to reflect state preferences. Using data on United Nations General Assembly voting available for the period covered by the Oneal and Russett (1999a) data (1946–96), I construct an AFFINITY index. Data on “revealed” preferences are an imperfect representation of an actor’s real ranking over outcomes. Still, UN voting arguably distorts preferences less than available alternatives such as alliance portfolios (Gartzke 1998, 2000). I examine other indicators in the appendix (I also use the residuals of AFFINITY as a proxy, after regressing the interest variable on democracy and other variables, and show that the residuals have similar effects). The Affinity index reports the similarity of dyadic UN voting patterns, using the “S” coding (Signorino and Ritter 2001). Values range between one, “most similar,” and negative one, “least similar.” I expect a threshold effect of interests. AFFINITY should be negatively associated with disputes, with the more dissimilar values (closer to −1) being disproportionately likely to fight.44

Additional Variables

I include the same “control” variables as Oneal and Russett (1999a) to facilitate comparison of results.45

42None of the key variables correlates at above 0.38 (Democracy [Low] and GDP per capita). Results are available from the author.

43See Vasquez (1993) for a discussion of the close relationship between contiguity and territorial disputes or wars. Data measuring territorial conflict cannot be used in the research design required to replicate existing democratic peace research (Tir et al. 1998).

44Readers who prefer can ignore the interest argument without altering the effects of development or markets. Russett and Oneal (2001) suggest that UN voting patterns are explained by democracy. Gartzke (2000) reports that even the residuals from a regression of democracy and other variables on AFFINITY account for the effect of democracy on conflict in politically relevant dyads. Regressing both monadic DEMOCRACY variables on AFFINITY in the all dyads sample yields an $R^2$ of 0.0658 (93% of the variance is left unexplained), while adding an indicator of liberalization, GDPPC (LOW), and dummies for NATO and Warsaw Pact membership increase $R^2$ to only 0.0936.

45There are reasons to be cautious about the arbitrary effects of control variables (Achen 2003; Clarke 2005; Ray 2003, 2005). However, a study of this type needs to replicate existing canonical models.
Geographic Contiguity and Distance: Distance may not make the heart grow fonder, but it does appear to discourage interstate disputes. The contiguity dummy is a dichotomous variable coded “1” for dyadic partners that share a land border or that are separated by less than 150 miles of water. Contiguity is expected to increase MID likelihood. I also include a variable measuring the natural logarithm of the great circle distance between national capitals (with some large countries these data use the nearest major city to the appropriate border). Distance should decrease militarized disputes.

Major Power Status: Major powers are arguably more than just capable states. Powerful countries are more active internationally, leading more often to warfare. Major Power is a dummy variable coded “1” if at least one state in a dyad is one of the five post–World War II major powers (China, France, United States, United Kingdom, and USSR) and “0” otherwise.

Military Alliances: Alliances are intended to affect interstate conflict, both by deterring aggression and by encouraging intervention. Previous studies include a measure for alliance ties within a dyad (Oneal and Russett 1997; Russett and Oneal 2001). Alliance is a dichotomous variable for the presence of a defense pact, neutrality pact, or entente in the dyad based on the Correlates of War (COW) Alliance Dataset (Singer and Small 1966; Small and Singer 1990).

Capabilities: Capability Ratio equals the natural log of the ratio of the stronger state’s COW capabilities index (CINC) to that of the weaker dyadic state. CINC is constructed as the weighted average of a state’s share of total system population, urban population, energy consumption, iron and steel production, military personnel, and military expenditures.

Regions: Several scholars identify regional variability in interstate conflict (Bennett and Stam 1999; Lemke 2002, 2003a, 2003b). Controlling for sample heterogeneity is important on both econometric and substantive grounds. Indeed, the problem appears particularly relevant in the context of the democratic peace (Henderson 2002). I prepare six dummy variables for the respective regions (Asia, Europe, North Africa, the Middle East, North America, South America, Sub-Saharan Africa), coded “1” if both states are in the region and “0” otherwise.46

Adopting a standard democratic peace model also ensures that I have not chosen control variables that favor my hypotheses. A check using just the democracy and market variables, with and without temporal splines, yields the same substantive result.

