

REGIONAL FREE TRADE INSTITUTIONS AND FOREIGN CAPITAL  
INVESTMENT: THE MULTILATERAL ADVANTAGE

by

Gregory Douglas Davis, Jr.

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## ABSTRACT

Preferential trade institutions (PTIs) are the primary subject of the three empirical chapters. The first two chapters consider the relationship between the multi-state market formed when bordering states share membership in a PTI and foreign direct investment (FDI). The first focuses on the relationship between these institutions and FDI inflows, while the second considers the effect these institutions have on multinational profitability. The final empirical model examines the relationship between democratic institutions and PTI membership.

Regional PTIs increase the local market size and attract higher FDI inflows. The New Economic Geography (NEG) provides the theoretical framework for evaluating the spatial distribution of foreign capital within a multi-state market. A fixed-effects cross-sectional time series regression examines one hundred nine states from 1980 to 2005. Multilateral PTIs are more likely to attract FDI inflows than a series of bilateral agreements. These spatial benefits are highly concentrated in states with the strongest regional economy.

Regional PTIs improve multinational investment return for companies located in the multi-state market by increasing the local market size. The NEG provides the theoretical paradigm to assess the relationship between U.S. FDI profitability and multi-state markets. A panel-corrected standard error cross-sectional time series regression assesses this relationship for forty states from 1990 to 2004. The findings show that membership within a regional multi-state trade institution does not increase the

profitability of foreign investment. Only FDI located in core states within the multi-state market will see increased returns.

Democracies have specific institutional qualities that make them more likely to join PTIs. Three empirical models evaluate one hundred sixty-seven states from 1960 to 2004. The models examine whether democracies are more likely to have membership in a PTI, whether pairs of democracies are more likely to share membership in a PTI, and whether democracies are likely to have more PTI state partners. Democracies are more likely to have membership in a PTI and have more state partners. These numbers hold for bilateral and overall PTIs, but authoritarian states have more partners in multilateral institutions.

## CHAPTER 1: “UNION GIVES STRENGTH”<sup>1</sup>

Three stand-alone empirical chapters examine preferential trade institutions (PTIs) as an independent or dependent variable. A multi-state regional market is formed when two or more states sharing a land border become members in a PTI. The opening chapters consider the relationship between these markets formed through PTIs and foreign direct investment (FDI). The first considers how multinational direct investment corresponds to these multi-state markets. The second is related and examines how U.S. multinational firms earn higher returns in these multi-state markets. The final empirical chapter analyzes the relationship between democratic institutions and membership in a PTI.

Trade institutions are normally associated with changes in the movement of goods between states, but these agreements also attract higher capital investment from companies originating outside the preferential trade area. These institutions remove tariff barriers or grant other preferential access to allow businesses operating in one state to freely access potential clients in neighboring states. This local market expansion attracts more foreign investment to the region than any individual state could achieve on its own. While preferential trade institutions attract capital investment, an important dimension of this relationship is the spatial distribution of FDI within the multi-state market.

The capital inflows are not evenly distributed within the region but are concentrated in areas where the local market is most developed. The states lacking pockets of concentrated economic activity will receive less foreign investment because

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<sup>1</sup> This is the moral of Aesop's (1797) “Old Man and His Sons” (pg 153).

firms will be able to access their market by moving to cities in bordering countries. Regional trade institutions will attract more foreign capital to the states that already possess greater business infrastructure than their domestic market could attract on its own. Free trade institutions have a positive effect on overall foreign capital inflows into a region, but the uneven distribution will concentrate investment into specific areas. Another term for this spatial concentration of capital within a market is agglomeration.

The chapters examining FDI rely heavily on the New Economic Geography (NEG) developed by Paul Krugman and Anthony Venables. Their theory introduces spatial assumptions into traditional neoclassical models to account for the geographic concentration of industrial sectors. Agglomeration emerges because potential capital returns are not geographically constant in a market. Transportation costs and labor availability make it more profitable to locate capital in a large consumption market. Also, as a market size increases, industrial location becomes more geographically concentrated.

The NEG has two important consequences for the research presented in this dissertation. First, investment inflows correspond not only to a state's domestic market size, but also to the multi-state market created through preferential trade institutions among bordering states. Second, the distribution of foreign capital within this multi-state market is likely to be highly concentrated rather than equally dispersed. Since FDI inflows respond to a geographically contiguous multi-state market, focusing on individual states alone is inadequate and potentially misleading.

The third empirical chapter is unrelated to the previous two and considers the relationship between democratic institutions and membership in preferential trade institutions. States with liberal governmental structures are more likely to seek membership within a PTI because of the flexibility in domestic institutions that provide legislatures with the ability to offer credible commitments and to lock-in policies that will be difficult to overturn in the future. Democratic states are also able to provide some protection to vulnerable sectors that otherwise would suffer negative economic consequences because of the new competition arising from PTIs. Democratic states are not equally responsive to all elements within the local economy. Influential donors ensure legislative compliance with their policy preferences by threatening to use their power to help a competitor win an upcoming election. Businesses have the strongest domestic authority on trade matters and are able to create strong incentives for legislatures to vote in accordance with business interests. These enterprises desire state membership in free trade institutions. For these reasons, democratic states are more likely to have membership in preferential trade institutions than authoritarian states.

#### 1.1 “Beware Lest You Lose Substance by Grasping at a Shadow.”<sup>2</sup>

Is knowledge of a state’s relative position in the global economy sufficient to explain the capital inflows it receives? The first two empirical chapters examine the impact preferential trade institutions between bordering states have on capital flows. A contiguous multi-state market changes the local economic environment as these

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<sup>2</sup> This quote comes from Aesop’s (1797) parable “Dog and the Water” (pg 4).



institutions grant enterprises operating within a member state preferential access to local state markets. Since an individual state is only a small member of this larger market, its domestic attributes represent only a portion of the larger multi-state market. This means that models including only the domestic attributes exclude portions of the market available to firms operating in their borders.

Traditionally, the empirical models examining the relationship between political institutions and foreign direct investment take a pool of states and use global variation in specific domestic variables to explain the capital flows. This body of research employs states as the unit-of-analysis, but does not consider a country's relative position in the global economy to be solely determinative of investment flows. However, I use the same model and add variables to represent the contiguous multi-state market. In addition to including the normal domestic political and economic characteristics, this study includes a contextual variable that represents the presence of a multi-state preferential trade market with contiguous states. Trade institutions linking states to their contiguous neighbors create a multi-state market where firms operating within the area gain preferential access to consumers in these surrounding countries. There are two measurements included in this analysis: the size of the contiguous multi-state market and the presence of cores within the multi-state market. The addition of these variables provides a means to assess whether preferential trade institutions have a spatially constant effect on capital or if this effect varies by state.

This dissertation outlines three research projects related to the relationship between regional free trade institutions and global capital. The first study considers the

impact these agreements have on foreign direct investment (FDI) location and the second project examines the effect free trade agreements have on investment profitability. The final empirical chapter examines the relationship between democratic institutions and membership in trade institutions outside the WTO framework. This dissertation uses the New Economic Geography as tool to reveal to spatial changes in the international political economy that are brought about through international agreements between states in one region and the impact these agreements have on international investment location.

## 1.2 Chapter Overview

This dissertation features three stand-alone empirical chapters that immediately follow this introduction. There are no transitions between chapters and there is no comprehensive conclusion that attempts to link these studies. Each chapter contains its own introduction, empirical analysis, and conclusion. There is no linkage between chapters and, therefore, the order in which they appear is arbitrary. Each chapter is a separate whole that can be read independently.

Chapter two contains the first empirical study and considers the relationship between regional preferential trade institutions and foreign direct investment inflows. As the regional market expands, FDI inflows should increase. This chapter examines whether all members of the multi-state market receive additional capital inflows and if some states benefit more than others. A cross-sectional time-series fixed-effects regression examines this for one hundred nine states from 1980 to 2002. The dependent variable is FDI inflows and the two main independent variables are regional market size

and regional core. The regional market size includes all states sharing a land border that have signed a free trade agreement with the observed state. The first theoretically important independent variable is regional market size and it is calculated by adding the GDP for all states that share a land border and are linked through preferential trade agreements. The second theoretically relevant independent variable assesses the presence of state cores within the region. State possessing cores export their product to areas that lack the good or service. This core variable is calculated by dividing a state's export volume by the preferential regional market's total export volume. The core measurement reports the portion of the multi-state market's exports for each state. The findings provide evidence for a positive relationship between regional PTIs and FDI inflows. They also indicate that simple membership in a preferential trade institution with a neighboring state does not automatically increase the inflows a state receives. A state's relative exports, compared to other states in the multi-state market, provide a better indicator of the new capital inflows it will receive. Core states benefit more than other states within the regional market. This provides evidence that the relationship between contiguous PTIs and FDI is not spatially constant in a multi-state market.

The third chapter contains the second empirical study and is similar to the previous chapter in that it examines one reason why capital investment corresponds to the contiguous multi-state market rather than individual countries. If multinational enterprises invest into a regional market to access clients in all member states, then it should be more profitable than similar investment located in states lacking preferential agreements. The second empirical chapter focuses on the relationship between regional

preferential trade institutions and the return on investment for U.S. firms operating within multi-state markets. A cross-sectional time-series regression with panel-corrected standard errors examines forty states from 1990 to 2002. The dependent variable is return on assets for U.S. multinational corporations and is reported by the U.S. Bureau of Economic Analysis. This variable is calculated by dividing the annual investment return by the value of assets that the company reports to the U.S. Department of Commerce. This analysis is done for all U.S. owned FDI and a second model considers manufacturing capital. The main independent variables are the regional preferential trade institution market size and the relative core presence centers within the multi-state market. The size measurement is the sum of the GDP for contiguous states sharing membership in a contiguous PTI. The core measures the percentage of the multi-state markets total exports that originate in the observed state's domestic borders. The findings show no evidence that simple membership in a regional PTI increases the profitability for U.S. enterprises operating there. The core is positive and significant for overall and manufacturing FDI. This provides evidence that the relationship is positive but varies spatially within the multi-state market.

The fourth and final chapter contains the third empirical model and considers the relationship between democratic governance and membership in preferential trade institutions. Democracies are more likely to join trade institutions because of characteristics in their governing structure that provide a greater openness to other states. There are three relationships directly examined in this chapter: (i) do democratic states gain membership in at least one preferential trade institution at higher rates than

authoritarian countries?; (ii) are pairs of democratic states more likely to share membership in trade institutions than other pairs of states?; (iii) do democracies have more partners sharing membership in preferential trade institution than other states? The chapter uses three empirical models that separately examine one of these relationships. Each model considers one hundred sixty-three states from 1960 to 2004. The first model examines whether democratic states gain membership in at least one PTI at greater rates than authoritarian states. Simple descriptive statistics and logit analysis show that democratic states are positively related to membership in preferential trade institutions. There is an important qualification in that after 1990 authoritarian states have greater membership rates in multilateral institutions. Democratic states maintained greater rates in bilateral and overall institutions for the entire timeframe.

The second model in this chapter examines whether democratic dyads are more likely than other pairs of states to share membership in the same preferential trade institution. A weakest link approach is used so that the dyad takes the lowest democracy score from the two states. The descriptive statistics and a logit analysis show that pairs of democratic countries are more likely to share membership in a bilateral or a multilateral PTI until 1980. After this time, authoritarian state pairs are more likely to share membership in a multilateral institution. Democratic dyads are more likely to share membership in bilateral trade institutions for the entire timeframe.

The third model examines whether democracies have a greater number of states sharing membership with them in preferential trade institutions. A simple comparison of the average number of state partners for democracies and all states is combined with

Poisson regression analysis to assess this relationship. Democratic institutions make a state more likely to have a greater number of bilateral trade partners for the entire timeframe. Authoritarian regimes have a greater number of multilateral preferential trade partners from 1990 until 2004. However, democratic states enjoy a greater number of overall partners when both multilateral and bilateral trade institutions are included in the analysis.

The three models in this chapter provide qualified support linking democratic institutions to increased likelihood of membership in a preferential trade institution.

## CHAPTER 2: REGIONAL PREFERENTIAL TRADE INSTITUTIONS AND FOREIGN DIRECT INVESTMENT: THE MULTILATERAL ADVANTAGE

While much contemporary scholarship focuses on the relationship between domestic political institutions and foreign direct investment (FDI)<sup>3</sup>, regional preferential trade institutions may be equally important to states seeking to attract international capital. A wide range of studies address the domestic political structures and policies that serve to attract FDI. This body of research assumes that each state has an equal likelihood of receiving capital inflows and that domestic institutional variation alone explains global capital flows. One problem with these approaches is that the decision to invest is neither solely domestic nor made on a global scale, but may be impacted by the regional environment created by preferential trade institutions. The decision to form geographic markets that include several countries plays an important role in a state's ability to attract foreign direct investment and may be as important as domestic institutions for states with small domestic markets. This study does not contest that domestic factors are the primary features determining whether a state receives foreign investment, but contends that regional free trade institutions can serve as an additional factor that will bring higher capital inflows than the domestic market would otherwise attract. This study considers bilateral and multilateral regional free trade agreements to assess the impact these institutions have on a state's ability to attract higher foreign direct investment inflows.

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<sup>3</sup> These studies are addressed in the following section.

A state may engage in domestic institutional reform to improve the investment climate, but policy changes cannot immediately increase the local market size. A state may have all the institutions and offer extensive property rights protection, but the domestic market may be too small to attract the desired level of multinational investment. Regional free trade institutions do not change the local market size, but they nonetheless increase the number of customers that local businesses can reach without tariff barriers. These institutions reduce risks to firms wishing to relocate in the region by protecting market access across state borders. The region benefits overall and attracts higher foreign capital investments than individual states could attract on their own.

This study empirically examines the relationship between regional trade institutions and foreign direct investment inflows using cross-sectional time-series analysis. One hundred nine states are considered from 1980 to 2005 with a fixed-effects model using political, economic, and natural resource control variables. The two main independent variables are regional preferential-trade market size and the presence of cores within the multi-country market. The results indicate that FDI inflows are positively related to the multilateral regional free trade markets, but bilateral agreements and core trade areas do not bring additional capital into a region.

## 2.1 Institutions and International Capital Investment Flows

Several scholars have considered the relationship between domestic liberal institutions and foreign direct investment and have demonstrated its positive impact. Democratic states possess the characteristics that multinational enterprises search for in



selecting potential investment locations, specifically property rights protection and rule-of-law (Olson 1993). When all states are considered, democratic states attract higher capital inflows than authoritarian countries (Jensen 2003, 2006; Oneal 1994). This relationship holds for all developing states (Jakobsen 2006; Jakobsen and de Soysa 2006) but not in all regions (Oneal 1994) or for emerging market states that do not strengthen property rights protection (Li and Resnick 2003). Weak democratic states can still attract higher investment inflows when a federal legal system is in place because this creates an additional veto player to limit potential policy changes (Jensen and McGillivray 2005). Democratic states indirectly work to bring about social conditions that facilitate economic growth and higher foreign capital inflows (Oliva and Rivera-Baitz 2002). These studies support the positive relationship between democratic institutions and foreign capital investment.

While there is a literature assessing the relationship between domestic institutions and international direct capital flows, there are few studies that examine the impact international institutions have on capital movement. This empirical study will contribute to this literature by assessing the relationship regional trade institutions have on capital investment.

## 2.2 Regional Free Trade Institutions and International Capital Movement

While free trade institutions have traditionally been applied to the exchange of goods, states are explicitly recognizing that the formation of regional markets can allow them to increase or maintain foreign capital investment. ASEAN states, for example,

chose not to form a regional free trade area when the benefits were limited to the exchange of goods alone; AFTA was formed only after states understood the connection between regional trade market and foreign direct investment (Arnold 2006; Bowles 1997). Similarly, Vietnam is seeking to join regional trade institutions to attract foreign capital and make this investment more profitable for firms locating there (Nguyen and Ezaki 2005). Regional free trade agreements also provide states with a means to signal to multinational firms that their government wishes to deepen its commitment to liberal economic policies (Schuler and Brown 1999). It is clear that now some states are intentionally forming regional free trade institutions to attract new or maintain existing foreign capital investment.

Firms make direct investment in international markets for multiple reasons; the effect regional free trade institutions have on FDI flows will be considered in this study. The advantages to investing must outweigh the benefits a firm receives from accessing markets through trade (Dunning 1977), since the move to a foreign market increases risks and creates difficulties a firm would not face operating in its home market. Free trade institutions attract foreign capital investment into a region because the potential clients the firm can secure access to increase the possible returns to investment. Multinational firms usually have technological advantages over domestic firms and this allows them to achieve higher profit margins (Aliber 1970). Although potential risks of operating in a foreign environment remain, the benefits are greater and more firms consider the region as a profitable investment location. Multinational firms also have lower overhead costs because some organizational functions can be managed from the home office; this allows

foreign firms to enter the domestic market with lower start-up costs than potential new domestic businesses and likewise increase their profit margin over indigenous firms (Dunning 1977). At the same time, multinational firms are able to overcome their limited knowledge of the foreign economy by relying on efficiency advantages. Technological knowledge allows foreign firms to securely invest in markets where other strategic disadvantages exist.

Multinational firms may invest capital into multiple regions for strategic reasons; establishing production centers in all major regional markets is a good way to reduce protectionist risks, decrease exposure to currency devaluation, locate manufacturing centers close to consumers (Florida and Kenney 1992; Mair et al. 1988), and prevent potential rivals from emerging (Hymer 1976). Economic formal models show that the creation of regional free trade agreements causes outside firms to move production capital into the multi-state market (Motta and Norman 1996). Competition, in fact, requires firms to establish production centers in multiple markets (Grubaugh 1987) and the largest multinational enterprises have already done so (Chase 2005). Historical evidence in support of this theory can be found in the flow of U.S. capital investment to Central American states: after the formation of the CACM in 1961, in fact, U.S. FDI flows to the region doubled (Nye 1972). Establishing a physical presence in multiple geographic areas provides firms with the ability to place capital where it can secure access to markets and reduce exposure to risk arising from protectionism.

Democratic institutions can increase the likelihood that states will receive higher foreign direct investment inflows, but political factors alone are not enough to attract

firms. The domestic market size, the state's overall GDP, is the most important economic factor in attracting foreign capital investment because it is the only attribute consistently positive and significant across multiple empirical studies (Chakrabarti 2001). Merely being open to capital or strengthening property rights protection are not individually sufficient to attract foreign direct investment unless positive economic factors are also present (Agosin and Machado 2007). States simultaneously need to possess a specific configuration of political and economic qualities in order to attract foreign capital (Coughlin and Segev 2000). The local market size is the most important factor in location decisions for multinational firms (Markusen 1998) but states are powerless to increase their domestic economy in the short-term. Establishing regional free trade institutions provides states with a way to increase the potential clients local businesses can reach. These additional customers may provide states with a benefit similar to a larger domestic market and allow local firms to increase their production scale while simultaneously attracting foreign firms that would not invest in the region if the decision to invest only considered the domestic market size.

There is an important distinction between global and regional free trade institutions in regard to global capital movements. A state is not likely to gain additional foreign investment inflows after joining global institutions, such as the WTO, that secure export access to all member markets (Wilkinson and Brouthers 2000). Only firms originating in states that are not WTO members would gain by moving capital to member countries. The global diffusion of WTO membership means that firms would concurrently evaluate the secure access that could be gained through regional institutions.

In other words, there is no strategic advantage to locating within a state that is a WTO member but does not also secure access to a regional market.

**Hypothesis One:** States receive greater foreign direct investment inflows by joining bilateral and multilateral regional free trade institutions.

### 2.3 Core Production Areas and Foreign Capital Movement: New Economic Geography

The New Economic Geography provides a theory that accounts for spatial distribution of firms within the international system. This paradigm combines elements from geography and economics that directly address capital location and movement. This theory directly challenges three neoclassical economic assumptions: (i) zero distance to market, (ii) constant returns, and (iii) perfect competition. Paul Krugman (Fujita et al. 1999; Krugman 1991a, 1991b, 1991c, 1994, 1998; Mansori 2003; Martin and Sunley 1996) presents economic explanations for the highly concentrated spatial distribution of industries operating within the same industrial sector. Helen Milner (1997) has applied the New Economic Geography in a study that links firm's preferences regarding free trade to increasing returns, but this theory has not been applied in other disciplinary studies linked to movement of capital. While the original spatial distribution of industrial sectors may be due to non-economic factors, the expansion of capital into other markets is highly sensitive to the existing production network. Existing enterprises can directly evaluate the potential risks and returns in foreign markets and use this information as a basis to determine where to invest globally.

The New Economic Geography suggests that the movement of capital is fundamentally different from the emergence of new production networks. The location where an industry originates is due to historical factors that do not conform to traditional liberal theories (Krugman 1991a). If the industry is successful, this original location will become a core producer for a wider geographic area. Other investors seeking to provide goods to this market will strategically locate there to enjoy the same supply and distribution network. Once a core has been established, firms locating within the center will have lower start-up costs than other potential locations which may feature lower wages or greater access to supplies (Harris 1954). Once successful industries develop in an area, it becomes a geographic center where other businesses locate to provide all supporting services to the industrial sector and its employees. Peripheral supporting industries emerge around the new core and the labor population adjusts to the production core and these two factors increase the costs for a business to relocate even when more efficient factor endowments are present in other areas. Capital returns are not geographically constant throughout a state or region and production does not disperse as the transportation infrastructure and local market size increase, but sectors become even more spatially concentrated. As production grows, firm income grows faster than costs and these increasing returns make larger firms more competitive than enterprises in smaller markets. Transportation costs also serve to explain regional agglomeration because lower shipping rates allow an even greater geographic area to be served by producers. This increases the production scale, firm size, and geographically centers industrial concentration within a region. The initial spatial distribution of industrial

sectors brings about increasing returns that make relocation costs greater than the cost of physical infrastructure alone.

The best place to locate in a foreign market is in an area where similar enterprises are already present. This provides firms with access to a network of suppliers, experienced employees, and a pre-existing distribution system (Bobonis and Shatz 2007). The original geographic location for a particular manufacturer may be due to non-rational historic events, but as firms seek to guarantee access to new markets by moving capital internationally, they must evaluate the existing industrial concentrations in all possible locations. Although there is some arbitrariness into the initial industrial location, the subsequent capital movement is based on calculations evaluating potential risks and benefits from possible investment locations (Aliber 1970; Dunning 1977). Although the original industrial location may be due to non-rational historic events that do not conform to economic theory, the later capital movement is more predictable as it is based on strategy that seeks to facilitate investment returns.

The New Economic Geography has two important consequences for empirical studies examining the concentration of FDI in the global economy. First, the foreign capital distribution will agglomerate rather than disperse within regions. If a regional market attracts FDI into the region, some states will benefit more than others. The market expansion gained through regional free trade institutions will allow firms operating within the area to increase their production scale, but this also allows foreign businesses to access all local markets while making investments in only one. Since FDI inflows respond to a regional market and are not randomly distributed within all states, focusing

only on individual markets is inadequate and potentially misleading. Unless core production areas are included in empirical models, omitted variable bias is a potential problem.

**Hypothesis Two:** The additional capital investment entering a region will disproportionately go to those states that have the largest existing production center. These states will receive greater capital inflows that would otherwise be predicted by looking at their domestic economy alone.

**Hypothesis Three:** States lacking core production areas will not gain additional foreign capital investment even if they enter into regional free trade agreements.

#### 2.4 Research Design

A fixed-effects cross-sectional time-series regression is used to examine the relationship between regional trade institutions and foreign capital movements. The unit-of-analysis is individual states and the timeframe extends from 1980 to 2005 for one hundred nine states. The time-series regression uses a fixed-effects model to account for similarity in observations for a state across time periods. This strategy is conservative in that it underestimates the factors that do not vary within states over the observed years. A random-effects model is separately employed to confirm that the variables have the same causal direction and significance level.



#### 2.4.1 Dependent Variable

The dependent variable measures the annual FDI inflows in millions of U.S. dollars and is taken from the World Bank's World Development Indicators (2007). This measurement may be negative as it reports the difference between the overall investment inflows and outflows. The FDI inflow measurement is logged. To maintain all cases, it is rescaled by adding the lowest observation, which is rounded-up so that all values are positive, prior to the log transformation.

#### 2.4.2 Independent Variables

The regional market variables are the aggregate gross domestic product sum for all states that have a free trade agreement and share a land border with the home state<sup>4</sup>. When a state gains access to several regional states through a multilateral agreement, the sum includes all states that are geographically linked through land borders. A state may join an existing multilateral regional free institution or sign a separate treaty with group of states without becoming an official member. The first case is aggregated with multilateral trade institutions and the second is included with bilateral trade treaties. There are three regional markets included in this study: bilateral FTAs, multilateral FTAs, and a comprehensive regional market measurement that includes both. All free trade agreements are taken from Denis Medvedev (2006) and the market size

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<sup>4</sup> A land border exists when a bridge connects adjacent states that are otherwise separated by water. This includes the bridge connecting Malaysia to Singapore and Bahrain to Saudi Arabia. Otherwise, all states have a common land border.

measurements are in 2000 constant U.S. dollars and are taken from the World Development Indicators (2007). This measurement is logged.

