

# **FDI Peace: Which “capitalism” leads to more peace among dyads?**

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### **Abstract**

This paper builds off of Gartzke's *Capitalist Peace* to analyze which component of "capitalism" is the real determinant of peace among dyads. By controlling for FDI, capital openness, trade, portfolio investment, and equity investments *simultaneously*, it finds that capital openness and FDI, not trade or portfolio investment, make dyads significantly more peaceful. This finding supports Brooks' *Producing Security*, which argues that a new type of "globalization" and capitalism are the underlying causes of peaceful relationships since the end of WWII.

## **Introduction**

Liberal peace has undoubtedly been one of the most contested, yet statistically robust, findings of the international relations field. In its simplest form, the liberal peace thesis can be stated as: the simultaneous existence of economic interdependence, republicanism, and a federation of interdependent republics [that] will create the basis of a perpetual peace (Kant 1795). Currently, a large research body uses measures of democracy, bilateral IGO memberships, and bilateral trade to show that these variables taken together greatly reduce the odds of military disputes between two countries, or what are commonly referred to in the literature as dyads (O'Neal and Russett 1999).

For the purposes of OEF, liberal peace research carries with it important implications. The three pillars of society outlined by OEF, namely, the civil, commercial, and political societies, partly coincide with the three legs of Kantian peace. Democracy and economic interdependence represent much of OEF's vision of society. The civil society, omitted by Kant, is crucial for good governance in OEF's framework. This paper tests the two pillars that overlap in both the Kantian and OEF models of peace, while leaving the civil society leg for future research. The importance of economic interdependence and democracy for peace supports OEF's understanding that we cannot have a violence-free world without the incorporation of peaceful norms, interests, and institutions.

The empirically robust finding that democracy and economic interdependence increase the odds of peace has been contested heavily on theoretical grounds by several international relations scholars. The two main explanations, normative and institutional effects of democracy, are challenged with the fact that democracies do fight non-democracies as much as, if not more than, other non-democracies (Rosato 2003; Layne 1994). For this reason, proponents of the liberal peace theory have been trying to build theories that account for this discrepancy (Bueno de Mesquita et al. 1999, among others). Others have turned to the notion of domestic "audience costs" to account for democracies' pacific behavior (Fearon 1997). However, this approach has also been contested by studies finding that autocracies may also suffer from audience costs (Weeks 2008). Overall, the general impression that liberal peace theory has left on the international relations field is not very positive: it is perceived as an empirical regularity in search of a theory rather than vice versa.

Moreover, a recent analysis by Gartzke (2007) highlights that even the empirical robustness of the liberal peace is subject to question. Introducing the concept of "capitalist peace", Gartzke highlights the changing nature of "economic interdependence" of the post-WWII era. Instead of measuring the economic leg of the liberal peace with bilateral trade, Gartzke emphasizes that the new capitalism is more than just trade. After all, before the world wars, trade levels were comparable to the past decade, yet this did not prevent the rise of animosity among states. What makes democracies more peaceful, Gartzke argues, is the fact that their economic interdependence is based on financial openness. Free movement of capital and investment across borders is the new characteristic of the current globalization peacefulness. By introducing

financial openness to his models, Gartzke finds that it is not democracy but capitalism (defined as financial openness), which explains the liberal peace.

Taking off from Gartzke's idea, this paper attempts to clarify what "capitalism" refers to and what is the underlying causal mechanism behind the capitalist peace. More specifically, I argue that capitalism or financial openness is too vague of a concept to sustain a theory of capitalist peace. Financial openness is actually an index constructed by the International Monetary Fund (IMF), including "eight types of government restrictions on foreign exchange, current, and capital accounts" (Gartzke and Li 2003). This index might conflate, or ignore, the potentially different impacts of portfolio investment, foreign direct investment (FDI), equity investment, or private capital flows. Instead, I use FDI and portfolio investment, the two major components of financial openness, separately to assess which one is the dominant contributor to peace.<sup>1</sup> The results show that FDI and capital openness, not portfolio investment or trade, engender the peaceful atmosphere that many states have enjoyed in the post-WW2 era.

Therefore, the peace we are experiencing may partly be attributed to FDI. Brooks (2005) established the theoretical basis for this finding, in his influential book *Producing Security*. Calling the new capitalism the "globalization of production", Brooks points out that it is not trade, but international division of labor, which characterizes the new era. The security that comes with it is due to changes in capabilities *and* incentives of the actors in the international system. FDI reduces the incentive to wage war because it reduces the economic benefits of conquest. This way, Brooks emphasizes that capabilities are only part of the explanation of war and peace, and that intentions also have a large impact on international decision making.

Brooks' theory largely explains the finding that FDI is the main economic determinant of post-WWII peace. However, he argues that FDI has a unique impact among developed countries, making them peaceful, but this effect bypasses developing countries, which compete for FDI and hence FDI makes them *more* warlike. This paper empirically shows that this is not the case: taking the Middle East as a test case, a region where many expect the most militarized disputes, I show that FDI reduces the odds of conflict. The choice of Middle East as a case was motivated by Gartzke's consistent findings that militarized disputes happen at a relatively high rate in the Middle East. Yet, Gartzke never investigated the effects of FDI upon the Middle East, and my finding that FDI significantly reduces the odds of conflict indicates that, contra Brooks, such investment improves the odds of peace globally, not just for developed countries.