Results

The trend in democratic peace research has been to narrow the scope of claims to conform to an evolving understanding of the empirical relationship, from monadic to dyadic processes, and from all democracies to just those with developed economies. Advanced democracies differ from developing democracies in their wealth, integration into the global economy, and in their post–World War II preference convergence. Below, I assess the effects of variables representing markets, development, and interests. I conducted many tests, but to save space, I report only representative examples of the results. Additional analysis is summarized in an appendix to this study.

Basic Analysis

Table 1 lists five regressions. Model 1 is a baseline representing work by Oneal and Russett and other democratic peace researchers.47 Consistent with conventional wisdom, Democracy (Low) is significant and negative (reducing dispute likelihood), while Democracy (High) increases the odds of a MID. Except for the Africa and North America dummies, and the intercept, all variables are significant at or above the 5% level, with signs that are consistent with conventional expectations.

In Models 2 to 5 in Table 1, I sequentially add liberal economic variables, first examining the impact of markets on disputes, then adding the more complex influence of development, and finally adding interests. Introducing an indicator that captures the broader effects of capitalism causes the democracy variables to become insignificant, while IMF Fin. Open. (Low) is statistically significant at the 0.1% level, and in the expected direction. Notice that Trade Dep. (Low) and also the Alliance dummy are no longer statistically significant. A broader measure of global capitalism accounts for the apparent impact of trade and alliances on disputes. Similarly, several of the regional dummies are now insignificant (Asia, Europe), or are significant at a lower critical level (South America). Only conflict behavior in the Middle East remains robustly different from conflict in other regions.

one MID (#3575 Papua New Guinea versus the Solomon Islands in 1992). I find comparable results using just the Middle East dummy.

47Model 1 replicates (Oneal and Russett 1997, 278, Model 1, Table 2). Results differ slightly because of the Maoz MID dependent variable, the region dummies, and other minor discrepancies. Other studies by Oneal and Russett focus on interdependence (Oneal and Russett 1999a), IGOs (Oneal and Russett 1999b; Russett, Oneal, and Davis 1998), or critics (Oneal and Russett 1999c). Oneal, Russett, and Berbaum (2003) extend the temporal domain, but financial data are not available to cover this longer time period. In any case, the post–World War II period is generally considered to be the period during which the democratic peace is strongest empirically.
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<td>(3.71 × 10^{-5})</td>
<td>(3.25 × 10^{-5})</td>
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<td>−2.776 × 10^{-4}***</td>
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<td>(4.91 × 10^{-5})</td>
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<td>−2146.564</td>
<td>−2121.190</td>
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<td>χ²(17,18,19,20,15)</td>
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<td>1717.58***</td>
<td>1719.86***</td>
<td>1698.78***</td>
<td>1607.35***</td>
</tr>
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</table>

Estimates for temporal spline variables suppressed to save space (Standard errors in parentheses).

*p < 0.05.

**p < 0.01.

***p < 0.001.

¹dummy variable.

²logged variable.
The theory proposed here argues that development imposes contrasting effects on conflict. Model 3 adds the linear development variable. Results are as reported in other studies. The effect of development on disputes is not statistically significant. Other key variables remain substantially the same as in Model 2. Model 4 introduces an interaction variable between per capita GDP and contiguity. Estimating both the linear effect of average national income and the interaction term shows both variables to be significant in opposite directions. GDPPC (LOW) increases the dispute propensity of dyads, even as it decreases the tendency of states to fight with their neighbors. Finally, I introduce the indicator of interest similarity based on United Nations voting. States with similar interests, or integrated markets, or mutual development and an absence of policy differences are less likely to fight. Model 5 also drops the regional dummies to show that the combined influence of liberal economic variables does not depend on the presence of controls for regional heterogeneity.

Readers should ask some probing questions before accepting these findings (additional tests appear in an empirical appendix). One source of discrepancy between the results reported here and those of other studies could be sample size. The reported sample drops from 282,287 in Model 1 to 166,140 in Model 5. To check whether sample size explains the insignificance of democracy, I reran Model 1 using the sample from Model 5. Democracy (LOW) is again statistically significant in the expected direction, though at a lower critical level \( (p = 0.012) \). Standard errors for Democracy (LOW) in both models are about the same, but the estimated coefficient in the sample for Model 5 is about half the size of that in Model 1. Democracy (HIGH) is not statistically significant, but this is often also found to be the case in studies supporting the democratic peace. The trade variable, Trade Dep. (LOW), has lower standard errors and thus is significant at a higher critical level. Finally, the alliance variable is not statistically significant, thought the standard errors for Alliance are almost the same as in Model 1. The findings in Models 2 to 5 do not appear to result from listwise deletion of cases.