**Table 2.1:** States Included in Analysis.

Albania	Gabon	Norway
Algeria	Gambia	Oman
Argentina	Georgia	Panama
Armenia	Germany	Paraguay
Austria	Ghana	Peru
Azerbaijan	Greece	Poland
Belarus	Guatemala	Portugal
Belgium	Guinea	Romania
Belize	Guinea-Bissau	Russian Federation
Benin	Guyana	Senegal
Bolivia	Honduras	Slovak Republic
Botswana	Hungary	Slovenia
Brazil	Iceland	South Africa
Bulgaria	Iran	Spain
Burkina Faso	Ireland	Sudan
Cameroon	Israel	Swaziland
Canada	Italy	Sweden
Chile	Jordan	Switzerland
Cape Verde	Kazakhstan	Syria
Chile	Kenya	Tajikistan
China	Kyrgyz Republic	Tanzania
Colombia	Latvia	Togo
Comoros	Lithuania	Trinidad and Tobago
Costa Rica	Luxembourg	Tunisia
Cote d'Ivoire	Macedonia	Turkey
Croatia	Madagascar	Turkmenistan
Czech Republic	Malawi	Uganda
Denmark	Mali	Ukraine
Dominican Republic	Mauritius	United Kingdom
Ecuador	Mexico	United States
Egypt	Moldova	Uruguay
El Salvador	Morocco	Venezuela
Estonia	Mozambique	Yemen
Ethiopia	Netherlands	Zambia
Finland	Nicaragua	Zimbabwe
France	Nigeria	

**Table 2.2:** Descriptive Statistics.

	n	Mean	Standard Deviation	Minimum	Maximum
FDI Inflows	1725	10.5	.23	9.9	12.8
Regional Market	1725	25.1	12.1	0	34.8
Multilateral Regional Market	1725	12.9	7.4	0	20.9
Bilateral Regional Market	1725	6.05	7.8	0	20.1
Regional Core	1725	.025	.09	0	.69
Bilateral Core	1725	.084	.18	0	.97
Multilateral Core	1725	.042	.10	0	.82
Domestic Market	1725	24.2	2.0	19.1	30.0
Development	1725	8.7	1.1	6.26	10.9
Government Institutions	1725	4.3	6.7	-10	10
Trade	1725	.70	.37	.09	3.0
Growth	1725	3.2	4.0	-30.9	19.0
Government Consumption	1725	16.0	5.5	2.98	43.5
Resources	1725	23.7	27.5	.036	100

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**Table 2.3:** Effect of Regional Market Size on FDI Inflows.

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Regional FTA Market			0.00119*	(0.00047)
Bilateral FTA Regional Market	-0.0010			-0.0023*
	(0.00086)			(0.00093)
Multilateral FTA Regional Market		0.0025**		0.0035***
		(0.00086)		(0.00093)
Domestic Market	0.074*	0.023	0.035	0.029
	(0.034)	(0.036)	(0.035)	(0.036)
Development	0.31***	0.34***	0.33***	0.34***
	(0.048)	(0.049)	(0.049)	(0.049)
Government Institutions	-0.0022	-0.0026	-0.0025	-0.0025
	(0.0014)	(0.0014)	(0.0014)	(0.0014)
Trade	0.16***	0.14***	0.14***	0.16***
	(0.029)	(0.029)	(0.029)	(0.029)
Growth	-0.0018	-0.0018	-0.0018	-0.0017
	(0.00096)	(0.00096)	(0.00096)	(0.00096)
Government Consumption	-0.00027	-0.00015	-0.00034	0.00047
	(0.0014)	(0.0013)	(0.0013)	(0.0014)
Resource Dependence	-0.0014***	-0.0015***	-0.0014***	-0.0015***
	(0.00042)	(0.00042)	(0.00042)	(0.00042)
Constant	6.0***	6.9***	6.7***	6.8***
	(0.55)	(0.58)	(0.56)	(0.58)
n	1725	1725	1725	1725

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\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

The second theoretically important independent variable assesses the presence of regional cores within the multi-state market. This variable is generated by dividing a state's export volume by the regional market's total export volume. It reports the relative percentage of the regional market's exports generated by the observed state. The export data is taken from the WDI and the regional free trade institutions are taken from Medvedev (2006). The core measurements are derived from the three regional markets: bilateral, multilateral, and all regional institutions. The core is expected to have a positive relationship with FDI inflows.

The other control variables are development level, domestic market size, natural resources, economic growth, trade importance, government institutions, and government consumption. The local market size is the most important economic control variable and should have a positive relationship with FDI inflows. The market size is the log of GDP in constant 2000 dollars. The development level reports the GDP per capita in constant 2000 dollars purchasing power parity index. Economic growth measures the annual percentage change in the overall GDP from the previous to the observed year. These variables are taken from the 2007 WDI and have an expected positive relationship.

A second type of control accounts for variability in government institutions and the relative importance of public spending in the domestic economy. The Polity IV database measures the relative presence of democratic qualities in a state's institutions and scores states on a scale from -10 to 10. The lowest value represents an authoritarian state and the highest a democracy. The institutional measurement is taken from Gleditsch (2007) and follows the same coding rules as Polity but includes microstates excluded

from the Polity dataset. Previous research (Jensen 2003; Jakobsen 2006; Jakobsen and de Soysa 2006) shows that democratic states attract higher investment inflows than non-democracies and a positive relationship is expected.

The second domestic institutional variable measures the government spending as a percentage of local market size. It is taken from the WDI (2007) and a negative relationship is expected.

The third type of control accounts for the importance of resources in the domestic economy. The resource measurement is the sum fuel and ore exports as a percentage of total exports. The data is taken from the WDI (2007) and a negative relationship is expected.

## 2.5 Results

There is a positive relationship between the economic size of the regional free trade market and FDI inflows, but there is an important distinction between markets generated by bilateral and multilateral institutions. Only institutions that have more than two state members attract higher investment inflows. The market generated through bilateral free trade institutions is negative in all cases and significant when evaluated jointly with the multilateral regional market. The domestic market variable which has previously been the most important indicator in other studies (Chakrabarti 2001) is positive in all cases but significant in only three configurations. This provides evidence that the multinational enterprises evaluate the regional market generated through bilateral investment treaties differently than those created through multilateral agreements. This

supports the idea that multinational corporations consider a wider regional market in direct investment location decisions, but bilateral free trade treaties do not have the same effect.

The local development, trade, and resource dependence control variables are significant in all configurations and take their expected direction. Government consumption, growth, and government institutions are insignificant and negative in all configurations.

When the core variables are added in the models, there is a distinction between the measurement for the overall regional market and the market generated by multilateral or bilateral institutions. The relative concentration of global exports does not have a significant effect on foreign capital inflows in overall regional markets, but it is significant for multilateral and bilateral regional markets. When the core measurement is included for multilateral regional markets it is positive and significant (at the .001 level) and the overall regional market and the multilateral market variables become insignificant. Likewise, when the bilateral core measurement is included, it is negative and significant (at the .01 level) in all models. The overall core regional market is insignificant because it contains both the bilateral and multilateral measures that have contrary effects on FDI inflows. The multilateral core measurement is the most important regional variable for attracting FDI into a state. The regional market is a key factor in attracting foreign capital into a region, but a state's relative exports compared to other states in the region is a better predictor of capital movements.



**Table 2.4:** Effect of Regional Market Size and Core on FDI Inflows.

Regional FTA Market		0.0012** (0.00047)	0.0014** (0.00047)	0.00013 (0.00048)
Multilateral FTA Regional Market	0.0026** (0.00086)			
Overall Regional Core Exporter	0.015 (0.065)	-0.022 (0.066)		
FTA Core Exporter				0.56*** (0.070)
BIT Core Exporter			-0.10** (0.036)	
Domestic Market	0.024 (0.036)	0.033 (0.035)	0.041 (0.035)	0.070* (0.034)
Development	0.34*** (0.049)	0.33*** (0.049)	0.32*** (0.048)	0.27*** (0.048)
Government Institutions	-0.0025 (0.0014)	-0.0026 (0.0014)	-0.0027* (0.0014)	-0.0018 (0.0013)
Trade	0.14*** (0.029)	0.14*** (0.029)	0.15*** (0.029)	0.14*** (0.028)
Growth	-0.0018 (0.00096)	-0.0018 (0.00096)	-0.0017 (0.00096)	-0.0015 (0.00094)
Government Consumption	-0.00015 (0.0013)	-0.00033 (0.0013)	-0.00013 (0.0013)	-0.0000084 (0.0013)
Resource Dependence	-0.0015*** (0.00042)	-0.0014*** (0.00042)	-0.0014*** (0.00042)	-0.0013** (0.00041)
Constant	6.9*** (0.58)	6.8*** (0.57)	6.6*** (0.56)	6.4*** (0.55)
n	1725	1725	1725	1725

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Table 2.4:** Effect of Regional Market Size and Core on FDI Inflows – *Continued.*

Regional FTA Market			
Multilateral FTA Regional Market	0.0012 (0.00086)		0.0013 (0.00086)
Bilateral PTA Regional Market		-.00058 (.00088)	
FTA Core Exporter	0.54*** (0.069)		0.55*** (0.068)
BIT Core Exporter		-.083* (.037)	-0.10** (0.035)
Domestic Market	0.054 (0.035)	.079* (.034)	0.062 (0.035)
Development	0.28*** (0.048)	.30*** (.048)	0.27*** (0.048)
Government Institutions	-0.0019 (0.0013)	-.0024 (.0013)	-0.0021 (0.0013)
Trade	0.14*** (0.028)	.16*** (.029)	0.15*** (0.028)
Growth	-0.0015 (0.00094)	-.0018 (.00096)	-0.0014 (0.00094)
Government Consumption	0.00012 (0.0013)	-.00021 (.0014)	0.00034 (0.0013)
Resource Dependence	-0.0013*** (0.00041)	-.0014*** (.00042)	-0.0013** (0.00041)
Constant	6.7*** (0.56)	5.9*** (.55)	6.5*** (0.57)
n	1725	1725	1725

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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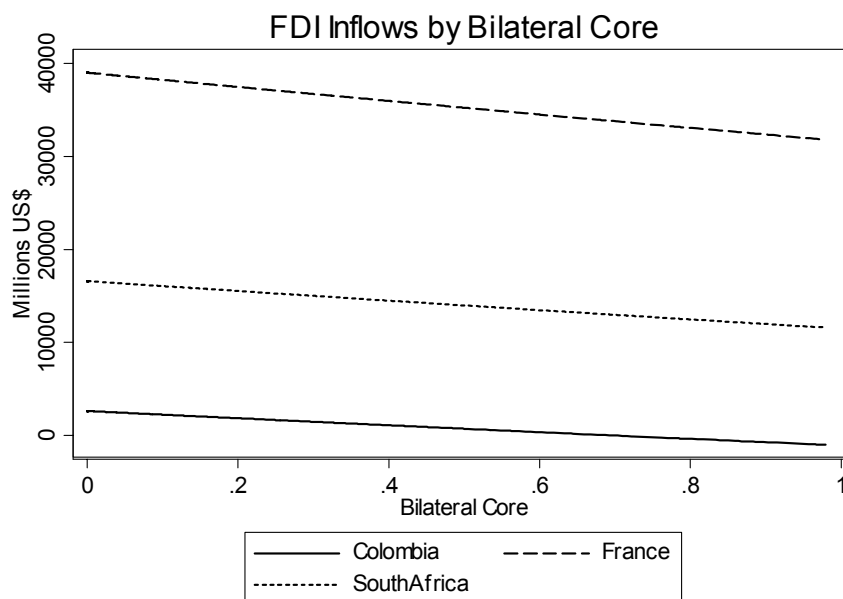
**Table 2.4:** Effect of Regional Market Size and Core on FDI Inflows – *Continued.*

Regional FTA Market		0.00032 (0.00048)
Multilateral FTA Regional Market	.0019* (.00094)	
Bilateral PTA Regional Market	-.0013 (.00093)	
FTA Core Exporter	.54*** (.069)	0.56*** (0.070)
BIT Core Exporter	-.094** (.036)	-0.10** (0.035)
Domestic Market	.065 (.035)	0.076* (0.034)
Development	.28*** (.048)	0.26*** (0.048)
Government Institutions	-.0020 (.0013)	-0.0020 (0.0013)
Trade	.16*** (.028)	0.15*** (0.028)
Growth	-.0014 (.00094)	-0.0014 (0.00094)
Government Consumption	.00067 (.0013)	0.00021 (0.0013)
Resource Dependence	-.0013*** (.00042)	-0.0013** (0.00041)
Constant	6.44*** (.57)	6.3*** (0.55)
n	1725	1725

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

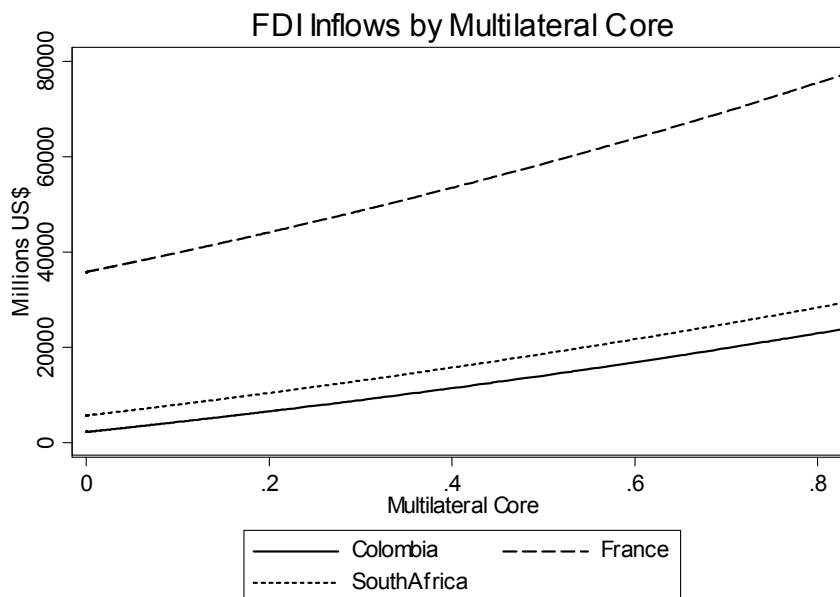
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**Figure 2.1:** Predicted FDI Inflow Changes by Relative Size of Bilateral Core for France, Colombia, and South Africa using 2000 Data.



The annual FDI inflow a state receives is negatively related to the size of its bilateral core. Since the dependent variable uses a log transformation, there is some variation in the scale of how the changing presence of the bilateral core affects investment flows in individual states. One way to illustrate this relationship is to consider three real states, France, Colombia, and South Africa, using 2000 data to see how the expected inflows would change. France would see its FDI inflows decline by 7.19 billion dollars as it increased from the minimum to maximum bilateral core position. South Africa would lose 5.00 billion dollars and Colombia would lose 3.63 billion annual capital inflows. The decline is in the billions of dollars in each case, but France would lose almost twice as much as Colombia. The expected decline in FDI inflows is great for states moving from the minimum to maximum bilateral core position.

**Figure 2.2:** Predicted FDI Inflow Changes by Relative Size of Multilateral Core for France, Colombia, and South Africa using 2000 Data.



The annual FDI inflow a state receives is positively related to its relative multilateral core position. The log transformation of the dependent variable means that the increase in expected FDI inflows varies by state and year. Using the same states and year as in the previous example, we can see the predicted increase for France, Colombia, and South Africa in additional FDI inflows using 2000 data. France would gain an additional 41.2 billion dollars of FDI inflows, South Africa would increase 23.5 billion dollars, and Colombia would increase by 21.5 billion dollars as it moved from the minimum to maximum multilateral core position. A state's relative export volume within its local multi-country market is positively related to the FDI inflows it receives.

Development, trade, and resource dependence all maintain their significance and direction in these configurations. The domestic market is positive but significant only in two models. The domestic environment has some elements that are important predictors

for the overall capital inflows a state receives. The state's per capita income level and relative trade reliance are significant and positive in all configurations. Resource dependence is significant and negative in all models. These three elements have little variation in the parameter estimates and are significant at least at the .01 level in all models. However, the relative government consumption and economic growth are negative and insignificant in all configurations. Democratic institutions are negative and only significant in one configuration. Although the domestic market size becomes unimportant when the multilateral free trade institutions are included in the analysis, the relative development level, the domestic trade level, and overall domestic dependence on natural resources are important factors. This provides some evidence to support the idea that multinational corporations consider a wider regional market in deciding where to make direct capital investment.

## 2.6 Conclusion

There is an important distinction between bilateral and multilateral regional trade institutions and their relationship with FDI inflows. Markets generated through bilateral investment treaties have a negative effect and attract less foreign capital. The relationship is positive when three or more countries create a free or preferential trade institution to form a multi-state market. The resultant multilateral trade institutions attract higher FDI inflows into a region. However, the capital distribution is sensitive to the pre-existing economic environment within the multi-country area. States possessing a production or distribution core within the region will benefit more and receive higher

investment inflows than other countries within the multilateral market. This provides evidence that FDI inflows are sensitive to the pre-existing spatial distribution of industry and transportation networks. Regional free trade institutions may attract additional firms, but the location is subject to increasing returns or path dependent factors that are difficult to change. Free trade institutions are important for states wishing to attract FDI, but this relationship is conditioned by the pre-existing industrial composition within the multi-country market.

Regional institutions attract higher direct capital inflows than individual states could receive individually, but this research provides evidence that it is not only membership within a local common market that increases investment inflows for all states. A state joining neighboring countries to form a common market to attract FDI may have disappointing results even if the overall region benefits. A state's relative economic standing within the region determines how much additional foreign capital it will receive. A state considering membership in a multilateral regional trade agreement should evaluate the relative presence of manufacturing cores within the potential market to see how it will benefit compared to other participating countries.

If direct capital investment is unequally distributed within a regional free trade space, this could place negative pressures on the institutions. The states possessing the strongest manufacturing and distribution networks will gain the most and countries with the greatest need for foreign capital are the least likely to receive new investment. The unequal FDI inflows may increase regional economic inequalities and create pressures within states to dissolve the agreement. A strong institutional framework is necessary to

preserve the agreement when tensions arise and it should have a good dispute settlement mechanism to insure stability and prevent states that benefit less from the agreement from leaving the institution. This question will be addressed at a later time.

Bilateral free trade agreements generating a regional market do not attract higher FDI inflows into a state and may serve to lower actual investment. A state entering a bilateral free trade treaty will give its firms access to the new market, but a wider multi-state market cannot be generated through this web of separate institutional arrangements between states. Multinational firms are likely to evaluate bilateral agreements differently from multilateral institutions because there are fewer benefits in the bilateral setting. Even if a state enters into multiple bilateral free trade agreements with its neighbors, only a firm producing entirely within its borders will have access to all separate state markets. Rules-of-origin requirements prevent the firm from adopting suppliers from firms in regional states because the finished product will only be able to be sold without tariffs in the market where the content limitations are met. This means that firms would have to establish the most of the production network within one state in order to give their products full access to the separate regional markets generated by bilateral institutions. This consequence is so unequally beneficial that the state lacking a strong domestic production network should never enter into an agreement. There are additional impediments that can arise as non-tariff barriers may also complicate the access to regional markets in this setting. The benefits firms receive from bilateral free trade agreements are less than those derived from multilateral institutions.



One problem with existing research is that it assumes that corporations make their investment decisions by solely evaluating the political and economic characteristics of individual states. A typical model includes a pool of states and assesses how variation in one attribute changes FDI inflows. However, this ignores an essential factor that firms evaluate before making their investment decisions: the regional market. Domestic characteristics are fundamental features for understanding international capital flows, but omitting a state's regional trade institutions means ignoring an important factor that may alter the relationship in unforeseen ways. Regional trade institutions increase the local market size and improve the likelihood that a corporation will invest in a state.

The capital distribution within this regional multi-state market will vary according to the relative presence of cores. Multinational enterprises do not respond equally in all member markets and this increase is not spatially constant. These inflows are sensitive to pre-existing differences in the relative market's concentration in member states. This path-dependent relationship should accelerate regional differences and create winners and losers in the competition for global capital.

## CHAPTER 3: REGIONAL FREE TRADE INSTITUTIONS AND MULTINATIONAL INVESTMENT RETURN: AN EXAMINATION OF SPATIAL VARIATION IN POLITICAL INSTITUTIONS

### 3.1 Introduction

New political economy theories use path dependent logic to provide a model that assesses whether an effect attributed to a political institution is geographically constant or varies spatially. Preferential trade institutions among bordering states create a geographically contiguous multi-state market (CMSM) collectively larger than any individual member's market. Firms located within the geographic boundaries of the CMSM become more profitable as they gain tariff-free or preferential access to customers in surrounding states. Foreign firms located within a CMSM should experience the same benefits and become more profitable. There has been little attention on the variance in the spatial effect of political institutions, but new theories observing core and periphery regions within the same market suggest that economic differences between state members of a CMSM are important. These theories account for capital agglomeration by introducing spatial distinctions to explain how potential profitability for firms varies spatially within a market. The New Economic Geography uses increasing returns logic to show that return rates for multinational enterprises should vary spatially within the CMSM.

This chapter examines the relationship between the preferential trade institutions that create CMSM and multinational investment returns using the path-dependent logic

found in the New Economic Geography. If this relationship varies geographically, some firms located within a CMSM will benefit and others will not. An empirical model examines whether all firms become more profitable in the CMSM or only firms in some member states. The findings suggest that changes in multinational profitability vary within the CMSM by relative presence of exports originating from a state. Contiguous preferential trade institutions improve profitability for multinational firms, but only when the investment lies within a state possessing a CMSM economic core.<sup>5</sup>

New political economy theories modify neoclassical assumptions to provide a better empirical framework that allows for more representative models.<sup>6</sup> These approaches address anomalies within traditional thought and introduce new variables that modify conventional models. These theories ultimately continue to adapt neoclassical assumptions, but with important modifications. The New Economic Geography provides a theoretical framework that explains the spatial distribution of capital by illustrating how investment is subject to path-dependent, or increasing-returns, logic and imperfect competition that result in agglomeration. This concentration suggests that the relative cost and potential profit for firms are not geographically constant in a CMSM and some areas will be more profitable than others. The New Economic Geography provides a means to assess how regional trade institutions impact capital returns for foreign firms. The economic and political differences between states within a CMSM are more important than trans-continental or global comparisons because the core and periphery

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<sup>5</sup> While this paper does not address the investment quantity within a state, the focus on multinational profitability provides evidence to explain why capital may be concentrated within certain regions.

<sup>6</sup> Two examples are the Endogenous Growth Theory (Lucas 1988; Romer 1986) and the Strategic Trade Theory (Brander and Spencer 1983). Robert Gilpin (2001) provides a summary of these theories in the fifth chapter of his *Global Political Economy*.

structure within the CMSM determines the relative differences in return rates for individual firms. These trade institutions create multi-state markets, but there are important differences between individual state members that impact multinational corporate profitability. It is not enough to locate within a CMSM to improve investment returns; firms make greater profitability gains when they invest in states with the strongest local markets. The New Economic Geography provides an explanation for how the local market expansion brought about through trade treaties can lead to a greater inequality in the capital inflows to the states within the region. It also clarifies how regional trade institutions increase profit for multinational firms operating in a CMSM, but this increase depends on the relative strength of the state's economy in the CMSM. Multinational profitability increases in the states possessing the strongest domestic economy in the CMSM.

This chapter empirically examines the relationship between regional trade institutions and foreign direct investment profitability using cross-sectional time-series analysis. Forty-eight states are considered from 1990 to 2002 with a panel-corrected standard error regression using political and economic control variables. The dependent variable measures the investment return margins for U.S. multinational direct capital investment abroad. Preferential trade institutions create CMSM and the economic cores in the CMSM are the instruments used to evaluate whether the effect is geographically constant or varies by state.

The empirical findings support the New Economic Geography paradigm and show that multinational profitability varies spatially among individual state markets

within a CMSM. The physical presence within a region does not improve a multinational firm's profitability, but investment in states with strong cores increases return. States possessing the strongest economies within a CMSM will benefit disproportionately and this may serve to accelerate regional inequality, making firms in states containing cores more profitable. Capital in states lacking a CMSM core does not benefit with increased returns through this market expansion. In short, the evidence suggests that regional trade agreements do not increase the profitability of firms located within a CMSM unless these firms are located within a core state. Regional trade institutions do not have a spatially constant effect on improving capital return for foreign firms. These benefits reflect the relative differences in a state's local market within the CMSM and only strengthen firms located within the core.