My final finding is that introducing FDI does not make democracy significant; similar to Gartzke's finding that capital openness made democracy insignificant. Nevertheless, this finding is not robust to different specifications. If we use Przeworski's measure of democracy as a dummy variable (i.e. a state is either a democracy, or it is not), having two democracies in the dyad makes democracy significant again. Having one democracy in the dyad, on the other hand, does not decrease the odds of militarized disputes, another finding consistent with the literature.

The following sections of the paper explain in detail the above theories and findings. Part II outlines the theory and existing literature regarding liberal peace. More specifically, the literature review first outlines the large body of research on democratic peace. Then, I explain the

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<sup>1</sup> The financial openness index used by Gartzke also includes measures of barriers to capital raised by a state. This index does not measure economic interdependence in the liberal peace context: What we are trying to measure is economic interconnectedness, and not a country's receptiveness towards capital. This is why I use financial openness as a control variable and not as a measure of economic interdependence.

criticisms of the democratic peace including the capitalist peace argument and conclude the section by explaining the theory behind FDI as a potential driving force for peace. Part III outlines the data sources and reveals the results, while Part IV assesses the special case of Middle East and its relationship with FDI. Part V concludes with policy recommendations and further avenues for research.

## Theory and Literature Review

### **Democratic Peace**

Before looking at the literature on liberal peace, it will be useful to define how scholars use this term in different papers. Liberal peace is an umbrella term that comprises the democratic and capitalist, normative and institutional explanations of peace. The terms liberal peace and democratic peace have been used interchangeably in the literature by international relations scholars; yet, liberal peace includes democracy, among other variables, as a factor leading to peace (Doyle 2005). Conversely, capitalist peace refers to economic factors and their role in mitigating militarized disputes (Gartzke 2007). Normative explanations include respect and trust for other liberal countries (Maoz and Russett 1993), whereas institutional explanations refer to the underlying institutional structures of democracies (or liberal states) that have conflict-reducing effects (Buono de Mesquita et al. 1999).

All these explanations are essentially subcategories of the larger liberal peace theory. For instance, Owen posits that liberals believe “that individuals everywhere are fundamentally the same, and are best off pursuing self-preservation and material well-being” (Owen 1994). This liberal belief comprises the democratic, normative, institutional, and capitalist elements of liberal peace. Therefore, I use the term liberal peace as an all-encompassing liberal explanation for peace as opposed to realist, or constructivist explanations. Democratic, capitalist, and other variants of liberal peace refer to those specific factors creating the peace they take their name from, all the while controlling for the other legs of liberal peace. We can now turn to the extant research on these phenomena.

Liberal peace literature goes back at least to the Enlightenment. For the purposes of this paper, I start with the 1980s since this is when empirical and scientific studies on the subject began.<sup>2</sup> In 1983, Rummel initiated the debate by pointing out the regularity of peace among democracies. Doyle extended this idea to Kant’s *Perpetual Peace* argument by incorporating the three legs of peaceful existence into his theory. For liberal peace to emerge, Doyle posits, we need to have the three liberal conditions simultaneously: republican representation, an ideological commitment to human rights, and transnational interdependence. In this conceptualization, Doyle inserts the normative aspect of democratic peace to the equation (Doyle 1986). This is slightly different than what Kant envisioned or what Russett and O’Neal test: trade, democracy and intergovernmental organization membership (Kant 1795; Russett and O’Neal 2001).

This distinction brings us to a major divide between theories of liberal peace: institutional vs. normative explanations. The normative explanation outlined by Doyle suggests that democracies treat other democracies with trust and respect, and therefore do not get involved in military disputes with them. This logic has attracted several criticisms, especially from realist scholars

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<sup>2</sup> For a larger review, see Chan 1997 and Gartzke 2007.

(Layne 1994; Rosato 2003). Specifically, the critiques argue that if democracies had the norm of trust and respect, they would not discriminate against non-democracies and show the same trust and respect to them.<sup>3</sup> However, we know for a fact that this is not the case, because democracies do fight non-democracies frequently. If democracies or liberal states had the norm of respect and trust, it would apply to all other actors equally, and not to selected ones like other liberal states, according to the critiques. Given the definition of norms above, however, democracies can be conceived as regimes that respect and trust other democracies because they believe that the other side has the same values, and it will reciprocate. Therefore, even though they are hard to measure, normative explanations can still be useful in the explanation of democratic peace.

Perhaps unconvinced by the above explanation, democratic peace theorists also put forward institutional characteristics of democracies as promoters of peace. The fact that wars are costly and voters can punish leaders who go to war may be one avenue of preventing democracies from warlike activities (Schultz 2001). However, if wars were too costly to fight, this should have applied to wars against non-democracies as well, which is not the case. Schultz offers other explanations such as the opposition parties' roles in overcoming the asymmetric information problem (Schultz 1998; Schultz 1999). Opposition parties, by supporting or opposing war, reveal more information about the intentions and resolve of a given state. Because wars are largely an artifact of informational asymmetries, democracies can overcome this problem by credibly signaling their resolve (Fearon 1995).

