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# Power Preponderance, Institutional Homogeneity, and the Likelihood of Regional Integration

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# **Regional Integration Fifty Years** after the Treaty of Rome

The EU, Asia, Africa and the Americas

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## Power Preponderance, Institutional Homogeneity, and the Likelihood of Regional Integration

# Gaspare M. Genna

#### Introduction

What explains the variation of regional integration worldwide? The literature on regional integration is as old as the first attempts to establish the European Union (EU), but the attempt to develop generalized theories with systematic testing is relatively new. As the number of regional projects increases, and with the added complexity of overlapping memberships, we are faced with task of explaining and predicting these new movements of cross border cooperation. The project outlined in this chapter attempts to continue the current trend of theory development and empirical analysis. After reviewing the range of theories, a central argument will be developed that will synthesize power transition and institutional theories of regional integration. Specifically, the likelihood of institutionalized regional integration increases under a power preponderance structural condition and high levels of trade which promote homogenization of domestic institutions. Increasing homogenization, in turn, promotes trade and integration.

A common definition of regional integration states that it is a shifting of certain national activities toward a new center (Haas 1958). Integration therefore is a form of collective action among countries in order to obtain specific goals. These goals can be as grand as political unification (in the case of the EU) or a free trade area, as found in the North American Free Trade Association (NAFTA). Lindberg refines the definition by proposing that it is an "evolution over time of a collective decision making system among nations. If the collective arena becomes the focus of certain kinds of decision making activity, national actors will in that measure be constrained from independent action" (1970: 46). In economic terms it is "a series of voluntary decisions by previously sovereign states to remove barriers to the mutual exchange of goods, services, capital, or persons" (Smith 1993: 4). Also in the vein of economics, integration can also simply mean the degree of market merger among states. This refers to the amount of goods, services, capital, and labor flows among states. While this captures an essence of what is occurring, it misses the institutional aspect of integration which is central to its definition. The degree of market merger occurs because the

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states have negotiated an established practice of market flows and their regulation.

For the purposes of this paper, the definition of integration will follow closely the definitions purposed by Hass and Lindberg. Regional integration<sup>1</sup> is the establishment of regular collective decision making among states for the intention of establishing and regulating market flows. The degree of integration refers to the degree of collective decision making. At one end is an intergovernmental arrangement in which states make common decisions but are autonomous in regulating those decisions. If a regional authority does exist, it services at the pleasure of the individual states. On the opposite end is the supranational arrangement, in which regional institutions do exist and make decisions alongside intergovernmental arrangements or supersede the memberstates' authority.

The rest of the paper examines the literature on regional integration with the aim of reviewing, critiquing, and synthesizing prior theories. The synthesis is the establishment of a general theory of regionalism. The subsequent sections will examine the method to test the key hypotheses using systematic measures of the variables and future direction of this proposed research.

## The Literature on Regional Integration

Although the literature on regional integration has an extensive epistemology, general theories of regionalism are still at the early stages of development. In addition, most of the research is Eurocentric. Theories of regional integration can be roughly grouped into three perspectives: (1) neofunctionalism and institutionalism; (2) international power and security theories; and (3) domestic politics and intergovernmentalism.

In the first group, neofunctionalism posits that regional integration arises due to increasing technological, economic, and other complexities and problems that states can no longer effectively solve unilaterally (Haas 1958; Mitrany 1975). According to this perspective, governments are likely to enter into cooperative arrangements in order to cope with various functional needs, such as the improvement of economic welfare for their citizens. Once the political elite establish a cooperative arrangement, the theory predicts that integration would become self-perpetuating through a "spillover" process (Haas 1958). Through this mechanism, success in one functional area increases demands for cooperative arrangements in other functional areas due to two reasons. First, demand would increase because successful integration in one area would gain supporters in other areas. Second, further integration in another area or areas would allow integration in the original area to fully succeed. While neofunctionalism was influential in the 1950s and 1960s, it has been criticized as

being a *post hoc* theory having difficulties in generating testable hypotheses because many of the variables in question are not easily operationalized. Neofunctionalism also cannot predict *a priori* the issue-areas in which regional cooperation or integration occurs. In addition, functional needs do not necessarily predetermine the direction of change that states may choose to pursue (see Pentland 1973).