Another possibility is that democracy is insignificant due to multicollinearity. This is not the case. Multicollinearity is a problem of estimation that occurs when two or more independent variables covary at such a high level that almost none of the variance in these variables can be shown to have an independent statistical effect on the dependent variable (Kmenta 1986, 430–42). IMF Fin.

Open. (LOW) correlates with Democracy (LOW) at 0.1451, with Democracy (HIGH) at 0.1556, and with Trade Dep. (LOW) at 0.1517. Affinity correlates with these variables at −0.1053, −0.2915, and 0.0023, respectively. It may be that the covariance between the democracy variables and the dependent variable is captured by IMF Fin. Open. (LOW), Affinity, and other variables, but this is precisely what the theory predicts, and what excess empirical content entails.

Still another concern involves appropriate estimation method. In some studies, Oneal and Russett (1999b, 1999c) advocate the use of the general estimating equation (GEE). There may be reason to debate Oneal and Russett’s choice of GEE, particularly their assumption that temporal dependence is captured by an AR1 process (Beck 2003). However, it is useful in this instance to simply adopt the data, variables, and methods preferred by those who anticipate contrasting results. Findings using GEE are substantially the same, and often present substantively stronger evidence for a capitalist peace than results presented here using logit.

### Substantive Impact

Figure 1 plots the relative risk ratios for Democracy (LOW), IMF Fin. Open. (LOW), the combined development variables, and Affinity from Model 5. Values for each key variable represent probabilities of a MID, weighted by maximum variable values. Initial probabilities of a MID are calculated using the method of recycled predictions, running the actual data back through Model 5, but replacing one of the key variables with a standard value such as the mean, minimum, etc. This process is repeated for several standard values and then the original values of the variable are replaced and another key variable is assessed. The relative impact of key variables differs substantially. Dyads with the least integrated markets or the most dissimilar interests are about five times as likely to experience a MID as dyads with globalized markets or very similar interests. The effect of interests on disputes also appears nonlinear. Values of Affinity above the mean show little change in dispute probability, but values below the mean (states with dissimilar interests) produce major changes in the probability of a dispute. I combine the effect of GDPPC (LOW) and GDPPC × Contig. (LOW) to assess the overall impact of development on conflict. A change from the maximum to the minimum value of development increases the likelihood of a dispute by roughly 2.5 times. The development variables also appear to have a graduated effect on conflict, with the greatest reduction in dispute propensity occurring among the most developed

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48 IMF data on liberalization underrepresents the effect of economic freedom, since missing values are far more common among less integrated countries. Imputation (King et al. 2001) would thus tend to favor the hypotheses.

49 Contiguity = 1. The effect of GDPPC (LOW) on disputes (where GDPPC × Contig. (LOW) = 0) is positive.
states. Comparing the most democratic and most autocratic dyads, the latter is only slightly more likely to fight.

### Wars and Fatal MIDs

While analysis of militarized dispute data has become widespread in the study of the democratic peace, MIDs usage is not ubiquitous. Other researchers emphasize the effect of joint democracy on wars (Ray 1993, 2000; Rummel 1979, 1983; Small and Singer 1976). Militarized disputes have a number of advantages as an indicator of conflict behavior, not the least of which is their greater frequency. Wars are such rare events that their nonoccurrence in a given context may or may not be indicative of a qualitative change in the conflict tendency of countries or dyads. Still, the most intuitive, widely articulated, and in some respects robust formulation of the democratic peace involves wars, not MIDs. “Democracies very rarely, if ever, make war on each other” (Russett and Oneal 2001, 43). The results detailed in Table 1 (and in the appendix) seem to indicate that liberal peace is a product of capital and development rather than democracy. The majority of MIDs involve little or no actual bloodshed, however. The factors said to make democracies peaceful are arguably most potent when dealing with large-scale contests. A thorough assessment of the determinants of liberal peace should thus examine wars as (Small and Singer 1976, 1982).

