Chapter 2: Economic Freedom and Peace

by Erik Gartzke

Introduction

With war in the Middle East and the prospect of terrorist attacks at sites ranging from major airports to the local shopping mall, it may be appropriate to remind ourselves that much of the world is experiencing an extended period of peace. Indeed, developed countries have not fought each other since the Second World War. This peace is unusual because powerful nations are historically the most conflict prone. Since before the time of Thucydides, states have used wealth to acquire more territory and to dominate the affairs of their neighbors. Understanding the reasons that the powerful countries of today are less prone to dispute than their predecessors is critical to maintaining the peace and to extending its benefits more broadly. Policies predicated on inaccurate associations between democracy and peace, for example, seem destined to create as many problems as they solve.

Classical liberal theory provides two streams of explanation for peace, one focusing on the forms and practices of government, the other on free markets and private property. The former, seen most particularly in the writings of Immanuel Kant, has received extensive attention from students of international politics in the last decade. Kant was wrong when he claimed that republics are less warlike than other forms of government. Instead, researchers have found that democracies are less likely to fight each other, while being no less ready to use force generally. This “democratic peace” has been further proscribed by the discovery that developing democracies are just as war-prone as developing dictatorships. Available explanations involving the pacific effects of democratic norms, institutions, or transparent rule must struggle to explain why prosperity is a requirement for peace.

Liberal political economy offers no such contradiction. Scholars like Montesquieu, Adam Smith, Richard Cobden, Norman Angell, and Richard Rosecrance have long speculated that free markets have the potential to free states from the looming prospect of recurrent warfare. Capitalism encourages cooperation among states by creating conditions that make war unappealing or unnecessary. Free markets create another venue to competition among countries, often containing minor conflicts below the level of military force. The transformation of commerce made possible by economic freedom also leads to a transformation in international affairs. Conquest becomes expensive and unprofitable. Wealth in modern economies is much harder to “steal” through force than was the case among agricultural and early industrial societies. This “capitalist peace” has been slow to reach fruition but the tools and evidence are now in place to establish a firmer connection between economic freedom and reductions in conflict. I use the Index of Economic Freedom developed by Gwartney and Lawson and multivariate statistical analysis to show that free markets appear to encourage peace. I also evaluate several other factors often thought to influence whether states fight. Economic freedom is one of the rare factors that generally discourages conflict among nations.

Democracy is desirable for many reasons but policies that encourage, or even seek to impose, representative government are unlikely to contribute directly to international peace. As the results reported here make clear, free markets, and not democracy, have a general impact on the propensity of states to resort to military violence. At best, democracy may reduce conflict only among advanced industrialized economies. Developing countries do not benefit from a democratic peace. Especially in regions dominated by autocratic governments, the introduction of democracy can have little immediate impact on international cooperation. Similarly, substantial research shows that democratic government is stable only when combined with relatively high levels of economic development. In isolation, policies designed to make poor countries democratic can guarantee neither political stability nor international peace. Since prosperity is necessary for stable democracy and sufficient to produce peace, the best foreign policy is one that enhances and extends capitalism.
Background

Students of international political economy have long argued that global markets promote global amity. Cobden called commerce “the grand panacea, which, like a beneficent medical discovery, will serve to inoculate with the healthy and saving taste for civilization all the nations of the world” (1903: 36). Kant wrote that “the spirit of commerce, which is incompatible with war, sooner or later gains the upper hand in every state” (1957: 32). Mill claimed that “It is commerce which is rapidly rendering war obsolete, by strengthening and multiplying the personal interests which are in natural opposition to it.” (1902: 390). The problem, of course, is that Mill was wrong. Numerous wars and smaller conflicts stand between the present and the pristine optimism of nineteenth century liberal political economists. What did they miss? What did they understand correctly? What evidence is there that their basic vision contains insights of lasting validity?

Ideas ebb and flow with contemporary events. The assertion that capitalism can make states less warlike is easily maintained when markets are abundant and when warfare is scarce. Statesmen and intellectuals of the late nineteenth century embraced the link between free markets and international peace, only to see Europe torn apart in 1914. It is equally easy to view the world as wholly Hobbesian when economic and political crises loom. Realist scholars like Kenneth Waltz and John Mearsheimer maintained during the Cold War that global economic ties did not matter much to the conduct of affairs of state, despite evidence that the free and industrious nations of the earth were less war prone. A durable understanding of international relations—to say nothing of the quest for world peace—demands that theories do more than simply mimic policy trends or summarize intellectual fashion. The world is a noisy place. Extrapolation from current events is often bound to lead us astray. Indeed, it is far more likely that the relationship between economic freedom and peace is not absolute but is instead a tendency, complicated by the probabilistic nature of social phenomenon and confronted by multiple paths to war. With the application of statistical analysis to world politics, we can go beyond the recurrent clash of theories substantiated only by a fusillade of anecdotes.

Here, I offer evidence that free economies contribute to a decline in interstate conflict. First, however, I need to bring the classical liberal political-economic view of war up to date. The tradition of capitalist peace is rich but poorly grounded in key insights about why states fight. A better understanding of how free markets free states from the need to make war may help to solidify and possibly even expand the peace among the advanced capitalist countries.

Economic Freedom and the World Wars

Norman Angell (1933), an ardent advocate of the liberal school and recipient of the Nobel Peace Prize for work as an author and politician, conceived of peace as deriving from economic progress. He identifies two processes thought to diminish the appeal of conquest among developed states. First, development leads to changes in production that make raiding and conquest unprofitable.

During the last quarter of the tenth century, Anlaf the Viking came thrice into Essex—and on each occasion he made a pretty good thing of it: his ships, to the number of 90, moved out of the estuaries deeply laden with corn, and hides, with fine cloth from the monasteries … Obeying to the injunction to remember that the underlying forces of history and the motives of men remain unchanged, I have tried to imagine the British, now that they have the upper hand, returning the complement ten centuries later: our navy loading up a goodly part of our mercantile marine with the agricultural and industrial wealth of the Scandinavian peninsula. (Angell, 1933: 103)

It certainly does seem silly to think of the British Navy as marauding Vikings. Something had changed by the twentieth century and yet, within a decade of publication of the second edition of The Great Illusion, Britain garrisoned Iceland¹ and almost invaded Norway (Kersaudy, 1990), Germany occupied Denmark and Norway (Ziemke, 1990), and Finland was embroiled in a war with the Soviet Union (Engle et al., 1992). Sweden alone retained its neutrality and sovereignty.

