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# Leadership survival and the process of economic integration

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# **LEADERSHIP SURVIVAL AND THE PROCESS OF ECONOMIC INTEGRATION**

A Dissertation  
Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy  
in  
The Department of Political Science

By

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I am fortunate to have the support of a loving family who has embraced my professional goals with unwavering devotion. I dedicate this work to my wife, Kai MacDonalD Porche, and parents, Marie Celeste F. and Edward M. Porche.

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## **PREFACE**

Many interesting research questions in political economy can be traced back to a central problem, “Why do some places prosper and thrive while others languish in poverty?” I believe variation in the global standard of living is partially determined by the interaction of political institutions and economic markets.

As a master’s student in economics, I was puzzled by the underlying purpose of trade agreements such as NAFTA. The consensus in economic theory at the time argued that a global system with low barriers to trade and commerce would produce the greatest benefits. Yet political leaders around the globe were engaged in creating regional trading arrangements. My research into the relative impacts of different types of trade agreements caused me to recognize the complex web and variation in international economic agreements. This dissertation is designed to shed light on the role domestic political institutions play in the process of international economic integration.

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## **LIST OF ACRONYMS**

APEC	Asian Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CACM	Central American Common Market
CARICOM	Caribbean Community and Common Market
COMESA	Common Market for East and Southern Africa
CU	Customs Union
EC	European Community
ECOWAS	Economic Community of West African States
ECSC	European Coal and Steel Community
EFTA	European Free Trade Agreement
EIA	Economic Integration Agreement
EU	European Union
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
LAFTA	Latin American Free Trade Agreement
MERCOSUR	Common Market of the Southern Cone
MID	Militarized Interstate Dispute
MSG	Melanesian Spearhead Group
PTA	Preferential Trade Agreement
RTA	Regional Trade Agreement
W/S	Winning Coalition divided by the Selectorate
WTO	World Trade Organization

## **ABSTRACT**

The central contribution of this dissertation to political science is explaining the role of leadership survival theory in shaping the political process of initiation, broadening, deepening, and failure of economic integration agreements by nation states. The empirical research involves the creation of a dataset recording changes in economic integration for the period 1950-1999 and utilizing advanced quantitative methods to study the process.

Most existing research focuses on the initiation of trade agreements. I demonstrate that the process of economic integration agreements among polities is shaped by iterated political interaction at both the domestic and international levels. The critical test in this research is the leadership survival prediction that as the number of people needed to keep a leader in office increases the incentives for pursuing public policies changes.

## CHAPTER 1. INTRODUCTION

The central contribution of this dissertation to political science will be to explain the political processes which shape the initiation, broadening, deepening, and failure of economic integration agreements by nation states. The empirical research will involve both the creation of a dataset recording changes in economic integration agreements over time and utilize advanced methods of empirical analysis to test models of the political process involved in economic integration agreements. This study will examine what I refer to as economic integration agreements (EIA). The concept of economic integration agreements is broader than preferential trade agreements (PTA) or regional trade agreements (RTA), which are frequently employed as explanatory variables in research (Haftel 2007; Hafner-Burton 2005; Mansfield and Pevehouse 2000). Because of the way PTA and RTA are commonly operationalized, these groupings are substantially narrower in their scope than the range of agreements under consideration. If successful, this dissertation will demonstrate the validity of a unified theory across a broader range of international economic agreements than previous research.

Unlike past studies of trade agreements and related arrangements, this study focuses on the role domestic incentives play in shaping the behavior of leaders as they deal with different aspects of economic integration with other polities. Leadership survival incentives play a critical role in every phase of economic integration agreements. At every stage of the process, leaders are generally drawn to other actors with similar incentive structures because they are able to reach accord on the substance (or lack thereof) in a particular agreement. The policy outcomes of integration are treated in this research as broadly beneficial goods for a polity. Deeper levels of economic integration are more likely when broad domestic winning coalitions are present because these leaders have a survival incentive to create broadly beneficial goods. Indeed, if the domestic incentive structure of an individual agreement member changes dramatically relative to other agreement members, then failure of the agreement becomes more likely. The domestic interests of polity leaders drive their international behavior.

Modern economic integration agreements are created for both political and economic reasons. Previous studies in the economics literature tend to examine trade agreements in terms of trade creation versus trade diversion (Schiff and Winters 2003; Reuveny and Thompson 2000; Frankel 1997; Bhagwati 1993). In other words, do free trade agreements create new international trade opportunities or simply move international trade from non-agreement members to agreement members. Work by political scientists has focused on the effect trade agreements have on a range of outcomes, including: militarized interstate disputes (Haftel 2007), democratization (Mansfield and Pevehouse 2006), human rights (Hafner-Burton 2005), and multilateralism (Kono 2002). The research undertaken here is distinctive because of a focus on the process of economic integration over time and the broad empirical sample being used to test these ideas.

I intend to demonstrate that the process of economic integration among polities is shaped by iterated political interaction at both the domestic and international levels. The economic integration policies taken by heads of government are motivated by the need to produce relative quantities of broadly beneficial or private goods. This motivation is shaped in large measure by the incentive structure which connects leaders of polities to their populations. A number of explanatory factors discussed in the context of this research are suspected by researchers to play a role in the process of economic integration. In conventional political economy models, factors such as distance, trade, investment, conflict, and power would all be incorporated into a model of economic integration. Existing research provides only a partial explanation about the nature of integration agreements between states. I argue that these existing approaches understate the importance of the desire to remain in office in shaping many policy choices. In addition, most existing theory and empirical research in this area focuses, on a single event-the initiation of trade agreements. I argue that the existing work misses many of the other aspects associated with economic integration such as the broadening and failure of these agreements. My framework provides an overarching explanation for all aspects of the economic integration process.

A critical test in this research is the leadership survival prediction that as the number of people needed to keep a leader in office increases the incentives for pursuing policies which produce broad based benefits increases. Here the broad based benefit is the reduction of national barriers to economic exchange by groups of countries. Leaders who need to promote broadly beneficial economic policies are more likely to integrate their economies because of the benefits these agreements generate. This research advances the field of inquiry by presenting a unified explanation of a broader range of phenomena than has previously been attempted by other scholars. Furthermore, a new dataset will be created which enables this study to measure economic integration over time.

The remainder of section one introduces concepts and background information important to understanding the proposed research including a discussion of existing research relevant to different phases of economic integration.

### **1.1. Political Motivation of Leaders**

All theoretical models make assumptions about the world. The critical assumptions of a political model are often made about the nature of political actors. Leadership survival, as expounded by Bueno De Mesquita, Smith, Siverson and Morrow (2005), provides one model for understanding how domestic institutions might impact international interaction. The assumption of the political survival framework is that leaders generally seek survival in office for themselves and their allies. This motivation is shaped by the institutions in which a leader operates. It uses a rational framework to explain the behavior of political leadership by focusing on the relationship between leadership and the group of individuals necessary to keep them in power. Leadership survival is one of a subset of theories in political science which begin with a model of political behavior where the actors are “rational.” Moravcsik (1997) identifies certain key assumptions which rational models of political behavior share. First, risk adverse individuals function in an environment of scarce resources. Scarcity exacerbates conflict and inequality drives conflict. Finally, the state is not an actor but a transmission belt of

preferences for a subset of society. Political leaders and their challengers in this model are assumed to seek strategies for survival in office which minimize costs and maximize benefits for the leaders themselves. The reason why some leaders produce policies, which are generally beneficial for their polity at large and others preside over kleptocracy, according to leadership survival theory, centers around the type of institutions utilized for leadership selection (Bueno De Mesquita et al 2005).

Using the powers of government, leaders can produce two broad types of goods. They can use their control over government resources to produce private benefits for specific individuals or they can produce public benefits for the polity generally. In leadership survival theory, the ratio winning coalition to selectorate ( $W/S$ ) is the critical factor which alters the incentive leaders have to produce the mix of tax rates, public goods, and private goods in the polity over which they are the leader. A leader whose position relies upon relatively large coalitions will tend to produce more public goods than the same leader whose political office is maintained because of a smaller coalition. Central to the research being undertaken here is recognition that variation in the ratio  $W/S$  will affect the process of economic integration at the international level over time.

Leaders connected to their polities by relatively small winning coalitions are less vulnerable to poor military or economic performance than to providing private benefits for the members of their winning coalition--the individuals who keep them in power. In societies with relatively large winning coalitions, poor economic performance (recessions, high unemployment, and high inflation) are all potentially threatening to leaders. Therefore, leaders with large winning coalitions have a stronger incentive to pursue sound economic policies than leaders with small winning coalitions. All else equal, leadership survival analysis helps understand why leaders who must maintain a relatively large winning coalition tend to produce more broadly beneficial goods than leaders with relatively small winning coalitions. If the outcomes created by economic integration agreements are broadly beneficial,

then we can expect that on average governments selected by large winning coalitions will pursue deeper economic integration policies than similar polities with smaller winning coalitions.

## **1.2. The Incentive for Economic Integration**

Important variation exists in the design of economic integration agreements (EIA) which can be described as movement along an ordinal scale of integration among groups of countries. In the context of leadership survival theory, the products of economic integration, such as free trade, free movement of labor and capital, and monetary union, can be understood as imperfect ‘public goods.’ The observation that economic integration falls short in some respects of a pure public good is a reality. However, we can still think of economic integration as a good which is broadly beneficial compared to the primarily private payoffs of protection.