By any standard, wars between democracies are rare. If we define democracy as a state that scores above seven on the Polity democracy scale then, out of 222 category five MIDs (wars), there are no observations of war in a democratic dyad in the postwar sample ($\chi^2 = 17.27$, $Pr = 0.001$). The result seems pretty compelling. Yet, democratic dyads constitute only about 7.2% of the observations. Many other things could be happening that are ignored in such a simple test.

How many wars occur between “capitalist” countries? It is not obvious how to condense the bundle of factors discussed above into a single variable. Still, IMF Fin. Open. (LOW) is probably the best candidate for such a test. Let me arbitrarily define capitalist dyads as those where the lower IMF Fin. Open score is at least six. This is the closest ordinal value on the scale to a value at least two standard deviations above the mean ($3.006 + 2 \times (1.627) = 6.26$). It also produces a subsample of capitalist dyads that is about 6.9% of the available sample of observations, not much different from that for democratic dyads ($R = 0.1491$ for the two dummy variables). Interestingly, there are no wars in the capitalist dyads either, though the smaller sample

---

50 Starr calls the war proposition “pretty well proved” (1997, 154). Some use the proposition to justify war. Kaplan and Kristol, for example, argue that since “democracies rarely, if ever, wage war against one another” (2003, 104), the United States should make war on other countries, force regime change, and thereby achieving peace. That this itself involves a potential increase in warfare is an irony that is apparently lost on these authors.
of cases for which data on financial openness are available means that only about a quarter of the wars are accounted for in the sample (54 wars, $\chi^2 = 4.0$, $Pr = 0.045$). To extend this very crude test a bit further, I add zeros to round out missing observations so that the capitalist and democracy samples are the same size and all 222 wars appear in the sample. When I do this, the capitalist dyads again contain no wars and the relationship is highly significant (0.1%). Thus, both democracies and capitalist dyads appear never to fight wars. Still, determining more about these relationships, and their relative impact on war, requires that we move beyond cross tabs.

Table 2 lists four regressions that are similar in most respects to those reported in Table 1. The main differences involve the dependent variable. Rather than coding for the presence or absence of MIDs, the first two columns of coefficients and standard errors (Models 6 and 7) represent the estimated probability of a war between pairs of countries in the post–World War II period. The second pair of columns (Models 8 and 9) report estimated coefficients and standard errors for fatal MIDs (militarized disputes with at least one battle casualty reported). The first and third columns (Models 6 and 8) include democracy and other variables but omit the capitalist peace variables. The second and fourth columns (Models 7 and 9) again introduce indicators for market integration, economic development, and the interaction between development and contiguity. I omit the interest variable because it is not statistically significant in these regressions. This makes sense as fatal conflicts and wars disproportionately involve resource competition (Senese 2005; Vasquez 1993), rather than the policy disputes captured by the interest variable (Gartzke 2005b). Most of the militarized disputes accounted for by policy differences in the sample do not involve fatalities.

Model 6 in Table 2 replicates the first model in Table 1, but estimates the determinants of wars rather than militarized disputes. Democracies are much less likely to experience wars. Distance mitigates warfare, but contiguity appears insignificant. Alliance ties and power disparity are also associated with a lower likelihood of war. Interestingly, there are major regional differences in war propensity (Bennett and Stam 2003). Some, but not all, of these differences are subsumed by the capitalist variables introduced in Model 7. Asia no longer appears more war prone, but the Middle East, where per capita incomes are high due to resource wealth rather than manufacturing or industry, and where markets are largely state controlled, remains atypically hostile.51 Europe drops out of the analysis because there are no European wars in the sample. Contiguity becomes statistically significant and positive, but now distance is not a significant predictor of warfare, perhaps because armies that fight major wars, ceteris paribus, are also more willing to travel. Similarly, major power status and alliance ties appear irrelevant to whether states go to war with each other in this analysis. The biggest change in Model 7, however, is that the introduction of measures of economic development and market integration leads democracy to become insignificant, while the capital and development variables are all statistically significant. We see a repeat of the effects of the capitalist peace variables on wars that was previously reported for MIDs. Development discourages fighting among contiguous states, but makes wars far from home more likely, while free markets lead to less violent dyads.