### 3.2 Multi-state Preferential Markets and Foreign Direct Investment

Theories explaining FDI location use neoclassical assumptions to model the relationship between political institutions and the spatial distribution of international capital. One shortcoming in these paradigms is that the assumptions do not adequately account for space and, therefore, provide poor predictions of capital movement.

Nonetheless, these theories provide a framework from which to evaluate the relationship between CMSM and multinational firm's relative profitability. One model considers differences in marginal returns as the primary factor in investment decisions; this means that firms will only move capital to places where high returns may be secured (Aliber 1970). Another considers the technological and organizational advantages possessed by

multinational enterprises that allow foreign capital to be more competitive than indigenous firms (Dunning 1977). The first theory presents higher returns as a necessary condition to investment and the second suggests that multinational enterprises are able to generate greater profit margins than domestic firms because of their technological and organizational advantages. Firms evaluate their overall position in international markets and spatially adjust their capital to account for market changes. Firms use foreign investment to increase or maximize overall profitability.

Preferential trade institutions among bordering states improve foreign capital return by increasing the area where firms can reliably reach customers. There are two main advantages to firms operating within the expanded geographic market. First, a preferential trade institution increases the consumer base by securing access to adjacent state markets and this should improve local demand. As firms operating within the market gain additional customers from adjacent states their profitability should improve. Profitability should increase as firms have more potential clients and, if tariffs rates decrease, the relative cost of their goods declines in surrounding state markets. To the extent that foreign firms operating in a CMSM can reach customers in adjacent states, their investment return should improve. This should lead to a greater propensity to consume the good and increase profitability. The regional market becomes an increasingly important source for trade between states and this penetration can make foreign markets more important than individual state economies for firms (Hanink and Cromley 2005). The ability to reliably sell goods in adjacent markets should increase the consumption of the good and enlarge the firm's profitability.

Second, the increased market size lets firms become more efficient by expanding their production scale and this allows the good to be produced in greater volumes at lower costs. Firms scale their production to the market where their goods are consumed (Haiwen 2007); growth in the market leads to greater relative output. As a CMSM allows firms to access additional customers, the production scale should expand. If increasing returns are present, the profit generated by the firm will accelerate faster than costs and overall investment return will grow. This suggests that firms operating in the regional market should become more profitable when the market expansion allows them to make efficiency gains in production. Also, firms operating in multiple geographically proximate states can relocate to one center and expand their production scale to further increase profitability by lowering the cost it takes to produce their good.

Several Asian states have explicitly linked the CMSM generated through free trade institutions to multinational investment profitability (Bowles 1997; Bowles and MacLean 1996). Until Asian states perceived the link between a CMSM and direct capital investment, there was not enough political support to create a regional trade institution. The political consensus among East Asian countries emerged after they saw multinational enterprises in their borders move in response to NAFTA. APEC was created explicitly to retain and attract FDI (Bowles 1997). Also, Vietnam has linked its desire to join local trade institutions to create an environment that would make foreign direct investment more profitable (Nguyen and Ezaki 2005). The theoretical framework presented in this section is now being articulated by individual states seeking to draw additional foreign capital.

**Hypothesis One:** Regional free trade institutions increase the profitability of multinational enterprises operating within the multi-state market.

### 3.3 The New Economic Geography: Core Production Areas and Relative Return within a Free Trade Area

Neoclassical models are unable to explain the spatial concentration of capital for industries operating within the same sector. Industrial agglomeration is easy to observe in technology, automotive, and almost every industrial sector in the U.S. (Krugman 1991a). Spatial clustering is a normal feature in the sectors of industries in the U.S. (Porter 1990). The introduction of space to any social science theory requires major adjustments or even the dismissal of ideas that were previously widely-recognized (Harvey 2000). Agglomeration challenges three neoclassical assumptions: constant returns to scale, perfect competition, and zero distance to market. The New Economic Geography provides a theoretical framework that introduces spatial elements into traditional theories and uses history to account for the geographic distribution of capital (Fujita et al. 1999; Krugman 1991a, 1991b, 1991c, 1994, 1998; Mansori 2003; Martin and Sunley 1996;). This theory offers corrections to these three problematic assumptions and incorporates space by introducing a path dependent logic and assuming imperfect competition. The New Economic Geography explains the distribution of capital within states and provides a context to evaluate how trade institutions should affect firms operating within the CMSM. Agglomeration provides evidence that a core and periphery structure exists within a market. It is evident when firms in the same sector concentrate production spatially and produce for a wider geographic consumption area. The



geographic capital distribution produces inequality in the CMSM as it is divided into production and consumption areas. The emergence of cores does not correspond to efficiency in factor endowments, but historic events that led to a particular industry thriving in a specific location. As a production center emerges, supply and distribution firms arise within the area and the relative market size increases. This area eventually becomes a core producer for a wider consumption space. Once a core develops, the return to capital is not constant throughout a CMSM. Firms wishing to enter the same product market will locate within the pre-existing core to take advantage of the peripheral industries already present. Even if surrounding areas may offer better resource endowments or lower wages, new firms will have lower start-up costs by opening in the core (Harris 1954). A firm may locate anywhere in a CMSM to gain access to all its potential clients, but the relative costs and potential returns vary within the market. There are spaces where firms can earn higher profit margins and these areas will attract new industries into the region. Even when more efficient factor endowments are present outside the core, the existence of support and supply industries prevents the firm from moving into these areas. Capital returns are greater in the core areas and improvements in transportation costs and local market growth serve to deepen the agglomeration rather than disperse production (Baldwin and Forslid 2000). The core growth allows firms to increase production faster and the increasing returns make larger manufacturing enterprises more competitive than similar firms operating in the same market. The relative industrial concentration within a market is self-reinforcing and is an example of increasing returns and path dependency (Pierson 2000). Once a core exists within a

region, new capital will locate there and amplify the geographic inequality between the production and consumption spaces within the CMSM.

Preferential trade institutions among geographically contiguous states will increase the spatial inequality within the region as a multinational market emerges. While all firms within a CMSM have the potential to earn higher profits, states containing the production cores will see their firms' profitability grow faster than similar businesses in other areas. The relative presence of cores within a geographic market means that the costs and potential investment returns are unevenly distributed and high profit areas are concentrated within a CMSM. Free trade agreements signed by states sharing a border may increase investment inflows to all member states, but foreign firms located in the core will gain disproportionately over similar businesses in the periphery.

**Hypothesis Two:** Increasing returns will allow states with core production areas to earn higher investment returns than similar industries in states lacking cores.

### 3.4 Strategic Multinational Behavior

One potential objection to the theories linking investment returns to CMSM arises from the idea that firms move capital into these markets for strategic reasons that maximize global return but not the return of specific industries in every area.<sup>7</sup> Foreign direct investment, in this line of thought, is a business strategy that secures the multinational firm's place in specific multi-state markets and provides a competitive

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<sup>7</sup> One could make a similar argument about firms responding to incentive programs that would increase return margins even when the investment uses inferior technological standards than are adopted in other regions. Bruce Blonigen and Val Kolpin (2007) develop a formal model where, firms investing in foreign markets are able to increase profitability even when the social capital level within the state is too low to use the most efficient technology.

advantage to the business even if it achieves lower marginal returns than could be gained through exports alone. One such paradigm comes from the product lifecycle theory, where U.S. firms are at the technological forefront when a product is released and reach foreign markets through exports. Eventually, production knowledge is geographically dispersed and the strategy for U.S. firms is to prevent foreign firms from emerging in their industrial sector (Vernon 1971). According to this thought, firms may invest abroad even if it means earning lower returns than could be accomplished through exporting alone. Once technological knowledge spreads, firms behave strategically to block competitors that would arise and lower their market share.

Other complimentary theories offer similar explanations that link foreign capital investment to strategic activity that may reduce returns in one geographic area to maximize them for the entire firm. These behaviors are defensive maneuvers that seek to maintain global market share by moving capital to block potential rival firms from emerging. Firms wish to insulate their market from competition that otherwise could lower their profit margins (Lall and Streeten 1977). Firms seeking to maintain these advantages that insulate them from market pressures will strategically invest capital in markets that are large enough to produce competitors (Hymer 1976). Even if a firm earns smaller returns in a region, moving into the area allows them to block new enterprises that would otherwise arise once a market grows sufficiently large. There is evidence that the largest multinational firms have some form of presence in every major global market (Chase 2005), but it is unknown whether this movement is to prevent potential competitors or to maximize profits by avoiding tariffs.

These theories indicate that U.S. firms would invest abroad when a market is sufficiently large to allow competing businesses to emerge. Firms would then have to react not only to growth in individual state markets and changes brought about by preferential trade institutions among bordering states. The theories linking CMSM trade institutions and the relative presence of a core to increasing returns remain valid even if investment decisions may be made for strategic reasons. The decision to invest in a region to block potential rivals would still entail some strategic comparison of potential investment locations. A firm will optimally balance risk and return to achieve the highest strategic payoffs, even though the overall investment returns may be lower than what could be gained through trade alone. If this strategic behavior is the primary force behind U.S. multinational direct investment, then regional trade institutions would still have an impact on overall return. While it is important to examine theories that present other scenarios to explain multinational enterprise investment patterns, the basic theories linking CMSM created through preferential trade institutions to return remain valid.

### 3.5 Research Design

This empirical analysis examines the relationship between trade institutions that create a CMSM and investment return for U.S. multinational corporations. A cross-sectional time-series regression with panel-corrected standard errors examines investment return on assets owned by U.S. enterprises from 1990 to 2002. Beck and Katz (1995) recommend this approach to properly estimate standard error measurements for time series analysis that, due to similarity in year-to-year observations, have error terms that

correlate from year to year. If this is unspecified in the panel data analysis, the error terms would be incorrectly estimated. All countries with available data are used. Separate models examine this relationship for all U.S. owned FDI and for all manufacturing FDI. The regression analysis first estimates the effect of the CMSM size on profitability and a second model includes the core variables. This method directly examines whether all firms within the CMSM benefit or only those enterprises located in CMSM core states. This analysis examines the effect of the preferential trade institutions on FDI profitability to see if it is geographically constant or whether it varies spatially by state market.

**Table 3.1:** States Included in Analysis.

Argentina	Germany	Norway
Australia	Greece	Panama
Austria	Guatemala	Peru
Belgium	Honduras	Philippines
Brazil	India	Portugal
Canada	Indonesia	Russian Federation
Chile	Ireland	Saudi Arabia
China	Israel	South Africa
Colombia	Italy	Spain
Costa Rica	Japan	Sweden
Denmark	South Korea	Switzerland
Dominican Republic	Malaysia	Thailand
Ecuador	Mexico	Trinidad
Egypt	Netherlands	Turkey
Finland	New Zealand	UAE
France	Nigeria	Venezuela

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### 3.5.1 Dependent Variable

The dependent variable measures the relative profitability of U.S. multinational enterprises by looking at the total returns a firm receives for its capital investment. The U.S. Treasury Department's Bureau of Economic Analysis publishes the annual asset value and earnings for U.S. multinational firms that meet a minimum investment threshold. The relative return for multinational corporations in each state is the total earnings divided by the total asset value. The measurement is multiplied by one hundred and scaled as a percentage. This provides the amount of investment return for each investment dollar and directly assesses multinational firms' relative profitability within different states. The calculations for return include all global states, even states not otherwise included in this analysis. For example, a 10% return would indicate that firms received \$1 for every \$10 invested.

The Bureau of Economic Analysis provides this data for certain industrial sectors. There are two configurations directly examined in this study: overall investment return and manufacturing return. Overall investment includes asset values and earnings for all U.S. multinational enterprises regardless of sector. The second measurement includes only the values for firms directly engaged in the manufacturing sector.

**Table 3.2:** Descriptive Statistics.

	Observations	Mean	Std Dev	Minimum	Maximum
Total Manufacturing Return	582	19.1	12.4	-50	75
Overall Return	599	18.7	20.7	-55.1	289.7
CMSM	599	2184.0	2829.1	0	11774.5
CMSM Core	599	0.048	0.15	0	0.97
Domestic Market	599	3.6	7.0	0.043	46.7
Development	599	1.4	0.95	0.082	3.5
Government Consumption	599	15.8	5.6	2.9	31.0
Growth	599	3.3	3.7	-14.5	14.2
Trade	599	0.69	0.39	0.12	2.4

### 3.5.2 Independent Variables

The U.S. direct capital inflows enter a foreign state to access its local market as well as the state's CMSM. The CMSM includes the markets of surrounding states where a preferential trade institution provides access to surrounding state members. Contiguous states share a common land border or are connected by a functioning bridge<sup>8</sup> so that goods can be transported by vehicles between the states. A state's CMSM, then, includes the economies of surrounding states that share membership in a free trade institution and have a land border.

There are two types of free trade institutions that are jointly accounted for within this research: bilateral and multilateral institutions. Multilateral institutions include those trade institutions where three or more states provide preferential or free market access to firms located in other member states. Bilateral institutions have two possible

<sup>8</sup> All CMSM's have a land border connecting the member countries with two exceptions. A vehicular bridge connects Malaysia to Singapore and another connects Bahrain to Saudi Arabia. These are the only cases where a common land border does not exist.

arrangements. The first is when a pair of states sharing a common border creates a preferential trade institution. The second is when a state makes an agreement with an existing multilateral CMSM institution but does not become a member of the CMSM. These arrangements have been conducted by the EU, MERCOSUR, and EFTA.<sup>9</sup> If a state is contiguous with only some of the states, such as in the EFTA, the CMSM includes only those states that share a common border. The other states sharing membership in the institution that creates the CMSM are excluded if they do not share a common border.

The CMSM is the extended market size for all states sharing membership in a preferential trade institution with countries that share a land border or are connected through a land bridge. The CMSM size is the sum of gross domestic product for states that meet these conditions. Denis Medvedev (2006) provides a comprehensive list of multilateral and bilateral free trade agreements. The market size is taken from the World Development Indicators (WDI 2007) and is reported in constant 2000 dollars, and is scaled in hundreds of billions of U.S. dollars. A positive relationship is expected.

The second CMSM variable is the presence of cores within the multi-state market. Since it is a state's relative position within the CMSM, rather than in the world, that determines the likelihood of investment inflows and differences in return, this variable is scaled by the CMSM. A state's export volume is compared to other CMSM members to measure the relative core within the CMSM. The core indicator then measures the

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<sup>9</sup> CACM and CARICOM have also made separate preferential trade institutions with individual states that did not gain membership in the multilateral institution. However, none of these agreements were with geographically contiguous states.



relative importance of a state's exports for the greater CMSM economy. The core is configured by dividing a state's annual export volume by the sum of all member exports within the CMSM. The final ratio indicates the portion of the CMSM exports that originates in each state. The rules used to define the CMSM are applied to the core. If a state has multiple bilateral institutions, the core measures the relative exports for the combined CMSM market generated by these separate agreements. The core variable reflects the relative importance of a state's exports within a CMSM, but this does not include areas where trade institutions do not exist. A state with no contiguous preferential trade institutions will have a zero measurement for its CMSM and a zero core exporter measurement. The preferential trade institutions are again taken from Medvedev's (2006) list of preferential trade agreements. The export measurement is in constant 2000 dollars and is taken from the WDI (2007). A positive relationship is expected.

The economic control variables are the domestic market, development, trade, and growth and they are taken from the WDI (2007). The Domestic Market reports a state's annual gross domestic product in 2000 constant dollars and is scaled in hundreds of billions of dollars. Development is a state's annual per capita gross domestic product in constant 2000 dollars and is scaled in tens of thousands of dollars. Trade reports the relative significance of imports and exports to a state's domestic economy. It is calculated by adding the total imports and exports for a state and dividing this total by the gross domestic product. All the variables are scaled in constant 2000 dollars. Economic

Growth measures the annual percentage change in the gross domestic size for an individual state. All the economic control variables have a positive expected relationship.

**Table 3.3:** Overall FDI Return Results.

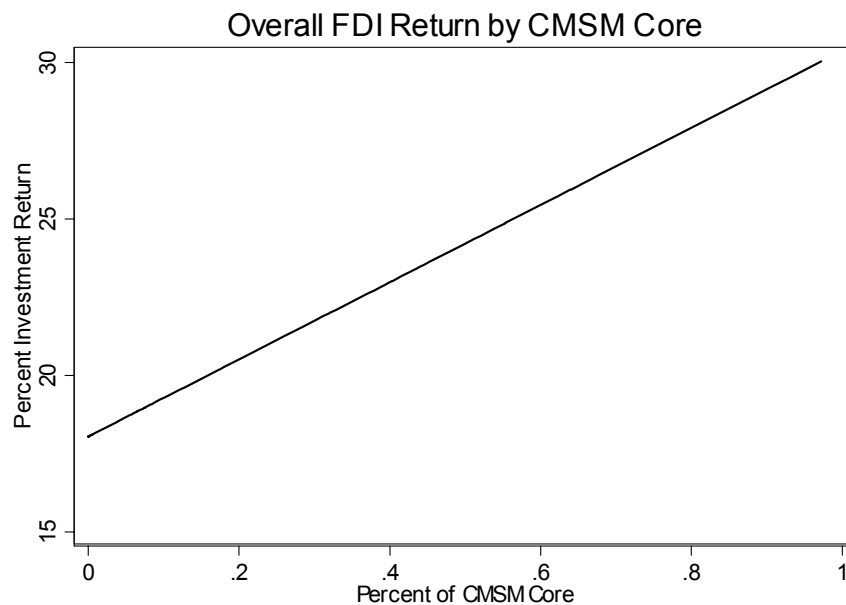
CMSM	-0.00000050 (0.00000106)	0.00000072 (0.0000013)
CMSM Core		0.123** (0.0457)
Domestic Market	-0.000878* (0.000431)	-0.000797 (0.000436)
Development	-0.0267 (0.0177)	-0.0224 (0.0181)
Trade	0.0293 (0.0160)	0.0257 (0.0162)
Economic Growth	0.00373 (0.00196)	0.00412* (0.00191)
Government Consumption	0.000927 (0.00270)	0.000405 (0.00275)
Constant	0.180*** (0.0335)	0.175*** (0.0330)
Observations	599	599

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

The political variable measures the size of the government in the domestic economy. This variable reports Government Consumption as a percentage of the state's

gross domestic product. This measurement is taken from the WDI (2007) and a negative relationship is predicted.

**Figure 3.1:** Predicted Overall Return for CMSM Core When All Control Variables Take Mean Value.



### 3.6 Overall Foreign Direct Investment Regional Market Size Results

A state's relative position in the CMSM is more important than its membership in a preferential trade institution that creates a CMSM. There is a positive, insignificant relationship between CMSM size and multinational return. The core is positive and significant. When states move from the bottom core value to the greatest, their expected return increases by 11.98%. This suggests that the relationship between capital return and a CMSM is positive for some states, but this is not spatially constant through the CMSM.

**Table 3.4:** Manufacturing FDI Return Results.

CMSM	0.000000477 (0.00000137)	0.00000173 (0.00000175)
CMSM Core		0.129** (0.0443)
Domestic Market	-0.000639 (0.000492)	-0.000555 (0.000476)
Development	0.00123 (0.00668)	0.00568 (0.00708)
Trade	0.0185 (0.0148)	0.0146 (0.0140)
Economic Growth	0.00624** (0.00204)	0.00651** (0.00194)
Government Consumption	-0.0000233 (0.000933)	-0.000556 (0.000875)
Constant	0.157*** (0.0267)	0.152*** (0.0267)
Observations	582	582

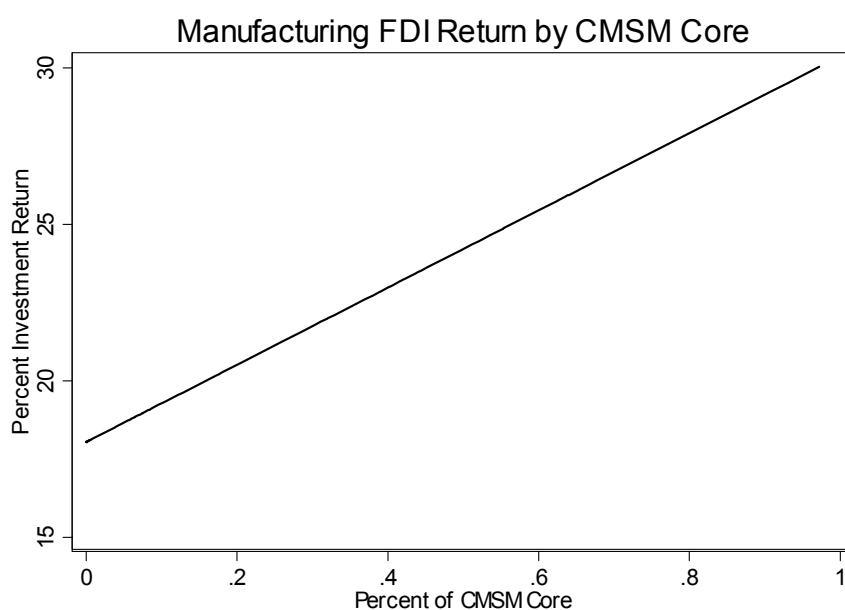
\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

### 3.7 Manufacturing Foreign Direct Investment Market Size Results

Manufacturing capital return follows the same pattern as overall capital in that a state's relative position within the CMSM is important. Although the CMSM market size has a positive relationship, it is insignificant. The CMSM core is positive and significant. When states move from the bottom core value to the highest, their expected return

increases by 12.50%. Economic growth is the only significant control variable and it is positively related to manufacturing return. A state's relative position within the CMSM is an important factor in determining which firms will experience the greatest gains.

**Figure 3.2:** Predicted Manufacturing Return for CMSM Core When All Control Variables Take Mean Value.



### 3.8 Conclusion

U.S. multinational firms earn greater return rates when they locate capital strategically within a CMSM. The market that emerges through preferential trade institutions does not increase multinational profitability for all firms within the multilateral market. Firms located in the states with the largest relative exports within the CMSM gain the greatest increase in profitability rates. This study uses path-dependent logic expressed through the New Economic Geography to illustrate that the effects

attributed to political institutions vary spatially. While most states will benefit from a regional preferential or free trade market, the largest gains will go to the countries with the largest core. In this case, preferential trade institutions that create a CMSM may accelerate, rather than mitigate, economic inequality within the multi-state market. Since not all states are equally profitable, the relative differences in investment returns provide an explanation for the agglomeration of industries and geographic division between spaces of production and consumption. While regional free trade institutions may bring about many positive economic gains for firms and states possessing cores, the benefits may be concentrated in such a way as to make life more difficult for people in states that may experience capital losses as investment concentrates outside their borders.

Will firms in small market states with few exports gain from joining a regional market? Once the core measurement is included in the analysis, a state's relative exports within the CMSM determine how much the local state benefits. While this research does not present a minimum threshold that must be met before a state gains from a regional preferential trade institution, one conclusion of this study is that there is a risk that countries with weak economies will not benefit from these agreements. States lacking an advantage in any business sector would be foolish to enter into a regional agreement. Since each market contains a core and periphery structure, a country with no cores would become a locked-in consumer for the goods and services produced in surrounding area states. If the country's local wages did not maintain relative purchasing power, the local standard-of-living could decline because the fall in wages would outpace the lower cost of goods. When a state gains membership in a regional trade institution, there is some

risk that it may become an economic loser if it does not maintain its manufacturing or service core. While a CMSM may improve the overall welfare within the geographic area, the distribution of the gains will be uneven and hurt some areas. While regional trade institutions can bring real economic improvements to member state markets, poorer states need to exercise caution in evaluating the likely consequences of membership within the CMSM.

It is important not to confuse the whole with its parts. The benefits prescribed to preferential or free trade institutions create an overall market that is larger and provides greater opportunities for firms to earn profits. The fallacy of division applies to this relationship: what is true for the whole is not necessarily true for the parts. The improvements to the multi-state market do not apply to all of its member states.

These findings illustrate that the relationship between FDI and individual states is not limited to domestic institutions. Institutions granting firms preferential or tariff-free access to customers in surrounding states expand the local market to include space outside the country's borders. This presents challenges for future empirical studies that examine the relationship between state attributes and foreign capital inflows. Using a model that pools states and explains FDI inflows by global variation in one or two characteristics assumes that regional institutions are irrelevant. These findings directly challenge this assumption and provide evidence that a CMSM is important to multinational firms. These findings offer a modest suggestion to empirical models that examine the relationship between FDI and domestic political institutions: consider this relationship in the context of regional institutions.