Since the 1950s, many economists have advanced the idea that free trade agreements (FTA) and customs unions (CU) are a second best solution for raising the general welfare when compared to global free trade (Kanafani 2001; Bhagwati 1993). The consensus position in economic theory argues that multilateral free trade is generally the best policy for most countries most of the time (Milner 2002). However, global agreements designed to coordinate policies on specific issues have proven difficult to achieve for many states whose populations would benefit from fewer trade restrictions and greater economic coordination among certain countries. The difficulty of achieving global agreements on specific economic issues has been attributed to a number of factors, including: economic distance (Balassa 1961), weakened states (Gibb 1994), or the relative diffusion of power (Krasner 1976). Once we recognize that economic integration agreements are not necessarily an alternative to global agreements but a potential complement to them among regions or groups of countries where consensus can be reached, then we can seriously consider the potential benefits of economic integration agreements which on balance tend to be more like public goods than private goods.<sup>1</sup>

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<sup>1</sup>In the context of leadership survival theory, the types of goods produced by Economic Integration Agreements are best understood as generally public in nature. Private goods are those benefits or payments provided to the members of the winning coalition because of their place in the polity (Bueno De Mesquita et al 2005, 91). Public goods for the purposes of Leadership Survival theory by contrast include the rule of law, free trade, low predictable inflation, transparency in

Joining economic integration agreements may challenge an entrenched policy of protection for a relatively small group, such as producers in a relatively inefficient industry, which has a strong incentive to resist changes to government policy. This makes liberalizing trade and coordinating other economic policies risky for political leaders who anger politically active constituents that benefit from trade protection (Rogowski 1987). However, providing protection to a politically active group such as farmers in industrialized countries or industrialists in less developed countries would be best understood as a private good for the purposes of this analysis. While certain private goods might be produced as the size of the winning coalition increases in a particular case, the mix of public versus private goods will on average be heavily weighted toward the production of public goods in polities with large winning coalitions.

According to the consensus in economic theory, individuals benefit from trade and exchange because it permits them to specialize in the creation of goods and services which they are most efficient at producing (Arnold 2005). Income generated from the sale of their goods and services enable the purchase of other goods and services from individuals with different specializations. However, given the series of ongoing protests against globalization and international organizations, it is reasonable to ask if average individuals perceive free trade and international trade policies as beneficial. Regardless of arguments purporting to illustrate the generally beneficial effects of a policy which expands trade and increases specialization toward an economy's comparative advantage, the skeptical reader might wonder if the general public perceives any discernible benefits from free trade. Is it possible that wise economic policies might translate into benefits for the leader wishing to remain in office? The Pew Global Attitudes Project surveyed 38,000 individuals in 44 nations during the summer of 2002.<sup>2</sup> This study provides strong empirical evidence for the claim that consumers

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government and low taxes because they all involve public policies that benefit virtually everyone in society. "They are each thought of as public goods in this study, and the provision of each is therefore expected to increase as the size of the winning coalition increases," (Bueno De Mesquita et al 2005, 131).

<sup>2</sup> Countries included an eclectic mix of developing and developed economies, including: Angola, Argentina, Britain, Bulgaria, Bangladesh, Bolivia, Brazil, Czech Republic, Canada, China, Egypt, France, Germany, Ghana, Guatemala, Honduras, India, Indonesia, Italy, Ivory Coast, Japan, Jordan, Kenya, Lebanon, Mali, Mexico, Nigeria, Pakistan, Peru,

generally perceive the value of free trade as a public good. First, the world trade organization and multinational corporations are actually perceived as having a “good influence” by significant majorities in the vast majority of countries surveyed (Pew Global Attitudes Project 2003). Second, overwhelming majorities in almost all countries surveyed responded that increasing free trade is good for both their countries and themselves personally (Pew Global Attitudes Project 2003, 71-72). Enthusiasm for trade was strongest in Africa. The results of this study strongly indicate that members of the selectorate in a range of countries value free trade as a “public good.” The fact that farmers in industrialized countries and other groups have taken to the streets in protest indicates that these particular individuals have a great deal to lose from free trade, but it does not necessarily represent an average position of the selectorate in a range of countries.

The position of an individual member of the selectorate on the social and personal benefits of free exchange of goods and services across national boundaries is unquestionably mediated by a number of factors, including: an individual’s endowment of human and physical capital, firm and industry specific training, the size of their domestic economy, and welfare institutions in their own state. Predicting the position of an individual on economic policy is a question which requires nuance because of a number of mediating factors. The important questions being addressed in this subsection is whether or not consumers and producers in an economy generally benefit from free exchange of goods and services. The answer to this question is yes. Second, is it possible that leadership teams are rewarded for policies which foster increased trade? Empirically, at least some cross national polling data suggests individuals recognize the benefit of being able to freely buy and sell goods on the international market. In general, leadership survival theory would suggest that leaders of large winning coalitions who successfully deliver goods to their coalition will remain in office.

### **1.3. Existing Theoretical Arguments Relevant to Economic Integration**

Scholars in the fields of economics and political science have studied trade agreements for

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Philippines, Poland, Russia, Senegal, Slovak Republic, South Africa, South Korea, Tanzania, Turkey, Uganda, Ukraine, United States, Uzbekistan, Venezuela, and Vietnam.

several decades. A theory explaining the political process of economic integration will hopefully build upon those elements of past research which offer a sound foundation. Having argued that the connection between leaders and their populations will shape the decisions of groups of states about how and when to integrate; we will now consider how previous research into economic integration will shape the model of economic integration.

### **1.3.1. Why Do States Initially Form Economic Integration Agreements?**

Modern economic integration agreements began in the late 1950s in Europe, and by the 1990s these arrangements had spread across the globe. Their existence has been explained on numerous grounds, including: a means of lowering trade barriers (Collier et al. 2000), a tool for increasing negotiating leverage in the World Trade Organization (WTO) (Haftel 2004; Page 2000), a buffer against the negative aspects of globalization (Gibb and Michalak 1994), a response to unfavorable WTO arbitration (Mansfield and Reinhardt 2003), improved welfare (Collier et al. 2000), and improved regional security (Haftel 2007; Schiff and Winters 2003). Competing explanations for the initial formation of economic integration agreements include: economic, power and dependence, perceptions, and gravity models.

One perspective on these agreements can be described as the orthodox economic perspective. Jacob Viner (1950) in *The Customs Union Issue* set the agenda for research, which followed on free trade agreements and customs unions. In the Viner (1950) model, regional trade agreements could be welfare increasing globally if states with certain comparative advantages arranged trade agreements with each other and under other groupings of states regional trade arrangements could be welfare decreasing. Since the 1950s, many scholars have advanced the idea that free trade agreements (FTA) and customs unions (CU) are a second best solution for raising welfare when compared to global free trade and do not necessarily raise welfare generally (Kanafani 2001; Bhagwati 1993). Therefore, trade economists typically attribute joining regional or bilateral trade agreements to narrow interests gaining special political protection at the expense of the broader economy in their respective countries.

The second area of relevant theoretical work focuses on the role of power in shaping international institutions. Several strains of international political economy theory argue that a global system of relatively free trade requires the dominance of a single power (Lake 1993; Gilpin 1987). In the absence of a single global economic leader, economic integration agreements may allow states to gain benefits of increased specialization while managing the political costs of free trade (Gibb and Michalak 1994). The relative concentration of political power and the policy perspective of those wielding power probably plays an important role in shaping the probability of bilateral and regional economic integration agreements being formed. In a hegemonic system, bilateral and regional solutions would be less common than in systems with more diffuse power structures.

While hegemonic stability theory and related ideas associate regional economic institutions with a lack of global leadership and weakness, an alternative theoretical perspective is that economic integration agreements among groups of states are a sign of more intense regional interaction and dependence. During the 1970s, Keohane and Nye's *Complex Interdependence* presented international regimes as a filter through which preferences based on the distribution of power pass. Similar to many arguments about globalization today, interdependence, in the form of international economic interaction, creates a condition of mutual dependence. This mutual dependence causes actors to become more sensitive to the concerns of other actors in the system. If the benefits of a multilateral system of trade liberalization are unlikely to be realized, then states may attempt to use bilateral or regional frameworks to improve political and economic security.

A third area of scholarship can be grouped under the heading perceptions because explanatory models in this area of research focus on phenomena which shape the perceptions of decision makers about plausible options for dealing with the challenges of international political economy. The political and economic effects of trade agreements are often uncertain; therefore, risk averse decision makers may be less likely to adopt policy models which have not been tested in real world situations. In part, decision makers utilize the experience of other states as signals, providing information about

the impact of trade agreements. The perception by decision makers of similarity between states is critical to the possibility of policy model adoption (Midlarsky 1970, 76-77). In an environment without a real world model, states often consider new policies too risky to proceed. The theoretical basis for diffusion is social learning on the part of policy makers (Weyland 2004). Information generated by previous experience is critical to the concept of diffusion. As a model diffuses throughout the international system, states are more likely to consider the appropriateness of a particular policy for themselves.