Institutionalism, which emerged in the 1980s, inherited the thinking of the neofunctionalist school. Put simply, institutionalists argue that international institutions promote cooperation by helping states overcome collective action problems. By lengthening the shadow of the future and by increasing transparency and enforcement of cooperation, international institutions facilitate issue-linkages and strategies of reciprocity and make international commitments more credible (Axelrod and Keohane 1986; Martin 1992; Simmons 2000). Keohane (1984), for example, claims that it is possible to create and sustain, even after the decline of a hegemonic power, international regimes in order to cope with market failures, reduce transaction costs, and respond to other problems that are difficult to be managed at the national level. With respect to European integration, institutionalists have studied the impact of the European Union institutions on the decision-making process, such as the agenda-setting power of the European Parliament (Tsebelis 1994; Garrett and Tsebelis 1996). Garrett and Weingast (1993) argue that institutions are not simply the facilitators of efficiency gains in the process of regional integration; they also provide focal points-precedents and symbols around which actors' behaviors converge-that help determine particular choices made at critical decision points.

Institutionalism has stimulated important research on international cooperation and integration. However, applying this research to understand non-European regional integration has been limited. This dearth of research may be due to the weak supranational institutional developments outside Europe. Moreover, the degree of institutionalization itself is a variable that needs explication, but institutionalism, except for resorting to the functionalist argument of efficiency gains, has a difficulty explaining the emergence of supranational regional institutions. Furthermore, researchers have criticized institutionalism for its focus on absolute gains, neglecting the possibility of absolute losses (Oatley and Nabors 1998) and relative gains (Grieco 1988).

Another take on the institutional argument focuses on state level institutions and how variation in domestic institutions influences the degree of regionalism. Feng and Genna (2003) reexamine the concept of institutions. Instead of looking at the rules and pattern of organized governance, they examined the established set of preferences in key areas of liberalization: (1) money and inflation, (2) government operations and regulations, (3) takings and discriminatory taxation, and (4) international exchange. They find that the homogeneity of institutions among member-states not only facilitates integration, but that integration promotes greater homogeneity among members. This mutually reinforcing

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mechanism not only explains the level of integration in Latin America, Southeast Asia, and Europe, but also explains the varying pace of integration in each case.

Power theories stress the distribution of power among states as a central factor influencing international outcomes. Among power theories, neorealism argues that the asymmetric gains from exchange tend to hinder international cooperation (Waltz 1979; Grieco 1988). However, many neorealists do not completely rule out such possibilities. For example, Gowa and Mansfield (1993). Gowa (1994), and Mansfield and Bronson (1997) argue that commercial liberalization is more likely among states that are political and military allies than among states that are actual or potential adversaries. They propose a defensive realist approach in which commercial liberalization strengthens mutual security among allies: states prefer to have strong allies and trade can aid in strengthening allies' economies and thereby improving military capabilities. Grieco (1997) advanced a "relative disparity shift" hypothesis where a trend of shifting relative disparity in the capabilities of states within a region is likely to lead disadvantaged states to oppose the development of formal regional institutions while relative stability of capabilities tends to foster the establishment and deepening of such regional arrangements. Grieco's study comparing relative capability change and the development of regional integration in Western Europe, East Asia, and the Americas largely supports his hypothesis.

Hegemonic stability theory likewise emphasizes the importance of power for international political and economic outcomes. The early version of hegemonic stability theory concerned the rise and maintenance of the liberal international economic order (Krasner 1976; Gilpin 1987). Proponents of hegemonic stability theory argued that the presence of a hegemonic state (that is capable of and committed to promoting economic liberalism) was a necessary condition to sustain liberal international commerce. The erosion of hegemony, by contrast, tends to give rise to protectionism. In line with this argument, Gilpin (2001) recently advanced a thesis that the existence of one or more powerful states committed to integration is the key to the successful evolution of regional economic institutions.