## CHAPTER 4: DEMOCRATIC GOVERNANCE AND PREFERENTIAL TRADE INSTITUTIONS

### 4.1 Introduction

Democratic states join preferential trade institutions at greater rates than authoritarian regimes because of characteristics in their domestic governing structure that enable and facilitate this membership. This paper uses empirical models to assess three dimensions of the relationship between preferential trade institutions and democratic governance. The first examines whether democracies are more likely to join a preferential or free trade institution. The second uses dyads to assess whether pairs of democratic states are more likely to share membership in a preferential trade institution. The final section examines whether democracies have a greater number of partner states that share membership with them in trade institutions. The results indicate that democratic states are positively related to membership in trade institutions in all three circumstances. One important qualification is that authoritarian regimes were more likely to join multilateral institutions and had a greater number of multilateral partners after 1990.

Previous studies examining the relationship between democracy and trade have focused on trade volumes rather than membership in trade institutions. This chapter complements this body of research by considering whether democratic institutions make a state more likely to join trade institutions outside the WTO framework. The theories



expressed in the papers focusing on trade volumes offer complementary reasons that explain why states with liberal governing structures are more likely to adopt preferential or free trade institutions.

Democratic governments are more likely than authoritarian systems to join bilateral or multilateral trade treaties because of the institutional structure of their domestic regime. There are three separate theoretical arguments that support this relationship: first, legislators supporting free trade can make structural changes to domestic institutions to lock-in policies so that when a succeeding party comes to power the agreement will remain in place. Legislators can also learn from past mistakes and make changes to prevent similar errors in the future. Second, democratic states can shelter vulnerable sectors of their domestic economy from the negative consequences of trade institutions that would otherwise threaten local businesses. Rather than directly exposing firms to foreign competition, democratic regimes are more likely to use rules within the institutions to protect vulnerable sectors through non-tariff barriers that may include quality control or rules of origin requirements. This gives liberal states the capacity to enter into trade agreements without the negative consequences that would otherwise affect weak domestic industries. Finally, individual legislators who wish to remain in office are unable to exert independent control over policy but must cooperate with powerful donors. In international trade issues, the largest firms within a democracy will exert the most powerful influence on foreign policy and thereby increase the probability of the state adopting preferential trade institutions. As a firm's size grows, its support for preferential trade also increases. The firms with the largest preference for

trade institutions will have the largest influence on the state's policy. These three theories provide the intellectual framework to recognize that democratic governments make a state more likely to adopt bilateral or multilateral preferential trade institutions.

A secondary cause is that democratic states are more likely to join preferential trade agreements because of the normative commitment to liberal economic policies and the institutional traits that lead to market openness. Theoretically, the normative commitment to free trade in liberal states arises because the Enlightenment theorists that provide the philosophic support for democratic institutions share the same assumptions of the conventional economic reasoning that justifies free trade. This is an important factor that may strengthen the institutional traits that make democratic states more likely to become members in multilateral or bilateral trade institutions. While the normative theory needs to be articulated because it provides the cultural background where the institutions operate, this research focuses on the institutional aspects in democratic states that lead to an increased likeliness to adopt preferential trade agreements.

This chapter examines the relationship between democratic governance and preferential trade institutions using data for one hundred sixty-seven states from 1960 to 2004. This analysis includes both bilateral and multilateral agreements outside the WTO framework. The empirical models are applied in three scenarios. The first model examines whether democratic states are more likely to be a member of a trade institution. Three approaches are used to assess this relationship. The first employs simple descriptive statistics and compares the percentage of democratic states with trade institutions to the percentage for all states. The second approach uses logit analysis to

access this relationship for the entire timeframe. The third model examines this relationship with a logit regression at ten year intervals beginning in 1960 and ending in 2000. This approach has the advantage of being able to assess the effect for the entire time frame and to see how it has changed over the last forty years.

The second empirical section uses dyads as the unit-of-analysis to see whether pairs of democratic states are more likely to share membership in a trade institution. This model employs simple comparative statistics and two logit regressions as in the previous empirical section to assess this relationship. The final empirical model examines whether democracies have more states as partners in preferential trade institutions. The unit-of-analysis is the individual state and begins with an examination of descriptive statistics to compare the mean number of partner countries for all states and democracies. A Poisson model is used to examine the entire timeframe and separate models examine this relationship in 1960, 1970, 1980, 1990, and 2000.

The results show that democratic governments make a state more likely to adopt trade institutions, have a greater number of preferential trade partners, and pairs of democracies are more likely to share membership in trade institutions than other states. However, there are some qualifications in this relationship. While the democratic advantage holds for bilateral and overall trade institutional membership, authoritarian regimes have a greater membership in multilateral trade institutions from 1990 onward. There is an important temporal threshold around this time when democratic institutions no longer have a positive relationship with multilateral institutions. Following this time, authoritarian states are more likely to join multilateral institutions and are also likely to

have these agreements with more states. Dyadically, pairs of democratic states are more likely to share membership in bilateral and multilateral institutions.

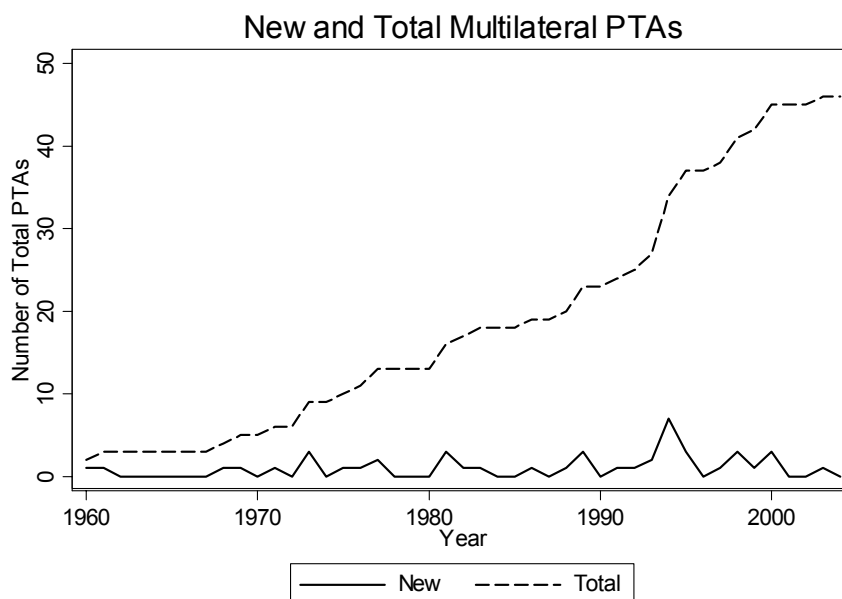
#### 4.2 A Brief Overview of Preferential Trade Agreements

The bilateral preferential trade institutions outnumber multilateral institutions, but the average number of state partners is greater in multilateral institutions.<sup>10</sup> The first multilateral treaty was the Treaty of Rome signed in 1958. There were no more than three multilateral institutions until 1969, and then these institutions grew at a rate of one new multilateral agreement per year until the early 1990s. The increase was only slightly greater in the 1990s and peaked at seven in 1994. From 1958 to 2004 there were 46 multilateral preferential treaties created. The growth in multilateral institutions has been steady from the early 1970s to the present, but there have been short spikes in 1973, 1981, 1989, 1994, 1995, 1998, and 2000.

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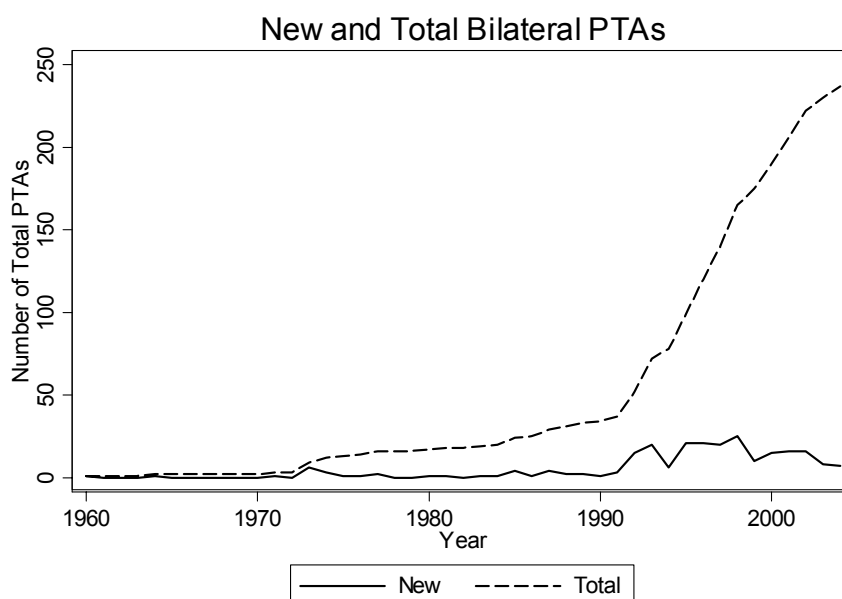
<sup>10</sup> The preferential and free trade data is taken from Denis Medvedev's (2006) list.

**Figure 4.1:** Count of New and Total Multilateral Preferential Trade Institutions by Year.



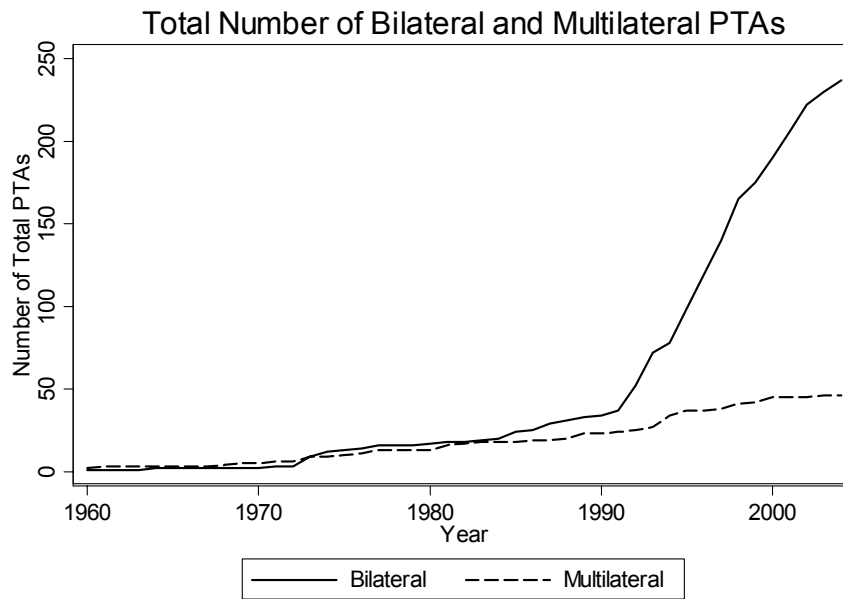
The bilateral preferential trade institutions were relatively rare in the international system until the 1990s. In 1960 there was only one bilateral agreement. The second emerged in 1964 and a third in 1971. In 1973 there were six new agreements and then the increase was one or two a year until the mid-1990s. There were fifteen new bilateral institutions in 1992 and six of the following eight years saw twenty or more new treaties. Twenty-five bilateral institutions went into effect in 1998; this was the largest one year increase. In the 2000s, the rate of increase slowed and there were 237 agreements in effect in 2004. Bilateral preferential or free trade institutions were rare in the international system until the early 1970s when the number of institutions slowly began to increase. The rate of growth in the system accelerated again in the 1990s, as bilateral agreements became much more common.

**Figure 4.2:** Count of New and Total Bilateral Preferential Trade Institutions by Year.



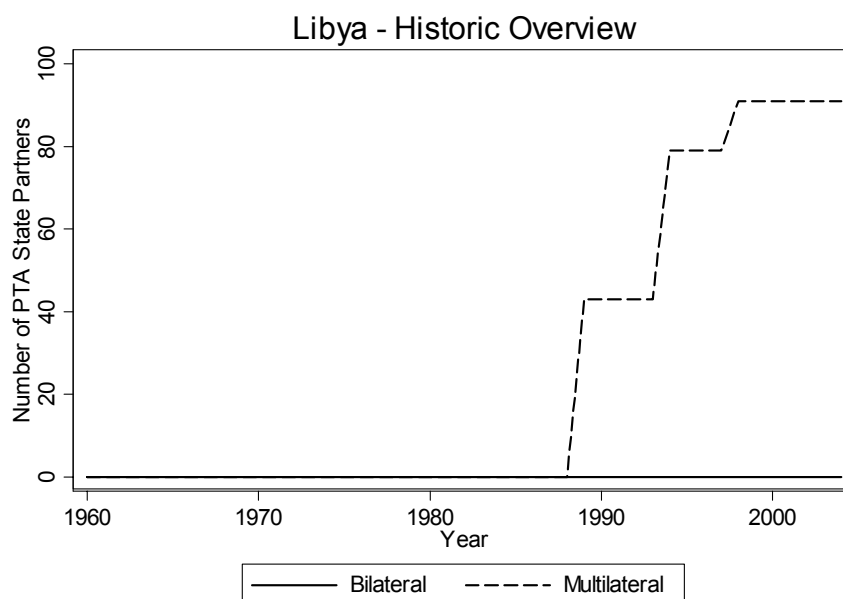
While bilateral preferential trade institutions far outnumber multilateral agreements in 2004, there was parity in this relationship until around 1985. In the first twenty-four years of this study, the number of bilateral and multilateral institutions was almost identical. The largest one year difference between bilateral and multilateral agreements was three until 1985. After this time, bilateral institutions increased at a faster rate and outnumbered multilateral institutions by a ratio of five to one by 2004.

**Figure 4.3:** Total Bilateral and Multilateral PTA Count by Year.



### 4.3 Preferential Trade Agreements for Libya, India, and Cuba.

**Figure 4.4:** Libya's Membership in Preferential Trade Institutions.

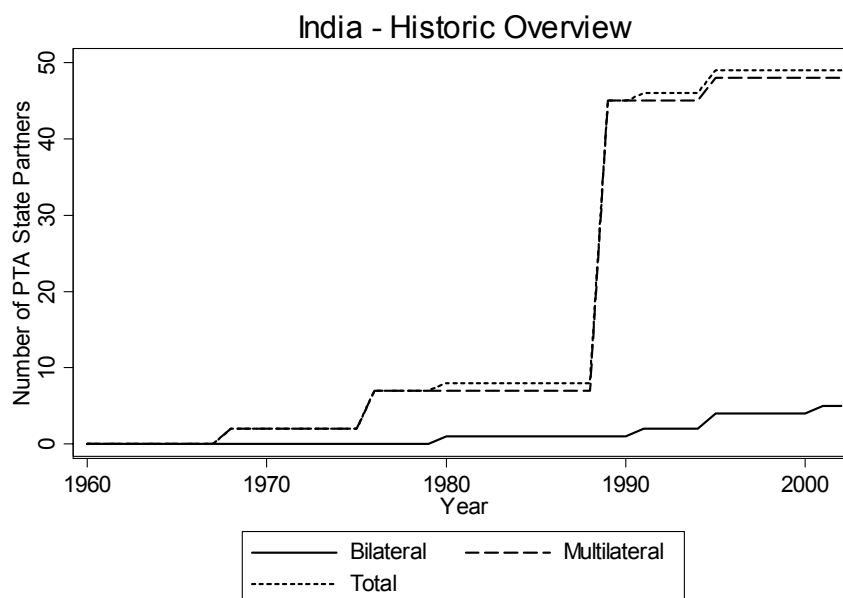


Libya gained preferential access to ninety-one different state markets exclusively through multilateral trade institutions. Libya did not enter into a single bilateral trade institution and it had no PTAs from 1960 to 1988. In 1989, it became a member of the General System of Trade Preferences among Developing Countries (GSTP) and the Arab Maghreb Union (AMU). The GSTP gained Libya preferential trading rights to forty-two states and AMU brought it access to four additional states. Three states in AMU were simultaneously members of GSTP. The AMU institution brought Libya access only to one additional state. Through these treaties Libya gained preferential access to forty-three states. In 1994, Libya became a member of the African Economic Community (AEC) with forty-nine other states. It already shared membership with thirteen of the



states in the AEC and gained preferential access to an additional thirty-six states, pushing its total to seventy-nine. In 1998, Libya joined the Community of Sahel-Saharan States (CEN-SAD) with seventeen other states. Through this institution, Libya gained access to twelve new state markets and increased its total to ninety-one states. It entered into no other agreements in the timeframe covered in this study. Libya is an example of a state that has relied exclusively on multilateral institutions to secure foreign market access for its domestic firms.

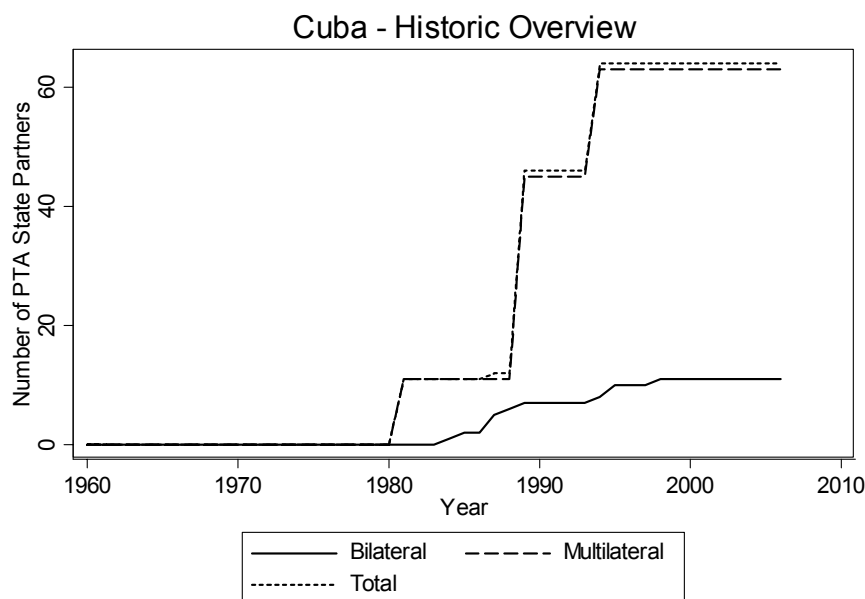
**Figure 4.5:** India's Membership in Preferential Trade Institutions.



India has joined four multilateral and five bilateral preferential trade institutions. It has acquired the majority of its trade partners through multilateral institutions. In 1968, India became a member in its first preferential trade institution when it joined the Tripartite Agreement with Egypt and Yugoslavia. In 1976, it joined the Bangkok Agreement with Bangladesh, China, South Korea, Laos, and Sri Lanka. In 1989, India

joined the General Systems of Trade among Developing Countries (GSTP) with forty-two other states and, through this, gained preferential access to thirty-eight new state markets. In 1995, it gained membership in the South Asian Preferential Trade Agreement (SAPTA), with six regional states giving India access to three additional markets. Additionally, India has signed five separate bilateral trade treaties with Bangladesh in 1980, Nepal in 1991, Bhutan in 1995, Burkina Faso in 1995, and Sri Lanka in 2001. The bilateral agreement with Bangladesh did not provide India with preferential access to a new market since both states were members of the Bangkok agreement. The bilateral treaty with Nepal gave India access to a new market, but both states joined SAPTA in 1995. Likewise, Bhutan and Sri Lanka were members of SAPTA and did not gain India access to a new market. The bilateral treaty with Burkina Faso was the only institution that did not also exist within a multilateral trade institution. Although India has relied on both multilateral and bilateral institutions, it has gained most of its preferential trade partners through multilateral agreements. Bilateral institutions are mostly used to secure access to neighboring states and many of these agreements are nested within multilateral treaties. For most of its neighboring states, India has secured preferential access simultaneously through bilateral and multilateral institutions.

**Figure 4.6:** Cuba's Membership in Preferential Trade Institutions.



Cuba has also relied heavily on multilateral trade institutions to secure preferential access to state markets. It has joined three multilateral and eight bilateral institutions. In 1981 Cuba joined the Latin American Integration Association (LAIA) and gained preferential access to ten South American state markets as well as Mexico. In 1989 it joined the General Systems of Trade Preferences Among Developing Countries (GSTP) with forty-two states and gained preferential access to thirty-four new markets. In 1994 Cuba joined the Association of Caribbean States (ACS) with twenty-four states and gained preferential access to eighteen new markets. It has also signed bilateral trade treaties with Argentina in 1984, Bolivia in 1995, Brazil in 1987, Burkina Faso in 1987, Columbia in 1988, Mexico in 1985, Peru in 1994 and Venezuela in 1989. Burkina Faso was the only state that gave Cuba preferential access to a new market, since Cuba already

shared membership with each of the other states in the LAIA agreement. It relies on multilateral institutions to gain access to the majority of its preferential trade partners. With one exception, bilateral institutions secured Cuba's access to Latin American markets where preferential access was already present in the form of a multilateral institution.

#### 4.4 Do Democracies Behave Differently Than Other states?

The democratic peace literature theorizes that states with liberal institutions behave differently from authoritarian states because they do not go to war with one another. There are multiple arguments that focus on democratic institutions (Bueno de Mesquita et al. 1999), norms (Dixon 1994), and trade policies or development (Gartzke 2007). This research tradition offers evidence that liberal institutions can alter a state's foreign policy in predictable ways. If democracies behave differently in the international arena in waging war, there may be other subjective areas where liberal governments systematically act differently from authoritarian states. One area involves the relationship between governing institutions and the likelihood that the state will adopt preferential trade institutions.

Previous strategies have examined the actual exchange of goods between states and used this as a means to assess trade openness. Examining the quantity or dollar value of items exchanged between states indicates that the existing barriers are not sufficient to prevent the movement of goods across national borders, but this does not translate into direct knowledge of relative trade barriers. The institutional framework governing large

exchanges may be identical to laws regulating smaller trade volumes. There is consistent evidence that trade is greater between two democratic states than between two authoritarian states or an authoritarian state and a democracy (Bliss and Russett 1998; Dixon and Moon 1993; Mansfield et al. 2000; Morrow et al. 1998). Unfortunately, this information does not tell us whether trade barriers are also lower between pairs of democratic states. Although direct evidence is lacking, this body of research offers peripheral support because barriers are likely to correlate with trade volumes. However, these studies do not assess whether individual democratic states are more likely to adopt some form of bilateral or multilateral preferential trade agreement.

There are both normative and institutional theories that support the idea that democratic states should be more likely to adopt some form of preferential trade agreement.

#### 4.5 Normative Factors

The Enlightenment tradition provides the philosophical foundation for social contract democracies as well as the intellectual basis for open market economic systems. The philosophical assumptions behind Locke, Bacon, and Hume correspond to the positions of Adam Smith and David Ricardo that support a market economy and free trade. When modern democratic institutions are justified through this intellectual paradigm, this model also provides an apology for capitalist systems. The anthropological unit in liberal thought is the rational self-interested worker who acts to strengthen his or her position. The liberalist philosophical assumptions support both

democratic institutions and the market economy. This anthropological unit is the basis of Adam Smith's defense of capitalism and was appropriated by David Ricardo in his comparative advantage theory that provides a defense of free trade. The same understanding of the person provides a strong theoretical framework that connects modern democracy to capitalism. The liberal intellectual tradition offers a strong theoretical correspondence between democratic institutions and market economic systems.

This connection is strong in the West, but weaker in other global regions where the intellectual heritage is different and the cultural tradition has separate origins. Nonetheless, there is a strong theoretical connection between a free market economy and modern democracy. Discourse supporting liberal institutional structures also provides the intellectual foundation for a market economy. There is some evidence to suggest that a market economy leads to a discourse supporting democracy, but this does not translate into institutional reforms.<sup>11</sup> For example, although there is very little pressure from capitalist enterprises for liberal government in China, the communist administration is articulating support for democracy that maintains its one-party political system (Thorton 2008; Tsai 2007). The market economy has required the state to articulate a policy for democracy even though it has no intention of creating institutions similar to those present

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<sup>11</sup> It has been argued that economic growth within authoritarian states will create pressure leading to a democratic transformation. Bueno de Mesquita and Downs (2005) show that authoritarian regimes have developed systematic means to maintain their governing structure even in the face of economic growth by preventing the formation of social groups with the potential to challenge the government. Tsai (2007) offers a case study of China that finds that the rise of a business class has not produced a group of professionals who wish to introduce democratic reforms. It does not automatically follow that economic growth leads to democracy. These ideas do not challenge the contention of this section because I make no claims that democracy follows economic growth. The argument is simply that democratic institutions lead to free trade policies. It does not follow that this relationship holds in reverse.

in the West. While this linguistic support for democracy does not appear to be able to generate support for a liberal institutional transition, the government has offered verbal support for a Chinese version of democracy.