Finally, contemporary theories of international trade have emphasized the role economic, political, and geographic “gravity” plays in the level of bilateral conflict between two countries. While the interdependence literature hypothesized a relatively straightforward relationship between trade and conflict, more recent work presents a more nuanced picture of the relationship between interdependence, operationalized as trade, and conflict (Barbieri and Gerald Schneider 1999; Barbieri 1996). In many cases, the research has shown that security considerations play a role in shaping trade (Long and Leeds 2006). Trade is impacted by the presence of formal security arrangements rather than the other way around.

Gravity refers to the role factors such as population, size of an economy, distance between countries, insular or landlocked conditions each play in influencing the interaction among states. The distance of two states is shown to be a central factor in explaining conflict, and regional variation becomes an important area of empirical exploration (Lemke 2002). Distance and regional integration have also been shown to impact the prospects for democracy (Gleditch and Ward 2001). A series of papers written by Jeffrey Frankel and various co-authors employs a gravity model to examine the relationship among trade, openness and economic growth. According to Frankel and Rose (2000), the benefits of currency unions do not come directly through central bank policy, but by increasing trade between countries.

### **1.3.2. Considering Economic Integration as a Process**

The scholarly literature has tended to treat all trade agreements as the same institution.

The reason for variation in international trade agreements among small groups of states has its roots both in domestic politics and in the interaction of states at the international level. In order for the literature to move forward, scholars must develop explanations of institutional design.

The types of economies a state should seek as a partner on economic grounds has been controversial (Frankel 1997, 208). Generally, two competing models which connect economic motivation to domestic political interest have shaped research on the politics of trade policy. In the Heckscher-Ohlin model, factor specificity is low, and in the Ricardo-Viner model factor specificity is high (Alt et al. 1996). These theoretical frameworks vary in the degree to which labor and capital can adjust to changes in the economy.

Another area of theoretical focus which shapes the design of economic integration agreements is the interaction of different political regime types at the international level. The insight that domestic institutions may influence international interaction is the kernel of wisdom upon which a theory of leadership survival and economic integration is based. Dyads where both states have political institutions requiring relatively broad approval from society for international agreements to be formed initially may require less restrictive rules governing economic integration agreements. Relatively democratic governments must respond to the economic concerns of the voting public.

The process of integration in Europe beginning with the European Coal and Steel Community (ECSC) to the European Union (EU) is the most carefully analyzed case of economic integration in the post World War II era. Theories explaining the evolution of European integration have dominated the study of economic integration. However, economic integration agreements have been pursued in every region of the globe by countries rich and poor. The objective of this research is to provide an explanation of economic integration which builds upon both the existing qualitative studies and large sample analysis. To do this, a theoretical framework focused on underlying causes, such as leadership

survival, is required. In Chapter 4, leadership survival will serve as the basis for an explanation of the depth of economic integration agreements. Chapter 5 focuses attention on the impact of leadership incentives on the broadening of existing agreements.

Finally, and perhaps most interesting, we will explore failure in the realm of economic integration. Failure, in general, is never a minor event. Failure of international agreements can be extremely costly for contracting parties. Several theoretical perspectives, including: realism, structural liberalism, and research on the political consequences of random events; each offer potentially useful insights into the failure of international institutions.

While a number of agreements have broken down since 1948, few failures have been systematically examined. Here leadership survival may prove to be particularly insightful. As the incentive structure for leaders change, leadership survival predicts changes in the EIA arrangement. In contrast, failure does not fit well in the neofunctionalist and intergovernmentalist literature which dominated analysis of the European project for many years, because both theories present institutional change as relatively unproblematic one way streets through which states pass. Both theories do not offer a cause for failure. In contrast, a leadership survival theory of economic integration agreements predicts EIA change if leadership incentives change.

#### **1.4. Leadership Survival in a Complex World**

Because of the way subsets of economic integration agreements have been operationalized, they have been conceptualized as relatively homogenous in recent research. A coherent theory focusing on the process of integration among groups of states may offer ways of improving economic performance in the developing world because regional economic institutions can be designed to better account for both the needs and constraints of potential members.

Economic integration among groups of states is a complex process conditioned by a number of factors which have been previously explored in various degrees. One of the most significant developments in International Relations theory during the past thirty years has been the exploration of

how domestic political institutions can influence the interaction of states in the international arena. Work contained within this body of research places the connection between leaders and their populations front and center in understanding the international political institutions designed to structure international economic integration.

As research will demonstrate, economic integration is conditioned by many factors; power, distance, and economic development, as well as the interaction of domestic political structures which play a significant role in shaping the partnerships polities enter into at the international level. By focusing on different phases in the process of economic integration, the connection political leaders have to their polity is shown to be a critical factor in every aspect of economic integration.

The remaining chapters focus on separate phases in the political process of economic integration. Chapter 2 provides readers with a detailed explanation of data created for or used during the course of this study. Issues related to operationalization of economic integration and methods necessary for modeling the process are covered in Chapter 2. In Chapter 3 “The Initiation of Economic Integration Agreements,” existing theoretical ideas and a theoretical framework derived from leadership survival will be used to test the initiation of a broad class of international economic agreements. Chapter 4 examines the role leadership survival plays in the depth of commitments made in economic integration agreements. Chapter 5 examines how leadership survival affects the decisions of EIA members on admission of new members to an agreement. Finally, chapter 6 explores the extent to which change in leadership survival incentives produce failure of economic integration agreements. Taken together, this work presents strong evidence that leadership survival influences the interaction of states in every phase of economic integration agreements.

## **CHAPTER 2. DATA COLLECTION AND EMPIRICAL MODELING**

Chapter 2 has three goals. First, this chapter provides readers with information on the process of transforming primary source information about economic integration agreements into a meaningful set of data which can be analyzed using statistical techniques. Section 2.1 presents the typology used to classify economic integration agreements in this research. Section 2.2 presents the weaknesses of existing research in operationalizing economic integration agreements. Section 2.3 provides readers with information on the actual process of collecting the data for the study. The second goal of this chapter, covered in Section 2.4, is providing readers with information on the key explanatory variable of the research, leadership survival incentives. Finally, in sections 2.5 and 2.6 the reader is provided with information on the control variables and statistical models employed in this study.

### **2.1. Typology**

One contribution of this dissertation to the field of political economy will be to demonstrate the utility of a typology which captures the level of integration among groups of countries along an ordinal economic integration agreement (EIA) scale. Scholarship related to economic integration agreements has tended to treat international agreements as homogeneous. A brief examination of this class of international agreements illustrates the significant variation which exists today. Over the past sixty years approximately 200 economic integration agreements have been formed. Today, these include over twenty preferential trade agreements, over 115 free trade agreements, at least thirty service agreements, approximately ten customs unions, at least five common markets, and four monetary unions. Yet, this list still excludes the less concrete economic cooperation agreements and forums such as the Asian Pacific Economic Cooperation forum (APEC). More importantly, this snapshot of the current status of economic integration fails to capture the process of economic integration which has unfolded over the past fifty years. The agreements which exist today are part of a process of economic integration which has evolved over time. The system of categorizing agreements below illustrates that all else equal, higher levels along the EIA scale represents not only progressive removal of barriers to

economic exchange but also greater coordination of economic policy as well. Higher EIA scores represent broader delivery of a particular set of public goods.

Bela Balassa (1961) viewed economic integration as being defined by the absence of discrimination between national economies. Levels of integration in Balassa's theoretical framework are distinguished by the degree of coordination between two or more states (Balassa 1961). Some scholars have argued that economic regionalism occurs because states seek to promote welfare through efficiency gains, create greater negotiating leverage with third parties in international negotiations, and to augment regional political cooperation (Gibb 1994, 22). In effect, leaders produce those goods necessary to maintain their winning coalitions. Unfortunately, Balassa's framework has not been meaningfully incorporated into most political economy analysis of economic integration.

At the most rudimentary levels of integration, states form preferential trade agreements (PTA) in which selected sectors of member country economies are exposed to increasing but generally limited competition. Often, there is substantial horse trading across certain industries which each nation considers critical. These agreements tend to be limited in scope, such as the European Coal and Steel Community (1951). As defined here and in Gibbs (1994), preferential trade agreements (PTA) represent a distinct and limited type of economic integration agreement. This concept of PTA is substantially different from the way the term is used in work such as Mansfield and Pevehouse (2000) or Hafner-Burton (2005) where the term captures a range of economic agreements such as free trade agreements, customs unions and common markets, but apparently excludes many agreements here defined as preferential agreements.

In the next level of economic integration referred to as free trade agreements (FTA), member states agree to abolish tariffs and quantitative restrictions on substantially all goods traded across borders. Free trade agreements are defined by the World Trade Organization (WTO) as, "a group of two or more customs territories in which the duties and other restrictive regulations of commerce...are eliminated on substantially all the trade between the constituent territories in products originating in

such territories,” (Regional Trade Agreement Section 2007). During the mid-1960s, the United States and Canada established a PTA focused on the automotive industry (Page 2000). By 1988, this relationship evolved into a free trade agreement which was implemented over the course of several years. The primary distinction to be made between PTA and FTA is that FTA applies broadly to all sectors of goods.