It takes considerably less effort to imagine Hitler, Mussolini, and Tojo in the role of Vikings. The Axis powers shared an ideology that was explicitly nostalgic and intrinsically anachronistic, harking back to an era when enhancing state power meant territorial aggrandizement (Weinberg, 1994; Cassels, 2003). Still, while World War II may be seen as a “worst case,” it is possible to argue that development discouraged conflict in certain instances. From the beginning, the primary targets of Axis territorial aims were the poor countries on
the economic periphery of Europe. War with Western Europe was contemplated for strategic reasons, to cow France and the United Kingdom, not to capture resources (Weinberg, 1994). Why did Hitler—everyone’s model of ruthlessness—go after the relatively poorer regions of Eastern Europe when most of the wealth in Europe was in the West? With the exception of Finland, none of the Scandinavian countries was attacked with the objective of territorial aggrandizement. Germany’s invasion of Norway was primarily intended to preempt a planned British occupation (Ziemke, 1990). None of the major combatants was motivated by a desire to plunder Norway or to acquire additional territory or resources through force. The planned Anglo-French invasion was intended to protect northern shipping routes and deny Germany access to raw materials, objectives that made sense only in the context of the larger war. Indeed, Norwegian neutrality was seen to complement German objectives. Hitler never attacked Sweden, the richest prize and Germany’s main source for iron ore, half of which was shipped via Norway (Fox, 1959; Hägglöf, 1960). Even after the Allies could not intervene, Germany preferred to purchase, rather than take through force, the bulk of the wealth of the Scandinavian peninsula.

This does not mean that Sweden was unaffected by the war. Nazi officials used the considerable imbalance in power to pressure the Swedish government on a variety of issues, particularly the passage of supplies and personnel through neutral territory. Sweden remained independent because it provided more to the Axis through trade than through occupation and because it wisely decided to bend diplomatically where Norway broke (Carlgren, 1977). Still, Germany chose not to invade Sweden when it could easily have done so. Hitler’s restraint can hardly be attributed to moral inhibitions or limitations on his exercise of sovereign power. Instead, it appears that a shrewd calculation was made that it was cheaper to trade rather than take needed Swedish resources.

The second process Angell points to involves economic liberalization. The increasing integration of global markets makes it easier to acquire goods and services through trade and harder to avoid unsettling investors through warfare. Angell imagines a German occupying army in London.

Whatever advantage German credit might gain from holding Britain’s gold, it would certainly be more than offset by the fact that it was the ruthless action of the German Government that had produced the general catastrophe. A country that could sack bank reserves would be a good one for foreign investors to avoid: the essential of credit is confidence, and those who repudiate it pay dearly for their action. The German Generalissimo in London might be no more civilized than Anlaf himself, but he would soon find the difference between himself and Anlaf. Anlaf did not have to worry about a bank rate and such-like complications; but 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. (Angell, 1933: 106–07)

Angell again appears mistaken, unless one looks more closely. It is often remembered that World War I began in the Balkans but generally forgotten that the Balkans constituted the most economically backward corner of Europe. While war was conspicuously absent in the series of crises among economically interdependent western powers leading up to 1914, crises in the Balkans seemed invariably to lead to warfare (Strachan, 2001). Conflict in the Balkans is thus easy to explain in terms of the absence of economic freedom. The local contest initiated by Austria-Hungary against Serbia spread through a robust system of alliance ties (Kissinger, 1994). The problem for Europe in 1914 was precisely that liberalization and integration were uneven, while political allegiances ensured that economic interdependence in the West no longer mattered. The most advanced nations had essentially Balkanized their foreign policies to increase the bargaining leverage of the Eastern European powers. To the degree that alliance ties were honored, mobilization decisions were effectively in the hands of the very states not subject to the economic inhibitions that Angell so eloquently describes.

The inability of economic interdependence to stem the contagion of war does not imply ineffectiveness in averting an initial spark. Failure to anticipate world war overshadowed the essential veracity of Angell’s claims. Events subsequent to the war seem to be consistent with Angell’s vision of liberal peace. Modern economies do not appear as amenable to military conquest (Brooks, 1999). Angell’s error is thus that he provides an overly narrow conception of the motives for interstate conflict. States compete, not just over resources, but over policies and strategic geography. Where one sits on the map matters, especially if one is between protagonists in a crisis (Fazal, 2002). Similarly, what a country demands, independent of the value of its territory or resources, is likely to influence the incentives
of others to take it to task, or even to war (Moravcsik, 1997). Thus, the capitalist peace offered by Angell and the other classical liberals is not wrong but incomplete. The explanation as it has evolved over time contains key insights that, once revised, should prove empirically valid.

The Capitalist Peace: An Evolving Explanation

In *Spirit of the Laws*, Montesquieu says that “[t]he richest trader had only invisible wealth which could be sent everywhere without leaving any trace … [so that] rulers have been compelled to govern with greater wisdom than they themselves would have thought” (1989 [1748]: 389). Economic freedom means you can take it with you. When conditions get bad domestically, capital can leave the country, creating an economic, and thus political, drain on the society. Obviously, governments do not want money to leave. To the degree that sovereigns are unable to stop the flight of capital, however, they must create conditions that favor the voluntary retention of money within their borders.

The intellectual liberal tradition of economic peace beginning with Montesquieu, Mill, Adam Smith, and others, and progressing through Richard Cobden, Norman Angell, and Richard Rosecrance suggests a variety of ways in which capitalism can encourage peace. Perhaps the most general explanation is that economic interdependence creates something of mutual value to countries, which then leaves states loath to fight for fear of destroying economic benefits that they prize. While this is not implausible, the explanation depends on the supposition that items of mutual value do not themselves spark or facilitate conflict. Thomas Schelling tells a story of two mountain climbers tied together by a rope that in effect creates one common destiny. Schelling shows how something of mutual value can be used strategically to manipulate a counterpart; states that share economic linkages can in fact use the economic linkages to play a game of chicken: the more valuable the linkages, the more effective and telling is the game (Schelling, 1966: 99–100). If a state is reluctant to endanger the benefits of prosperous economic ties, it does not follow that peace will ensue. Other countries must be tempted to view a reluctance to fight as a vulnerability. To ensure peace, all possible participants must be unwilling to play the game of chicken or, indeed, to use military force.