A market economy may increase support for liberal governments, but modern democracies are more explicit in offering support for capitalist economies. Almost all contemporary democratic states maintain an ideological commitment to liberal economic thought (Gaubatz 1996) and this leads them to support open markets and preferential trade institutions. Within the United States, there is an ideological consensus for an open market economy that has been maintained since the end of World War II. The only exception is in cases where foreign states intervene to benefit their producers (Goldstein 1986). Some scholars have suggested that this tendency may be so strong that it may become ideological and allow researchers to ignore evidence that contradicts these widely-held liberal economic ideas (Krugman 1995). Modern democratic states are ideologically inclined to support an open economy and preferential trade institutions. When state governments change and become more democratic, this transition is associated with an increase in trade liberalization (Milner and Kubota 2005). This suggests that liberal states are likely to support bilateral and multilateral preferential trade institutions due to the ideological assumptions of their democratic system. Democracies should be more likely than non-liberal states to create and become members in preferential trade institutions.

#### 4.6 Institutional Factors

Liberal states are more reliable partners in international institutions because they offer better transparency and information than other states. Kurt Gaubatz (1996) provides a list of the factors that make democratic states good allies and the same advantages apply to shared partnership in economic institutions. He suggests that information availability, liberal policies, stable preferences, enduring institutions, and the legal system increase democratic state's ability to provide assurance that the agreement will be honored. Liberal institutions reduce the risk of duplicity and also provide partnering states with access to information on debates and issues within the society. This transparency makes democratic governments ideal partners in international agreements.

The institutional flexibility in democratic regimes allows legislatures to adjust the governmental structure or rules to lock-in policies. This has allowed states to make credible offers in international negotiations and increased the difficulty in overturning or changing the commitments to foreign states. For example, legislators may foresee threats to current laws and behave strategically to block later efforts to change policy. When multiple positions exist within a regime, a dominant party may make institutional reforms to lock-in their preferred policies and so prevent other parties from overturning them if they assume power. One example comes from U.S. history with the passage of the 1934 Reciprocal Trade Agreements Act (Bailey et al. 1997) where Democrats secured the passage of legislation that gave the president the ability to push through tariff reduction treaties when the partner states mutually lowered their tariffs. Prior to this time,



Republicans favored protectionist policies and actively sought to increase tariffs whenever they secured the majority of legislative seats. Democrats would undo these changes and lower trade barriers. This institutional change gave the president additional credibility as he negotiated with other states and also lowered the likelihood that future Republican majority legislatures would overturn free trade gains. It also lowered the number of votes necessary in the Senate to ratify these treaties from two-thirds to a simply majority. Legislatures wishing to secure trade preferences can modify their government structures or rules to lock-in these policies and thereby make it difficult for succeeding representatives to modify an agreement.

A similar adjustment may take place as government representatives learn from history and adjust the domestic rules and institutions to minimize the negative consequences from exposure to particular events. One recent example was that the Great Depression taught legislatures that closing markets can accelerate and deepen the damage caused by an economic downturn (Goldstein 1988). Although the domestic monetary policy accelerated the crisis far more than the lowering of trade barriers, legislatures blamed the recession on trade policy and sought to maintain institutional openness to prevent a similar occurrence in the future.

Recent changes in the international system have increased the vulnerability of the international trade system and have caused democratic states to strengthen the institutional access to important trade state markets. Edward Mansfield (1998) sees two specific causes: the hegemonic decline of the United States and the possibility of economic crises. As the U.S. declines relative to other states, it has become less able to

enforce the multilateral trading system. States perceiving this weakness create institutions that will protect market access to select countries as a hedge against hegemonic instability. A global recession could also cause states to close or reduce access to their domestic market. Separate institutions guarantee access even in the event that a trade partner introduces or increases barriers. Democratic states aware of these risks protect domestic firms by creating additional preferential trade institutions to guarantee market access even in the event of a global crisis or collapse of the WTO institutional framework.

Democratic states possess another institutional feature that makes them more likely than authoritarian states to support preferential trade institutions. Democratic governments use complex rules, such as rules of origin requirements, to protect their firms even when free trade institutions exist (Kono 2006). Edward Mansfield and Marc Bush (1995) have found that in industrialized democratic states free trade institutions and non-tariff barriers are substitutes. After a state joins a trade institution, it creates legal obstacles for foreign firms wishing to enter its domestic market. The removal of tariffs alone does not remove a state's capacity to shield vulnerable industries; it moves protectionism to a place where the electorate is unable to perceive the limitations on free trade. It also allows states to claim that they support liberal policies while acting to limit the goods that qualify for tariff-free exchange. Daniel Kono (2006) looks at the effect elections have on public knowledge and how this allows democratic states to exercise duplicity in trade policies. While tariff policies are easily perceived and secondary policies, such as rules of origin or quality requirements, are not presented in a way that

the public can grasp, democratic states can move their protectionist policies to these secondary restrictions. This allows them to join more preferential trade institutions with a greater immunity to industries that would be vulnerable if tariff reductions were unrestricted. This gives democratic states the ability to pursue free trade policies while simultaneously protecting their domestic market; it also grants them some immunity from negative consequences of preferential trade institutions and reduces the costs of opening the domestic market to foreign competition.<sup>12</sup>

While most previous studies focus on whether democratic states trade more with other democracies, there has been limited research on how government type impacts trade policy. The most important theoretical development on this subject uses game theory to develop a model that shows that barriers between pairs of democratic states are lower than between non-democracies or mixed pairs (Mansfield et al. 2000).<sup>13</sup>

Mansfield, Milner, and Rosendorff (2000) use game theory to show that executives are more likely to accept preferential trade institutions in a take-it-or-leave-it negotiation when a trade war will result if the offer is refused. While this theory has strict assumptions that limit its application, it does provide limited support for the idea that

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<sup>12</sup> There is some historical evidence to challenge the idea linking democratic institutions to support for free trade. European states' support for free trade was linked to scarcity and international demand for domestically produced goods and this explains which states adopted liberal trade policies rather than government institutions (Verdier 1988). While democratic states may favor free trade policies at present, this may be linked to their ability to offer protection to vulnerable industries through less visible trade policies. The flexibility in contemporary free trade agreements allows states to remove tariffs when it is convenient for industries. The institutional framework of contemporary trade institutions provides modern democratic states the ability to offer unequivocal public support for liberal trade policies while still managing to protect their domestic economy. Although Verdier's historic evidence offers a contrary position, the historic evolution of free trade institutions created a subtle means for states to simultaneously remove tariff barriers and maintain some form of protectionism for domestic industries.

<sup>13</sup> While the theory in this model focuses on trade policy, the subsequent empirical research evaluates relative trade between states rather than agreements or treaties.

democratic states are more likely to adopt preferential trade institutions than non-democracies. The strongest theoretical argument is that even when legislatures prefer protectionist policies, they will acquiesce and accept the free trade proposal because the alternative trade war is a worse outcome. Democratic institutions allow free trade agreements to be passed even when a majority is in favor of protectionist policies. Since trade is higher between pairs of democratic states than between two authoritarian states or mixed dyads, Mansfield, Milner, and Rosendorff suggest that this evidence supports their theory. As previously stated, it does not automatically follow that democratic states have lower trade barriers simply because they trade more with each other.

The formal model used to develop this theory is dependent upon its assumptions, which need to be critically examined. One challenge adds preferences to the Mansfield, Milner, and Rosendorff model (Dai 2002) and finds that the difference between democratic and authoritarian institutions alone no longer holds. According to Dai, once preferences are included, liberal governments have no inherent institutional structure that should lower trade barriers more than non-democracies. This directly challenges Mansfield, Milner, and Rosendorff's (2000) finding that preferences only matter in authoritarian governments. They respond to Dai and reaffirm that their findings hold in the model they present and dispute the usefulness of Dai's criticism (Mansfield et al. 2002). Nonetheless, the theory seems to support that democratic governments are more likely than authoritarian regimes to adopt preferential trade institutions in certain circumstances. However, their papers ignore how frequent take-it-or-leave-it negotiations

are in the international arena and therefore are of limited usefulness for understanding the free trade foreign policy preferences of democratic and authoritarian regimes.

One can use Dai's (2002) objection to the Mansfield, Milner, and Rosendorff's formal model to directly address the democratic normative predisposition towards liberal economic policies. As stated earlier, liberal democratic states have preferences for market economic policies and it is reasonable to theorize that they support free trade. Even if preferences are included, democratic states should be more likely to support preferential trade institutions than authoritarian states. Dai's objection may provide an additional dimension to Mansfield, Milner, and Rosendorff's model, but it does not change the outcome that democratic states are more likely to have lower trade barriers than authoritarian governments. The Mansfield, Milner, and Rosendorff theory is actually strengthened after noting Dai's objection through the ideological preference democratic states have for liberal economic policies.

Democratic institutions force individual legislatures to disregard their personal preferences in favor of their strongest contributors' counsel or face the possibility that they may be removed from office. There is no linkage between the preferences of individual legislatures and trade policy (Milner & Judkins 2004); governmental policies reflect the preferences of the strongest contributors or potential donors. Individual legislators, who wish to retain office, must support the policy recommendations of their largest benefactors. According to this model, the preferences of individual representatives do not affect the enacted policy, nor are party platforms relevant. Members of national legislatures need to behave strategically to ensure that domestic

contributions for campaigns are large enough to win reelection. The dependence on donations prevents policy-makers from exercising independent decisions on trade issues. If legislation endangers the position of a large firm, its financial assistance will focus on replacing the candidate who voted against its position. “A striking implication of the assumption that parties maximize votes is that *they exert no independent control over policy* [59, italics in original] (Magee et al. 1989).” When politicians wish to remain in office, policy changes cannot be attributed simply to legislative preferences. The lobbying efforts carried out by the largest domestic businesses are able to push through trade policies that are either protectionist or open to trade (Grossman and Helpman 1994). If elected representatives wish to remain in office, then the connection between individual preferences and trade policy is difficult to aggregate. The relationship is theoretically weak and it suggests that trade preferences are likely to be determined by the largest firms operating within a state.

The relative impact individual businesses have on government policy is likely to correspond to the potential donations they are able to provide candidates. Larger businesses would be more influential in petitioning legislatures and executives for particular policy changes. The greater the production scale a firm has, the more likely a firm is to support preferential trade institutions (Hathaway 1998). When the number of competitive enterprises in any sector is small, their support for preferential or free trade institutions is great (Milner and Mansfield 1997). The fewer the number of industries, the larger the production scale and the greater ability firms will have to impose their preferences on legislators. When a foreign state creates or increases restrictions on a

domestic industry's goods, the exporting firm's strategy will be to ask its government to respond in kind with the specific intention of forcing the foreign regime to re-open its market (Milner and Yoffie 1989). Even large firms asking for market restrictions do so in the hope of opening markets rather than limiting access. Although political parties maintain different trade policy platforms, there is no evidence that preferences for protection translate into more restrictive trade legislation (Milner and Judkins 2004). Democratic states are more responsive to large industries than small or medium sized enterprises and bigger businesses have stronger free trade preferences. If a large commercial sector exists within a democracy, the greater political influence accorded to big industries increases the likelihood that the state will support preferential trade institutions.

#### 4.7 Theoretical Summary

Democratic states are more likely to support bilateral or multilateral free trade institutions than authoritarian states for normative and institutional reasons. The ideological correspondence between liberal government and economic policies provide the intellectual framework that policy makers can use to support membership in preferential trade institutions. Modern democratic states are likely to have a normative commitment to liberal trade and this should lead them to adopt bilateral and multilateral preferential trade institutions at higher rates.

The institutional theories concern democratic state's ability to learn and adapt to changing environment and lock-in policies to prevent historical errors from reoccurring.

They also have the ability to mitigate the negative consequences of preferential trade agreements by using secondary legal structure to protect vulnerable industries or otherwise limit market access to foreign firms that should qualify for tariff-free access to the local market. When given the choice between free trade and a trade war, democratic states will choose to open their market even if this does not correspond to the government's policy preferences. Individual legislators who wish to remain in office acquiesce to the preferences of large industries that are most likely to support free trade. This evidence suggests that democratic states should be more likely to adopt bilateral or multilateral preferential trade institutions.

**Hypothesis One:** Democratic states join bilateral and multilateral preferential trade institutions at higher rates than non-democracies.

**Hypothesis Two:** Pairs of democratic states will share membership in bilateral and multilateral trade institutions at higher rates than other pairs of states.

**Hypothesis Three:** Democratic states will have more preferential trade partners sharing membership with them in multilateral and bilateral trade institutions.



**Table 4.1:** List of One Hundred Sixty-Seven States Included in Empirical Models.

Afghanistan	Cyprus	Korea, Dem. Rep.
Albania	Czech Republic	Korea, Rep.
Algeria	Denmark	Kuwait
Angola	Djibouti	Kyrgyz Republic
Argentina	Dominican Republic	Lao PDR
Armenia	Ecuador	Latvia
Australia	Egypt	Lebanon
Austria	El Salvador	Lesotho
Azerbaijan	Equatorial Guinea	Liberia
Bahamas, The	Eritrea	Libya
Bahrain	Estonia	Lithuania
Bangladesh	Ethiopia	Luxembourg
Barbados	Fiji	Macedonia, FYR
Belarus	Finland	Madagascar
Belgium	France	Malawi
Belize	Gabon	Malaysia
Benin	Gambia, The	Mali
Bhutan	Georgia	Malta
Bolivia	Germany	Mauritania
Bosnia and Herzegovina	Ghana	Mauritius
Botswana	Greece	Mexico
Brazil	Guatemala	Moldova
Bulgaria	Guinea	Mongolia
Burkina Faso	Guinea-Bissau	Morocco
Burundi	Guyana	Mozambique
Cambodia	Haiti	Myanmar
Cameroon	Honduras	Namibia
Canada	Hungary	Nepal
Cape Verde	Iceland	Netherlands
Central African Republic	India	New Zealand
Chad	Indonesia	Nicaragua
Chile	Iran, Islamic Rep.	Niger
China	Iraq	Nigeria
Colombia	Ireland	Norway
Comoros	Israel	Oman
Congo, Dem. Rep.	Italy	Pakistan
Congo, Rep.	Jamaica	Panama
Costa Rica	Japan	Papua New Guinea
Cote d'Ivoire	Jordan	Paraguay
Croatia	Kazakhstan	Peru
Cuba	Kenya	Philippines

**Table 4.1 - Continued:** List of One Hundred Sixty-Seven States Included in Empirical Models.

Poland	Sri Lanka	Turkmenistan
Portugal	Sudan	Uganda
Qatar	Suriname	Ukraine
Romania	Swaziland	United Arab Emirates
Russian Federation	Sweden	United Kingdom
Rwanda	Switzerland	United States
Saudi Arabia	Syrian Arab Republic	Uruguay
Senegal	Tajikistan	Uzbekistan
Sierra Leone	Tanzania	Venezuela, RB
Singapore	Thailand	Vietnam
Slovak Republic	Timor-Leste	Yemen, Rep.
Slovenia	Togo	Yugoslavia
Somalia	Trinidad and Tobago	Zambia
South Africa	Tunisia	Zimbabwe
Spain	Turkey	

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#### 4.8 Research Design

Three separate empirical paradigms assess the relationship between democratic governance and membership in preferential trade institutions. These models directly address three dimensions in the relationship between democratic governance and preferential trade institutions: (i) are democratic states more likely to join a preferential institution?; (ii) are pairs of democratic states more likely to share membership in a preferential trade institution?; and (iii) do democratic states share membership in trade institutions with more partner states? Three empirical models individually address one dimension of this relationship. This analysis separately examines bilateral, multilateral, and both forms of preferential trade institutions. All models examine one hundred sixty-seven states (listed in **Table 4.1**) from 1960 to 2004.

The first empirical study examines whether democratic states are more likely to have membership in a bilateral, multilateral, or either preferential trade institution. There are two approaches used to assess this relationship. The first considers simple membership using descriptive statistics for all states for the entire timeframe and separately in 1960, 1970, 1980, 1990, and 2000. This indicates the percentage of democracies and all states that had membership in a bilateral, multilateral, or any preferential or free trade institution. If liberal institutions make a state more likely to join a trade institution, the percentage of states possessing a democratic government should be higher than the percentage for all global states. The second approach uses logit analysis to assess whether democratic institutions make a state more likely to join these institutions. Two separate regressions are used to assess this relationship. The first examines annual state observations across the entire timeframe and the second assesses all the cases in particular years to see if the effect of democratic institutions is constant through the timeframe included in this analysis. The years are 1960, 1970, 1980, 1990, and 2000. This analysis will be conducted separately for all, bilateral, and multilateral preferential trade institutions. This dual strategy provides the opportunity to evaluate the overall relationship between the governmental structure and preferential trade institutions and to see how it has changed throughout the timeframe considered in this analysis.

The second empirical paradigm addresses the question of whether democratic dyads are more likely than other state pairs to share membership in a bilateral, multilateral, or either preferential or free trade institution. This dyadic approach uses the same methodology and first focuses on the percentage of dyads with membership in a

common trade institution and compares this to the same percentage for democratic dyads. A similar logit analysis considers all timeframes and separate years. The dyads are non-directional and each state pair has only one observation per year.

The third empirical model addresses whether liberal states share membership in preferential trade institutions with a larger number of partner states than non-democracies. This study requires a dual approach that first compares the mean number of partner states sharing membership in preferential trade institutions for all states and democracies. A Poisson regression analysis examines this relationship for all time periods and for separate years. Separate models assess the number of state partners in bilateral, multilateral, and either preferential trade institution.

#### 4.8.1 Dependent Variable

All three empirical models use membership in preferential trade institutions as the dependent variable. This represents whether a state is a member of an institution, whether both states in the dyad share membership in a trade institution, or counts the number of preferential trade partner states. The data for all cases is taken from Denis Medvedev's (2006) collection of preferential trade agreements that starts in 1960 and ends in 2004. His list includes all preferential or free trade institutions regardless of country size. This data lists state members of bilateral and multilateral FTAs and provides the date the agreement went into effect.

The first model examines simple membership in a bilateral, multilateral, or either preferential trade institution. The dependent variable indicates if the observed state has

membership in the institution. The variable is categorical where a “1” indicates membership and “0” indicates non-membership.

The dyadic model indicates whether both states share membership in a bilateral, multilateral, or either preferential trade institution. The variable is a “1” if the states share membership in the same institution and “0” if they do not.

The final model counts the number of preferential trade partners each state has in its trade institutions. In the timeframe under consideration, a state may have no preferential trade partners or as many as ninety-nine.

**Table 4.2:** Descriptive Statistics.

	Observations	Mean	Standard Error	Minimum	Max
<u>Empirical Model One: Membership</u>					
Democracy	6,368	.34	7.60	-10	10
Any Trade Institution	6,368	.62	.48	0	1
Multilateral	6,368	.59	.49	0	1
Bilateral	6,368	.28	.45	0	1
<u>Empirical Model Two: Dyads</u>					
Democracy	438,083	-3.4	6.5	-10	10
Any PTA	438,083	.086	.28	0	1
Multilateral PTA	438,083	.079	.27	0	1
Bilateral PTA	438,080	.011	.10	0	1
Trade	438,083	173.8	2,593.2	0	403,807
Distance	438,083	4,681.5	2,678.3	0	12,368
<u>Empirical Model Three: Number of Partners</u>					
Democracy	6,336	.34	7.6	-10	10
Bilateral Partners	6,336	1.9	5.4	0	37
Multilateral Partners	6,336	14.9	19.9	0	95
Total Partners	6,336	16.9	21.6	0	99

#### 4.8.2 Independent Variable

Democratic institutions are the main control variable and this measurement is taken from the Polity IV database and is supplemented by Gleditch (2007) to include microstates. This dataset measures the relative presence of democratic institutions within a state and reports the annual measurement for each state. States possessing all the democratic indicators take a score of 10 and states with none of these characteristics take a score of -10. The Polity IV database has a minimum population threshold that states must meet before they are reported. Gleditch (2007) uses the same rules to generate Polity scores for states that do not meet this population requirement. The states that Gleditch includes in his dataset that are also reported in the Polity IV database have identical scores. I use the Gleditch dataset to supplement the Polity IV database and thereby add smaller states that are normally excluded. Since the institutional effect of democratic regimes does not depend on a state's population, adding these states provides additional evidence to examine the effect of democratic institutions have on preferential trade agreements.

The first and third empirical models, where individual states are the unit-of-analysis, simply report the government score. The second model uses a weakest link methodology and reports the minimum government score for the dyad.

The dyadic approach features two control variables that are excluded from the other models: distance and relative trade. The distance variable reports in number of miles between the two capital cities and this data is taken from Gleditch's (2008) "Distance Between Capital Cities" dataset. The trade variable adds the imports and

exports between the dyadic pair in billions of U.S. dollars. This is taken from Gleditch's (2008) "Expanded Trade and GDP Data" dataset.

#### 4.9 Model One: Examining Membership in Trade Institutions

##### 4.9.1 Membership Case One: Any Preferential Trade Agreement

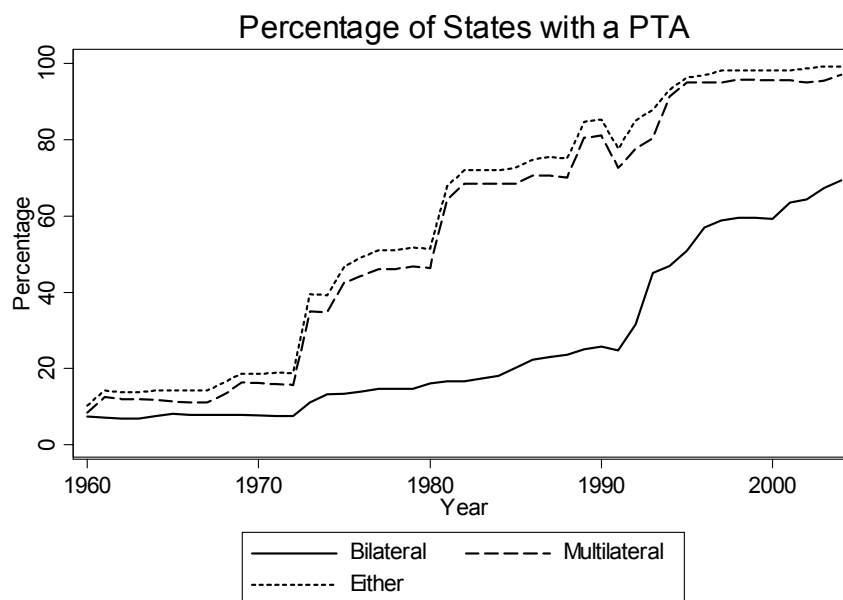
**Table 4.3:** Percentage of States and Democracies with Membership in a PTA for 1960, 1970, 1980, 1990, and 2000.

	States	States with FTAs	Percentage
1960	107	11	10.28%
1960 Democracies	24	10	41.67%
1970	129	24	18.60%
1970 Democracies	29	12	41.38%
1980	141	73	51.77%
1980 Democracies	32	19	59.38%
1990	143	122	85.31%
1990 Democracies	39	34	87.18%
2000	162	159	98.15%
2000 Democracies	51	49	96.08%

The historic summary indicates that the percentage of states with at least one bilateral or multilateral preferential trade agreement has increased from 1960 to 2000 not only for democratic states, but for all states. The percentage of democratic states with a FTA was higher than the percentage of all states for each year except for 2000. This does not suggest that democratic states were less likely to become members of FTAs after

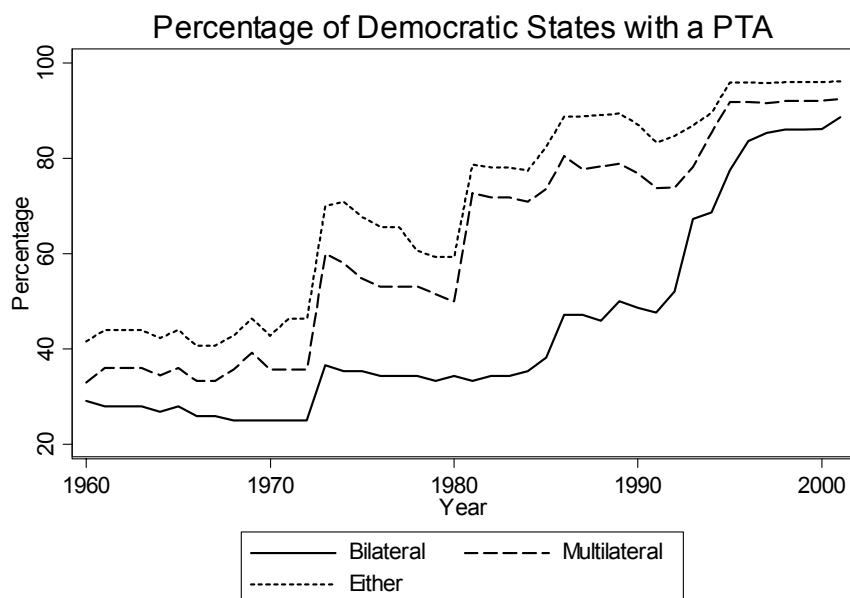
2000. It is simply an indication of the vast presence of FTAs in the international system following the 1990s. During 2000, 98% of all states had some form of preferential trade agreement, which was slightly higher than the 96% for democratic states. Japan, Mongolia, and Albania are the only states that did not have a preferential trade agreement in 2000 and only Albania was a non-democracy.