As the third level of integration, service agreements are similar in their scope to free trade agreements, but politically services are often treated differently than goods or commodities. Balassa does not account for separate service agreements, but because service agreements have become important since his work, a logical extension is to treat them as a separate and distinct category between FTA and custom unions.

In the fourth level of integration, customs unions require members to equalize external tariffs with nonmember countries. The WTO definition of customs unions and free trade agreements correspond closely with concepts identified by Balassa (1961) and Gibb (1994). The WTO definition of a customs union specified under the General Agreement on Tariffs and Trade (GATT) Article XXIV Section 8 states:

A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that (i) duties and other restrictive regulations of commerce ...are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and, (ii) ...substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union, (World Trade Organization [1947] 2007).

The operational definition makes clear the critical difference between custom unions and free trade agreements arises because a customs union (CU) establishes a synchronization of external economic policy, which adds substantially greater complexity to regional integration. Since a common external policy is required, custom unions tend to necessitate not only greater policy coordination but also a more extensive apparatus for managing the requirements of the agreement.

A common market, the fifth level of integration, is distinct from a customs union because it not only involves reduction or elimination of restrictions on trade in products but also the movement of factors of production such as labor and capital. Common markets generally also require some coordination of fiscal policy at the national level because workers and corporations are free to migrate within the common market. In the ultimate stage of economic integration, states form monetary unions in which a common currency is created and centrally controlled. This stage generally would also involve a high degree of fiscal and social policy coordination.

In section three of chapter four, a case is made for using this typology as an ordinal measure of economic integration depth.

## **2.2. Limitations of Existing Research**

The literature lacks a well developed explanation or systematic testing of issues related to the broadening and deepening of economic integration. The implication of Balassa's (1961) work is that a state entering into deeper forms of integration yield successively greater control to a collection of states. Higher forms of integration require greater coordination among member states, and expose domestic producers and consumers to increased competition across national boundaries. We can contemplate economic integration as a process.

Proper operationalization of concepts requires that measurement correspond in a meaningful way to the phenomena under study. This dissertation is motivated in part by a desire to understand if a process of economic integration is taking place. The empirical tests will help to determine if a modified Balassa (1961) framework, which has largely been neglected in past offers a meaningful way of describing economic integration. The phenomenon of economic integration requires the creation of a new data set which records changes in the characteristics of economic integration agreements (EIAs).

Most studies of trade agreements or regional integration tend to capture only a limited range of events. Often agreements are recorded in binary terms. For example, Mansfield, Milner and Pevehouse (2007) provides an interesting application of veto player theory to understand PTA formation. There is

some overlap between the PTA formation of Mansfield, Milner, and Pevehouse (2007) and the initial of agreements considered in this study. However, this type of operationalization by its nature ignores the iterative process which characterizes many of the economic integration agreements being studied.

Case study work on individual agreements tends to focus on the process of negotiation and political compromise which must be achieved in order for an agreement to take place. Acharya (2001) and Soligen (2005), for example, emphasize a unique cultural basis for the development of regional institutions in Southeast Asia. Another example of case specific factors is the Skonieczny (2001) study of the North American Free Trade Agreement (NAFTA) which studied images of the other and the self in Mexico and the US in the ratification process. One problem with case studies in this area of research is the focus and appeal to case specific factors which are not placed in the context of a broader international phenomenon.

A few researchers have also provided detailed accounts of the characteristics which distinguish certain types of agreements across countries. For example, the encyclopedic *Regionalism in Developing Countries* by Page (2000) is a detailed but largely atheoretical compilation of information describing regional organizations focused on economic issues in the developing world.

Variation of the agreements can be described along two main dynamics: size and depth. Binary measures of EIA onset for initiation are problematic because the phenomenon is not a single event. Rather, many of the current agreements in force today are part of process of formal economic integration or interaction which has taken place over time. Simply lumping all agreements into a single category marking their initiation ignores important variation in the requirements placed on parties to different EIA.

Data being collected for the purposes of this research is structured along an ordinal scale of economic integration with preferential agreements serving as the primary characteristic of the low end of the scale (1) and full integration of monetary policy, or the establishment of jointly administered common currency, characterizing the high end of the scale (6). In the absence of agreement a pair of

countries in a given year (a dyad-year) receives a zero. If we are interested in examining the extent to which a process of economic integration exists, then attempting to create an ordinal measure makes sense. Furthermore, the history of several agreements suggests that lower levels on the EIA scale tend to precede higher levels along the EIA scale. As a theoretical matter, however, movement through economic integration in strict sequence is not assumed. It is entirely possible that having established a PTA a group of states might attempt to form a customs union. By forming a customs union, the states have agreed to terms which include more than the minimal requirements necessary for a free trade agreement.

### **2.3. Measuring Economic Integration Agreements**

In order to determine the proper coding in a given country year, observations will be triangulated using the text of agreements, WTO determinations where available, and the professional judgments of other scholarly text on the subject. As a first effort to gaining a sense of the current landscape, the World Trade Organization maintains a listing of existing trade agreements in force that have been submitted for judgment. This includes membership and categorization into four groups: common markets, customs unions, free trade agreements, and service agreements. The WTO by agreement with the membership has a role in determining if trade agreements signed conform to WTO rules. This list provides a good first lead to data collection but does not account for several types of agreements including monetary unions and many preferential trade agreements. Moreover, the WTO does not provide the agreement texts or any sense of history. In order to gain access to agreements currently in force, researchers can access the Tucks International Trade Database through the Center for International Business at Dartmouth University (<http://mba.tuck.dartmouth.edu/cib>), which provides the primary text of many trade agreements currently in force. However, it does not maintain any historical or supplemental material which often provides important clues to the true nature of an agreement.

Past agreements must be sought out through investigative efforts. The European Union and European Free Trade Association maintain the primary text of a range of historical agreements in Europe. Additionally, regional organizations such as the Organization of American States act as a clearing house providing access to a number of key historical documents in the Western hemisphere. Secondary historical accounts of regional activity also provide important clues to activity which has taken place. Finally, some EIA have bureaucracies and publically available online archives (the Caribbean Community and the Association of Southeast Asian Nations for example) which are an invaluable resource.

When assigning codes to particular dyad-years, the level of evidence generally required is both the primary text of an agreement, as well as at least one reliable secondary source, which provides an interpretation of the events surrounding the agreement. The primary text provides the researcher with evidence necessary to make an independent determination on how the agreement or other documents relate to the EIA scale. The secondary accounts help to determine the extent to which the agreement was actually implemented.

In rare cases, multiple accounts from news reports and historical accounts of an agreement have been utilized to arrive at a provisional coding for periods of time in a particular case. For example, Argentina and Brazil reached agreement on a series of preferential trade agreements during the 1980s, but the actual texts of the agreements have not yet been located. The agreements are described in Page (2000) and in contemporary financial news accounts of the agreement details (Economist 1988; BBC 1988A; BBC 1988b). These multiple sources provide enough evidence to make a provisional determination of the parties to the agreement and to place the arrangement as a one within the zero to seven ordinal EIA scale. In the case of these particular agreements between Argentina and Brazil, they serve as important evidence of events which precede the creation of the Common Market of the Southern Cone (MERCOSUR) resulting in a deeper level of integration among an even larger membership. More importantly to the theoretical claims of this research, these preferential trade

agreements are not accounted for in data based on WTO accounts of contemporary agreements but emerged at approximately the same period both Argentina and Brazil were moving to leadership selection based upon larger winning coalitions.

A particular code 1 to 6 is not assigned to country years until the period when the defining characteristics of a level on the integration scale are present. There have been several agreements signed with titles or stated aspirations for achieving a certain level of integration. However, the terms of the agreement either do not meet the stated aspirations or the agreements terms are phased in over a long period of time. In the case of a phase in period, coding should generally reflect the level of integration which has been implemented in that country year.

Table 2.1 summarizes the Economic Integration Agreement scale created for use in this research program. The essential elements must be present for an agreement to be placed along the typology. Between 1950 and 1999, there are approximately a half million dyadic pairs. The sample presented here requires that at least one year during a dyad's history between 1950 and 1999 the pair of countries experience some type of EIA. Even with this restriction over 1,912 pairs of countries are included and produce over seventy thousand observations. Furthermore, over sixty three percent of the dyad years are recorded as zero. There are more years at the level of customs union than service agreement as well as more years in monetary union than at common market.

#### **2.4. The Key Independent Variable: Leadership Survival Incentives**

In developing a theoretical explanation of the political process of economic integration, the incentives created by variation in the connection between political leaders and the polity they represent have played a central role. This theoretical framework is built on the shoulders of leadership survival theory as developed in *The Logic of Political Survival* by Bueno de Mesquita et al (2005). The leadership survival framework has operationalized the connection between political leaders and their polity using a ratio of the winning coalition and the selectorate (W/S), also referred to as the loyalty

**Table 2.1. Essential Elements of the EIA Scale by Dyad Year**

Scale	Meaning	Essential Element	Frequency	Percent
0	No membership in EIA	No special agreements present.	45,314	63.96
1	Preferential Trade Agreement	Agreement lowers tariff rates and barriers to trade in a few industries.	18,973	26.78
2	Free Trade Agreement	Elimination of virtually all tariffs and duties on goods.	3,252	4.59
3	Both FTA and Services agreement	Elimination of virtually all tariffs, duties, and NTBs on goods and services.	315	.44
4	Customs Union	Presence of 2 and 3 plus a coordinated common set of customs laws and rates for non-members enforced among agreement members.	1,363	1.92
5	Common Market	Presence of 1-4. Plus, Virtually no restrictions among agreement members on the movement of both labor and Capital.	783	1.11
6	Monetary Union	Presence of 1-5. Plus, Mutually agreed upon system of domestic bank regulations. Presence of common institutions charged with managing money supply and issuing currency.	848	1.20
Total			70,848	100

norm. In each phase of integration under study, initiation, depth, adding new members, and failure, the key explanatory variable will be derived from winning coalition size divided by the selectorate (W/S).