Another institutional explanation comes from Bueno de Mesquita et al. (1999) and their selectorate theory. The authors posit that the larger the winning coalition (the amount of support that a leader needs to stay in power), the more the state will invest effort to win a war. Since democracies have larger winning coalitions than autocracies (which use their resources to buy off a certain part of the society's support, and hence have less resources to wage a successful war), they do not wage war with other democracies that demonstrate similarly high levels of resolve. Consequently, democracies are less attractive as targets, which explains why they go to war less against each other (Bueno de Mesquita et al. 1999).

This theory, although more plausible than those before it, assumes that democracies will have higher resolve and designate more resources to war-making capacity. Because it is hard, if not impossible, to measure resolve, this explanation of the liberal peace seems to be resting on a rather big assumption. Moreover, as Clark and Stone point out, their measure of the winning coalition is a subset of the polity measure of democracy. In this case, we cannot know whether it is the institution of democracy or the support for the winning coalition that causes the pacific results (Clark and Stone 2008). These objections notwithstanding, the credible signaling of resolve by democracies remains a common theme explaining the peacefulness of democracies in the liberal peace literature.

The final mainstream institutional explanation of liberal peace comes from Fearon, who argues that domestic audience costs compel democratic leaders to think twice before they act aggressively (Fearon 1994). The fact that democratic leaders will be held accountable for their actions makes their international threats more credible. At the bargaining table, then, democracies can more credibly convey their point of no return, leaving no reason for other democracies to go to war given close-to-perfect information. Once a democratic leader

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<sup>3</sup> A norm can be defined as "a standard of appropriate behavior for actors with a given identity" (Finnemore and Sikkink 1998).

announces the limits of his concessions, he gets locked into that word due to the high costs he will incur if he backs off. Hence, democracies signal their resolve more credibly than non-democracies thereby overcoming commitment problems (Fearon 1995). Obviously, an intuitive criticism of this approach is the assumption that autocracies have lower audience costs. This assumption is challenged by Weeks, who finds that single-party dictatorships might have equally high audience costs as democracies, and they have more to lose personally (i.e. exile or death) if they lose a war (Fearon 2008).

## **Critiques of Democratic Peace**

In addition to these arguments supporting and challenging the normative and institutional basis of the democratic peace, there are other studies that outright refuse to accept a potential relationship between democracy and peace. Peceny et al., for instance, finds that authoritarian regimes do not fight each other as well, especially if they are personalistic dictatorships (Peceny et al. 2002). Farber and Gowa challenge the notion that democracies do not fight by effectively erasing the empirical effect of democracy when they introduce interests as a variable to their models (Farber and Gowa 1997). Similarly, Gartzke shows that capitalism, not democracy, is the main reason why a certain group of states do not fight (Gartzke 2007). These challenges, taken together, pose significant difficulties for democratic peace theorists.

Moreover, in today's understanding, Kant's arguments are tested with different concepts than those he originally envisioned. The first leg of the Kantian peace, the consent of the governed, is approximated with democracy in current research. This choice does not appear to be highly problematic. Dahl defines democracy's fundamental principle as the right of each person in the community to have his interests given equal consideration as others' interests (Dahl 2000). Therefore, democracy today is a good approximation to what Kant meant by republicanism in 1795.

The second leg of the liberal peace is more problematic to transfer to modernity. Early democratic peace theorists interpreted Kant's economic interdependence as bilateral trade (Maoz and Russett 1992; Russett and O'Neal 2001; among others). Gartzke rightly criticizes this interpretation by pointing out that high levels of trade did not prevent WWI and trade is not necessarily the main underlying characteristic of financial interdependence (Gartzke 2007). By "capitalism", Gartzke refers to financial openness. His measure adequately represents, according to Gartzke, the economic globalization and mutual self-interest outlined by Kant. The following section will present reservations with regards to this measure of capitalism.

## **FDI Peace**

This paper takes issue with Gartzke's measure of economic interdependence. The existence of capital controls, or the lack thereof, is not a good measure of economic interdependence among states because capital and investment always find ways around barriers. States with high levels of capital controls may receive and send capital to the point where they can be greatly interdependent with the rest of the world. Likewise, states with low levels of capital controls may receive very low levels of capital and investment, making them not at all interdependent with the rest of the world.

Kant envisioned a world in which governments' attitude towards dependencies, not capital, made states pacific. Therefore, a better way to measure the second leg of liberal peace is to

control for the different types of investments that states exchange: FDI and portfolio investment. This does not mean that we should not also include the measure of trade and capital controls in the model. They might indeed be relevant for peaceful relations within dyads.