Students of international relations traditionally looked to motive and opportunity (capability) to explain war. However, as murder-mystery novels and the game of *Clue* make clear, these conditions are seldom sufficient. Individuals, groups, and countries often disagree, but usually entities with different interests find that they can negotiate bargains that avoid more costly or flamboyant behavior. What then accounts for diplomatic success or failure? One of the basic problems in international relations is knowing when an opponent is, or is not, telling the truth. Leaders will often claim to be willing to use force when in fact they are bluffing. Wars result from several causes but an important contributor is uncertainty about what settlement of the stakes in a disagreement would be minimally acceptable to an opponent. If one accepts that war is a particularly costly method of adjudicating ownership over resources or policy prerogatives, then the surplus created by diplomatic solutions should make bargaining preferable to fighting. Just like poker players guarding their cards, the political leadership of nations finds that they sometimes have to dissemble to win. Given uncertainty and incentives to bluff, however, diplomacy can fail and conflict can ensue. Warfare in turn reveals information about the “cards” held by the respective combatants (information about states’ relative capability and resolve). Indeed, for a war to end, the parties involved in the contest must learn enough to settle on mutually acceptable bargains.

Economic freedom is important to peace for at least two reasons. First, free markets act as a sounding board for political activity. Actions that frighten markets discourage investment, drive down economic conditions domestically, and thus are likely to be avoided by local leaders. The use of force abroad is often associated with a decline in domestic investment and with outflows of capital (Bueno de Mesquita, 1990). To the degree that leaders are willing to make foreign-policy statements that scare capital markets, and to the extent that free monetary policies are in place that make it difficult for the government to interfere with capital flows, the international community may be able to infer a leader’s true resolve. Knowing what an opponent is willing to do makes it possible to bargain more effectively, so that resorting to violence to obtain what one side needs is less often necessary. Autonomous global markets create a venue through which leaders can establish credibility without needing to escalate to military force (Gartzke et al., 2001; Gartzke & Li, 2003).

Second, economies based on intellectual and financial capital are less dependent upon, and less interested in, occupying foreign territory. As the United States has shown in Iraq, winning a war with a twenty-first century army is the easy part of conquest. Militaries designed to achieve quick and easy victories on the modern battlefield are in-
creasingly poorly suited to the labor-intensive role of policing a populous society, especially when the population is ambivalent about foreign occupation. Historically, wealth was a function of arable acres. Big countries with lots of land were rich countries. Within these societies, wealth was achieved by sidling up to the sovereign; being a friend of the king meant land, which meant power. Indeed, maintaining one’s economic position was equivalent to being involved in politics. Modern societies do not work this way. Wealth is not primarily derived from agriculture. Instead, money is made or maintained through innovative ideas and entrepreneurial spirit. Commodity prices and labor costs in developed economies have consistently trended in opposite directions. Armies of occupation are expensive and the proceeds of resource theft made possible by conquest are increasingly marginal. This argument suggests that economic freedom should discourage conquest, but that it may have little or no beneficial effects on other kinds of conflict, including fights over international policies and the conduct of domestic regimes. I show elsewhere that economic development is associated with a reduction in warfare over territory but that development actually increases non-territorial disputes (Gartzke, 2004, forthcoming).

One of the most interesting and actively studied topics in international relations in recent years is the democratic peace. Democracies tend not to fight each other, though they are no less likely to fight in general (Oneal and Russett, 1997, 1999; Russett, 1993; Russett and Oneal, 2001). In other words, liberal political systems, in and of themselves, have no impact on whether states fight. It is easy to show, however, that the capitalist peace has a much more general effect. Table 2.1 lists a logit regression statistical model of interstate conflict behavior. Regression analysis is a useful way of identifying tendencies. Few things involving human beings are deterministic; a contributing factor will seldom always lead to outcome $X$ or outcome $Y$. Instead, researchers look for variables that have some effect in some cases. The problem with looking at individual instances of conflict is that one might attribute too much importance to one factor or another. The regression analysis tells us how much a variety of possible causal variables contribute to the onset of conflict behavior.

Table 2.1 identifies determinants of Militarized Interstate Disputes (MIDs), defined as a serious threat or use of force, up to and including war involving 1,000 battlefield deaths. MIDs are a standard indicator of conflict behavior used by researchers in international relations (Gochman and Maoz, 1984; Jones et al., 1996). Annual observations for each country (e.g., Canada 1983, Canada 1984, etc.) are coded “1” if there is a dispute in that year involving the country and “0” otherwise. Regression analysis creates a coefficient for each variable, which indicates the magnitude of the effect of that variable on the probability of there being a MID in a given year, taking into account the impact of other variables. The regression estimator also provides an indication of how confident one should be in this estimated coefficient. Social phenomena are usually seen as probabilistic: even when all key contributing factors are identical, outcomes may differ from case to case. Perhaps the apparent relationship between a given independent variable and disputes is only apparent. The regression model addresses this concern by creating a range or distribution of possible relationships between cause and effect. The standard error provides an indication of the “spread” of this distribution of possible coefficients. If the standard error is large relative to the coefficient (roughly, greater than half the size of the coefficient), then it is possible that the “real” coefficient generating the data equals zero and that no relationship exists between the variable and whether states fight. A measure of “statistical significance” reflects the odds that we might incorrectly accept a coefficient as indicating a relationship between cause and effect. The convention is to use significance thresholds of 1%, 5%, or 10%. In order to accept a relationship, we require that out of 100 tries with similar data, between 90 and 99 of the coefficient estimates produced should be much different from zero.¹³

Table 2.1: Effect of Economic Freedom on Militarized Interstate Disputes (MIDs)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Freedom</td>
<td>−0.567**</td>
<td>(0.179)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>2.777</td>
<td>(8.491)</td>
</tr>
<tr>
<td>Population</td>
<td>2.08 $\times 10^{-6}$</td>
<td>(8.18 $\times 10^{-7}$)</td>
</tr>
<tr>
<td>Major Power?</td>
<td>0.853</td>
<td>(1.133)</td>
</tr>
<tr>
<td>Democracy Score</td>
<td>−0.011</td>
<td>(0.065)</td>
</tr>
<tr>
<td>Defense Pact?</td>
<td>−0.628</td>
<td>(0.482)</td>
</tr>
<tr>
<td>GDP per Capita</td>
<td>8.01 $\times 10^{-6}$</td>
<td>(8.04 $\times 10^{-5}$)</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>1.57 $\times 10^{-7}$</td>
<td>(1.50 $\times 10^{-6}$)</td>
</tr>
<tr>
<td>_spline1</td>
<td>6.08 $\times 10^{-4}$*</td>
<td>(2.32 $\times 10^{-4}$)</td>
</tr>
<tr>
<td>_spline2</td>
<td>−4.53$\times 10^{-4}$*</td>
<td>(1.76 $\times 10^{-4}$)</td>
</tr>
<tr>
<td>_spline3</td>
<td>1.19 $\times 10^{-4}$*</td>
<td>(4.87 $\times 10^{-5}$)</td>
</tr>
<tr>
<td>Intercept</td>
<td>−0.381</td>
<td>(1.210)</td>
</tr>
</tbody>
</table>