Like other power-centered theories, power transition theory focuses on the relative power of countries in the international system. However, power transition scholars differ from neorealists in important areas. First, power transition scholars do not assume an anarchic international system but assume a hierarchic order presided over by the preponderant power (Organski 1958; Organski and Kugler 1977, 1980; Tammen et al. 2000; see Lemke 1996, 2001 for application to local hierarchies). The preponderant power establishes a set of status quo arrangements with the help of willing allies either at the global or regional level, or both, depending on the size of the preponderant power; the larger the power of the state, the greater its capabilities and therefore the longer its territorial reach. A status quo arrangement is the set of conditions under which all states operate. One important example is the demarcation of territorial

boundaries and border permeability. There theory stresses the satisfaction with the status quo relationship between dyads of countries and the dynamics of a power transition that occurs when a subordinate power approaches and exceeds the capabilities of the preponderant power. As applied to international conflict, power transition theory posits that conflict is likely to occur when the subordinate and preponderant powers are at near parity and are dissatisfied with the status quo relationship. In contrast, a peaceful transition occurs if both powers share compatible preferences and are therefore jointly satisfied with the status quo relationship. Efird and Genna (2002) extend the theory and argue that the development of regional integration after a power transition between two satisfied powers improves because the formerly less powerful country has a vital interest in not only maintaining but also furthering and institutionalizing the arrangements that it believes to have contributed to its rise.<sup>2</sup> Efird and Genna's statistical test provides strong support for their hypothesis. Genna and Hiroi (2004; 2005; forthcoming) modified the theory by focusing in on the impact of trade dependence in one time period on the degree of integration at a subsequent time period. Explanatory power improved in the cases of Latin American integration by examining the satisfaction of trade dependence instead satisfaction with the status quo in general.

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The final group of regional economic integration research stresses the importance of domestic politics and intergovernmental bargaining. By "taking preferences seriously" (Moravcsik 1997), this literature emphasizes the distributional consequences of economic policies for domestic societal groups and the desire of political leaders to hold onto power. At its core, scholars working with this approach contend that governments' economic policies are strongly influenced by distributional conflict among societal groups; that groups that expect to lose from integration will oppose it and those that anticipate to benefit from it will support it; and that economic policies often reflect the preferences of the more powerful and better organized interest groups in society (Frieden 1991, 1998; Milner 1988, 1997; Rogowski 1989; Moravcsik 1997).

Interest group politics, however, is not the whole story. Politicians have their preferences and interests. This literature assumes that a politician's desire to retain office is the crucial guiding principle of policy making. Moreover, domestic political institutions are argued to shape the patterns of interactions between domestic groups and whose interests will be represented in governments' policies (Putnam 1988; Garrett and Lange 1995).

Similarly, intergovernmentalism posits that economic interests are the driving forces of regional integration. Moravcsik (1998) argues that commercial interests of leading domestic producers, macroeconomic preferences of ruling governmental coalitions, bargaining among powerful national governments over the distributive and institutional issues account for the developments of European

<sup>&</sup>lt;sup>2</sup> See also Efird, Genna, and Kugler (2003).

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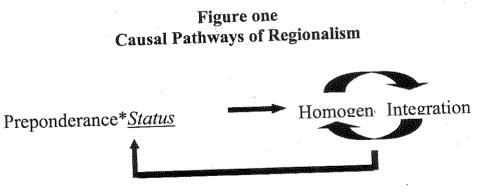
integration. Haggard (1997) generally agrees with Moravcsik's thesis. Haggard (1997) contents that the more powerful states largely shaped the bargaining agendas of economic integration in Asia and the Western Hemisphere. However, the interests of weaker states also affect—although to a lesser degree—the regional economic agreements. What is crucial for economic integration to proceed, in Haggard's view, is the convergence of preferences among parties to regional agreements that facilitate the bargaining and construction of regional economic blocs. He claims that the differences between the developments of East Asian and Latin American regional integration are due to the differences in the convergence of preferences about the direction and extent of economic integration.