A similar story is told by comparing Models 8 and 9, each estimating the probability of deadly MIDs, with each other and with previous regressions. One difference in Model 8 is that the threshold democracy score is just short of standard levels of statistical significance (Democracy (LOW)) is statistically significant at the 10% level). A second difference is that trade ties are associated with a decrease in conflict in Model 8, as they were in Table 1, Model 1. Contiguity matters for deadly MIDs, presumably because many states that will fight small conflicts, but not wars, are also unwilling or unlikely to travel far distances. Both South America and Europe return as independent variables, as the lower conflict threshold ensures that there are for observations in both regions. The Middle East is again unusually dispute prone, as is Asia, while Europe is atypically peaceful only when the effects of capitalism are ignored. Africa and the Americas are not different in their dispute behavior from overall trends, once we measure capitalist peace. Again, we find that free markets and development diminish disputes and war, while democracy has no effect on whether dyads fight.

**Conclusion: The (Other) Liberal Peace**

This study offers evidence suggesting that capitalism, and not democracy, leads to peace. Additional research is needed to corroborate, extend, and even refute the findings reported here. One must be circumspect in questioning a body of evidence as large and as carefully constructed as that on the democratic peace. Still, economic liberals have long seen in free markets and prosperity the potential to discourage war. A century ago, the “conventional wisdom” looked more like this study and less like that of

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51The association between oil and autocracy (Dunning 2005; Ross 2001), and civil warfare (De Soysa 2000; Fearon 2005), and the argument supplied here, implies that resource-exporting states are more prone to interstate warfare even if they are rich.
Table 2  Logit Regression of Liberal Variables on Wars and Fatal MIDs

<table>
<thead>
<tr>
<th>D.V.: MID (Maoz)</th>
<th>Wars</th>
<th>Fatal MIDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td><strong>DEMOCRACY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democracy (Low)</td>
<td>−0.1260***</td>
<td>0.0369</td>
</tr>
<tr>
<td>(0.0284)</td>
<td>(0.0661)</td>
<td></td>
</tr>
<tr>
<td>Democracy (High)</td>
<td>0.0232</td>
<td>−0.0079</td>
</tr>
<tr>
<td>(0.0241)</td>
<td>(0.0511)</td>
<td></td>
</tr>
<tr>
<td><strong>MARKETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Dep. (Low)</td>
<td>−213.2004</td>
<td>−48.7568</td>
</tr>
<tr>
<td>(334.1007)</td>
<td>(125.1016)</td>
<td></td>
</tr>
<tr>
<td>Fin. Open. (Low)</td>
<td>−0.4642**</td>
<td>(0.1606)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DEVELOPMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDPPC (Low)</td>
<td>2.66 × 10⁻⁴***</td>
<td>(7.13 × 10⁻⁵)</td>
</tr>
<tr>
<td>GDPPC × Contig.</td>
<td>−4.19 × 10⁻⁴*</td>
<td>(1.92 × 10⁻⁴)</td>
</tr>
<tr>
<td><strong>CONTROLS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contiguity¹</td>
<td>0.4951</td>
<td>4.6554***</td>
</tr>
<tr>
<td>(0.4463)</td>
<td>(0.7191)</td>
<td></td>
</tr>
<tr>
<td>Distance²</td>
<td>−0.6505***</td>
<td>−0.2937</td>
</tr>
<tr>
<td>(0.1327)</td>
<td>(0.1913)</td>
<td></td>
</tr>
<tr>
<td>Major Power¹</td>
<td>3.9806***</td>
<td>1.5502</td>
</tr>
<tr>
<td>(0.4793)</td>
<td>(1.2571)</td>
<td></td>
</tr>
<tr>
<td>Alliance¹</td>
<td>−1.2019**</td>
<td>−1.0525</td>
</tr>
<tr>
<td>(0.4551)</td>
<td>(0.6436)</td>
<td></td>
</tr>
<tr>
<td>Capability Ratio²</td>
<td>−0.8650***</td>
<td>−0.6950**</td>
</tr>
<tr>
<td>(0.1230)</td>
<td>(0.2291)</td>
<td></td>
</tr>
<tr>
<td>Africa¹</td>
<td>−0.4739</td>
<td>0.6290</td>
</tr>
<tr>
<td>(0.6722)</td>
<td>(0.9516)</td>
<td></td>
</tr>
<tr>
<td>Asia¹</td>
<td>1.8044***</td>
<td>−0.2342</td>
</tr>
<tr>
<td>(0.4529)</td>
<td>(0.8432)</td>
<td></td>
</tr>
<tr>
<td>Europe¹</td>
<td>−2.5545*</td>
<td>—</td>
</tr>
<tr>
<td>(1.1140)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East¹</td>
<td>1.7844***</td>
<td>2.3645***</td>
</tr>
<tr>
<td>(0.4950)</td>
<td>(0.6338)</td>
<td></td>
</tr>
<tr>
<td>North America¹</td>
<td>−0.4936</td>
<td>1.0875</td>
</tr>
<tr>
<td>(0.9559)</td>
<td>(0.9510)</td>
<td></td>
</tr>
<tr>
<td>South America¹</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONSTANT</strong></td>
<td>−1.0745</td>
<td>−4.7603**</td>
</tr>
<tr>
<td>(1.0876)</td>
<td>(1.7773)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>280195</td>
<td>165194</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>−890.859</td>
<td>−180.725</td>
</tr>
<tr>
<td>χ²(16,18,17,20)</td>
<td>519.42**</td>
<td>312.07***</td>
</tr>
</tbody>
</table>