N 2519

Log-likelihood $-161.719$

$X^2_{(11)}$ 160.564

Significance levels: †: 10% *,: 5% **: 1%
This approach acknowledges that the world is noisy ("stochastic") while minimizing the danger of accepting theories that are actually false.

The key causal or “independent” variable in the analysis is Economic Freedom. This is the index developed by Gwartney, Lawson and others to measure the liberalization of a country’s economy. As can be seen from Table 2.1, Economic Freedom significantly decreases the probability that a country will experience a dispute.¹⁴ There are several other variables included in the analysis to ensure that the findings for Economic Freedom are not spurious. All of these variables are quite conventional in quantitative studies of international conflict. Capabilities attempts to capture the concept of “power” by reporting the average percentage of total world capabilities a nation possesses in six categories reflecting military, economic, and demographic variables. Large, powerful countries tend to be more disputatious than small ones. Population reports total adult population for a country. Democracy Score is a standard indicator of the “democraticness” of a country. Major Power? and Defense Pact? are dichotomous (dummy) variables coded “1” if the country in question is a major power or if the country has a strong military alliance with another state that might come to its aid in time of war. GDP per Capita measures the average national income of the country. This is important to include, since we seek to know whether it is prosperity per se or more narrowly economic freedom that causes peace. Similarly, Trade Openness could be another candidate for discouraging conflict. Finally, I include a set of variables that address a technical problem posed when conflict behavior is related through time. The method of estimation assumes that disputes are unrelated. Obviously, conflict in a given year can spill over and contribute to subsequent disputes. Adding spline variables ensures that the findings are not a product of reverse causation.¹⁵

Beyond the spline variables, only Economic Freedom and, secondarily, Population are statistically significant. Economic structure and to some degree demographic size influence conflict but we cannot have confidence that the other variables have any effect on whether states fight.

While one can look at the coefficients and standard errors in Table 2.1 and quickly decide whether the claimed relationship is worth accepting (or not rejecting), it is less easy to determine how much a given variable matters to whether states fight. Logit regression allows researchers to study situations where the outcome of interest is dichotomous (i.e., “war,” “no war”). However, for technical reasons, the regression estimator must treat the outcome as if it were continuous (i.e., more or less of something, as if estimating the intensity or probability of a conflict). Instead of predicting a dispute or no dispute, then, the logit estimator predicts the probability of a dispute. In order to ensure certain nice properties for these predicted probabilities, logit uses a ratio involving natural logs.¹⁶ Much like converting decimal values to binary code to allow them to be evaluated by a computer, the log transformation facilitates estimation and significance testing at some expense to intuition. The resulting coefficients are best interpreted by plotting the predicted probabilities calculated by the logit regression.

The substantive effects of Economic Freedom and the Democracy Score on international disputes can be seen in Figures 2.1 and 2.2, respectively. In both figures, the horizontal axis lists the ordinal scales for the respective explanatory variable (either the Index of Economic Freedom or the Polity Democracy Index), while the vertical axis reports the probability of a MID in a given year for states with a given level of either of the two explanatory variables. The solid line sloping down and to the right in Figure 2.1 is the relationship between Economic Freedom and militarized disputes, as estimated by the regression in Table 2.1. In Figure 2.2, the effect of the Democracy Score variable on conflict also appears as a solid line, which slopes slightly down and to the right. In Figure 2.1, the two light dashed lines that appear to run in parallel above and below the line for Economic Freedom represent confidence intervals. Ninety-five percent of all the solid lines estimated from regressions on similar data would be contained within the interval bounded by the two dashed lines. In other words, the relationship depicted in the figure between Economic Freedom and an absence of militarized violence is very likely to be at least approximately correct.

As can be seen from the figure, the impact of free markets and limited government is substantial. The least free states have about a 7% chance of experiencing a dispute, while the freest states experience disputes in only about half of 1% of the years examined. Making economies freer translates into making countries more peaceful. At the extremes, the least free states are about 14 times as conflict prone as the most free.

The same cannot be said for the relationship between democracy and conflict. The horizontal position of the line in Figure 2.2 suggests that the Democracy Score variable has almost no effect on militarized conflict.¹⁷ The least democratic states (values near zero) and the most democratic states (values near 10) are about as likely to experience a dispute. In fact, a comparison of extreme values of Economic Freedom and Democracy Score
shows that the former has roughly 54 times the impact on dispute behavior as the latter. Nor should one take the fact that the Democracy Score line is very near zero as a sign that war is unlikely for democracies. Inference depends on covariation. Regardless of whether the method is physical (experimental), theoretical, or statistical, one “wiggles” the causal factor and looks for corresponding movement in the outcome variable. Here, there is no movement in the outcome; democracy does not affect the probability of MIDs. In fact, we cannot rule out the possibility that high values of the Democracy Score variable increase conflict. The topmost line in Figure 2.2, the light dashed line for the upper confidence interval, slopes upward, indicating that at least some of the estimated relationships on similar data will report that democracy makes disputes more likely.
Additional factors considered
Two substantive factors have been used to explain peace in the modern era that are not included in the analysis in Table 2.1. First, some countries belong to collective security arrangements or regional trade agreements that might limit their tendency to fight with one another. The European Union (EU) is perhaps the best example of a community of nations that is thought to have successfully replaced warfare with peaceful interaction. The reasoning varies but many have claimed that the institutions and culture of the EU enhance deliberation and discourage violence among members. Second, researchers such as Kenneth Waltz and John Mearsheimer emphasize that nuclear weapons can act as a deterrent. States may be loath to fight with countries possessing nuclear weapons. To test these possible confounding factors, I add two variables that measure membership in the European Union and possession of nuclear weapons in Table 2.2. EU Member? is a dummy variable equal to “1” if the state is a member of the European Union in a given year. Similarly, Nuclear Weapons? identifies those states that possessed, or were widely believed to possess, nuclear weapons in a given year. Neither variable significantly alters the probability that a state will be involved in a militarized dispute. Further, Economic Freedom remains a statistically significant predictor of dispute behavior.