#### A General Theory of Regionalism

The literature in total provides several important variables in developing a general theory of regionalism. First, the distribution of capabilities in regional systems matter. The empirical evidence shows that asymmetric distribution of power is a more favorable condition for this interdependence to develop. This is due to the ability of the preponderant power to coordinate efforts and distribute incentives to other members. Second, states do have a favorable interest to become economically interdependent. The central assumptions of neorealism lead us to believe that states prefer low to no levels of interdependence because their level of security diminishes. However, defensive realists agree that interdependence will occur among allies due to their need for mutual security. Hegemonic stability and power transition theories also agree that states do seek these benefits. Third, preferences are highly important. Being satisfied with prevailing conditions influences states to protect the status quo. By institutionalizing the status quo, states improve the certainty of a favorable future. Fourth, the link between regional level and domestic level politics helps explain the production of preferences. Preferences develop as a result of an aggregation of domestic desires. These desires spawn from competing groups that interact in the domestic arena, with the preferences of the more power groups being more likely to be expressed. Fifth, the homogeneity of institutional preferences lowers the costs of cooperation because states follow similar polices. States that wish to free ride on other states' policies are not likely to be present thereby improving the certainty that distribution of benefits will be based on negotiated market interactions and not harmful unilateral state action. Sixth, the relationship between homogeneity and integration is reinforcing. As already stated, homogeneity of institutions increases the likelihood of regionalism. But the effect of increased regionalism also increases the likelihood of further homogeneity. Finally, a synthesis of the prior findings suggests that another feedback mechanism is present. As integration and homogeneity increases, then the level of satisfaction is likely to improve. This assumes that regionalism

produces the benefits hypothesized by liberal economic theory (Krugman and Obstfeld 2002).

Figure one maps out the causal pathways of regionalism given the reviewed research. The structural conditions for regionalism include the presence of a regional preponderant power and a satisfaction with trade dependence among potential or existing member-states (the status quo). The two variables interact since together they are a necessary and sufficient condition for integration. This set of conditions promotes greater institutional homogeneity. The preponderant power can lead in promoting similarities among institutionalized policies such as inflation targets, government regulations, taxation, and international exchange. Satisfaction among the relatively smaller powers gives the preferences of the preponderant power credence. The increased homogeneity increases the likelihood of creating or deepening integration. With homogeneity uncertainty and costs of integration are lowered, leading states to cooperate. Integration furthers the likelihood that homogeneity among the member-states will increase and thereby leading to further integration. As the reinforcement of homogeneity and integration continues this will feedback to the level of satisfaction with interdependence. If integration is successful in providing aggregate benefits, then satisfaction with interdependence will improve. This in turn interacts with the asymmetric power conditions and thereby further strengthens the homogeneityintegration cycle. The likelihood that pathways will breakdown or slowdown increases during the relatively brief period of power transition. Since integration will spawn high levels of status quo satisfaction, integration will promote peaceful power transitions.



The entire pathway cannot be tested as a whole. Instead it can be deconstructed into various linear pathways:

(Preponderance\*Status Quo Satisfaction)  $\rightarrow$  Homogeneity  $\rightarrow$  Integration

(Preponderance\*Status Quo Satisfaction)  $\rightarrow$  Integration  $\rightarrow$  Homogeneity

Homogeneity  $\rightarrow$  Integration  $\rightarrow$  Status Quo Satisfaction

Integration  $\rightarrow$  Homogeneity  $\rightarrow$  Status Quo Satisfaction

These pathways can be tested using the following equations:

(1) Integration <sub>t+2</sub> = $\alpha_1 + \beta_1$ Institution <sub>t+1</sub> + $\gamma_1$ Power Preponderance <sub>t</sub> + $\gamma_2$ SQ	
Satisfaction <sub>t</sub> + $\gamma_3$ (Power Preponderance*SQ Satisfaction) <sub>t</sub> +	
$\mathcal{E}_{t+b}$	
(2) Institution <sub>t+3</sub> = $\alpha_2 + \beta_2$ Integration <sub>t+2</sub> + $\gamma_1$ Power Preponderance <sub>t</sub> + $\gamma_2$ SQ	
Satisfaction + $\gamma_3$ (Power Preponderance *SQ Satisfaction) +	
$\mathcal{E}_{l+c}$	
(3) SQ Satisfaction <sub>t+4</sub> = $\alpha_3 + \beta_3$ Integration <sub>t+2</sub> + $\gamma_3$ Institution <sub>t+1</sub> + $\varepsilon_{t+d}$	
(4) SQ Satisfaction <sub>t+4</sub> = $\alpha_4 + \beta_4$ Integration <sub>t+2</sub> + $\gamma_4$ Institution <sub>t+3</sub> + $\varepsilon_{t+d}$	

## **Hypothesis** Testing

I test the hypotheses using the generalized least squares method. Since each of the dependent variables at time t will have a large correlation with the variables at time t + n, AR(1) autocorrelation is assumed to apply to each panel. Therefore the estimated coefficient of the AR(1) process is specific to each panel and not the entire data set. The unit of analysis is the non-directed regional dyad from 1960-2000.<sup>3</sup> Regional dyads are countries that share a common border or separated by no more than 300 miles of water. Non-directed dyads best fit the present research because no theoretical assumption is made that country A would initiate integration with country B (or vise versa). It is assumed that regardless of identity of the initiator, regional integration is a negotiated process whose success is theoretically specified. Therefore including directed dyads will only produce redundancy in the data. I generated the list of dyads and some of the variables using EUGene software (Bennett and Stam 2000). The remainder of this section describes the variables used in the analysis.

The operationalization of regionalism must include a systematic coding so that the analysis can distinguish varying levels while still comparing similar attributes. This is done by using a multidimensional measurement referred to as the integration achievement score (IAS), which was first developed by Hufbauer and Schott (1994) and latter refined and applied in Efird and Genna 2002; Efird, Genna, and Kugler 2003; Feng and Genna 2003; and Genna and Hiroi 2004. The calculation of the IAS in Hufbauer and Schott's work involves a smaller number of regional integration organizations for a single year, 1994. The updated score

<sup>&</sup>lt;sup>3</sup> Some dyads do not include all years due to a country's independence after 1960 and missing data.

adds greater precision to their method, includes a greater number of regional integration projects, and involves an expanded timeframe. It gauges the level of regional integration by looking at six categories commonly attributable to regionalism: (1) trade in goods and services, (2) degree of capital mobility, (3) degree of labor mobility, (4) level of supranational institution importance, (5) degree of monetary policy coordination, and (6) degree of fiscal policy coordination. The coding system also breaks down the six categories into five levels along a Guttman scale (see appendix table one). The final measure is an average of the six categories allowing for an equal weight for each. The data used to estimate the IAS comes primarily from the Europa World Year Book and cross-referenced with other specialized sources. Of the various macro-geographic regions, the level of integration in Africa is the lowest. Levels of Asian and North and South American integration are higher than those in Africa, with the highest levels found in Europe. Currently, the score is being updated to include all cases of regional integration registered with the World Trade Organization from inception to 2003. The final data will be used in the subsequent versions of this paper.