Estimates for temporal spline variables suppressed (Standard errors in parentheses).

¹p < 0.05.
²***p < 0.001.
³p < 0.001.
⁴dummy variable.
⁵logged variable.
democratic peace researchers. While past arguments were clearly simplistic and overblown, there does now seem to be grounds for reconsidering liberal economic peace theory.

One can reasonably differ with my version of classical arguments, or can plausibly challenge the assumptions on which my version of the capitalist peace is built. The statistical models I develop, and the findings that I present, can be altered, possibly in ways that again show that democracy matters. For now, I hope that the claims of this study are coherent, empirically plausible, and at the very least intellectually provocative. What is the “larger” relationship between development, capitalism, and democracy? It might be that democracy actually lies behind the apparent impact of capitalism on peace. Still, the world was not always made up of a large proportion of democracies. Little attempt has been made to rule out the possibility that democracy and peace have common causes, or that, as has long been argued, development and capitalism lead both to freer politics and to a more peaceful planet. A logical extension of this study is the exploration of determinants of political and economic liberalism, though resolving these more complex causal arrows would seem to require a level of understanding about the determinants of capitalism and democracy that is still under construction in comparative politics, economics, and other fields.

The collapse of the Soviet Union in the early 1990s gave new impetus to the exploration of domestic determinants of international relations. Today, political revolution from without is being attempted in the Middle East, in no small part because policymakers believe that peace can be had through regime change. If the imposition of liberal politics offers a domestic paradox, at the international level coercing democracy is an extreme, though arguably logical, extension of democratic peace theory. At the same time, allowing people freedom to choose implies that they will sometimes choose to disagree. A growing number of popularly elected leaders oppose the interests of established democracies. If democracy reflects the popular will, and many people in the world are unhappy, we should perhaps not expect that all new democracies will like the old ones. Democratization, paradoxically, implies increasing tensions among democracies. Free markets and development, in contrast, lead nations closer together, or at down grade historic territorial animosities.

Appendix

Additional Quantitative Tests

There are a variety of other factors that could be responsible for the insignificance of democracy (and trade). I conducted numerous other regressions to check for possible errors, omitted variable bias, etc. Table 3 summarizes these additional tests. I review the results only briefly, as further discussion would be repetitive. In no case did I find that the results for key variables changed substantively by using different data, variable constructions, or including other control variables.