**Figure 4.7:** Percentage of States with a Preferential Trade Institution by Year.

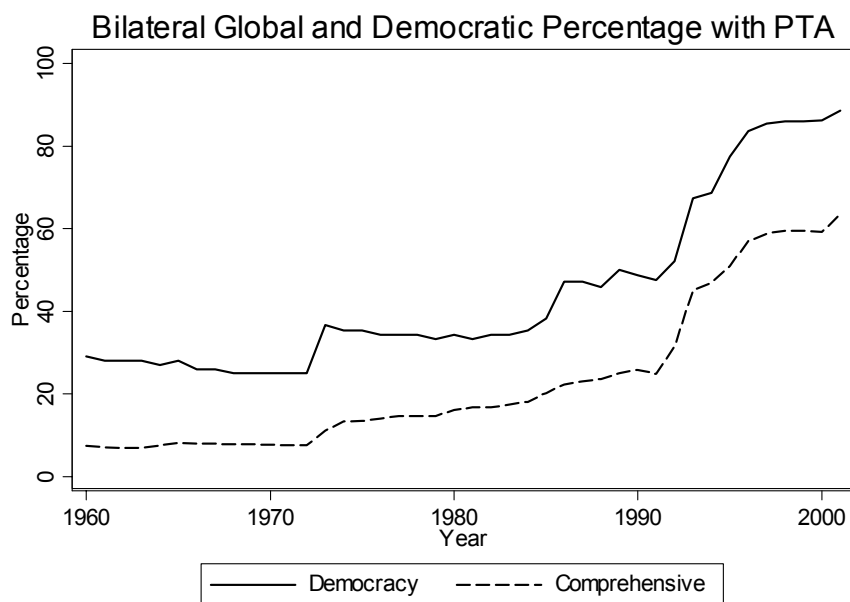




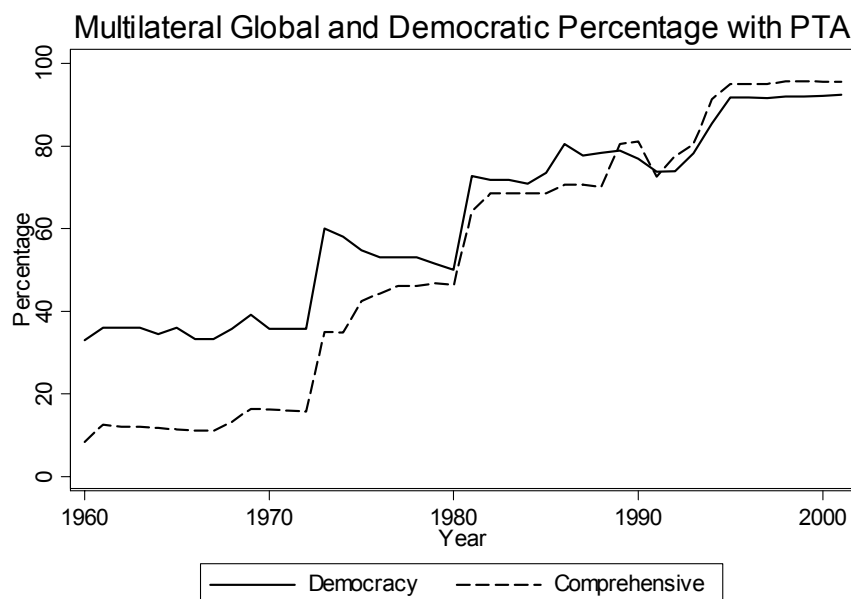
**Figure 4.8:** Percentage of Democratic States with a Bilateral, Multilateral, or Either Preferential Trade Institution by Year.



**Figure 4.9:** Percentage of All States and Democratic Countries with a Bilateral Preferential Trade Institution by Year.



**Figure 4.10:** Percentage of All States and Democratic Countries with a Multilateral Preferential Trade Institution by Year.



**Table 4.4:** Logit Results for Membership in a Bilateral or Multilateral Preferential Trade Institution from 1960 to 2004.

States <sup>14</sup>	Democracy	Constant	Observations
167	.079*** (.0036)	.517*** (.027)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

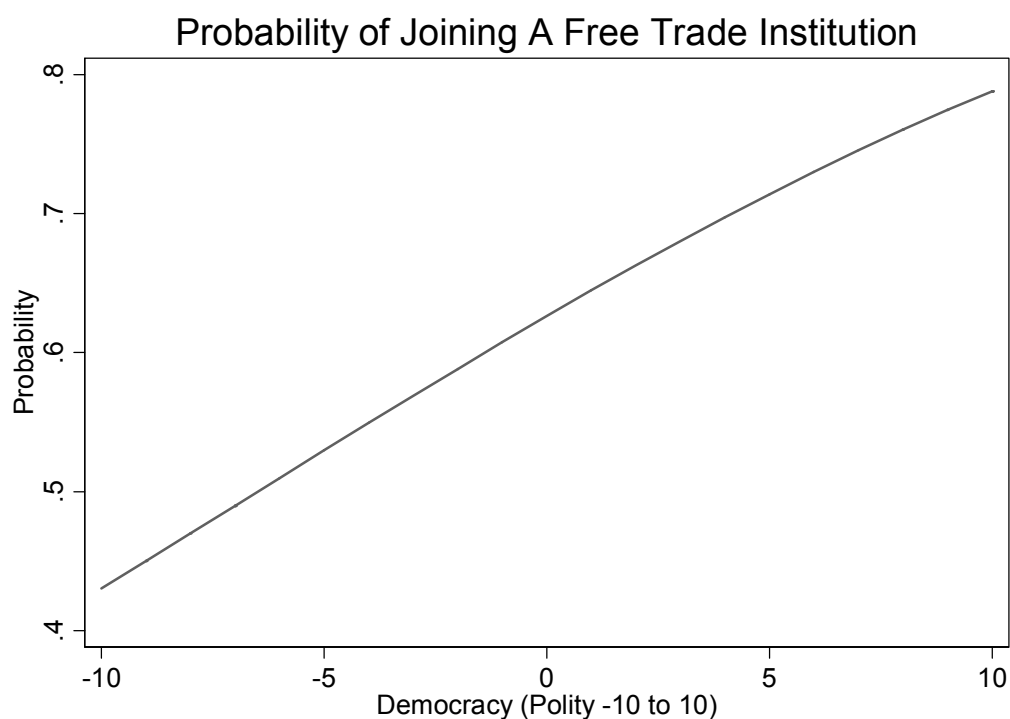
<sup>14</sup> A random effects time series logit produces the following coefficients:

States	Democracy	Constant	Observations
167	.141*** (.0067)	.703*** (.064)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

States scoring as a perfect democracy on the Polity scale have a probability of 89.2% of having membership in a FTA while states having no democratic characteristics are only 32.9% likely to have some form of free trade agreement.

**Figure 4.11:** Probability of a State Being a Member of a Preferential Trade Institution for Different Degrees of Democracy.



The time series analysis suggests that states possessing democratic institutions are much more likely to adopt either a bilateral or multilateral trade agreement. States scoring as a perfect democracy on the Polity scale have a probability of 78.8% of having membership in a FTA, while states having no democratic characteristics are only 43.1% likely to have some form of preferential trade agreement. Strong democratic institutions increase the likelihood that a state will have some form of FTA.

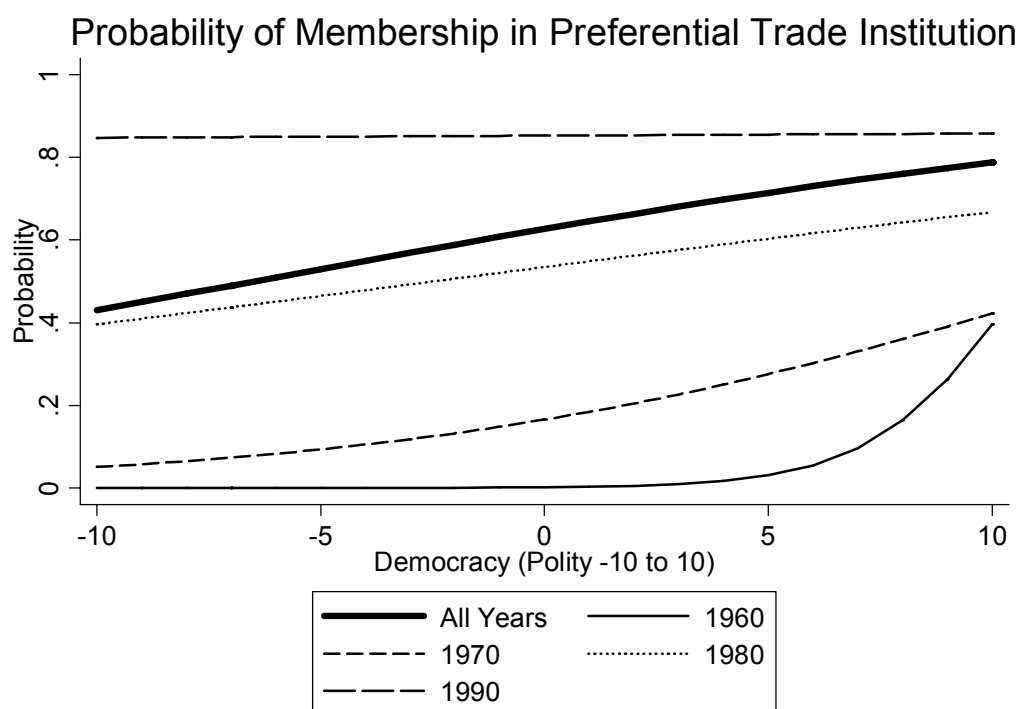
**Table 4.5:** Logit results for Membership in Preferential Trade Institution for 1960, 1970, 1980, 1990, and 2000.

	Democracy	Constant	Observations
1960	.6068433* (.2743147)	-6.487753 (2.597854)	107
1970	.1307364*** (.033876)	-1.620216*** (.2680452)	129
1980	.0559394* (.0226247)	.1386892 (.1756724)	142
1990	.0041005 (.0311056)	1.756085*** (.237414)	143
2000	-.2224312 (.2029609)	5.404109** (1.784537)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Figure 4.12:** Probability of a State Being a Member of a Preferential Trade Institution for Different Degrees of Democracy by Year.



Although democratic institutions have a positive relationship with the probability of a state adopting some form of preferential trade agreement, the effect is not constant through time. Democratic institutions are positive and significant for 1960, 1970, and 1980, but insignificant for 1990 and 2000. Democracy is negative in 2000. The same historic explanation given earlier in this section holds here. As preferential trade agreements became more common in the international system, the statistical significance of democratic institutions disappears. This should not be attributed to a weakened

influence of liberal government, but it is due to the lack of variation in the international system as FTA became more common.

#### 4.9.2 Membership Case Two: Bilateral Preferential Trade Agreements

**Table 4.6:** Chronological List of States in the International System Indicating Whether a State Was a Member of a Bilateral Preferential Trade Institution.

	States	States with Bilateral FTAs	Percentage
1960 States	107	2	1.87%
1960 Democratic	24	2	8.33%
1970 States	129	4	3.10%
1970 Democratic	29	2	6.90%
1980 States	141	21	14.89%
1980 Democratic	32	11	34.38%
1990 States	143	35	24.48%
1990 Democratic	39	19	48.72%
2000 States	162	96	58.64%
2000 Democratic	51	44	86.27%

The historic summary indicates that the percentage of states with a bilateral preferential trade agreement has increased consistently from 1960 to 2000. A higher percentage of democratic states have had bilateral FTAs than authoritarian countries for each year examined in this analysis. Eight percent of democratic states had a bilateral FTA in 1960, compared to 1.9% of all states. This percentage has continually improved and in 2000 reached 86%. The overall percentage of states having a bilateral FTA has increased every decade and reached 58.6% in 2000. As bilateral trade institutions have

become more common, a greater percentage of democratic states have had membership in this agreement.

**Table 4.7:** Logit Results for Membership in a Bilateral Preferential Trade Institution from 1960 to 2004.

States <sup>15</sup>	Democracy	Constant	Observations
167	.146*** (.0047)	-1.38*** (.037)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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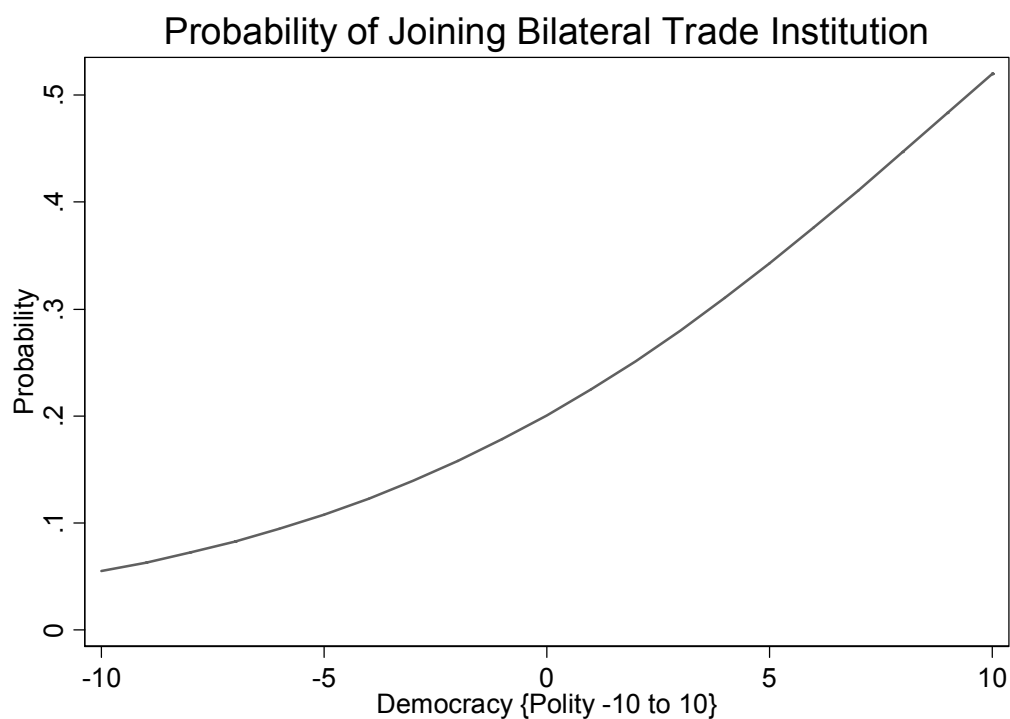
<sup>15</sup> A random effects time series logit produces the following coefficients:

States	Democracy	Constant	Observations
167	.352*** (.018)	-3.12*** (.30)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

States scoring as a perfect democracy on the Polity scale have a probability of 59.7% of signing at least one bilateral FTA and states having no democratic characteristics are only .13% likely to have a bilateral FTA.

**Figure 4.13:** Probability of a State Being a Member of a Bilateral Preferential Trade Institution for Different Degrees of Democracy.



The logit analysis indicates that states possessing democratic institutions are more likely to have at least one bilateral FTA than other states. States scoring a perfect democracy on the Polity scale have a probability of 54.4% of signing at least one bilateral FTA and states having no democratic characteristics are only 6.3% likely to be a member. Democratic institutions have a strong positive impact on a state's likelihood of joining a bilateral trade institution.



**Table 4.8:** Chronological Logit Results Reporting Democracy Coefficient and Constant for All States in 1960, 1970, 1980, 1990, 2000 Indicating Probability of State Being a Member of a Bilateral Preferential Trade Institution.

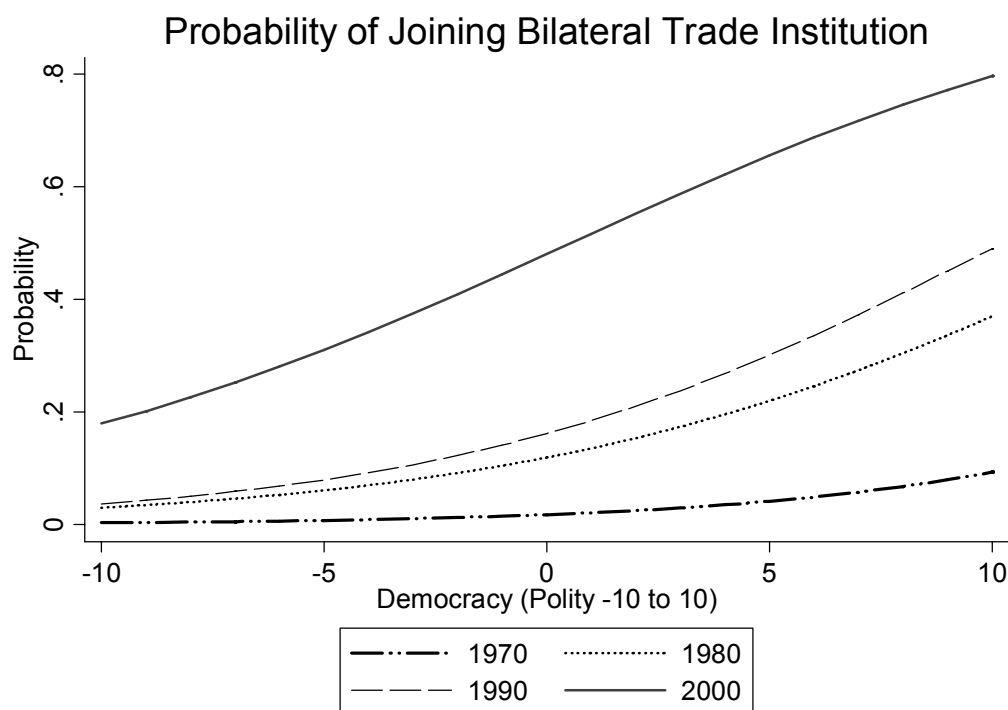
	Democracy	Constant	Observations
1970 <sup>16</sup>	.173 (.097)	-4.01*** (.843)	129
1980	.147*** (.037)	-2.00*** (.31)	142
1990	.161*** (.036)	-1.61*** (.289)	143
2000	.144*** (.078)	-.078 (.194)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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<sup>16</sup> Unable to measure 1960, democracy perfectly predicts failure. Only two bilateral trade institutions with four state members existed in 1970, since estimation was possible results are reported.

**Figure 4.14:** Chronological Probability of a State Being a Member of a Bilateral Preferential Trade Institution for Different Degrees of Democracy.



Democratic institutions have a consistent positive relationship with the probability of a state adopting a bilateral FTA and this is significant in all time periods except for 1970. Canada and Australia were the only states to have a bilateral institution in 1960 and both countries had democratic institutions. Although democracy was insignificant in 1970, half of the four states with bilateral trade institutions were democratic. This insignificance was due to scarcity because only 4 out of 107 states had bilateral FTAs. From 1980 to 2000, democratic institutions are positive and significant. There is strong

evidence that democratic institutions make a state more likely to have membership in at least one bilateral FTA.

#### 4.9.3 Membership Case Three: Multilateral Preferential Trade Agreements

**Table 4.9:** Chronological List of States in the International System Indicating Whether a State was a Member of a Multilateral Preferential Trade Institution.

	States	States with Multilateral FTAs	Percentage
1960 States	107	9	8.41%
1960 Democratic	24	8	33.33%
1970 States	129	21	16.28%
1970 Democratic	29	10	34.48%
1980 States	141	66	46.81%
1980 Democratic	32	16	50.00%
1990 States	143	116	81.12%
1990 Democratic	39	30	76.92%
2000 States	162	155	95.68%
2000 Democratic	51	47	92.16%

The historic summary indicates that the percentage of states with a multilateral preferential trade institutions has increased from 1960 to 2000 not only for democratic states, but for all states. The percentage of democratic states with a multilateral FTA was higher than the percentage for all states until 1990. This does not suggest that democratic states were less likely to adopt multilateral FTAs after this time, but rather that non-democratic states became members in these institutions at faster rates. The percentage of

states with multilateral trade agreements increased from 46% in 1980 to 81% in 1990 and to 95% in 2000. At the same time, the percentage of democratic states with membership in these institutions increased from 50% in 1980 to 76% in 1990 and to 92% in 2000. Democratic institutions were an important factor until 1980, but they have become a gradually less important in determining whether a state is a member in a multilateral FTA since 1990.

**Table 4.10:** Logit Results for Membership in a Multilateral Preferential Trade Institution from 1960 to 2004.

States <sup>17</sup>	Democracy	Constant	Observations
167	.060*** (.0035)	.347*** (.026)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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The logit analysis suggests that states with democratic institutions are more likely to adopt a multilateral FTA than other countries. States scoring as a perfect democracy

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<sup>17</sup> A random effects time series logit produces the following coefficients:

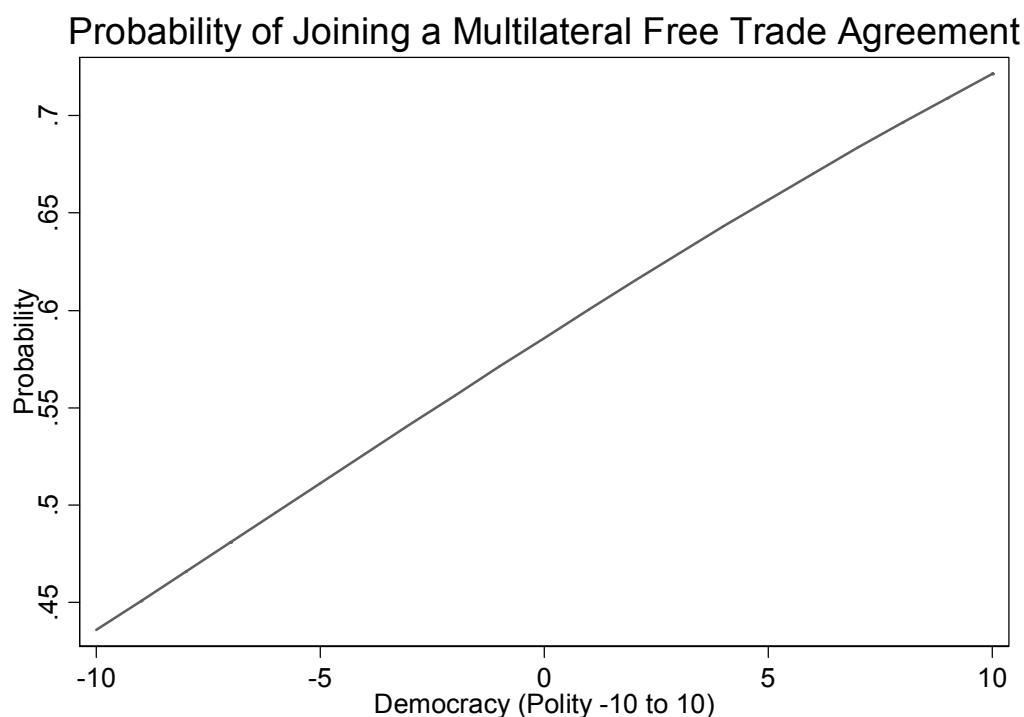
States	Democracy	Constant	Observations
167	.134*** (.0067)	.679*** (.064)	6368

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

States scoring as a perfect democracy on the Polity scale have a probability of 88.3% of having at least one multilateral FTA and states with no democratic characteristics are only 34.0% likely to have a multilateral FTA.

on the Polity scale have a probability of 72.1% of having at least one multilateral FTA and states with no democratic characteristics are only 43.6% likely to have a multilateral FTA. When yearly observations are considered from 1960 to 2004 for all states, democratic institutions have a strong positive impact on a state's likelihood of joining a multilateral preferential trade institution.

**Figure 4.15:** Probability of a State Being a Member of a Multilateral Preferential Trade Institution for Different Degrees of Democracy.