Power preponderance is relatively simple to operationalize. The formula is the natural log of the absolute difference (plus one) of the dyad:

*Power Preponderance* =  $\ln (|GDP_i - GDP_j| + 1)$ 

The GDP data come from the *World Development Indicators* (2005) and are in constant US dollars.<sup>4</sup> I operationalize satisfaction with the *status quo* through the use of mutual trade interests (MTI). MTI is the ratio of the total value of exports among the country dyads to total dyadic output:

$$MTI = \frac{\sum Exports}{\sum GDP}$$

Exports are used instead of total trade (imports plus exports) to prevent double counting. Also, it is less likely for states to misrepresent their export values relative to import values. A ratio of total output is needed so as to determine the level of trade dependence among the member-states. The trade values come from Gleditsch 2002 (a revision of the International Monetary Fund direction of trade statistics) and are in millions of US dollars. Since the ratios are small, each MTI value is multiplied by one million to improve interpretation of the results. MTI outperforms other traditional measures of *status quo* satisfaction

<sup>&</sup>lt;sup>4</sup> GDPs of Soviet block countries are missing. Efforts are currently underway to find estimations of these data so as to remove possible bias.

(similar alliance portfolios or UN voting records) when examining regional integration (Genna and Hiroi 2004).

Institutional homogeneity is determined by using the democracy scores of the Polity IV data set (Marshall and Jaggers 2005). Each country's democracy score is an index of four authority dimensions: competitiveness of executive recruitment, openness of executive recruitment, executive constraints, and competitiveness of political participation (Gleditich and Ward 1997). I measure the degree of homogeneity by taking the absolute different of each country's democracy score and dividing by ten. This produces values between zero and one, with lower values indicating higher levels of homogeneity.

## **Preliminary Findings**

Table one displays the estimations of equations one through four. Overall, the results are as expected with the partial exception of estimations three and four; estimations one and two are completely within expectations. The first model demonstrates that power preponderance and mutual trade interest at time tand institutional homogeneity at time t+1 are good predictors of the level of regional integration at t+2. The greater the power asymmetry and the higher the mutual trade interest, the higher the level of regional integration. Figure two, parts a and b, displays the conditional effects of the interaction term. The black line segment represents the portion of the conditionality that remains significant at the p $\leq$ .10 level, while the dashed line segment represents the portion that is not significant. Figure two-a depicts the conditional coefficients of power preponderance at varying levels of MTI. As the level of MTI increases, the preponderance coefficients become increasingly positive. Figure two-b indicates a similar relationship. As the level of power asymmetry increases, the coefficient of MTI increases. For example, when the value of preponderance is 1 or near parity, the coefficient of MTI is -14.07. This means that a one-point increase in the MTI value decreases the level of integration in terms of IAS by about 14. However, when preponderance is 29, then the MTI coefficient is 5.73 (i.e., a onepoint increase of MTI increases the IAS by about 6). Between approximately 19 and 21 on the values of preponderance, the MTI coefficients are not significant, meaning that the trade in this range does not significantly influence the level of integration. Institutional homogeneity's negative coefficient indicates that the more homogeneous the political institutions are at t+1, the higher the level of integration. The second model indicates that higher levels of power asymmetry and mutual trade interests, the more homogeneous the institutions among the regional dyads. Recall that lower levels of the homogeneity measure translates to higher levels of homogeneity. Figure three a and b displays the graphical interpretation of the preponderance-MTI interaction term. Figure three-a shows that as MTI increases, the preponderance coefficient becomes increasingly negative. The exception of this relationship is at the lower end of MTI's values.

Figure three-b also demonstrates a similar relationship, except for preponderance levels between 23 and 27. The higher the level of integration at a one year lag also produces higher levels of homogeneity. The two models together indicate that preponderance and mutual trade interests precede homogeneity and integration. The estimations also indicate that homogeneity and integration are mutually reinforcing.

The second set of estimations (three and four) in table one only partially confirms expectations. The level of integration at t+2 is associated with the level of mutual trade interests at t+4 and leads to the conclusion that higher levels of institutionalized integration produces greater mutual trade interests. However greater institutional homogeneity does not seem to influence the levels of MTI. Given the reinforcing nature of institutional integration and homogeneity, perhaps only one of these variables can account for the variation in mutual trade interests.