One goal of the dissertation is to test the relevance of leadership survival theory in the realm of international political economy, and the most widely used measure associated with leadership survival research has been selected as the basic building block for specific explanatory variables in each phase of economic integration agreements. The empirical research pursued here will use a publically available cross national dataset created for the leadership survival project. The data are available for 192 different countries, spanning the years 1816-1999 and are available at [www.nyu.edu/gsas/politics/data](http://www.nyu.edu/gsas/politics/data) (Bueno de Mesquita et al. 2005, 133).

#### **2.4.1. Winning Coalition Size as a Proxy for Leadership Incentives**

Within any polity there are several key groups relevant to analysis. All polities are composed of residents who are identified as members of the polity. While territory has been central to the concept of the state, all political entities regardless of the nature of their territorial control are composed of some group who will be identified as residents of the polity. Several key groups are nested within the residents. Among the residents of a polity, the Selectorate (S) is the set of people whose, “endowments include the qualities or characteristics institutionally required to choose the government’s leadership and necessary for gaining access to private benefits doled out by the government’s leadership,” (Bueno De Mesquita et al 2005, 42). Over the last few centuries one of the major changes in polities has been the proportion of residents who function as members of the selectorate. From 1950-1999, the greatest variation has occurred in the size of the winning coalition. The Winning Coalition (W) is a subset of the Selectorate large enough in a given polity to endow the leadership of a polity with the ability to exercise political power.

Leaders must provide goods to their winning coalition to remain in power. In small winning coalitions, leaders can maintain their position by making private payments (land grants, monopolies, privileges, or cash payments) to the members of the elite who keep them in power. As the size of the

winning coalition grows, larger private payments become difficult to make because of the number of people involved and the resources of the government. The mix of goods produced begins to shift toward goods which provide benefits more broadly to the public. Leaders in very large winning coalitions are predicted to produce few private goods. Variation in the size of domestic winning coalitions shapes economic integration because the incentive structure leaders face.

#### **2.4.2. Deriving Winning Coalition and Selectorate Size**

The variable which measures leadership survival incentives, W/S, has two components: winning coalition size and the selectorate.<sup>1</sup> Each of these variables is drawn from components of the Polity IV collection of data and Arthur Bank's cross-national data. The Polity variable Legislative Selection (LEGSELEC), normalized to one, is used as the primary component of the selectorate (Bueno de Mesquita et al. 2005). Winning coalition is created based on an index normalized to one of REGTYPE from the Bank's data as well as XRCOMP, XROPEN, and PARCOMP from the Polity dataset. REGTYPE captures the regime type and contributes a one if it is a civilian regime. XRCOMP captures the extent to which the institutional executive selection process is competitive. XROPEN adds to the index if there is a relatively open executive recruitment process. PARCOMP contributes to the index if long-term political groups exist which compete at the national level. "No one variable in our index alone indicates a large coalition size, but polities that meet more of the criteria seem to us more likely to have a larger coalition than polities that meet fewer criteria, because the criteria speak directly to dependence on more or fewer people in gaining and holding office," (Bueno de Mesquita et al. 2005, 135).

In order to understand precisely how this coding takes place, the coding of Chile in the years 1980 and 1990 will be used to help readers understand how the W/S variable is created. To begin, in 1980 Chile under the Pinochet regime is coded as a zero on the W/S scale. In 1990, a period when

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<sup>1</sup> Mathematically the variable is not W/S strictly speaking. Rather, the loyalty norm is calculated dividing W by  $(\log((s+1)*10))/3$ . Bueno de Mesquita et al. (2005) makes this transformation primarily to avoid division by zero.

Chile is transitioning out of the military dictatorship Chile is coded as a .75 on the W/S scale. In 1980, the Selectorate variable is determined by dividing the Legselec score of zero by the maximum possible value two. This produces a value of which is normalized to one and equals zero. To create the Winning Coalition Size variable, the individual elements listed above are assigned values of one if they meet the criteria set forth and the sum of those elements is divided by four, the maximum possible value. In 1980, Regtype is coded as a military regime so it does not contribute a one to the winning coalition variable. Xrcomp focuses on whether or not executive selection is governed by hereditary or unopposed election, or similar process. In Chile this is the case in 1980 so the variable contributes zero. Xropen, which codes the openness of executive recruitment, does not contribute to winning coalition size in 1980. Finally, the variable Parcomp captures the degree to which there are stable political entities which compete for executive office at the national level. If there are stable political actors competing for national executive office, then the variable contributes a one to the winning coalition index. In Chile during 1980, this is not the case. In sum, Chile's 1980 winning coalition variable is equal to zero and the selectorate variable is equal to zero.

By 1990, the W/S variable recognizes that changes are happening in the way Chile is governed by coding it as .75. Let's examine how the W/S variable is coded in 1990 to understand what elements of the winning coalition and selectorate variables are causing this change. First, Legselec is coded as a two; this produces a selectorate size of one for the denominator. The winning coalition variable captures a one for three of the four elements. Regtype is coded as a civilian government and contributes a one. Xrcomp is coded as transitional and contributes a one. Xropen is coded as "open" and contributes a one. Parcomp notes that stable political competitors have not yet emerged at the national level and does not contribute to the score. To arrive at the W score, the three points are divided by the number four which equals .75. W is then divided by S to produce the W/S score for Chile in 1990.

Given that portions of the winning coalition index utilize elements of the Polity IV database, the degree of collinearity between democracy as normally operationalized using the polity scale and the measure of leadership survival incentives, W/S, will need to be established. Bueno de Mesquita et al (2005) argues cogently that the measure of leadership survival incentives is related to but distinct in important ways from broader regime measures such as the autocracy and democracy scoring by Polity.

“Democracy is generally associated with a variety of characteristics, of which coalition size is but one. These characteristics include, among others, an independent judiciary, free press, civil liberties, legal constraints on leaders, norms of conduct and reliance on law...Equivalently, though autocracy is not defined by corrupt politicians whose actions imply indifference to the public welfare...such behavior is an expected consequence of having a small winning coalition and a large electorate,” (Bueno de Mesquita et al 2005, 73).

Leadership survival is not simply democracy by another name. The authoritarian and democratic characteristics of a polity are largely defined by the degree to which the powers and freedoms of the population, the bureaucracy, legislature and the executive are institutionalized. In authoritarian states, the freedom of action for most individuals is in practice relatively limited. In contrast, executives and bureaucracies possess greater freedom of action unfettered by institutional constraints. Individuals lack the ability to appeal to the judicial branch of government when actions of the bureaucracy impact their lives. In authoritarian states, the selection of leaders is tightly controlled to ensure power remains within the grasp of a specific group of individuals.

Democracies are generally characterized by greater freedom of action for individuals both in their personal lives as well as in the political arena. In democratic states, the powers of political organs such as a state’s bureaucracy, the legislature, and the executive are limited by rules. Decisions by agents of the government which adversely impact an individual can be appealed to a relatively objective third party for adjudication. In comparison to authoritarian governments, there exists a broad based competition by individuals for a range of political offices in which large segments of the population play a role in selecting the individuals who will represent them in a particular office. One of the most important elements of democracy is that the outcome of elections is not predetermined by the government or its agents.

Leadership survival is not concerned with a wide range of elements which characterize a state as either authoritarian or democratic. Rather Leadership Survival theory is focused on a very narrow aspect of a polity-what percentage of those individuals who can participate in the political process are necessary to keep a leader in office. This characteristic of a polity shapes the behavior of an executive. Leadership Survival theory posits that leadership survival incentives are only one element which characterizes more common typologies of political regimes as democratic or authoritarian. Leadership survival incentives are not simply a measure of “democracy” using another name. While winning coalition size is an important characteristic of a polity, it does not define democracy or authoritarian states.

According to Gleditsch and Ward (1997), the component XCONST, an element used in the coding of the polity scale, is the critical factor in determining the degree of autocracy and democracy in the polity scale. Bueno de Mesquita et al (2005) have established that the correlation coefficient between XCONST and W/S is a mere .30. In the sample countries which participate in an EIA for at least one year the correlation coefficient between Winning Coalition size and the Polity scale is .82. Some readers may be concerned about a correlation at this level. At the theoretical level, winning coalition size and the polity scale are attempting to measure different aspects of a regime.