Theoretically, using different measures of actual interdependencies is more meaningful than only looking at capital controls. Moreover, the purpose of this paper is to test for what *kind* of capitalism is the driving factor for peace. For this aim, I will control for trade, capital controls, FDI and portfolio investment simultaneously to overcome the omitted variable bias and find what it is about capitalism that makes certain states more peaceful towards one another.

Furthermore, I argue that large levels of FDI create more interdependence across states because it is less mobile, longer term, and more entrenched. Meanwhile, portfolio investment moves faster in and out of countries, sometimes in a matter of minutes, whereas FDI's average length of stay would be measured in years (Wee 2000). In addition, FDI supports Brooks' theory of security through economic interdependence more accurately because the economic benefits of conquest are largely overridden through FDI. Even the slightest fear of militarized conflict can make a state lose a large portion of FDI to others. This is a cost that leaders simply do not want to pay. Therefore, I argue that FDI, and not portfolio investment, will have a significant effect on the odds of peace.

A final consideration in my model is that intergovernmental organization membership, which is largely used in the democratic peace literature as a proxy for "federation of republics" (Russett and O'Neal 2001), is non-existent in this article. The reason for this is straightforward: IGO membership does not capture the Kantian understanding of federation well enough. What Kant really envisioned was a true federation, far deeper in terms of integration than the IGOs of today. Because we do not have a similar structure to date, it is impossible and unnecessary to control for it. Moreover, most studies of liberal peace find that IGO membership is barely, if at all, significant (O'Neal and Russett 1999, Russett and O'Neal 2001, Dorussen and Ward 2008).

Some authors, such as Gartzke, tried to circumvent this problem by creating other measures such as "affinity". This refers to dyadic United Nations General Assembly voting behavior. Gartzke explains the introduction of this measure in the following way: the federation of republics envisioned by Kant refers to an agreed-upon, pacific international body. IGOs of today hardly qualify Kantian federations. Instead, the use of "interests", measured by the similar voting patterns within those organizations, is a better proxy for a pacific federation that promotes commerce and wealth. According to Gartzke, Kant's federation should consist of states that share compatible or identical interests. By looking at the closeness of voting behavior in the U.N., instead of mere membership, he aims to capture this idea better (Gartzke 2007).

Similar voting patterns in the U.N. offer an interesting way of looking at parallel state behavior. However, we do not know what exactly "affinity" measures. Is it interests, or norms? Is it capturing the manipulative power of industrial countries? It is not clear what this measure represents with regards to strategic state interactions. Moreover, U.N. voting should not be conceived as a lump-sum category of behavior. Rather, the issue at hand may largely determine the voting patterns of states. Therefore, I remain agnostic regarding the meaning of this variable and introduce it in some of the models as a robustness check. Even though "affinity" is significant most of the time, it does not change the results of this paper with regards to democracy or FDI. Further research is needed to unpack affinity and its significance.

Given the above caveats and measurement issues, this paper answers the following question: which aspect of capitalism contributes to lower levels of militarized disputes among states? This question differentiates itself from previous research, which mostly focused on democracy or used unsatisfactory measures of economic interdependence. By including disaggregated and more meaningful measures of economic interactions in the model, I show that it is not trade or portfolio investment, but FDI and capital openness that operate as the features of capitalism driving peaceful relations.<sup>4</sup>

### **Data, Hypotheses and Results**

The dataset used in this paper comes from Gartzke and his systematic merging of different datasets regarding liberal peace.<sup>5</sup> For brevity, I present information on the variables that I use in my main models in Table 1 (see below). Table 1 includes the expected effects of these independent variables on the dependent variable.

Several of the independent variables in Gartzke's study only incorporate the lower score of the two possible scores within a dyad. Consistent with previous literature, then, I use the lower of the two scores for FDI, GDP, democracy, trade dependency, financial openness, and portfolio investment. This practice is widespread among scholars because by taking the lower score of both into account, it sets up a lower threshold for these measures. In a sense, if the lower value passes the test, the higher value would pass it as well; hence using the lower score represents a more robust test of the hypotheses.

Next, I outline the estimation method used to reveal the relationships between the variables. The dataset used is binary, time-series, and cross-sectional (BTSCS). Because the dependent variable is binary, I use a logit model with temporal splines. Following Beck, Katz and Tucker (1998), I control for time dependencies with temporal spline variables. This way, autocorrelation across time is taken into account, removing a temporal bias in the estimates.

Before moving on to the results, I briefly discuss the causal mechanisms behind the expected effects of independent variables outlined in Table 1. Democracy (high and low) is expected to reduce the likelihood of militarized interstate disputes (MIDs) because of the institutional, normative, and rational factors mentioned in detail in the literature review. Trade dependency (low), financial openness (low), portfolio investment (low), and FDI (low) are the economic variables; all of which are expected to reduce the likelihood of MIDs if they are significant, albeit at different rates, again, for the reasons outlined in the liberal peace literature. The remaining variables represent the controls largely used in realist analysis. Contiguity and

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<sup>4</sup> Before moving on to the quantitative analysis, it is important to note that Gartzke does state that he controls for FDI in his robustness checks, but he does not report the results of that model. In his log file published on his website, <http://dss.ucsd.edu/~egartzke/>, he reports the model including FDI. However, since he uses this model as a robustness check, he does not include portfolio investment and capital openness in the control variables. Hence, his test does not represent a full examination of the economic forces that might be at work. As much as his FDI model is useful as a robustness check for his initial models, it does not fully grasp what is being tested, which is the impact of different economic interdependence measures on peace *simultaneously*. Gartzke tries to answer a different question, mainly the impact of "capitalism" on peace and on the significance of democracy. I take his research one step further and ask what aspect of "capitalism" is at work. The results of my research will have serious policy implications for states that wish to promote peace around the world.