## **Conclusions: Next Steps in the Research Project**

The work thus far has introduced a general theory of regionalism and some preliminary results. The results show some promise in supporting the theory but greater testing rigor is needed. We do see a pathway of conditions that estimates the level of integration around the world. Power asymmetry and *status quo* satisfaction in terms of MTI are the precursors to greater institutional homogeneity and institutionalized integration. Integration and homogeneity are also reinforcing factors. Integration does improve *status quo* satisfaction. An overall system develops that improves integration. The limiting factor, so far, is the level of power asymmetry. When power among the dyads is more evenly distributed, the system brakes down and integration is limited.

The following are the next steps in this project. All involve improving the testing rigor. First, the data on integration needs to be expanded. While the current data is a representative cross-section of integration on each of the continents (except Antarctica), it is not complete. There are a number of integration projects (mainly in Africa and Asia) that need to be included. This will require coding of these projects and merging the data into the current data set. Second, an array of institutional homogeneity needs to be tabulated. While the current measure taps into the degree of political institutional homogeneity, economic institutions should also be included (Feng and Genna 2003; Souva 2004). This will include various indicators such as money and inflation, government operations and regulations, takings and discriminatory taxation, and international exchange. Other economic institutional variables can include such things as property rights. Political institutions can also be expanded to include electoral rules and influence of pressure groups such as trade unions and the military. Third, the unit of analysis can also include the cases of integration, alongside the current regional dyads. This will require reformulation of the

independent variables. The parallel testing of dyads and regional groups may be helpful in unveiling potential biases of power asymmetries. Currently the dyadic method allows for a pair-wise analysis of all regional members, but may underor over-report the influence of the larger country vis-à-vis all other members. Fourth, the method of estimation needs improvement. The GLS method is appropriate for the first cut, but a method of simultaneous equation analysis is needed either through a three stage method or perhaps the Markov Chain method. Finally, a set of control variables may be necessary in order to compare future results with possible alternatives to the theory.

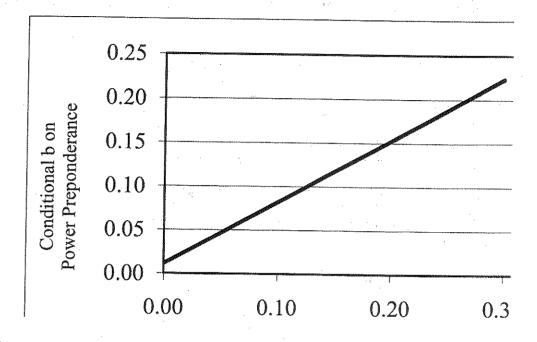
#### **Table One**

	(1)	(2)	(3)	(4)
Dependent	IAS (t+2)	Institutional	Mutual Trade	Mutual Trade
Variables		Homogeneity	Interest (t+4)	Interest (t+4)
		(t+1)		
Power	0.011***	0.009***		
Preponderance (t)	(0.0027)	(0.002)		
Mutual Trade	-14.78***	8.28***		
Interest (t)	(3.20)	(3.11)	]	
Power	0.71***	-0.341***		
Preponderance ·	(0.14)	(0.137)		
Mutual Trade				· · ·
Interest (t)				
Institutional	-0.018*		00001	
Homogeneity (t+1)	(0.010)		(.0003)	
Institutional				-0.0004
Homogeneity (t+3)				(.0003)
IAS (t+2)		-0.054***	0.002***	0.003***
		(0.007)	(0.0003)	(0.0003)
Constant	-0.068	0.042	.005***	0.004***
	(0.061)	(0.049)	(.0003)	(0.0003)
Observations	10435	10435	10117	10117
Number of dyad	432	432	436	436
	115.87***	80.92***	79.40***	83.28***