While there is some overlap, the empirical models where both Winning Coalition size and measures of regime types are used will demonstrate that the variables are sufficiently different to capture distinct aspects of the states under study. Additionally, the correlation between winning coalition size and the polity measure is less of a concern in three of the four substantive chapters because we are interested in the impact of the relative difference for either the dyadic or EIA member’s incentives. Therefore, the measure of leadership survival incentives will frequently be operationalized not as the level of winning coalition size but as a measure of the relative difference between the incentives of a pair of countries or EIA members. The correlation coefficients for these measures of relative distance between the incentive structures of EIA members and the Polity scale measure of

democratic and authoritarian characteristics are extremely low. The empirical analysis in subsequent chapters will demonstrate that W/S is not simply democracy by another name.

Table 2.2 provides a comparison of how the Polity Scale of authoritarian and democratic characteristics compares with the measure of Winning Coalition size in several states which will serve as cases later in the study. As we will learn in later chapters, a change in the scoring of winning coalition size occurs because of changes in the way leaders are chosen. These cases provide some interesting comparisons. In part, areas where winning coalition size and the Polity scale diverge are due to the fact that Polity includes a broad range of institutional characteristics while leadership survival focuses on the incentives faced by executives. France was chosen as an example both for its long term membership in the European Community process as well as the interesting differences between Polity and Winning Coalition size. During the period in France between the fourth and fifth republics when de Gaulle had achieved maximum power, Polity downgrades the democratic status of France, but the size of the population need to keep the leader in office remains extremely broad. In the Spanish case, the polity scales treats the state as making rapid progress toward democracy, but the Winning Coalition variable recognizes that a smaller winning coalition is in power during the process. In Mexico and Chile, the Polity scale implies greater variation over time in the relative authoritarian and democratic characteristics of these states while winning coalition size detects few changes in the basic incentives facing leaders of the states. Table 2.2 makes clear that differences exist in the treatment of countries by the two measures.

## **2.5. Common Control Variables**

The precise formulation of independent and control variables will change somewhat given the circumstances under consideration in each phase of economic integration. However, we can speak in general terms about the source of data for the models and some basic data which will play a recurring role in providing controls for the large sample models used when studying different aspects of economic integration agreements. While sections 2.5.1-2 cover key elements of the control model

**Table 2.2. Example Scoring of Polity and Winning Coalition Size**

Year	France		Spain		USA		Mexico		Chile	
	Polity	Winning Coalitions								
1950	10	1.00	-7	0.28	10	1.00	-6	0.50	2	0.75
1960	5	1.00	-7	0.28	10	1.00	-6	0.50	5	0.75
1970	8	1.00	-7	0.28	10	1.00	-6	0.50	6	0.75
1980	8	1.00	9	0.75	10	1.00	-3	0.50	-7	0.00
1990	9	1.00	10	1.00	10	1.00	0	0.50	8	0.75
1999	9	1.00	10	1.00	10	1.00	6	0.75	8	0.75

common to this research, certain specific variables will be discussed in the subsequent chapters.

Common variables utilized in this study are summarized in Table 2.3.

### **2.5.1. Economic and Geographic Controls**

Political economy research suggests a number of factors which might be relevant when modeling the phases of economic integration agreements, including: bilateral trade, per capita GDP, distance, contiguity, system power concentration, level of conflict, years of peace, and democracy. Higher levels of bilateral economic interaction create political interdependence (Keohane and Nye 1973). Interdependence may create the need for political solutions to manage disputes. This need might arise because commercial or political disruptions create instability domestically; therefore, states will desire to have a method of reducing uncertainty about the supply to critical goods (Mansfield and Pevehouse 2007). In order to operationalize bilateral trade as a control variable, Gleditsch's (2002) expanded bilateral trade data is utilized; version 4.1 covers the period 1950-2000.

The gravity model of trade attempts to explain the level of trade between countries and relies heavily on factors such as population, GDP per capita, distance, and geographic factors. The theoretical roots for the role of population, income level, and distance are associated with the costs of trade (Frankel 1997). Large economies will tend to trade less with other countries all else equal because the cost of trade outside of a national economy is generally greater. Distances which must be crossed add cost. Geographic barriers add cost. The costs associated with projection of power also come into play in international conflict (Lemke 2002). Generally, analysis of trade agreement initiation in the field of political economy has controlled for the effects of economy size, level of bilateral trade, distance and contiguity (Haftel 2007; Mansfield, Milner & Pevehouse 2007; Mansfield and Reinhardt 2003; Mansfield and Pevehouse 2000). Real GDP and per capita GDP are drawn from the Gleditsch and Ward modified Penn World Tables data available as a user dataset in Eugene. Distance from capitol to capitol and Contiguity will be accounted for using data from the Correlates of War Project Version 3.0.

**Table 2.3: Basic Form of Commonly Used Variables in the Dissertation**

<b>Subject</b>	<b>Basic Operationalization</b>	<b>Source</b>
Leadership Survival Incentives	Winning Coalition Size divided by Selectorate Size	Bueno de Mesquita et al. 2005
Economic Interdependence	Sum of Bilateral Imports	Gleditsch (2002)
Domestic Economy	GDP per capita	Gleditsch and Ward modified Penn World Tables
Distance & Contiguity	Distance from capitol to capitol with Contiguity equaling zero	Correlates of War Project Version 3.0
Political Power & International Relations	Composite Indicator of National Capability, (CINC scores version 3.02)	Correlates of War Project Version 3.0
	Number of major powers in the international system	Correlates of War Project Version 3.0
Presence of Military Conflict	Years of peace	Correlates of War Project Version 3.0
Alliances	Unweighted portfolio Weighted portfolio	Gibler and Sarkees 2004 Gibler and Sarkees 2004
Degree of Authoritarian to Democratic Institutions	21-point Polity Time-series Scale	Polity IV

### **2.5.2. Political Controls**

Several strains of international political economic theory argue that a global system of relatively free trade requires the dominance of a single power (Lake 1993; Gilpin 1987). In the absence of a single global economic leader, economic integration agreements may allow states to gain benefits of increased specialization while managing the political costs of free trade (Gibb and Michalak 1994). The relative concentration of political power and the policy perspective of those wielding power probably plays an important role in shaping the probability of bilateral and regional economic integration agreements being formed. To capture the role of power in the international system, data from the Correlates of War project will be relied upon. These concepts are operationalized as the concentration of power in the international system using the Composite Indicator of National Capability, (CINC scores version 3.02) and the number of major powers in the international system (COW State System Membership, version 2004.1).

The level of conflict among potential members of economic integration agreements may also play a role in shaping the process of developing economic integration agreements. Researchers have demonstrated that some types of preferential trade agreements have a significant effect on the frequency of militarized interstate disputes (MID) in regional settings (Haftel 2007). This feeds into a larger literature which has demonstrated that international organizations and trade appear to have a role in reducing interstate conflict (Russett and Oneal 2001). Years of peace from the Correlates of War Militarized Interstate Dispute dataset (version 3.1) will be used to capture the level of conflict at the dyad level (Ghosn, Palmer, and Bremer 2004).

Concentrations of power, the number of major powers, and militarized disputes all capture aspects of the role politics at the international level play in shaping economic policy. In the statistical model a measure of alliances may also capture important aspects of political relationships which shape economic policy. Alliances among pairs of states will be operationalized using the unweighted portfolio available through the Correlates of War project, (Gibler and Sarkees 2004). Various measures

of alliance portfolio were tested during the initial phases of this research. The results were insensitive to various in the specific alliance portfolio measure used.

Democracy has been operationalized in research by a number of scholars in different ways. In recent research where trade agreements are dependent variables or key explanatory variables, the twenty-one point Polity scale functions as a common control variable capturing the concept of regime type (Haftel 2007; Mansfield, Milner & Pevehouse 2007; Mansfield and Reinhardt 2003; Mansfield and Pevehouse 2000). Polity captures institutional characteristics of both democracy and autocracy; other concepts such rule of law and freedom of the press are not directly incorporated in the scale (Marshall and Jaggers 2002). Bueno de Mesquita et al (2005) maintains W/S is distinct from Polity and captures important aspects of political life which are only partially accounted for by Polity (139). Empirical analysis will rely upon a time-series version of the democracy-autocracy scale drawn from the Polity IV dataset. Generally, the time series variable smoothes out odd bumps created by transition coding, such as -66, -77, and -88, from the cross-sectional variable. “The Polity IV time-series transition information uses a different standard than Polity IVd for reporting regime changes: the annual time-series data combines incremental changes of short duration (in the same positive or negative direction) into a "multi-year" transition period,” (Marshall and Jaggers 2002, 8). It functions more reliably in a panel data context. This study may offer an important test of the extent to which variables central to Leadership Survival analysis are distinct from a common institutional concept of democracy used in empirical research.

Models of joint membership in international organizations have demonstrated that political alliances and physical distance impact dyadic behavior (Russett and Oneal 2001, 320). The presence of military disputes has also been demonstrated to impact both trade and joint membership in international organizations (Russett and Oneal 2001, 321).

## **2.6. Selecting the Proper Statistical Model**

For the purposes of this study, the development of economic integration agreements has been

separated into distinct phases: initiation, depth, adding new members, and failure. Three of the phases are being examined as events, such as the initial moment when an economic integration agreement is formed. In contrast, the depth of economic integration examines how agreements develop and change over time and is best modeled using ordered Logit.