It is important to ensure that the findings reported here are not a product of error or wishful thinking. An examination of possible alternative explanations could not be deemed very thorough if we ignored demographic variables. Possible demographic factors abound. I have looked at many but offer only a few examples in Table 2.3. Total Land Area reports the number of hectares of land enclosed by a country’s borders. Geographically large countries, independent of population, might behave differently from small countries, which are also often more dependent on trade. It might also be that countries that are very densely populated are more dispute prone. Population Density records the number of adults per hectare, possibly reflecting “lateral pressure” (Choucri and North, 1975, 1989). N° of Contiguous States indicates whether a state has many neighbors and therefore many possible disputants. Finally, Arable Land/Population distinguishes states with large nominal territories from those with abundant agricultural land. As before, there is no change in the results for the Economic Freedom variable and none of the new variables is statistically significant.

A final test for robustness involves breaking the sample of countries up by region. Recent research in international relations has re-emphasized the salience of regional heterogeneity. The conflict behavior of states in Africa is driven in part by variables different from those driving conflict behavior in Europe or North America. To address the possibility that the findings for Economic Freedom might simply reflect regional differences, I include a set of regional dummy variables. These variables, labeled for the appropriate region18 are added in Table 2.4. Several of the regional dummies are statistically significant, indicating that the causes of conflict differ in different parts of the globe. However, Economic Freedom is undisturbed by the presence of regional heterogeneity. These findings suggest an extremely robust relationship between free markets and peace. Indeed, Economic Freedom is the only variable that proves consistently both statistically and substantively significant in these analyses.

The Future of Capitalist Peace
The results reported above make it possible to speculate about the evolution of international relations. Some implications are promising and some are not. Countries with free and prosperous economies have a good chance of maintaining and even deepening the peace that has characterized the latter half of the twentieth century. The shift

<table>
<thead>
<tr>
<th>Table 2.2: Adding Membership in EU and Possession of Nuclear Weapons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Economic Freedom</td>
</tr>
<tr>
<td>Capabilities</td>
</tr>
<tr>
<td>Population</td>
</tr>
<tr>
<td>Major Power?</td>
</tr>
<tr>
<td>Democracy Score</td>
</tr>
<tr>
<td>Defense Pact?</td>
</tr>
<tr>
<td>GDP per Capita</td>
</tr>
<tr>
<td>Trade Openness</td>
</tr>
<tr>
<td>EU Member?</td>
</tr>
<tr>
<td>Nuclear Weapons?</td>
</tr>
<tr>
<td>_spline1</td>
</tr>
<tr>
<td>_spline2</td>
</tr>
<tr>
<td>_spline3</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Log-likelihood</td>
</tr>
<tr>
<td>( \chi²_{[13]} )</td>
</tr>
<tr>
<td>Significance levels: †: 10% *: 5% **: 1%</td>
</tr>
</tbody>
</table>
Table 2.3: Examining Additional Demographic Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Freedom</td>
<td>-0.779**</td>
<td>(0.221)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>4.461</td>
<td>(13.281)</td>
</tr>
<tr>
<td>Population</td>
<td>2.27 × 10^{-6}</td>
<td>(1.14 × 10^{-6})</td>
</tr>
<tr>
<td>Major Power?</td>
<td>1.148</td>
<td>(0.969)</td>
</tr>
<tr>
<td>Democracy Score</td>
<td>-0.008</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Defense Pact?</td>
<td>-0.536</td>
<td>(0.462)</td>
</tr>
<tr>
<td>GDP per Capita</td>
<td>1.12 × 10^{-4}</td>
<td>(6.63 × 10^{-5})</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>-5.03 × 10^{-8}</td>
<td>(1.50 × 10^{-9})</td>
</tr>
<tr>
<td>Total Land Area</td>
<td>8.74 × 10^{-4}</td>
<td>(1.69 × 10^{-5})</td>
</tr>
<tr>
<td>Population Density</td>
<td>2.87 × 10^{-4}</td>
<td>(2.42 × 10^{-4})</td>
</tr>
<tr>
<td>N° of Contiguous States</td>
<td>-0.157</td>
<td>(0.097)</td>
</tr>
<tr>
<td>Arable Land/Population</td>
<td>-0.123</td>
<td>(0.111)</td>
</tr>
<tr>
<td>_spline1</td>
<td>6.14 × 10^{-4}**</td>
<td>(2.14 × 10^{-4})</td>
</tr>
<tr>
<td>_spline2</td>
<td>-4.66 × 10^{-4}**</td>
<td>(1.70 × 10^{-4})</td>
</tr>
<tr>
<td>_spline3</td>
<td>1.26 × 10^{-4}</td>
<td>(5.04 × 10^{-5})</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.257</td>
<td>(1.578)</td>
</tr>
</tbody>
</table>

N 2519
Log-likelihood -157.831
X^2_{(15)} 188.22
Significance levels: †: 10% *, 5% **: 1%

downward toward post-industrial production has already occurred in these countries, bringing with it a reduction in the utility for war. Free-market capitalism also seems entrenched. However, maintaining the existing commercial and financial systems across relatively open borders is an ongoing concern. Protectionism can return, as it has in the past. The United States in particular needs to continue its leadership role in promoting global capitalism.