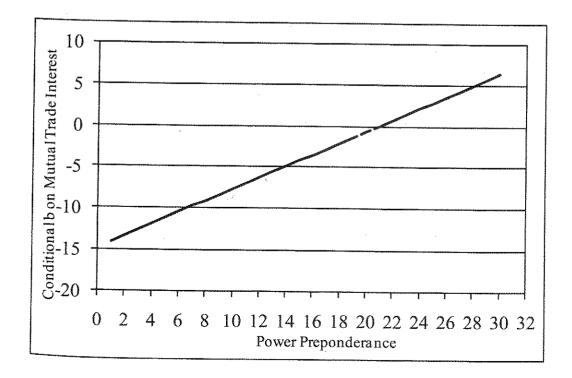
## **Generalized Least Squares Autocorrelation Corrected Regressions**

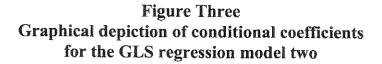
## Figure Two Graphical depiction of conditional coefficients for the GLS regression model one

(a) Conditional coefficients of power preponderance at varying levels of MTI

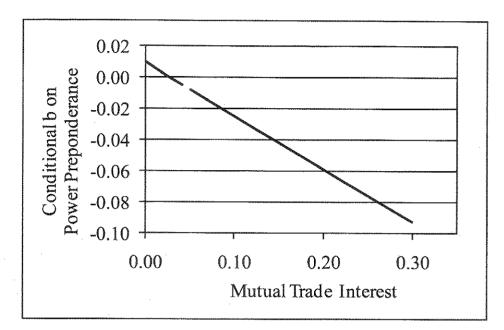


(b) Conditional coefficients of MTI at varying levels of preponderance

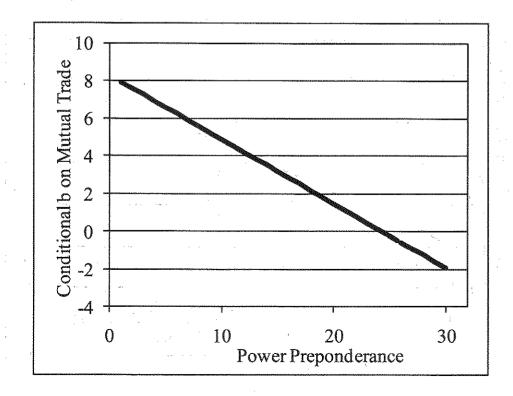




(a) Conditional coefficients of power preponderance at varying levels of MTI



(b) Conditional coefficients of MTI at varying levels of preponderance



#### Appendix

## Table A-one: Integration Achievement Score (coding system)

1. Trade in Goods and Services

0 = No agreements made to lower tariffs and non-tariff barriers

1 = Preferential Trade Agreement

2 = Partial Free Trade Area

3 = Full Free Trade Area

4 = Customs Union

5 = No barriers among member countries

2. Degree of Capital Mobility

0 = No agreements made to promote capital mobility

1 = Foreign Direct Investment allowed in limited form

2 = Capital withdrawal allowed

3 = Full access for foreign investment and capital withdrawal, except for national government procurement

4 = Full capital mobility expect for large scale merges and acquisitions

5 = Full capital mobility without restriction

3. Degree of Labor Mobility

0 = No agreements made to promote labor mobility

1 = Right of movement granted for select professions

2 = Full right of movement

3 = Transferability of professional qualifications granted

4 = Transferability of pensions and other retirement devices

5 = Full freedom of movement

4. Level of Supranational Institution Importance

0 = No supranational institutions

l = Establishment of nominal institutions

2 = Information gathering and advisory role

3 = Ability for institutions to amend proposals

4 = Ability for institutions to veto proposals

5 = Supranational institutions operate as primary decision node

5. Degree of Monetary Policy Coordination

0 = No monetary policy coordination

1 = Consultation regarding policy

2 =Commitment to maintain parity

3 = Coordinated interventions

4 = Regional Central Bank establishment

5 = Single currency

6. Degree of Fiscal Policy Coordination

0 = No fiscal policy coordination

l = Consultation regarding policy

2 = Commitments regarding deficit spending and taxation

3 = Sanctions regarding breaking commitments

4 =Uniform tax code

5 =Single budget