Table 3 Additional Operationalizations of Key Variables and Control Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
<th>Construction</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy</td>
<td>Polity IV</td>
<td>dummy/low/low and high/A × B</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Vanhanen (2000)</td>
<td>dummy/low/low and high/A × B</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Freedom House</td>
<td>dummy/low/low and high/A × B</td>
<td>None</td>
</tr>
<tr>
<td>Markets</td>
<td>Chinn and Ito (2002)</td>
<td>low/A × B</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>Quinn (1997)</td>
<td>interpolated low</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>Gwartney and Lawson (2000)</td>
<td>low/interpolated low</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>IMF Cap. flows</td>
<td>low</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>IMF FDI</td>
<td>low</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>IMF Portfl. Inv.</td>
<td>low</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>Gleditsch (2002) trade</td>
<td>low/low × Democracy (low)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Gleditsch (2002) openness</td>
<td>low</td>
<td>None</td>
</tr>
<tr>
<td>Development</td>
<td>Mousseau (2000)</td>
<td>development × democracy</td>
<td>None</td>
</tr>
<tr>
<td>Interests</td>
<td>UN voting (AFFINITY)</td>
<td>residuals regress, on AFFINITY</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td></td>
<td>IGO portfolios</td>
<td>similarity of IGO memberships</td>
<td>Sig. (−)</td>
</tr>
<tr>
<td>Alliance</td>
<td>COW</td>
<td>3rd and 4th party ties</td>
<td>Sig. (+)</td>
</tr>
<tr>
<td></td>
<td>Cold War</td>
<td>NATO/Warsaw Pact/Both</td>
<td>None</td>
</tr>
<tr>
<td>IGOs</td>
<td>Oneal and Russett (1999c)</td>
<td>low</td>
<td>Sig. (+)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>COW</td>
<td>low</td>
<td>Sig. (+)</td>
</tr>
<tr>
<td>Nuclear Weapons</td>
<td>Jo and Gartzke (2007)</td>
<td>both nuclear/one nuclear</td>
<td>None</td>
</tr>
<tr>
<td>Learning</td>
<td>Cederman (2001a)</td>
<td>(dem. and aut.) dummy × year</td>
<td>None</td>
</tr>
</tbody>
</table>
- **Democracy**: In addition to the Polity data, I also evaluate the Vanhanen (2000) Polyarchy data and data from Freedom House (2000). Vanhanen measures democracy as political competition and participation and offers a composite index of democratization (ID) for the period 1810–1998 for 187 countries. The index of democratization in the Vanhanen data ranges from zero to 70, though no state currently receives a score higher than 50. These data correlate strongly, but not perfectly, with the Polity data (Vanhanen 2000, 260–61, Tables I and II). Freedom House codes regime type over a shorter temporal domain (1972–98). The Freedom House data include two eight-point (0 to 7) scales, one for political rights and the other for civil liberties. Freedom House recommends summing the indicators for a single annual democracy scale (0 to 14). I construct dyadic values as described in the text.

- **Markets**: There are a number of ways to construct an index from the IMF AREAER variables. Chinn and Ito (2002) offer an index of capital account openness (KAOPEN) based on four dummy variables for multiple exchange rates, restrictions on current and capital account transactions, and surrender requirements for export proceeds. Chinn and Ito invert the dummy variables, smoothing values over five years. KAOPEN is constructed using standardized principal components analysis (the index is bounded by −1 and 1, with a mean of zero). Quinn (1997) and Quinn and Inclán (1997) offer a measure of capital liberalization (CAPITAL), ranging from 0 (autarky) to 100 (fully open economy). Quinn makes use of qualitative codings provided in the AREAER. Data availability for developing countries is uneven.

One can also seek other sources of data. Gwartney and Lawson develop an index “designed to identify the consistency of institutional arrangements and policies with economic freedom in seven major areas” (2000, 3). The index is thus broadly consistent with the economic components of Rummel’s libertarian peace theory. The areas include “(I) size of government, (II) economic structure and use of markets, (III) monetary policy and price stability, (IV) freedom to use alternative currencies, (V) legal structure and security of private ownership, (VI) freedom to trade with foreigners, and (VII) freedom of exchange in capital markets” (Gwartney and Lawson 2000, 3). The seven areas of economic freedom are further composed of 23 different statistical indicators. Data are available at five-year intervals from 1970 to 1995 for some 125 countries. All GDP data used in the study are in the form of purchasing power parities (PPP).

52The Vanhanen Polyarchy dataset is available at http://www.svt.ntnu.no/iss/data/vanhanen/. The Freedom House Country Scores can be obtained at http://www.freedomhouse.org/ratings/.

53The economic freedom data are available at http://www.freetheworld.com/download.html.

54All GDP data used in the study are in the form of purchasing power parities (PPP).
and other variables (Oneal and Russett 1999b; Russett and Oneal 2001). To dispel concerns, I first regress DEMOCRACY (LOW) and (High) on AFFINITY. I then use the residuals from this regression as a substitute for the original indicator. There can be no relationship between the residuals and democracy (Gartzke 2000). In fact, the explanatory power of democracy is quite weak, accounting for less than 7% of the variance in UN voting patterns \( R^2 = 0.0658 \). The residuals from AFFINITY perform just as the original data, while the democracy variables remain insignificant. Some scholars have used alliance portfolios to measure interstate interests (Bueno de Mesquita 1981; Bueno de Mesquita and Lalman 1992). Since there is very little variation in alliance ties in the post–World War II period, I use instead an indicator of the similarity of states’ portfolios of intergovernmental organizations (IGO). The measure is again calculated using \( S \) (Sweeney and Keshk 2004). The IGO-based indicator performs much as AFFINITY, while democracy and trade are again statistically insignificant.