Table 2.4: A Look at Regional Effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Freedom</td>
<td>-0.681**</td>
<td>(0.194)</td>
</tr>
<tr>
<td>Capabilities</td>
<td>-4.667</td>
<td>(9.184)</td>
</tr>
<tr>
<td>Population</td>
<td>1.11 × 10^{-6}</td>
<td>(9.00 × 10^{-7})</td>
</tr>
<tr>
<td>Major Power?</td>
<td>1.773</td>
<td>(1.191)</td>
</tr>
<tr>
<td>Democracy Score</td>
<td>0.038</td>
<td>(0.054)</td>
</tr>
<tr>
<td>Defense Pact?</td>
<td>-0.168</td>
<td>(0.531)</td>
</tr>
<tr>
<td>GDP per Capita</td>
<td>4.02 × 10^{-5}</td>
<td>(5.19 × 10^{-5})</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>-1.21 × 10^{-6}</td>
<td>(2.33 × 10^{-6})</td>
</tr>
<tr>
<td>North America?</td>
<td>14.730**</td>
<td>(0.640)</td>
</tr>
<tr>
<td>South America?</td>
<td>13.808</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Europe?</td>
<td>13.789**</td>
<td>(0.832)</td>
</tr>
<tr>
<td>Africa?</td>
<td>14.189**</td>
<td>(0.959)</td>
</tr>
<tr>
<td>N. Africa &amp; Mid. East?</td>
<td>14.836**</td>
<td>(0.656)</td>
</tr>
<tr>
<td>Asia?</td>
<td>15.971**</td>
<td>(0.815)</td>
</tr>
<tr>
<td>_spline1</td>
<td>6.28 × 10^{-4}**</td>
<td>(2.04×10^{-4})</td>
</tr>
<tr>
<td>_spline2</td>
<td>-4.63 × 10^{-4}**</td>
<td>(1.56×10^{-4})</td>
</tr>
<tr>
<td>_spline3</td>
<td>1.19 × 10^{-4}**</td>
<td>(4.41×10^{-5})</td>
</tr>
<tr>
<td>Intercept</td>
<td>-15.026**</td>
<td>(1.189)</td>
</tr>
</tbody>
</table>

N 2519
Log-likelihood -154.297
Significance levels: †: 10% *, 5% **: 1%

The situation is less rosy for developing countries. While the major economic powers may have lost interest in conquest, there remains occasion enthusiasm for using force to redirect the policies or politics of developing countries. Wars will continue as long as states differ in their views about the conduct of international affairs. “Rogue nations” will remain obstreperous. The rise of China presents the possibility of a clash over ideologies and influence in Asia. The evidence here suggests that emphasizing economic liberalization has been the appropriate course. Political freedom should, and must, come to China but it does not appear that democratization, by itself, will make China more peaceful. Indeed, rising nationalist sentiment in newly democratizing countries has been linked to an increased propensity toward military adventurism (Mansfield and Snyder, 2002a, 2002b).
Warfare among developing nations will remain unaffected by the capitalist peace as long as the economies of many developing countries remain fettered by governmental control. Similarly, economic development is required to shift emphasis from land, labor, and other traditional inputs to production and toward intellectual and financial capital, inputs that are less easily acquired through force. A problem will arise as increasing wealth and domestic political stability provides developing countries with the resources to project power beyond their nominal borders. Much of Africa and South America is partitioned according to the whims of long-dead European diplomats and existing borders do not reflect historic or current ethnic, linguistic, or cultural boundaries. Economic development will literally provide the ammunition for rising conflict in the developing world.

To avoid development creating a tinderbox of the southern hemisphere, it is necessary that increasing prosperity coincide with a relative decline in the value for territory and with growing dependence on global capital. The advantage of late-industrializing countries is that they may skip the most dangerous stages of industrialization. Early industrialization creates the need for natural resources and the where-with-all to acquire them through force. Labor costs are low, allowing the staffing of occupying armies. More important, valuable assets and resources remain “lootable” through conquest. Knowledge industries call for heavy investments of capital and human ingenuity but little that can be ransacked by an invader. The “outsourcing” of services, telemarketing, and software industries, while vexing to many in the developed world, helps to create economies in the developing world that are less inclined toward war. The Indo-Pakistani conflict has regularly erupted in warfare but leaders in both countries have recently come to accept that more open economies suffer greatly from active hostilities. The growing dependence on international capital and the declining value of disputed territory relative to technological innovation means that the impetus to make peace has increased and the value of war has declined. On Cyprus, three decades of tense peace are gradually being replaced by the recognition that access to the knowledge economies of Europe is much more critical to prosperity than possession of orchards and pastures.

Democracy has many obvious virtues and current policy initiatives by the United States and other countries to promote—or even impose—democracy can potentially be justified solely on the basis of domestic benefits to affected populations. However, if the explicit intent of a policy of democratization is to foster international peace, then there is need for considerable caution. It appears more effective to promote peace through the spread of free markets first and, then, to use free markets to bolster the move to democracy. The results here suggest that efforts to promote peace in the Middle East and in other regions dominated by autocratic governments through democratization are of particularly questionable worth. Whether Iraq, for example, can achieve stable democracy remains to be seen; but even success in such ventures appears unlikely to yield a meaningful reduction in interstate conflict unless it is paired with substantial and successful economic reform. Given finite resources, the attentions of developed nations are best directed upon reinforcing and propagating the free-market principles and practices that lead to peace over much of the northern hemisphere. The United States in particular has used its status as hegemon to champion capitalism and to encourage economic development. This effort should not be allowed to falter now that terrorism and the end of the Cold War have shifted US focus from containment of the Soviet Union to a more pro-active international policy. Democracy should be encouraged but the evidence suggests that democracy alone will not yield peace, while popular rule appears unstable in the absence of some degree of prosperity. In short, to achieve the goals of peace and freedom, the developed countries of the world cannot afford not to sponsor the extension of capitalist institutions and practices.

Conclusion

World peace will not be achieved by economic freedom alone. It would be foolish to parrot the position of liberal optimists of the eighteenth and nineteenth centuries and believe that freedom in any sphere, however desirable in its own right, holds all the keys to global amity. Nor can contemporary students of global affairs ignore the fact that warfare ravaged the freest and most liberal societies of the previous century. As has been long recognized, freedom allows the expression of the worst in humanity as well as the best. Still, the apparent tendency of economic freedom to promote peace should not be discounted, especially now that the presence of this relationship is more than mere speculation. Policies designed to spread free-market capitalism have not “placed countless mines under the edifice of world peace” (Liebknecht, 1969: 13) as many critics now and in the past have claimed. To the contrary, the globalization of capitalism and the spread of free markets has done just the opposite, creating conditions where force is less often an expedient.
At first glance, capitalist peace seems paradoxical. Firms compete in a manner often compared to warfare. Books like Sun Tzu’s *Art of War* and Clausewitz’s *On War* are devoured by students in business schools, eager to obtain a competitive edge. The western tradition of intellectual and activist peace movements has tended to see self-interest is one of the roots of evil in the world. Only through altruism can the earth be made a better place. Unfortunately, altruism is often in short supply. Utopian visions are unworkable precisely because they hinge upon the transformation of individual and social human nature. Modern scholars, particularly those identified with the neoliberal school, have emphasized national and supranational institutions as possible remedies for interstate conflict. The logic underlying this view is not dissimilar from the logic of those who advocate bigger government to solve domestic social problems. While we cannot alter innate tendencies for human beings (or countries) to do wrong, we can alter incentives or constrain behavior. International institutions can be shown to contribute to peace, though the effect is not large, with all but the most substantial organizations having little or no impact (Boehmer et al., forthcoming).