When separate logit analysis examines the relationship between democratic institutions and the probability of a state being a member of a multilateral FTA, the governmental type has an unclear relationship with these trade institutions. Democratic

institutions are positive and significant for 1960 and 1970, and positive for 1980. This relationship is negative for 1990 and 2000. As multilateral preferential trade institutions have become more common globally, the relative importance of democratic institutions decreases. Although democracy appears to be negative for 1990 and 2000, the overall percentage of states with some form of multilateral FTA increased to 81% in 1990 and 95% in 2000. While the percentage of democratic states with membership in these institutions has also increased during this timeframe (from 76% in 1990 to 93% in 2000), this was a smaller percentage than what was found for all states during the same time period. It is difficult to argue that a negative relationship exists when the over 90% of democratic states have multinational FTAs and this is only 2% less than the same percentage of all states. As multilateral preferential or free trade institutions become more common in the international system, the statistical significance and positive relationship between democracy and these FTAs disappear. As more states have adopted these institutions, the variation in the international system has declined, and this has made it more difficult to assess the effect of democratic institutions over time.

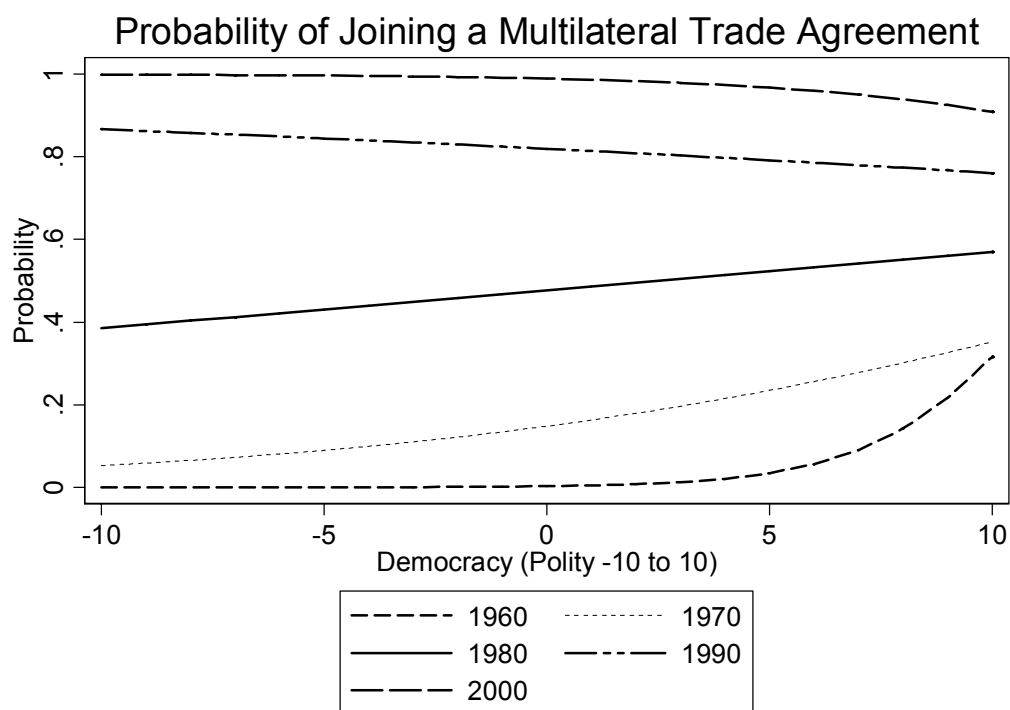
**Table 4.11:** Logit Results for Membership in a Multilateral Preferential Trade Institution in 1960, 1970, 1980, 1990, and 2000.

	Democracy	Constant	Observations
1960	.5137997* (.2554797)	-5.911444* (2.40736)	107
1970	.1139521*** (.0343931)	-1.750273*** (.272764)	129
1980	.0374988 (.0220704)	-.0918031 (.1723689)	142
1990	-.0356122 (.0287794)	1.513073*** (.2238793)	143
2000	-.2215203 (.1315616)	4.505381*** (1.149672)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Figure 4.16:** Probability of a State Being a Member of a Multilateral Preferential Trade Institution for Different Degrees of Democracy by Year.



#### 4.10 Democratic Pairs of States

##### 4.10.1 Dyad Case One: All Preferential Trade Agreements

Democratic dyads are more likely to share membership in a preferential or free trade institution than other state pairs, but the relative importance of liberal institutions is inversely related to the abundance of trade institutions in the international system. When all dyads are considered, 8.58% have both states sharing membership in a common trade institution.



**Table 4.12:** Chronological Summary of Dyads with Shared Membership in any Preferential Trade Institution (Includes both Bilateral and Multilateral Institutions).

	Number	Common FTA Membership	Percentage
All Dyads	438,083	37,596	8.58%
All Democratic Dyads	38,023	5,987	15.75%
1960 Dyads	5,865	75	1.28%
1960 Democratic <sup>18</sup> Dyads	414	36	8.70%
1970 Dyads	8,500	95	1.12%
1970 Democratic Dyads	513	36	7.02%
1980 Dyads	10,686	392	3.67%
1980 Democratic Dyads	816	103	12.62%
1990 Dyads	11,247	1,517	13.49%
1990 Democratic Dyads	1,197	199	16.62%
2000 Dyads	14,773	3,028	20.50%
2000 Democratic Dyads	1,911	412	21.56%

This number increases to 15.75% when both states are democracies scoring at least a 9 on the Polity scale. The percentage of dyads sharing membership in a trade institution was 1.28% in 1960, 1.12% in 1970, 3.67% in 1980, 13.49% in 1990, and 20.5% in 2000. The same percentage for democratic dyads was 8.7% in 1960, 7.02% in 1970, 12.6% in 1980, 16.6% in 1990, and 21.56% in 2000. Democratic dyads were 7 or 9 percent more likely to share membership than other dyads until 1990 when the advantage dropped to 3 percent and fell to 1 percent in 2000. Democratic dyads are more likely to share membership in a preferential trade institution than other state pairs, and although the marginal advantage had declined since 1990, nonetheless, the advantage remains for the

<sup>18</sup> Democratic Dyads exist when both states have a polity score of 9 or greater.

entire timeframe in this analysis. If current trends continue, this relationship may change and non-democratic pairs may overtake democratic dyads.

**Table 4.13:** Dyadic Logit Results for Common Membership in Any PTA.

Democracy	Trade	Distance	Constant	Observations
.056*** (.00078)	.000031*** (.0000019)	-.00037*** (.0000027)	-.855*** (.010)	438,083

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Table 4.14:** Dyadic Logit Results for Common Membership in Any PTA in 1960, 1970, 1980, 1990, and 2000.

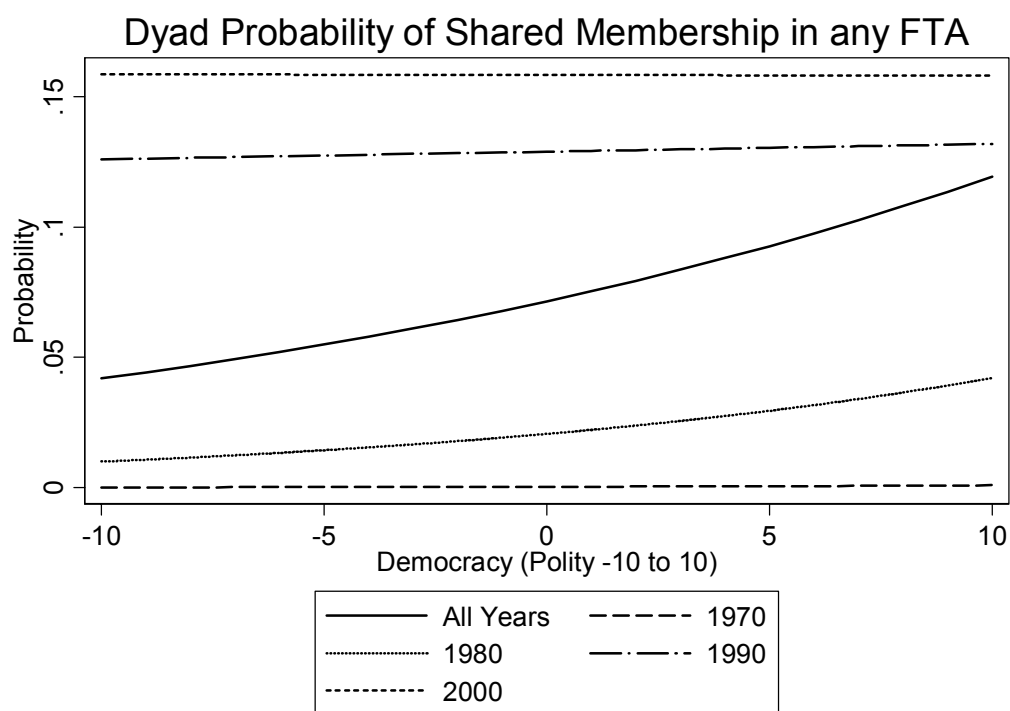
	Democracy	Trade	Distance	Constant	Observations
1960	.131*** (.017)	.00049 (.00035)	-.0012*** (.000015)	-1.76*** (.22)	5,865
1970	.109*** (.014)	.00017 (.00011)	-.0014*** (.00016)	-1.28*** (.20)	8,500
1980	.074*** (.0072)	.000072*** (.000019)	-.00059*** (.000033)	-1.12*** (.093)	10,686
1990	.0026 (.0041)	.000029*** (.0000083)	-.00018*** (.000011)	-1.09*** .055	11,247
2000	-.00019 (.0033)	.000016*** (.0000048)	-.00039*** (.000011)	.161*** (.041)	14,773

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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A second approach using logit analysis confirms that democratic dyads are more likely to share common membership in a preferential trade institution even when trade and distance are considered. Evaluating this relationship in individual years shows that the democracy coefficient was significant and positive from 1960 to 1980, but declined throughout this timeframe. In 1990, the coefficient is positive but insignificant and becomes negative in 2000. Democratic dyads do not have a consistent temporal relationship for shared membership in a trade institution.

**Figure 4.17:** Democratic Dyads and the Probability of Sharing Membership in a FTA (Distance and Trade Take Mean Value).



#### 4.10.2 Dyad Case Two: Bilateral Preferential Trade Agreements

Democratic dyads are more likely to share membership in a bilateral trade institution than other state pairs and this relationship has been constant from 1970 to 2000. The probability that two states share a bilateral trade institution is only 1.1% when all observations are considered; this percentage is 5.2% for democratic dyads. These institutions were relatively rare until 1980. In 1960 when there was only one institution and in 1970 there were two. The percentage of dyads with joint membership in a bilateral trade institution was .59% in 1980, .86% in 1990, and 4.8% in 2000. Democratic dyads had higher percentages of 4.0% in 1980, 4.1% in 1990, and 11.04% in 2000. Since bilateral trade institutions have appeared more frequently in the international system since 1980, democratic dyads have been more likely to share membership in these institutions.

**Table 4.15:** Chronological Summary of Dyads with Shared Membership in a Bilateral Trade Institution.

	Dyads	Dyads with Bilateral FTAs	Percentage
All Years	438,080	4,690	1.07%
All Democratic <sup>19</sup>	38,023	2,000	5.26%
1960 States	5,865	1	0.02%
1960 Democratic	414	1	0.24%
1970 States	8,500	2	0.02%
1970 Democratic	513	1	0.19%
1980 States	10,686	63	0.59%
1980 Democratic	816	33	4.04%
1990 States	11,247	97	0.86%
1990 Democratic	1,197	49	4.09%
2000 States	11,879	572	4.82%
2000 Democratic	1,911	211	11.04%

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<sup>19</sup> Democratic Dyads exist when both states have a polity score of 9 or greater.

**Table 4.16:** Dyadic Logit Results for Shared Membership in a Bilateral FTA.

Democracy	Trade	Distance	Constant	Observations
.144*** (.0023)	-.000021*** (.0000039)	-.000843*** (.0000127)	-2.30*** (.027)	438,080

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

Logit analysis supports this finding and shows that democratic institutions have a positive and significant relationship with common membership in a bilateral trade institution. Likewise, democracy is positive and significant for individual years from 1980 through 2000. Democracy is positive in 1970 but insignificant. However, this is a reflection of the lack of bilateral treaties in the system at this time.

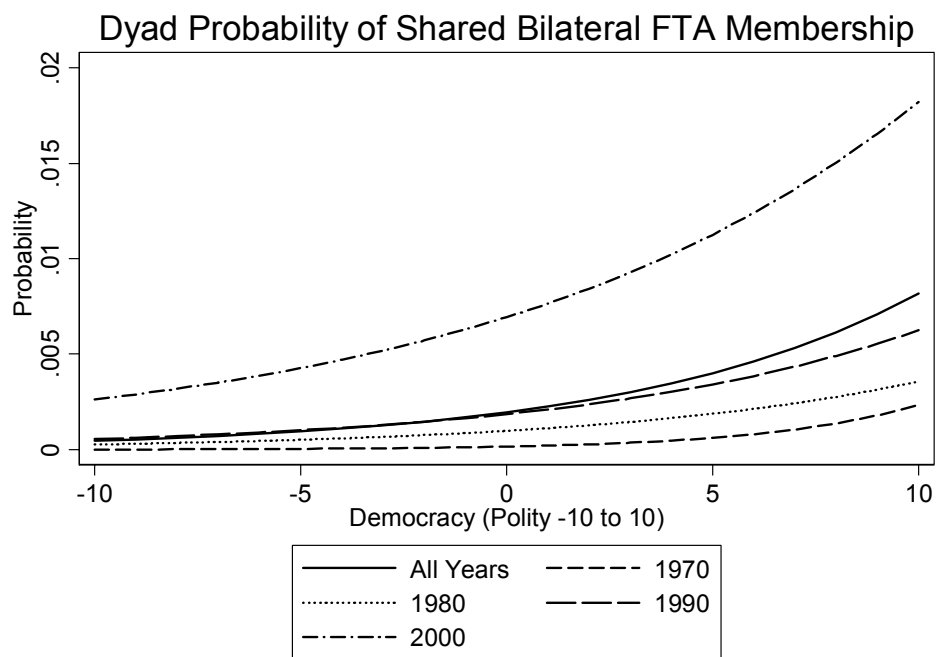
**Table 4.17:** Dyadic Logit Results for Shared Membership in a Bilateral FTA in 1970, 1980, 1990, and 2000.

	Democracy <sup>20</sup>	Trade	Distance	Constant	Observations
1970	.269 (.149)	.0000165 (.00067)	.0000683 (.00022)	-9.06*** (1.76)	8,500
1980	.129*** (.0169)	-.0000308 (.000036)	-.00095*** (.000012)	-2.48*** (.221)	10,686
1990	.121*** (.015)	-.000026 (.000023)	-.00080*** (.000083)	-2.54*** (.185)	11,247
2000	.097*** (.0074)	-.000012* .0000080	-.000839*** (.000036)	-1.05*** (.083)	14,772

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

<sup>20</sup> Unable to measure 1960, democracy perfectly predicts failure. Only two bilateral trade institutions existed in 1970, since estimation was possible results are reported.

**Figure 4.18:** Democratic Dyads and the Probability of Sharing Membership in a Bilateral PTA (Distance and Trade Take Mean Values).



**Table 4.18:** Chronological Summary of Dyads with Shared Membership in a Multilateral Trade Institution.

	Number	Number with Multilateral FTAs	Percentage
All Dyads	438,083	34,741	7.93%
All Democratic Dyads <sup>21</sup>	38,023	4,838	12.72%
1960 Dyads	5,865	74	1.26%
1960 Democratic Dyads	414	35	8.45%
1970 Dyads	8,500	91	1.07%
1970 Democratic Dyads	513	35	6.82%
1980 Dyads	10,686	338	3.16%
1980 Democratic Dyads	816	77	9.44%
1990 Dyads	11,247	1,441	12.81%
1990 Democratic Dyads	1,197	162	13.53%
2000 Dyads	14,773	2,717	18.39%
2000 Democratic Dyads	1,911	316	16.54%

#### 4.10.3 Case Three: Multilateral Preferential Trade Agreements

Democratic dyads are more likely to share membership in multilateral institutions when all timeframes are considered and historically from 1960 to 1990. When all observations are considered, democratic dyads have a shared membership in multilateral trade institutions at a rate of 12.7%. The same percentage for other dyads is 7.9%. The rate that democratic dyads shared membership in these institutions was 8.4% in 1960 and grew to 16.5% in 2000. Non-democratic dyads had a lower percentage until 2000, but the gap started to close in 1990 when its rate was only .7% lower than democratic dyads.

<sup>21</sup> Democratic Dyads exist when both states have a polity score of 9 or greater.



Although democratic dyads had an advantage over other state pairs for the majority of the time covered in this analysis, they were less likely to have shared membership at the end.

**Table 4.19:** Dyadic Logit Results for Common Membership in a Multilateral FTA.

Democracy	Trade	Distance	Constant	Observations
.0468***	.0000306***	-.000333***	-1.07***	438,083
(.000812)	(.0000019)	(.0000027)	(.010)	

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

---

A democratic dyad is more likely to have shared membership in a multilateral FTA when all observations are considered, but the relative importance of liberal institutions declines with time. Democracy is positive and significant for all observations and for the years of 1960, 1970, and 1980. Democracy is negative in 1990 and negative and significant in 2000. The democracy coefficient grows lower in absolute terms with each succeeding decade. Although democracy is positive overall, its impact decreases with time and eventually becomes negative.

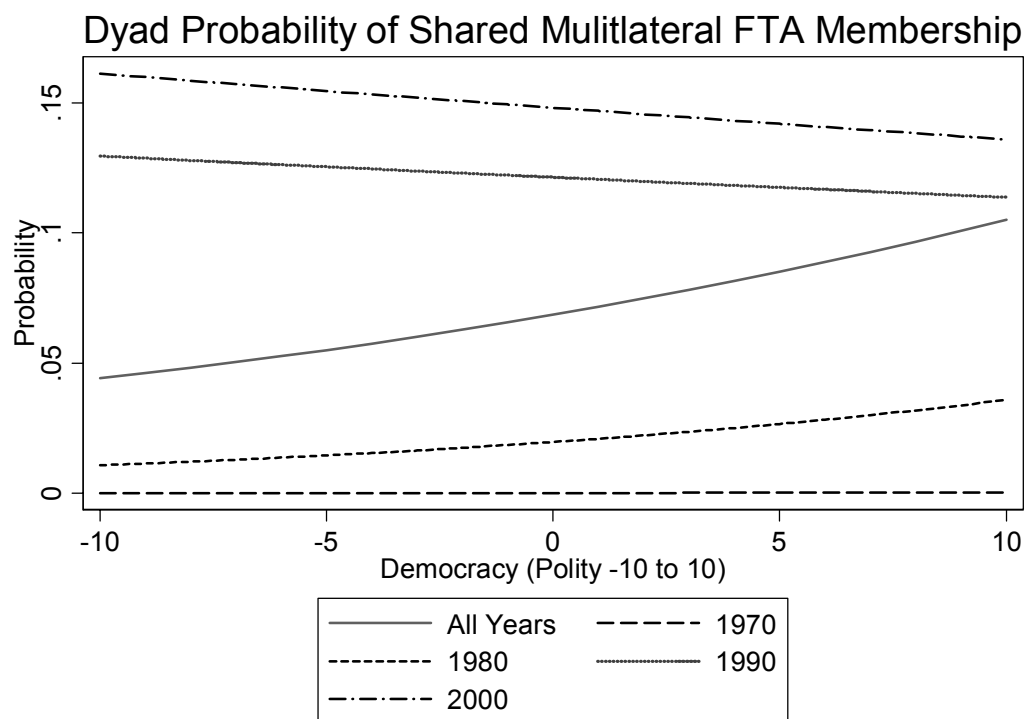
**Table 4.20:** Logit Results for Common Membership in a Multilateral FTA in 1970, 1980, 1990, and 2000.

	Democracy	Trade	Distance	Constant	Observations
1960	.125*** (.0176)	.000433 (.00033)	-.00143*** (.000182)	-1.05*** (.230)	5,865
1970	.103*** (.015)	.000158 (.000108)	-.00175*** (.00019)	-1.06*** (.205)	8,500
1980	.0617*** (.0077)	.0000715*** (.0000186)	-.000531*** (.000034)	-1.45*** (.099)	10,686
1990	-.00742 (.0043)	.0000299*** (.0000082)	-.000149*** (.000012)	-1.29*** (.057)	11,247
2000	-.0100** (.0034)	.000014** (.0000044)	-.000341*** (.000011)	-.163*** (.042)	14,773

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Figure 4.19:** Democratic Dyads and the Probability of Sharing Membership in a Multilateral PTA (Distance and Trade Take Mean Value).



#### 4.11 Democratic Institutions and the Number of Preferential Trade Partners

##### 4.11.1 Counting Preferential Trade Partners Case One: All Agreements

From 1960 to 2004, states have seen the number of foreign markets that their companies can reach through preferential or free trade institutions increase. The average number of states sharing membership in preferential trade institutions has increased throughout this timeframe (see Table 4.28 on page 142). The mean<sup>22</sup> number of preferential country partners for all states was 1.51 in 1960, 1.58 in 1970, 6.53 in 1980,

<sup>22</sup> The mean is the simple division of the sum counting the number of free trade partner states sharing a free trade agreement with the observed state by the total number of states.

22.7 in 1990, and 40.42 in 2000. If all observations are considered, each state has an average of 16.9 partner states. If we consider the same measurement for democratic states the mean was 5.7 in 1960, 5.0 in 1970, 10.4 in 1980, 16.4 in 1990, and 34.1 in 2000. When all democratic observations are considered, the average number of partner states is 18.8. Democratic states had two more preferential trade partner states on average than non-democracies when all observations are considered. From 1960 until 1980, democratic states had a greater number of preferential trade partners than other states. This advantage was lost in 1990 when non-democratic states had an average of 6 more preferential trade partners. Non-democratic states had approximately the same number of additional partners in 2000.

**Table 4.21:** Poisson Results for Bilateral and Multilateral Preferential Institutions.

Democracy	Constant	Observations
.0296*** (.00042)	2.74*** (.0033)	6,336

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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When all observations are considered simultaneously, democracy is significant and positive. Democratic states are likely to have more partner countries sharing membership with them in preferential trade institutions. The expected number of partners increases from 11.4 when states have no democratic attributes to 22.7 for fully democratic states.

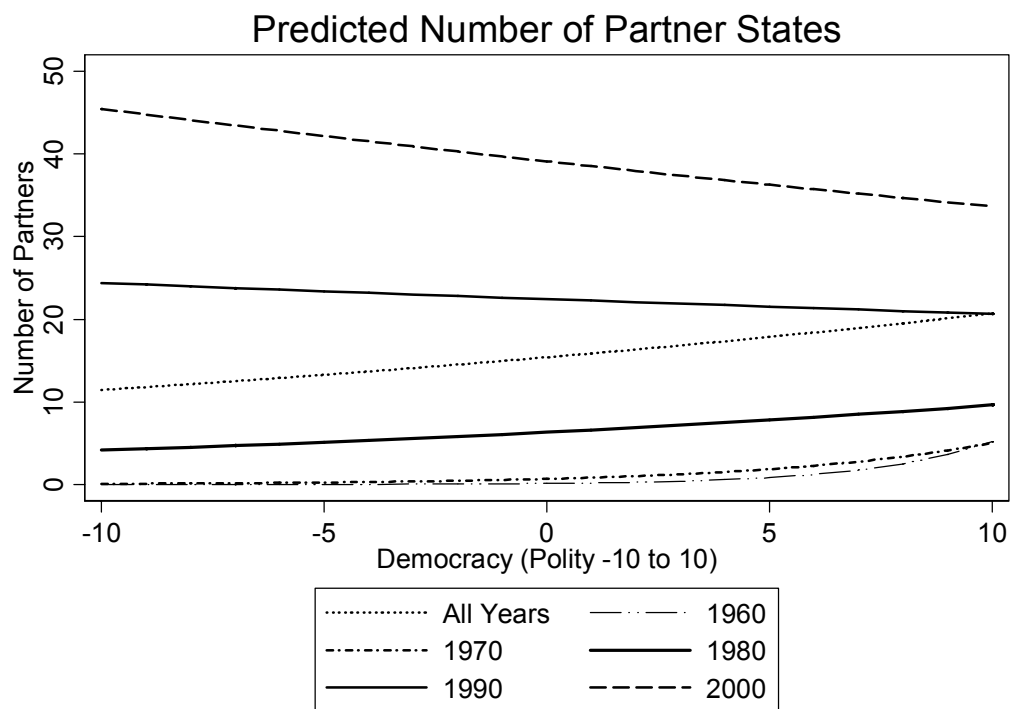
**Table 4.22:** Poisson Bilateral and Multilateral Preferential Trade Institutions Results for 1960, 1970, 1980, 1990, 2000.

	Democracy	Constant	Observations
1960	.365*** (.043)	-2.00*** (.402)	106
1970	.200*** (.016)	-.381** (.144)	128
1980	.0421*** (.0042)	1.84*** (.034)	141
1990	-.00832** (.0023)	3.11*** (.018)	142
2000	-.0150*** (.0019)	3.67*** (.014)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Figure 4.20:** Predicted Number of Preferential Trade Partners.