<sup>5</sup> I would like to thank Prof. Gartzke for his generosity in sharing his dataset, log file and replication material. Details about measurement and variable constructions can be found in Gartzke 2007. Different specifications within these models, and alternative measures of the main variables can be presented as robustness checks and further information on those can be presented upon request.

distance are important factors that physically make it harder, if not impossible, for some states to attack others. On the other hand, major powers are expected to be involved in more disputes due to their special standing in the system. GDP per capita as a measure of 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” (Gartzke 2007). Wealth gives these states the ability to fight those they would be unable to otherwise. Overall, the effects of development on MIDs are hypothesized to be negative due to decreased benefits from conquest. Alliances and capability ratios are also expected to reduce MIDs because allied states are less likely to fight each other; and the more capabilities are disproportionate within a dyad, the less likely those states will attack each other. It is reasonable to posit that Libya is less likely to attack the U.S. than China. Finally, third and fourth party refers to alliances outside the dyad. Since alliance ties extend conflicts to more parties they are expected to increase the likelihood of MIDs.

Keeping these expectations in mind, the preliminary results of the quantitative analysis are presented in Table 2. Model 1 tests the effects of the different aspects of capitalism on militarized disputes simultaneously, while it also controls for the other variables put forward in the literature. Similar to Gartzke, democracy, both low and high, are insignificant with regards to disputes. This finding is different from the large majority of the literature, which suggests that democracy is one of the main factors leading to peace among states. However, remember that the measure of democracy is not added or multiplied, but put in the model separately in Gartzke’s conceptualization. In Models 5 and 6, I remove those distinct democracy measures and introduce Joint Democracy instead, the multiplicative term for the polity scores in a dyad. There, as expected, joint democracy significantly reduces the odds of militarized disputes.

However, trade remains insignificant throughout the models, whether it is measured separately as the lowest or highest of the scores in a dyad; or as Joint Trade, the product of multiplying the two states’ trade scores. When we include the other components of capitalism into the equation, such as FDI and capital openness, trade loses its significance for peace. This evidence suggests that it is important to disaggregate the “capitalism” factor. It also shows that trade and portfolio investments are not as important for peace as they have been portrayed. This finding is in line with Brooks, who suggests that we are in an era of new globalization and that the economic interdependence through FDI makes the benefits from conquest lower than before (Brooks 2005). Trade does not have the same effect as FDI because conquest gives access to primary goods, which can be traded. Conversely, invasion or war scares FDI out, which makes occupation less beneficial. These opposite effects of trade and FDI show that the former does not improve peaceful relations between states, but the latter does, significantly.

**Table 1: Variable Sources, Descriptions and Expected Impacts**

<b>variables</b>	<b>source</b>	<b>measurement</b>	<b>expected effect</b>
<b>militarized disputes</b>	Maoz	“1” for the initial year of a MID in the dyad and “0” otherwise	dependent variable
<b>democracy (low)</b>	Polity IV	$[(\text{DEMOC}_i - \text{AUTOC}_i) + 10]/2$ (lower of dyadic scores)	-
<b>democracy (high)</b>	Polity IV	$[(\text{DEMOC}_i - \text{AUTOC}_i) + 10]/2$ (higher of dyadic scores)	-
<b>trade dependency (low)</b>	Oneal and Russett	bilateral trade/GDP (lower of dyadic scores)	-
<b>financial openness (low)</b>	AREAER, IMF	index of financial openness (lower of dyadic scores)	-
<b>FDI (low)</b>	IMF	gross FDI/GDPppp (lower of dyadic scores)	-
<b>portfolio investment (low)</b>	IMF	portfolio investment, percent of GDPppp (lower of dyadic scores)	-
<b>GDP per capita (low)</b>	IMF	log of gross domestic product per capita (lower of dyadic scores)	-
<b>contiguity</b>	Gartzke	dyads sharing a land border or separated by less than 150 miles of water	-
<b>distance</b>	Gartzke	natural logarithm of the great circle distance between national capitals	-
<b>major power</b>	Gartzke	“1” if at least one state in a dyad is one of the 5 major powers	+
<b>alliance</b>	Correlates of War (COW)	presence of a defense pact, neutrality pact, or entente in the dyad	-
<b>capability ratio</b>	COW	log of the ratio of the stronger state’s COW capabilities index to that of the weaker dyadic state	-
<b>third party</b>	COW	“1” if one state in the dyad has an alliance with a third-party state that engaged in a dispute in the current or previous year	+
<b>fourth party</b>	COW	“1” if each state in the dyad has an opposing alliance with states that engaged in a dispute in the current or previous year	+