Adam Smith had the great insight two centuries ago that self-interest, unfettered by bureaucratic guidance or constraints, served the common good better than state control. Market forces act as an “invisible hand,” freeing the productive potential of human populations. Today, there is increasing evidence that an invisible hand also acts on the foreign policies of nations. Global markets offer an alternative to the revelatory mechanism of warfare, while prosperity makes some forms of aggression unprofitable. The search for world peace has long been consumed with the need for selflessness, though altruism appears to have achieved little pacific impact in practice. Instead, it is a by-product of self interest that has been found to yield yet another virtuous social effect. The flowering of economic freedom, what some have derisively labeled “greed,” has begun to dampen the fires of war that to many seemed perennial and inherent, a product of civilization itself.

**Appendix: Sources of Data**

Many of the variables used in the study are generated using the *ELIGene* software package (Bennett and Stam, 2000). Additional variables are from other sources detailed below. A *Stata* “do” file that replicates all aspects of data construction and empirical analysis is available from the author (e-mail: eg589@columbia.edu).

1. **Dependent Variable**

   I use the Militarized Interstate Disputes (MIDs) to measure conflict behavior among states. The *ELIGene* version of the MIDs data cover the period from 1816 to 2000 and contain the variable *mzfatald*, which codes six categories of conflict intensity (0 = no battle deaths, 1 = 1 to 25 deaths, 2 = 26 to 100 deaths, 3 = 101 to 250 deaths, 4 = 251 to 500 deaths, 5 = 501 to 999 deaths, 6 = at least 1,000 battle deaths). See Gochman and Maoz, 1984 and Jones, Bremer, and Singer, 1996 for additional details.

2. **Independent Variables**

   **Economic Freedom**

   James Gwartney, Robert Lawson and others develop an index “designed to identify the consistency of institutional arrangements and policies with economic freedom in seven major areas” (2000: 3). 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 5-year intervals from 1970 to 1995 for some 123 countries. The economic freedom data are available at: http://www.freetheworld.com/download.html. I prepared versions of these data that replace missing values with values from previous years and also interpolated missing values.
Capabilities

Capabilities determine the ability of states to project power and conduct warfare. The Correlates of War project (COW) Composite Indicators of National Capabilities (CINC) score provides an index of a state’s potential for using force. CINC scores are computed as the weighted average of a state’s share of total system population, urban population, energy consumption, iron and steel production, military manpower, and military expenditures.

Population

Countries with many people arguably experience a given number of battle deaths differently than do small countries with relatively few citizens. Populations may also be large or small relative to available territory (Choucri and North, 1975, 1989). I add Population Density to some regressions. This variable measures the total national population divided by total square miles of territory. Similarly, Arable Land/Pop. measures the number of hectares of productive agricultural or pasture land, weighted by population. These data come from the CIA World Factbook but are only available for a few years. I replace missing values with values from other years, since these data do not change much over time.

Major Power?

Powerful states tend to be more active internationally, resulting in more frequent conflict behavior. Since major powers may also be relatively prosperous, hypotheses involving liberalization might be confounded by behavior stemming from a state’s status as a major power. The dichotomous variable, Major Power? is coded “1” if a state is a major power in a given year.

Democracy Score

I measure democracy using the standard Polity IV data (Jaggers and Gurr, 1995). Polity data provide two 11-point indexes of regime type based on formal constraints on the executive (AUTOC) and institutional support for democracy (DEMOC) (Gurr et al., 1989). I combine Polity democracy (DEMOC) and autocracy (AUTOC) scales as follows,

\[ \frac{[(\text{DEMOC}_i - \text{AUTOC}_i) + 10] / 2, \text{ where } i \in [A,B]}{}}{}} \]

These data, and my approach to constructing the indicator, are heavily used in studies of international conflict. See Oneal and Russett, 1999.

Defense Pact?

Alliances are formed with the intention of influencing interstate conflict by deterring aggression or encouraging intervention. Defense Pact? is a dummy coded for the presence or absence of a defense pact, as specified by the COW Alliance dataset (Singer and Small, 1966; Small and Singer, 1990).¹⁸ Note that most countries have no defense pact in a given year.

GDP per Capita

GDP per capita is the preferred measure of economic development. I obtain data on GDP and population from Gleditsch (2002), who in turn obtains data from Summers and Heston, 1991.

Trade Openness

Interdependence constitutes the second of three components emphasized in recent research on liberal peace. Trade Openness equals total domestic annual imports plus exports of goods and services, divided by the country’s gross national product. Gleditsch (2002) offers data with fewer missing values than other sources, including observations for developing and socialist countries.

Nuclear Weapons?

Nuclear weapons are a special, possibly transformative, military technology that might inhibit large-scale warfare involving some nations (Bueno de Mesquita and Riker, 1982; Mearsheimer, 1984, 1993). Alternately, so-called “domino” conflicts in the shadow of nuclear cold war might lead to higher casualty counts (Sagan and
It has also been argued that the effect of democracy on conflict can be explained by nuclear deterrence (Rosato, 2003). I use Jo and Gartzke (2002) to identify nuclear states and dyads in which either state possesses nuclear weapons.

EU Member?
I code members in the most visible and arguably persuasive security community annually from its inception using membership data that appears online at the EU's website.

Temporal Dependence (Spline Variables)
Finally, I control for temporal dependence using the technique of Beck, Katz, and Tucker (1998). I construct a different set of four spline variables for each of the dependent variables constructed for the study. The splines are interpolated from the dummy matrix of lags between conflict dyad years using a Stata batch file created by Tucker (1999).