### **2.6.1. Event History Modeling**

An event history approach is precisely the tool to address the rate and timing of states initiating, adding new members, or failure of economic integration agreements. Event history analysis was developed in the field of biostatistics so terms like “death” and “failure” are associated with the duration of a life (Box-Steffensmeier and Jones 2004). Variables in event history models describe the risk that observation occurs as they progress through time. Estimation of baseline hazard rates yields some notion of how a social process is or is not time dependent (Box-Steffensmeier and Jones 1997, 1438). In some of the chapters which follow, the hazard rate reflects the probability an initiation, addition of a new member, or failure occurs in a given period. A duration model that places few restrictions on the hazard function seems most appropriate.

In order to understand the process of event history analysis consider the following components of the basic statistical model. The density function is

$$f(t) = \lim_{\Delta t \rightarrow 0} [F(t+\Delta t) - F(t)] / \Delta t$$

“The density function,  $f(t)$ , gives the unconditional failure rate of event occurrences in an infinitesimally small differentiable area,” (Box-Steffensmeier and Jones 2004, 13). Another important component of event history analysis is the survivor function generally expressed as  $S(t) = 1 - F(t) = \Pr(T \geq t)$  where survival can be understood as the probability that the event in time  $T$  is greater than a non-event in time  $t$ . These two functions provide the basis for the Hazard Rate  $h(t) = f(t)/S(t)$ . In several common event models, the assumed statistical distribution produces a monotonic hazard rate. This means the hazard of the event moves in a single direction.

In contrast, the Cox proportional Hazard model is a semi-parametric version of event history modeling. The Cox proportional hazard rate for the  $i$ th individual is

$$h_i(t) = h_0(t) \exp(B'x)$$

where  $h_0(t)$  is the baseline hazard function and  $B'x$  are the covariates and regression parameters (Box-Steffensmeier and Jones 2004, 48). This formulation allows the duration model to change over time.

In each of the chapters statistical analysis is conducted on the period 1950-1999. Because event history modeling is used in several of the chapters it is worth discussing how the duration of a case is measured. The main models used in chapters 3 and 5 implicitly assume the duration of any case could begin as early as 1946 because of data limitations the earliest we can begin analyzing data is 1950.

To avoid any problems associated with censoring, some preliminary models used the full time count available where conducted. Meaning that by the time the period under study begins in 1950, some dyads had already existed 130 years. This raised other concerns about the extent to which extremely old cases might skew analysis of a post World War II phenomena. Readers familiar with the dangers associated with censoring in the event history context can rest assured that having analyzed models with counts beginning in both 1812 and 1946, the results are essentially the same. Older dyads in the unrestricted dataset are still the older dyads when the world begins in 1946.

Another advantage of the current dataset and event history modeling is the opportunity to use dyad duration as a means of accounting for time. This is wholly appropriate because the durational aspects of the theory focus on the relationship between a pair of polities over time. Dyad duration captures this reality. The problem with using the chronological year in this analysis is that new polities are created throughout the time covered. Examples include newly independent states in Africa and Asia during the 1950s, 1960s, and 1970s as well as newly created states in Eastern Europe and Central Asia at the end of the Cold War. By utilizing dyad duration, the analysis focuses more clearly on the history of the relationship.

When attempting to explain particular phases in the process of economic integration agreements the Cox proportional hazards model will provide a statistical tool specifically designed to handle the role of time while permitting a focus on the role of political factors in explaining the initiation, addition of new members, and failure of EIA. Many scholars have become accustomed to using Logit models with cubic splines to deal with models where time is an unavoidable circumstance. While using splines in conjunction with Logit models will produce an acceptable tool for modeling political events. Hazard analysis has powerful bi-products for interpreting substantive results.

Authoritative manuals for Survival Analysis, such as Cleves et al (2008) strongly advocate the use of Hazard analysis in the social science context precisely because of powerful tools for interpreting results. When a Cox proportional hazards model is presented in terms of hazard ratios, an interpretation which is roughly analogous to ordinary least squares coefficients is possible. As Cleves et al (2008) explains, “Exponentiated individual coefficients have the interpretation of the ratio of the hazards for a 1-unit change in the corresponding covariate,” (131). When the results of a Cox proportional hazards model is presented in chapters 3, 5, or 6, the regression output is presented as hazard ratios. This format permits interpretation of the impact individual variables in the model on initiation, adding new members, or EIA failure. If the hazard ratio of a variable is reported as 1.2, then a one unit increase in the variable results in a twenty percent increase in the hazard of an event. If the hazard ratio for another variable is reported as .8, then a one unit increase in the variable results in a twenty percent decrease in the hazard of an event taking place.

Another appealing feature of hazard analysis is the intuitive meaning and visual representation of events presented by the cumulative hazard function. “Cumulative hazards are the integral from zero to  $t$  of the hazard rates. Because an integral is really just a sum, a cumulative hazard is like the total number of revolutions an automobile’s engine makes over a given period... Another interpretation of the cumulative hazard is that it records the number of times we would expect (mathematically) to observe failures over a given period, if only the failure event were repeatable.” (Cleves et al 2008, 13).

The cumulative hazard function allows the reader to easily visualize how rapidly a given set of characteristics can be expected to produce an outcome.

International Relations scholars frequently study events such as the onset of conflict which could be analyzed using the event history approach. However, political science scholars generally are more comfortable using the Logit model for analyzing binary data. When there is a temporal element to binary data the Logit model requires modification to ensure results are not biased. The cross sectional time series Logit model has some advantages over the use of splines in dealing with temporal data (Beck, Katz, and Tucker 1998). Additionally, for scholars not familiar with event history models, such as the Cox proportional hazards model, the cross sectional time series Logit presents a ready tool capable of analyzing time dependent data in an unbiased manner (Beck, Katz, and Tucker 1998). We should expect this type of model to produce results which are functionally equivalent in chapters three, five, and six to the Cox proportional hazard models used. Therefore, the Beck, Katz, and Tucker (1998) approach to this type of data will demonstrate to readers uncomfortable with the Cox proportional hazard model that more familiar tools produce the same substantive outcomes when testing hypotheses about the impact of winning coalition size on the initiation, addition of new members, and failure of economic integration agreements.

### **2.6.2. Ordered Logit and Modeling Agreement Depth**

When analyzing the depth of integration within an agreement, the dependent variable will be operationalized as an ordinal scale based in part on the ideas of integration conceptualized by Balassa (1961) and reconsidered by Gibb (1993). The scale will be constructed such that: 0=No Agreement, 1=PTA, 2=FTA, 3=Service Agreement, 4=CU, 5=Common Market, and 6=Monetary Union.

Based upon a methodological monograph by Borooah (2002), the dependent variable is best modeled using ordered Logit. The EIA index can be represented as:

$$EIA_i = \sum_{k=1}^K B_k X_{ik} + \varepsilon_i = Z_i + \varepsilon_i .$$

Where  $EIA_i$  represents the observed economic integration agreement level in a given dyad year and  $K$  represents the number explanatory variables. Here  $B_k X_{ik}$  is a matrix of variables which have a causal role in the level of EIA. The degree of each variables impact is represented by  $B$ . The problem with the EIA equation is that a dyad's integration, as represented by the values of  $EIA_i$  is difficult to observe with substantial precision. The EIA index is a latent variable and therefore unobservable. However, we can observe the level of political economic integration agreements. Categorizing dyads in terms of five levels of economic integration agreements is implicitly based on values of the latent index variable  $EIA_i$  in conjunction with threshold values  $\alpha_1$  through  $\alpha_5$  such that:

$$\begin{aligned} EIA_i &= 1, \text{ if } EIA_i \leq \alpha_1 \\ EIA_i &= 2, \text{ if } \alpha_1 \leq EIA_i \leq \alpha_2 \\ EIA_i &= 3, \text{ if } \alpha_2 \leq EIA_i \leq \alpha_3 \\ EIA_i &= 4, \text{ if } \alpha_3 \leq EIA_i \leq \alpha_4 \\ EIA_i &= 5, \text{ if } \alpha_4 \leq EIA_i \leq \alpha_5 \\ EIA_i &= 6, \text{ if } EIA_i \geq \alpha_5. \end{aligned}$$

The underlying assumption of this statistical modeling technique depends upon whether or not the economic integration agreement scale has crossed a threshold,  $\alpha_a$ . The probability of which is linked to crossing this threshold (Borooah 2002).

The concept of economic integration is being made concrete using an ordinal scale because the actions taken by states to integration their economies can be observed as cut points of particular actions taken. In practice, the central components of lower levels on the ordinal EIA scale appear to be cumulative at higher levels. However, the EIA scale is not an interval measure because the distance between the categories is unknown. The structure of the phenomena being studied does not lend itself to ordinary least squares regression analysis because the events are discrete binary events in the case of initiation or represented along an ordinal scale in the case of deepening.

## **2.7. Concluding Thoughts on Data and Methods**

Important details of the research design are explained in this chapter. Readers should now understand three important aspects of the empirical research carried out in this dissertation. First, basis

for creating a database tracking economic integration agreements has been explained. Second, leadership survival theory relies on winning coalition size divided by the selectorate to model incentive structures. These incentive structures play a critical role in explaining all phases of the integration process. Finally, some basic control variables will reappear throughout the research in model appropriate forms. This chapter has provided information both on the sources of this data as well as the justification for including these control factors based upon existing research.