On the other hand, portfolio investment offers no effect on militarized disputes but capital openness significantly increases the odds of peace. Capital openness can be seen as the degree to which a government restricts portfolio investment; the more open a state, the more likely it is to receive portfolio investment. Suspecting multicollinearity between these two variables, I ran a correlation coefficients matrix:

	<b>Capital Openness</b>	<b>Portfolio Investment</b>
Capital Openness	1.0000	
Portfolio Investment	0.3368	1.0000

The two variables are correlated as expected, but not as much as necessary to make it compelling to not include them in the same model. Instead, the above table shows that, even if states close their capital borders, they might receive portfolio investment and even when they do not close them, they might not receive any. In an unreported logistic regression table, the exclusion of capital openness makes portfolio investment significant, but in every model that includes capital openness, portfolio investment falls short of having a significant effect. Therefore, it is interesting to note that capital openness operates as a better indicator of peace between two states. If a state blocks the citizens of another state from entering its markets, it is more likely to be in military disputes with that state, regardless of the portfolio investment it receives. Rather than a measure of economic interdependence, then, capital openness acts as an indicator of the intentions of a state, at least regarding economic interdependence, and at most signaling international hostility.

Lastly, the other variables used as controls follow their expected directions. GDP per capita, contiguity, major powers and fourth parties increase the likelihood of militarized disputes. Alliances are insignificant, corroborating the findings of previous research. Distance reduces the odds of conflict. Affinity, for what it is worth, significantly makes dyads more peaceful. Given these controls, FDI remains significant at the 5% level.

### **Hope for the Middle East?**

In addition to illuminating the role of FDI in engendering peace in general, this section shows that, even in a war-prone region like the Middle East, FDI can be beneficial for lowering militarized interstate disputes. This important finding contradicts Brooks, who claims that FDI brings stability and peace to the developed world, but it lowers the odds of peace in the developing world (Brooks 2005).

In line with Brooks' argument, Saddam Hussein, in his plan to invade Kuwait, likely believed that his country (or himself) would benefit from this conquest tremendously because he would own the resources in the acquired state and be able to sell them to the world. According to Brooks' logic, even though Hussein's plans did not work, the point is that he could have benefited from invasion without a foreign intervention, just like other states in the developing world.

I disagree with this line of thought on two grounds. First, it is not true that the developing world, including the Middle East, is devoid of FDI and its pacifying effects. Several countries in the Middle East (i.e. Turkey, Lebanon, Israel, Jordan and Saudi Arabia) receive high levels of FDI and are keen to keep these investments within their borders. Therefore, conquest does not

pay as much as Brooks predicts, *even for less developed countries*, because it might lead to the loss of the FDI already within their borders.

**Table 2: Preliminary Results**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	MIDs	MIDs	MIDs	MIDs	MIDs	MIDs
Democracy (low)	-0.0595	-0.0419	-0.0618	-0.0603		
	(0.0405)	(0.0399)	(0.0396)	(0.0401)		
Democracy (high)	0.0478	0.00335	0.0489	0.0487		
	(0.0386)	(0.0422)	(0.0380)	(0.0377)		
Trade (low)	-9.733	4.811				
	(32.97)	(32.53)				
Capital Openness (low)	-0.217***	-0.211***	-0.226***	-0.232***	-0.253***	-0.268***
	(0.0800)	(0.0799)	(0.0727)	(0.0741)	(0.0771)	(0.0875)
Portfolio Investment (low)	-0.0200	-0.0402	-0.0216			
	(0.0506)	(0.0561)	(0.0501)			
FDI (low)	-0.822**	-0.807*	-0.846*	-0.857**	-0.868**	-0.984**
	(0.417)	(0.418)	(0.441)	(0.434)	(0.440)	(0.441)
ln GDP/capita	0.328*	0.288	0.313**	0.286*	0.354**	0.319**
	(0.169)	(0.177)	(0.158)	(0.157)	(0.142)	(0.146)
Contiguity	2.304***	2.486***	2.300***	2.304***	2.366***	2.389***
	(0.324)	(0.302)	(0.327)	(0.326)	(0.329)	(0.345)
ln Distance	-0.442***	-0.351**	-0.434***	-0.432***	-0.412***	-0.401***
	(0.124)	(0.139)	(0.119)	(0.118)	(0.118)	(0.124)
Major Powers	1.989***	1.417***	1.989***	1.993***	2.019***	2.018***
	(0.292)	(0.316)	(0.292)	(0.292)	(0.300)	(0.311)
Allies	0.341	0.522*	0.328	0.329	0.364	0.286
	(0.281)	(0.285)	(0.272)	(0.272)	(0.259)	(0.264)
Third Parties	0.310	0.282	0.312	0.314	0.281	0.327
	(0.242)	(0.259)	(0.242)	(0.241)	(0.231)	(0.233)
Fourth Parties	0.702***	0.506**	0.703***	0.706***	0.702***	0.772***
	(0.233)	(0.254)	(0.234)	(0.233)	(0.242)	(0.249)
Capability Ratio (low)	-9.071	4.109	-10.67	-10.26	-12.04	-15.39
	(10.33)	(8.849)	(9.125)	(9.018)	(8.891)	(9.603)
Joint Democracy					-0.00411**	-0.00373**
					(0.00171)	(0.00184)
Joint Trade						93.33
						(134.5)
Affinity		-0.928***				
		(0.278)				
Constant	-3.325**	2.836*	-3.241**	-3.078**	-3.560**	-3.281**
	(1.456)	(1.549)	(1.429)	(1.484)	(1.435)	(1.473)
Observations	75840	74518	75840	75840	76749	74039