The overall positive relationship between democratic institutions and the expected number of preferential trade partner states does not hold for all time periods. The results suggest that democratic institutions have always been significant, but its coefficient has dropped in value throughout time. Democracy is positive from 1960 through 1980 and takes a negative value after 1990. The constant is always significant and increases in value with time.

## 4.11.2 Counting Preferential Trade Partners Case Two: Bilateral Trade Agreements

**Table 4.23:** Number of Partner Countries in Bilateral Trade Institutions for all years, 1960, 1970, 1980, 1990, and 2000.

	States	0	1	2-10	11-20	21-30	31-37
All Years	6,336	4,647	515	871	152	91	60
All Democracies	1,626	806	174	397	116	73	60
1960	106	104	2				
1960 Democracies	24	22	2				
1970	128	124	4				
1970 Democracies	28	26	2				
1980	141	120	11	10			
1980 Democracies	32	21	3	8			
1990	142	104	13	25			
1990 Democracies	39	19	6	14			
2000	162	67	16	52	10	0	15
2000 Democracies	51	7	4	18	7	0	15

Democratic states are more likely than authoritarian states to join bilateral trade institutions and this tendency has remained constant from 1960 to 2004. When all time periods are considered, a state shares membership with an average of 1.9 states in bilateral institutions. The mean for democratic states is 5.4. When all states are considered in specific years, the average number of states was .07 in 1960, .08 in 1970, .7 in 1980, 1.1 in 1990, and 5.9 in 2000. The average for democratic states was .3 in 1960,

.25 in 1970<sup>23</sup>, 2.3 in 1980, 3.0 in 1990, and 13.4 in 2000. The mean for democratic states is at least twice as great as the mean for non-democratic states in each time frame. This relationship indicates that democratic states are more likely to enter into this form of agreement than other states.

**Table 4.24:** Poisson Results for Bilateral Preferential Trade Institutions.

	Democracy	Constant	Observations
	.203*** (.0024)	-.415*** (.022)	6,336

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Table 4.25:** Poisson Bilateral Preferential Trade Institutions Results for 1960, 1970, 1980, 1990, 2000.

	Democracy	Constant	Observations
1970 <sup>24</sup>	.166 (.096)	-4.03*** (.835)	128
1980	.208*** (.026)	-1.37*** (.236)	142
1990	.179*** (.020)	-.860*** (.179)	142
2000	.203*** (.011)	.462*** (.093)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

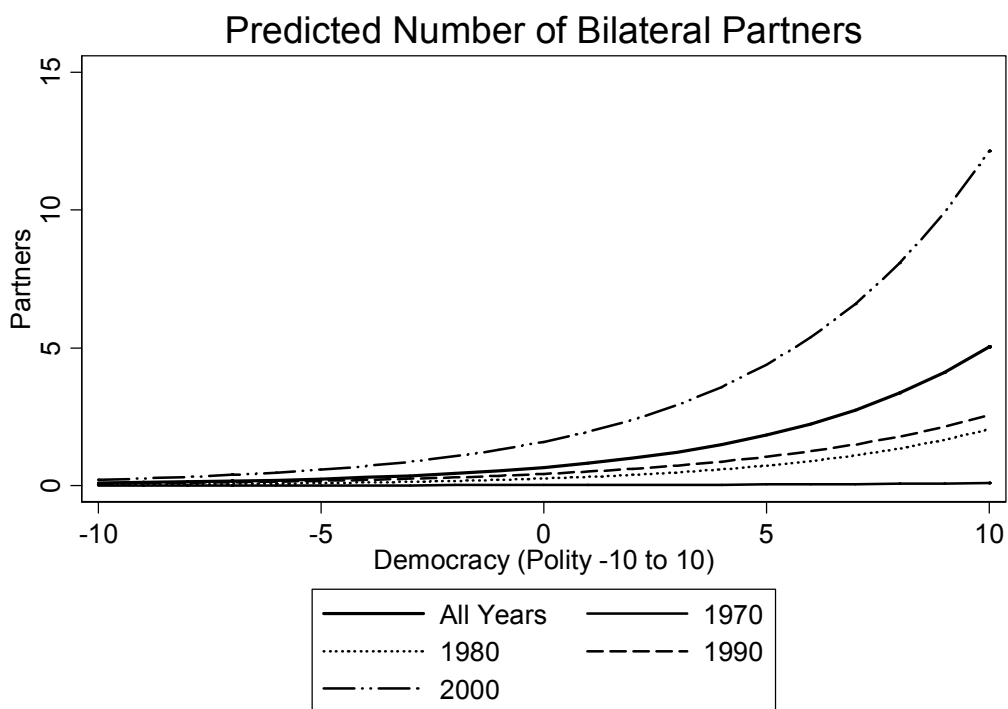
<sup>23</sup> In 1970 the number of states scoring a 9 or 10 on the government scale increased from 24 to 28, but the additional bilateral agreements only increased slightly. Although the total number of agreements increased, the mean number of partner states actually declines slightly.

<sup>24</sup> Unable to measure coefficients for 1960 due to lack of variation in observations.



When all observations are considered, democracy is significant and positive. Democratic states are likely to share membership with more states in bilateral trade institutions than authoritarian countries. The expected number states with shared membership increases from .096 for authoritarian states to 5.26 for democracies. Democratic institutions make a state more likely to have more partners in bilateral trade institutions.

**Figure 4.21:** Predicted Number of Bilateral Preferential Trade Partners.



Separate count models conducted in ten year intervals indicate that this relationship has remained consistent from 1960 to 2000. The democratic coefficient is

positive in each model and significant for all years except 1960. This provides evidence that democratic institutions make a state more likely to have membership in bilateral trade institutions and this tendency has not declined.

#### 4.11.3 Counting Preferential Trade Partners Case Three: Multilateral Trade Agreements

Democratic states do not have a clear advantage over non-democratic states in the number of partner states sharing membership in multilateral trade institutions. When all time periods are considered, a state shares membership with an average of 14.9 states in multilateral institutions (see Table 4.29 on page 143). If we consider this mean chronologically, the mean was 1.4 in 1960, 1.5 in 1970, 5.8 in 1980, 21.6 in 1990, and 34.5 in 2000. Overall, democratic states have an average of 13.4 partners. The chronological mean for democracies was 5.3 in 1960, 4.8 in 1970, 8.1 in 1980, 16.2 in 1990, and 20.8 in 2000. Although democracies have a lower overall mean, their mean was higher from 1960 to 1980. This advantage was lost in 1990 when non-democratic states had a mean greater by 5 states and this was extended to 14 in 2000. If we consider the overall mean, democratic states do not have more preferential trade partners in multilateral trade institutions.

**Table 4.26:** Poisson Regression Results for Multilateral Trade Institutions.

Democracy	Constant	Observations
.0214*** (.00043)	2.68*** (.0033)	6,336

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

Democracy has a positive and significant relationship when all observations are considered in a Poisson regression. The expected number of preferential trade partner states in multilateral institutions increases from 11.8 in authoritarian states to 18.1 in fully democratic states. This yields contrary results from a simple examination of a difference in means and suggests that democratic states share preferential trade agreements with more states in multilateral institutions when the entire timeframe is taken into account.

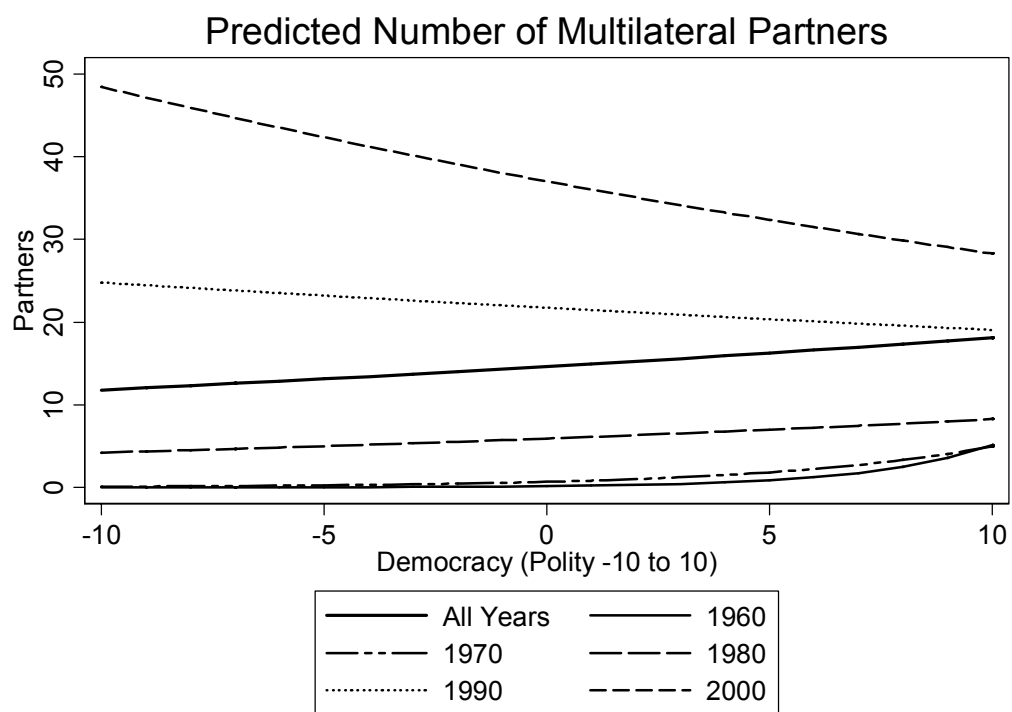
Democracy does not have a clear, unambiguous relationship with the number of partner multilateral preferential trade partner countries when individual years are examined. Democracy is always significant but only positive from 1960 to 1980 and negative in all later years. While the democracy coefficient grows smaller with each decade, the constant simultaneously increases to reflect the growth of multilateral institutions in the international system. The growth in the constant and the simultaneous decline in the democracy coefficient provide evidence that the number of state partners in multilateral institutions has increased faster for non-democratic states in this timeframe.

**Table 4.27:** Poisson Multilateral Preferential Trade Institutions Results for 1960, 1970, 1980, 1990, 2000.

	Democracy	Constant	Observations
1960	.362*** (.043)	-1.99*** (.400)	106
1970	.200*** (.016)	-.408** (.147)	128
1980	.0336*** (.0044)	1.77*** (.035)	141
1990	-.0131*** (.0024)	3.07*** (.018)	142
2000	-.0269*** (.0019)	3.61*** (.014)	162

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

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**Figure 4.22:** Predicted Number of Multilateral Preferential Trade Partners.

**Table 4.28:** Number of Partner Countries in Multilateral Trade Institutions for All Years, 1960, 1970, 1980, 1990, and 2000.

	States	0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90
All Years	6,336	2,466	877	1,147	400	234	581	344	95	122	50
All Years Democracies	1,626	434	300	246	164	202	96	124	60	1	0
1960	106	97	3	0	6						
1960 Democracies	24	14	5	0	5						
1970	128	105	17	0	6						
1970 Democracies	28	16	7	0	5						
1980	141	71	24	37	9						
1980 Democracies	32	14	6	4	8						
1990	142	23	26	28	11	12	31				
1990 Democracies	39	7	8	7	1	12	3				
2000	162	5	11	37	14	4	28	41	4	11	4
2000 Democracies	51	4	4	12	8	1	1	20	1	0	0

**Table 4.29:** Number of Partner Countries in Preferential Trade Institutions for All Years, 1960, 1970, 1980, 1990, and 2000 (Includes Both Bilateral and Multilateral Agreements).

	State	0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-99
All Years	6,336	2,480	921	1,101	590	107	694	205	91	100	26	21
All Years Democr.	1,626	434	311	237	340	92	183	15	13	0	0	0
1960	106	95	5	0	6							
1960 Democracies	24	14	5	0	5							
1970	128	105	17	0	6							
1970 Democracies	28	16	7	0	5							
1980	141	72	23	37	9							
1980 Democracies	32	14	6	4	8							
1990	142	23	26	28	23	12	33	8	1			
1990 Democracies	39	7	6	7	13	0	3	1	0			
2000	162	5	16	33	15	2	36	20	9	8	2	3
2000 Democracies	51	4	5	11	9	0	20	1	1	0	0	0

#### 4.12 Discussion and Conclusion

Democratic institutions make a state more likely to have membership in a preferential or free trade institution, to share membership in a trade institution with other democratic states, and to have a greater number of preferential trade partners. While these statements describe the methodological findings in this study when the entire timeframe is taken into account, these statements are unlikely to describe the contemporary situation except in the case of bilateral trade institutions. To better interpret these findings that democratic governments increase the likelihood of a state entering into a trade institution, there are two important qualifications that must be stated: first, there is an important distinction between bilateral and multilateral institutions. Secondly, democratic governmental structures do not have the same effect from 1960 to 2004. An important temporal threshold occurs around 1990 when democratic institutions start to decline in relative importance for multilateral trade institutions. These qualifiers provide the context from which to evaluate when democratic governments facilitate trade agreements.

The domestic governmental structure is particularly important factor in predicting whether a state will join a bilateral trade institution. Democratic states are more likely to adopt these agreements than authoritarian regimes, and this tendency holds for the entire timeframe. Democratic states were more likely to be members and had bilateral institutions with more partners; democratic dyads were more likely to share membership in a bilateral trade institution. These relationships held for the entire timeframe and in individual year analyses.



Democratic governments are an important factor in predicting a state's likelihood to enter into a bilateral trade institution because membership in these agreements is relatively scarce in the international system. For example, in 2000 less than five percent of all dyads in the international system had shared membership in a bilateral trade institution while over eighteen percent had shared membership in a multilateral institution. Although non-democratic states have more preferential trade partners than liberal governments in 2000, these states have relied heavily on multilateral institutions and have not used bilateral agreements to guarantee foreign market access for domestic firms. It is more cost effective for authoritarian states to rely on larger agreements in which a single institution binds a number of states collectively rather than seek multiple agreements with individual states. Since most non-democratic states are considered to be emerging markets, the relative cost of securing market access is a relevant concern. A second reason is that U.S. and the European Union have separate templates that they use as frameworks in bilateral trade negotiations (Woolcock 2007). Once the model was created, it was easier for the U.S. and EU to enter into separate negotiations with multiple potential partners. No template is similarly used by emerging market states, and therefore it is less expensive for these states to enter into multilateral agreements rather than to separately negotiate several bilateral ones.

The historic transition where democratic governments become less important for multilateral trade institutions takes place between 1980 and 1990. Prior to 1980, democracy is positive and significant in all three models. Starting in 1990 democracy becomes negative and it is significant except for the probability of a state being a member

of a bilateral institution. Although the government coefficient is negative starting in 1990, the membership in multilateral institutions continues to grow for democratic states. The cause of this transformation is that authoritarian states gain membership at a much faster rate with a greater number of partner countries, so that democratic institutions appear to have a negative relationship. The real difference is that the growth rate for democratic states increases at a slower rate and, therefore, falls below the membership rate for all states. As multilateral trade institutions became more common, the relative importance of democratic institutions declines. The relative presence of multilateral trade agreements in the international system determines the context in which domestic institutions matter.

When multilateral and bilateral trade institutions are considered simultaneously, democracy becomes less important after 1990 because of the greater number of multinational institutions in the global system. Democracy loses significance in all models in 1990 and becomes negative in 2000 in the models estimating probability of membership. In the count model, democracy is negative and significant for 1990 and 2000. Although the number of trade partners and agreements increases in absolute terms, democratic states do not enter into multilateral agreements at the same rate as authoritarian states at this time. This is due to the relative scarcity of bilateral compared to multilateral institutions.

This research suggests that democratic institutions are positively associated with preferential trade institutions regardless of the international context. The rapid transformation in the international system that occurred when authoritarian states sought

and gained membership in a large number of multilateral institutions provides evidence that these regimes are more sensitive to the international context and adjust their behavior accordingly. While authoritarian regimes accelerated their rate of joining multilateral institutions, democratic countries continued to create new trade institutions at the same rate. Democratic states are more likely to join a preferential trade agreement regardless of the international context and this provides support for the idea that liberal institutions increase a state's likelihood of joining a trade institution.

This research simply focuses on the presence and number of preferential trade institutions but ignores variation in their structure. As such, it can only provide insight into the frequency states enter into these agreements, but not the quality or effectiveness of the institution. A potentially important follow-up study would examine the institutional variation of these agreements and compare this to democratic characteristics of member states. Given the vast number of trade institutions, it is possible that an agreement between two democratic states has more features and is stronger. Secondly, an interesting follow-up study could focus on how these institutions have changed throughout time. The growth in multilateral preferential trade institutions following the end of the Cold War has increased the number of member states, but until these institutions are better understood, it is difficult to see how states may have benefited from this membership. There are many potentially important follow-up studies to this research.

## CHAPTER 5: CONCLUSION

In this conclusion I do not wish to examine the consequences of any individual chapter, but consider the relationship between the three empirical studies. In addition to this, I wish to discuss the significance this dissertation has for liberal thought concerning free trade agreements. This work finds that the spatial distribution of capital within states is not constant and that democratic states do not always have a higher average number of trade partners than other countries. These chapters provide the theory and evidence to challenge the idea that regional free trade agreements benefit everyone and are, therefore, good for all states. An important theoretical insight is that states that are economically most vulnerable are the least likely to gain new investment through free trade institutions. One outcome, therefore, is that free trade institutions may not be the best solution for all states looking to grow and advance economically.

### 5.1 Relationship of Empirical Studies

At the conclusion of this dissertation, I wish to offer some insight into how the chapters relate to one another and talk about the larger research question that motivated this work. The three empirical chapters are self-contained and have their own introduction, theory, methodology, results, and conclusion. Nevertheless, there is an internal dynamic that links them to one another. The first two chapters use the New Economic Geography as a theoretical framework to test two implications of the unequal spatial distribution of capital within a multi-state market created by political institutions.

The final empirical chapter arises from reflection on an unexpected finding in the first model. While previous research shows that states with liberal governing institutions attract higher FDI inflows on average than other countries, democracy is insignificant and negative in this study. Although democracy was only a control variable, this surprising result demanded further attention. I attribute this unanticipated outcome to the high correlation between regional preferential trade agreements and democracy for the timeframe examined. However, I wanted to take a deeper look at this relationship.

The third empirical chapter emerges to directly assess this anomaly and looks at the relationship between democratic states and free trade agreements. To directly address the irregularity in my first chapter I would have had to change the research question to consider only regional free trade institutions. However, other than my particular research interests, there is no literature examining democratic governance and contiguous trade institutions. There is a body of literature that looks at the relationship between democracy and free trade institutions that uses trade flows as a dependent variable to show a positive relationship. However, there is no existing paper that directly examines whether this also holds for actual preferential trade institutions. Therefore, I changed my research question to consider this relationship in the final chapter. While I was unable to directly address the subject that motivated this inquiry, I modified this analysis to consider an issue that has the potential to contribute to an important question in the existing political science literature. Although the third chapter derives directly from the first, it ultimately examines a different subject.

## 5.2 Qualifying Liberalism's Promises

The results of this dissertation provide a means to qualify liberalism's claim that free trade is good for everyone. While the subject of the first two empirical chapters focuses on capital concentration and not economic growth or unemployment, the spatial distribution of foreign capital within a market has implications for both issues. The agglomeration of capital has consequences that are not directly addressed in this research, but, nonetheless, follow from the conclusions. Thus, this research contests the promises of liberalism by showing that free trade agreements are not good for everyone. Those who have the weakest economic infrastructure are likely to gain the least and perhaps suffer lower living standards by joining regional trade institutions.

A state signs a trade agreement because it has a reasonable expectation that its domestic market will improve. One promise of liberalism is that individuals pursuing their own self-interest may contribute to social welfare and benefit the state while personally becoming better-off in the process. Free trade institutions among contiguous states expand the geographic area where goods may be reliably exchanged and provide additional opportunities for individuals to gain income by increasing welfare in multiple countries. According to this theory, the wealth of all states united through these institutions should improve. This dissertation shows that this idea does not hold once space and capital are introduced into the theoretical paradigms. While it appears that everyone gains when a market expands, there are additional factors that must be considered before one can assess whether a country's welfare will improve by signing trade agreements with neighboring states.

This dissertation uses space as a factor that qualifies neoclassical thought. However, no tenants or assumptions are directly challenged and I ignore the question of whether a state is better off after trade institutions are adopted. My results suggest that most states benefit through these institutions, but there are important factors that could cause a state's economy to decline through these agreements. The states with the most advanced economy in the contiguous multi-state market will gain the most through trade institutions; states less advanced may gain, but the benefits will be proportionally less than for strong states. Also, spatial variation in profit rates creates a core-periphery structure in multi-state contiguous markets. A state may join a regional trade institution believing that it will receive substantial investment inflows by opening its market, but it could actually decline if it is economically weaker than its neighbors. Countries in multi-state markets face the risk that they may become a periphery in their own region. If the lower cost in goods available to consumers does not offset a decline in wages as capital adjusts and agglomerates in other state markets, their citizens will not benefit from these trade agreements. This is contrary to the prevailing consensus within the development world and the policy prescriptions coming from global trade and development institutions. However, this problem does not exist only at the state level. Another consequence of agglomeration is that even within states that maintain regional production cores the benefits deriving from trade institutions will be unequally distributed within their domestic economy. Even when a state benefits overall, there will be regions within the state that are likely to see a decline of the population's purchasing power and living conditions. States gaining through contiguous trade agreements will see the inequality in

their domestic economy grow and this may create negative pressure on these institutions. The common arguments used to create support for the institutions will create expectations that cannot be met even when a state benefits overall. Even in countries that gain significantly from trade agreements, negative domestic consequences may follow if the spatial adjustment of capital is severe. If one applies the findings in this dissertation to NAFTA, the U.S. should benefit more than Canada or Mexico from the agreement. However, one would also expect an acceleration of regional inequality within the U.S. and a further decline of areas such as the 'rust belt.' Although NAFTA may be good for the U.S. overall, it is theoretically consistent that opposition should emerge in domestic regions that see capital move and concentrate outside their borders. Currently, this issue has emerged as a factor in the upcoming presidential election. While NAFTA is good for the U.S. overall, the negative consequences observed in some areas of the country create strong opposition to the agreement.

All the empirical chapters in this dissertation focus on individual states and ignore variation within countries. The New Economic Geography uses agglomeration to show that important variation is present even within states that benefit overall from contiguous free trade agreements. Since the models in this work use individual countries as the unit-of-analysis, sub-state variation is unobserved. This research shows that there is spatial variation in the effects of political institutions and there are many potential follow-up studies that can consider this relationship from other levels. Since the dissertation focuses only on the aggregate state level, there are interesting potential studies that can arise by focusing on changes within a state or a contiguous multi-state market. There are



also interesting questions concerning the effect trade institutions have on employment, wages, and standard of living that take a state's regional context into account. A second type of follow-up research would directly evaluate the relationship between contiguous trade institutions and domestic welfare.

While all academic inquiry requires a simplification of its subject, the danger is that this action may be ideological if it systematically ignores evidence that does not correspond to the theory. We desire liberalism to produce positive social results and this may lead us to be ideological in our assumptions and empirical models. While the inclination to support liberal thought is good, there remains a responsibility to verify that it provides the benefits it promises. Good intentions do not reduce the negative consequences that occur when theories do not adequately correspond to reality. There is a risk that trade agreements may improve the life of some individuals in a state while making it more difficult for others, particularly those located outside a core. While this research identifies a problem, it offers no solution. States need to be prudent and assess whether the promised benefits will really emerge and improve their citizen's overall welfare.

The largest problem identified by this research is that the poorest states are likely to gain the least through these institutions and be most negatively affected. This is unfortunate because those who are most desirous of positive results are least likely to achieve them. The danger is that support of trade institutions is likely to improve the lives of those who already possess the greatest economic infrastructure and increase the distance between the core and periphery within the same market. Trade institutions can

be problematic for a state because they are worst for the poor and may serve to increase marginal returns for the strong at the expense of the weakest and most vulnerable. Once space is introduced into economic models, this consequence is fairly obvious. The promise of liberalism is least likely to be fulfilled when the human need is the greatest.

This dissertation helps to qualify the relationship between contiguous trade institutions and individual states by showing that trade agreements are not necessarily good for all states or individuals. A state's regional context determines whether the institutions improve or lower welfare. The key observation is the consideration of whether a state is likely to maintain or gain its core and gain consumers in surrounding state markets. Trade institutions are likely to lower welfare in areas that are already vulnerable and provide the greatest gains to states that are already economically viable. A state's regional economic context determines whether trade institutions are beneficial and allow it to maintain its core production areas.

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