- **Alliances**: States have alliances with partners outside of a given dyad. These ties violate the assumption of spatial independence. Third-party alliances involve a commitment by one state (A) in dyad A–C to act on behalf of state (C) in the event that dyad B–C experiences conflict. For example, the probability that Canada fights against the Soviet Union in 1979 is not independent of the probability that the United States fights the Soviet Union during the same or preceding year. Similarly, fourth-party alliance ties are coded if in dyad C–D, state C is allied with A and D is allied with B and dyad A–B experiences a contest. 3rd PARTY ALLY is a dichotomous variable equal to “1” if one state in the dyad has an alliance with a third-party state that engaged in a dispute with the other state in the dyad in the current or previous year, and “0” otherwise. 4th PARTY ALLY is a dichotomous variable equal to “1” if each state in the dyad has an opposing alliance with states that engaged in a dispute in the current or previous year. Alliance ties widen conflicts. 4th PARTY ALLY is significant and positive in all analyses, while 3rd PARTY ALLY is usually significant and also positive.

- It has been suggested that the democratic peace is a byproduct of the overarching alignments of the cold war (Gowa 1995; Rosato 2003). My findings could reflect ties among members of NATO and the Warsaw Pact. I construct three dummy variables, one for each alliance, plus one for the combined effect of both alliances. These variables are not significant. The major alliances of the cold war do not appear to explain the liberal peace, or dispute behavior among their members or between alliances.

- **Intergovernmental Organizations**: Several studies argue that IGOs encourage peace (Oneal and Russett 1999c; Oneal et al. 2003; Russett et al. 1998). Other evidence suggests otherwise (Domke 1988; Gartzke, Li, and Boehmer 2001). Findings for IGOs depend on sample, statistical estimator, and variable construction (Boehmer, Gartzke, and Nordstrom 2004). Results are similar when I replicate the analysis in Oneal and Russett (1999c), but the IGO variable is positive and significant. While I do not believe that IGOs increase conflict, their analysis requires further refinement of theory and data. Use of IGO data also reduces the sample size by more than half. It is for this reason that I do not include an IGO variable in the main analysis.

- **Capabilities**: CAPABILITY RATIO identifies relative power. It cannot, for example, distinguish between parity in a weak dyad and parity among powerful states. While not critical, controlling for the absolute size of dyadic capabilities appears appropriate. CAPABILITY (LOW) reports the lower of the two CINC scores in a dyad. The threshold capability variable is usually positive and is significant in about half of the regressions conducted for this study. Including CAPABILITY (LOW) does not alter the key results.

- **Learning**: Constructivists (Mueller 1989; Risse-Kappen 1995, 1997; Wendt 1999) and others (Farkas 1998; Reiter 1994, 1996) argue that learning is an important dynamic omitted from much of the research on international politics. Why learning can only occur in recent decades is unclear. I check to see whether learning might affect the results of this study. Cederman (2001a, 2001b) offers a concrete operationalization of learning in the context of the democratic peace. He interacts a dummy variable for regime type with the year of each observation. He also constructs a similar time-series for non-democracies. I generate learning variables as the product of whether either or both states in the dyad have Polity III DEMOC scores greater than or equal to six. The resulting variables do not report significance and do not affect the principal results.

- **Nuclear Weapons**: It has been argued that nuclear weapons promoted stability during the post–World War II period (Mearsheimer 1984, 1993; Sagan and Waltz 2003). It is possible that the democratic peace is the result of nuclear deterrence. I use Jo and Gartzke (2007) to identify nuclear dyads in which either one state or both states possess nuclear weapons. Nuclear weapons status shows no significant effect on dispute behavior in this analysis.

55 Use of current and subsequent years of alliance contagion is somewhat arbitrary, but it seems to work.

56 Democracies may actually be less willing to bargain through international organizations (Schmidt 2003).
References