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Second, most developing countries lack the capital to bring their economy up themselves, so they need as much FDI as they can get. FDI is less likely (but not completely unlikely) to go to politically unstable places, let alone places with militarized disputes. Therefore, the need for FDI makes these states more pacific. Given these two understandings, I hypothesize that the interaction of the Middle East and FDI will yield positive results for peace.

To assess the relationship between FDI and the Middle East, I ran a logistic regression solely including the variables pertaining to the above hypothesis. I left the other variables out because they may confound the direct relationship between FDI and the Middle East. The results are reported in Table 3.

**Table 3: Peace in the Middle East<sup>6</sup>**

Variables	MIDs
<b>FDI</b>	-0.821***
	(0.313)
<b>Middle East</b>	2.689***
	(0.288)
<b>FDI*Middle East</b>	-1.443
	(1.041)
<b>Constant</b>	-3.620***
	(0.233)
<b>Observations</b>	107703

Robust standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

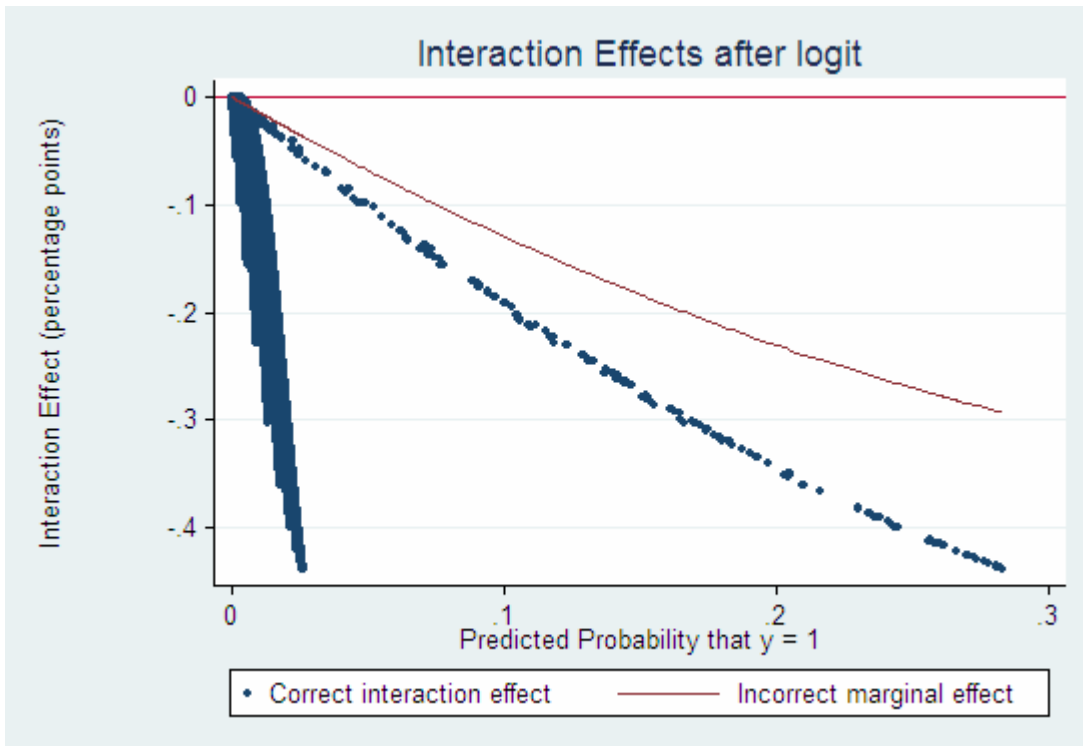
Interaction terms in logistic models create additional problems for the calculation of interaction effects. Thanks to the Stata `inteff` command developed by Norton et al., we can easily assess whether the effect of the interaction between FDI and the Middle East is significant and has the right direction (Norton et al. 2004):

Variable	Obs	Mean	Std. Dev.	Min	Max
ie	107703	-.0359052	.0806935	-.4383046	.0009511
se	107703	.0177084	.0392968	2.33e-08	.2257092
z	107703	-1.923143	.8172586	-5.558239	1.047229