Notes
1 United States Marines replaced British and Canadian troops on Iceland in July 1941 (Fairchild, 1990).
2 The joint Anglo-French expedition involved securing northern Norway and Sweden, putatively to aid Finland in its fight against the USSR. In fact, the goal was to interdict Swedish iron ore bound for Germany. When the two Scandinavian countries flatly refused Allied assistance, the British and French cabinets authorized a landing in force. The RussoFinnish war ended before operations could begin (Kersaudy, 1990: 13–36). The Allies returned to an invasion of the Scandinavian peninsula in March, 1940. The preparatory mining of Norwegian coastal waters by British warships and operation Westerübung, the German invasion of Norway and Denmark, began virtually simultaneously (Kersaudy, 1990: 51–63). Joint democratic conflict was averted only by political vacillation.
3 There is an obvious overlap between Fascist ideology and material expediency. Alan Cassels quotes Hitler: “If we speak of soil in Europe today, we can primarily have in mind only Russia and her vassal border states” (2003: 233). Weinberg contrasts Lebensraum with the prevailing westward migration of the German population (1994: 44). Hitler wanted open steppes and farmers while his population wanted factory jobs and a walk-up flat in the Ruhr Valley.
4 “During the autumn of 1939 Hitler repeatedly expressed the view that Germany had no reason to intervene in the affairs of northern Europe or on the Norwegian coast and that the maintenance of the status quo was the best alternative” (Häikiö, 1983: 62).
5 A number of European states declared themselves neutral at the beginning of the Second World War. Of these, only five managed to avoid occupation or direct involvement in the conflict (Ireland, Portugal, Spain, Sweden, and Switzerland). Of these, three (Ireland, Portugal, and Spain) were effectively on the periphery of military operations. The remaining two were surrounded by Axis forces, and were also industrialized.
6 Invading Sweden would have allowed German forces to avoid exposure to the British Royal Navy. Sweden was not well defended in 1940, and the terrain in the South would sustain blitzkrieg tactics. Hägglöf (1960) notes that the iron mines and hydroelectric power plants in the north could quickly be destroyed. Hägglöf also argues that Sweden's security during this period lay in Hitler’s preoccupation elsewhere, though he then establishes precisely the opposite: “When one would have expected [Hitler] to be wholly concentrated on the situation on the Russian front, he spent hours pondering about the possibility of an Allied landing on the Norwegian coast” (1960: 163).
7 Liberman (1996) stresses that ruthless occupiers can turn a profit but he fails to recognize or demonstrate that conquest must exceed profits from trade (not just be profitable) to be preferred.
8 “Since it was virtually certain that at some point some nation would mobilize for some cause, it was only a matter of time before a general war broke out, for it required only one mobilization by a major power” (Kissinger, 1994: 203).
Early statistical tests cast doubt on an association between development and conflict (Richardson, 1960; East and Gregg, 1967; Maoz and Russett, 1992). However, these studies ignore the contrasting effects of motive and opportunity (Boehmer and Sobek, 2005; Gartzke, 2004). Rich states project power abroad but seldom fight their neighbors.

There are exceptions to this logic but they cloud the present discussion without significant additional benefit.

Logit is used when the variable that one is trying to explain is dichotomous; that is, the variable can take on only two values, as in “dispute” or “not dispute”.

Previous unpublished studies that examine the effect of the Index of Economic Freedom on Conflict include Gartzke (2000b) and Barbieri (2004). Barbieri (2004) offers a monadic statistical model and is more critical of liberal peace arguments. Gartzke (2000b) examines the interaction of states through the use of dyads as the unit-of-analysis.

Technically, statistical analysis never leads to the acceptance of hypotheses, only to the rejection of alternatives. Temporal coverage is limited by available data. For additional details, please see the appendix.

I also adjust the estimated standard errors for clustering in the units (in this case, states).

The logit estimator equals the sum of values on the independent variables, each weighted by its coefficient, divided by one plus the same value. This creates a sigmoidal (“s” shaped) function asymptotic at zero and one and monotonic in the values of the independent variables.

It is widely, but not universally, accepted in international relations that democracies are no less warlike in general; see Rousseau et al. (1996). The fact that the space occupied by the confidence interval increases from left to right in Figure 2.2 indicates heteroskedasticity. There is a relationship between the value of the explanatory variable (democracy) and uncertainty about the estimate. Something more complex is occurring that has not been fully captured by the Democracy Score variable in the model. Indeed, the democratic peace is a claim about a special “dyadic” interaction, implying that the line should slope downward only among democracies. See Russett (1993), Russett and Oneal (2001). Elsewhere, I challenge the democratic peace, arguing that common interests and/or economic variables associated with capitalism explain the lack of warfare among liberal states. See Gartzke, 1997, 2000a, 2005.

I omit one dummy variable (the Pacific Island countries) to avoid creating a dummy variable trap. A dummy variable trap occurs when the matrix of dummy variables can take on more values than exist empirically. If I included Pacific Island countries as a dichotomous regional variable, then a value of zero for all of the regional variables would represent a fictional “none of the above,” rather than some actual region of the world. Since comparisons are relational, the coefficients for all of the regional dummy variables would then be inaccurate.

A dummy variable that coded the presence or absence of any form of alliance produced equivalent results.

References


The relationship between peace and economic freedom makes sense. A certain level of peace and stability is necessary before markets can develop and grow. According to the findings of the Global Peace Index, in low-peace environments, the factors that matter the most are related to well-functioning government [and] low levels of corruption. The Index of Economic Freedom recognizes this by including a number of factors related to the rule of law such as an honest, functional judicial system in its methodology. Peace sets the stage for economic progress, and economic freedom ensures the continuing growth in prosperity essential for enduring social stability. The Daily Signal depends on the support of readers like you. Donate now. Moreover, economic freedom and prosperity contribute to the avoidance of civil war. Better still: Economic freedom does not only promote economic growth and prosperity among those nations where people enjoy economic freedom, but the economic freedom of rich countries provides poor countries with the advantages of backwardness and catch-up opportunities. Capitalist peace theory evolves. It has been suggested that the pacifying impact of trade rests on the expectation that trade, or access to resources and markets, will continue. This suggestion requires a new look at economic sanctions, too. By Index of Economic Freedom measures economic freedom of 186 countries based on trade freedom, business freedom, investment freedom, and property rights. The positive impact of economic freedom in building prosperity and reducing poverty has never been clearer. For twenty-five years, the Index of Economic Freedom has measured the impact of liberty and free markets around the globe, and the 2019 Index confirms the formidable positive relationship between economic freedom and progress. Read more about the Index.