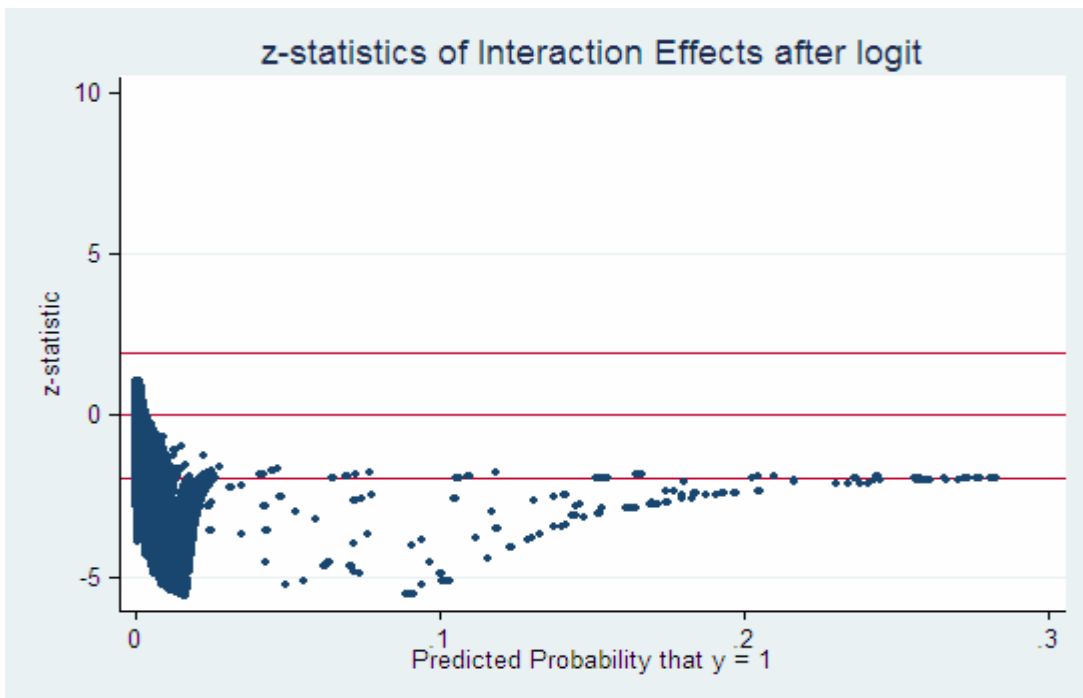
The mean z score of the interaction effect is -1.92. Using the Z table, the cumulative probability score is 0.027429. Therefore, we can reject the null hypothesis that the interaction effect is not statistically different from zero. In other words, the interaction between the Middle East and FDI is significant and negative: FDI in the Middle East reduces the odds of militarized disputes. The below graphs show the effects of the interaction on the dependent variable.

<sup>6</sup> The spline variables were added to the model, but they were omitted from the table to save space.

**Graph 1: Interaction Effects between FDI and the Middle East**



**Graph 2: The Calculated Z Statistic of the Interaction between FDI and the ME**



These results show that FDI can be a pacifying factor not only for the developed world but also for the developing world. It might be objected that we need to disaggregate the Middle East,

look for specific country effects like Israel and add more variables to see if the interaction effects hold. All these objections are valid and will be the subject of future research. So far, however, these preliminary findings have serious policy implications, which will be outlined in the conclusion in detail.

### **Concluding Remarks and Future Research**

The literature on liberal peace has matured tremendously over the last 20 years. Yet, explanations remain to be made and hypotheses to be tested. This study was an attempt to further identify the causal mechanisms behind the liberal peace, particularly by including FDI in the models along with other types of investment. The results are encouraging, pointing to the existence of an FDI peace: the more investment states receive and send to each other, the less likely they are to be involved in militarized disputes with each other.

Interstate war is the main dependent variable in the field of international relations. However, to call states more peaceful, we must take civil wars and social conflicts into account as well. These other components of peace and conflict should be the subject of future research on the effects of FDI. Moreover, OEF's third pillar of society, civil society, should be introduced into the models as it has been one of the major guarantors of peace within a state's borders, and hence it is expected to have an impact on interstate peace.

Finally, an interesting conundrum emerges when we find that FDI has an impact on peace. The other, more studied leg of liberal peace theory, democratic peace, has been the major motivation behind American foreign policy of the last decade. Bringing democracy to less developed countries, it is believed, will make these places more peaceful. There are serious objections to the validity of this proposition, and the literature has focused on this debate for a long time.

However, the policy implications of the democratic peace proved very unsuccessful in the real world. The attempt to bring "democracy" to countries that have no democratic experience or institutions has been disastrous for American interests as well as for those countries. The fact that it is very hard, if not impossible to make states democratic overnight has not attracted enough emphasis in the academia. Hence, democratic peace theory largely has ignored its applicability problem to the real world.

The same is not true for a "FDI peace". It is perfectly plausible to bring investment to the countries distraught by instability. It will take some economic incentives, perhaps even subsidies for the governments to assure investors that they will make a profit. However, the cost of these incentives will be much lower than the cost of establishing a "democratic" order. Once a sound economic order is established, then democracy may become a more viable option. After all, Milton Friedman pointed out that, "History suggests that capitalism is a necessary condition for political freedom".

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