## **CHAPTER 3. INITIATION OF ECONOMIC INTEGRATION AGREEMENTS**

### **3.1. Introduction**

As discussed in the introduction, preferential trade agreements have become a popular topic in the international organization and international political economy literatures. Nation states have formed economic integration agreements (EIA) dating back to the German Zollverein, a customs union which emerged in the middle third of the 19<sup>th</sup> century (Viner 1950). The justification for these agreements has often been that states linking their economies together may be better able to deal with international economic challenges, expand markets for domestic producers, and increase choice for consumers (Balassa 1961). This chapter presents evidence that group leaders with similar domestic incentive structures will be more likely to initiate economic integration agreements than leaders with divergent incentive structures all else equal.

#### **3.1.1. Leadership Survival Incentives and a Theory of EIA Initiation**

Leaders are generally drawn to other actors with similar incentive structures because they are able to reach accord on the substance (or lack thereof) in a particular agreement. In the framework of leadership survival theory, the focus is on how domestic and international activity facilitates the leadership of a polity remaining in office. International agreements impose costs and benefits upon the parties to those agreements. As discussed in the introductory chapter, winning coalition size is the characteristic of a polity which defines the types of goods a leadership produces. Because of a congruence of interests, leaders with similar connections to their polity can better coordinate their international economic interaction and consequently improve their survival in economic integration agreements. Two heuristic devices, circular indifference curves and win sets, will be used to understand why certain types of polities will be more likely to select each other as partners when initiating economic integration agreements.

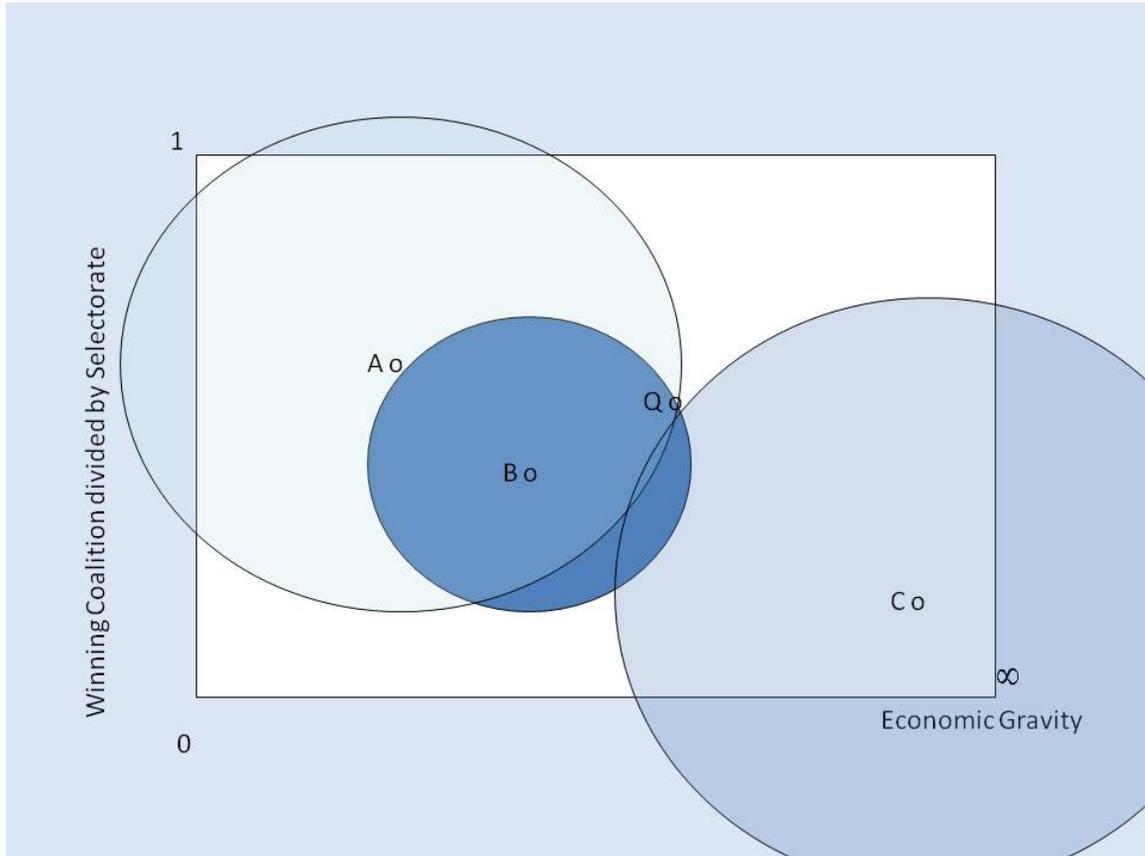
The concepts of circular indifference curves and win sets offer theoretical leverage to understand why some groups of states might be more or less likely to form agreements among each

other (Bueno de Mesquita 2006). When representing preferences with circular indifference curves, actors prefer points closer to their ideal points. Anything closer to their ideal point than the status quo makes them better off. Each actor's circular indifference curve has a radial distance which passes exactly through the status quo point (Bueno De Mesquita 2006). Points inside the curve are preferred to points on or outside the curve. Areas where the indifference curves of a winning coalition overlap are win sets. All members of the winning coalition would accept points inside their curves over the status quo. Bigger win sets are more likely to contain the actual outcomes because a larger set of common points exists.

In circular indifference curves, individuals are attempting to optimize their welfare along two vectors. Distance from the center point matters. Given the desire by polities to maximize their utility under the constraints of other actors in the international system, circular indifference curves can aid in imagining the types of partners states will select.

The initiation of economic integration among groups of states, represented in Figure 3.1, is complex and driven by several key factors including domestic political characteristics, trade among countries, security concerns, physical distance, and comparative advantage. We can imagine states arriving at an ideal point when selecting partners for economic integration agreements by optimizing along all the relevant dimensions. Here we focus on two broad dimensions, the relationship between leaders and their polities on the one hand and the economic interdependence of countries on the other. Countries further apart along both of these dynamics are less likely to initiate agreements than other polities in the system.

Groups of leaders with divergent incentive structures will be less likely to successfully initiate an economic integration agreement because the mix of public and private goods they must produce for their respective winning coalitions are in conflict. Economic integration will generally involve polities with similar demands for public and private goods by leaders, all else equal.



**Figure 3.1. Integration Agreements Along Political and Economic Dimensions Using Circular Indifference Curves**

In the case of small winning coalitions, leaders maintain their power by paying off a relatively small group of individuals such as security forces and key actors in particularly important industries. If economic integration is initiated at the lowest level along a scale of integration, the incentive structure of small winning coalitions might be amenable to preferential trade agreements (a number one on the six point scale used in this research) because preferential trade agreements generally involve limited industry specific deals. In contrast, groups of states with large winning coalitions may initiate economic integration using preferential trade agreements as a tool to transition into deeper levels of integration.

The lowest level of economic integration agreement, a preferential trade agreement (PTA) generally involves limited industry level tradeoffs which benefit certain limited sectors of member economies. Achieving deep levels of integration is a process which is envisioned in this dissertation as taking place over time depending on the economic and political experience of agreement members. As the entry point in the EIA process, preferential trade agreements can serve as a tool to produce private payoffs for sectors key to maintaining power in small winning coalitions. Alternatively, in groupings with relatively large winning coalitions a preferential trade agreement can serve as a confidence building measure which lays the foundation for deeper future integration. Chapter 4 focuses on the depth of economic integration, and the distinction made above will be fully developed in the next chapter.

Initiation is conceived as a distinct phase because the demands of initiating a low level agreement are much less in terms of policy tradeoffs than deepening of an agreement. Generally, when states initiate an agreement, they initiate a preferential trade agreement. Because of the industry level concessions, it is at least conceivable that groups of states with small winning coalitions maybe able to derive some benefits when working with likeminded states. However, the similarity of political incentives among the potential members is critical.

Leaders need to produce economic goods for their respective winning coalitions. Based upon the preferences of different winning coalition sizes, relative similarity or difference is expected to shape the ability of polities to arrive at acceptable terms for an initial EIA. In cases where leaders face vastly different incentive structures, an acceptable set of terms will be relatively more difficult to reach than leaders who need to satisfy similar types of political constituencies at home. Some examples of this process will be provided in Section 3.2 to illustrate how initiation unfolds in practice.

**Hypothesis 3A. Polities with similarly sized winning coalitions will be more likely to initiate economic integration agreements than polities with divergent winning coalitions.**

Research demonstrates that interaction at the international level between different types of political regimes produces different outcomes, especially in the area of conflict (Oneal and Russett 1999). The institutional process required for two states with large winning coalitions to achieve an international agreement means that leaders with large winning coalitions must engage in relatively transparent negotiations domestically to achieve compromise on international agreements which will be enforced over long periods of time. The consent of the public means leaders with large winning coalitions must have a greater degree of certainty about economic integration before initiating it.

The degree of certainty must be higher in large winning coalitions because the probability of leaders losing office is higher in large winning coalitions. Groups of leaders who each face small winning coalitions relative to their selectorates must produce substantially greater amounts of private goods to satisfy their winning coalition. In contrast, leaders beholden to large winning coalitions must generally produce greater public goods. Private goods might take the form of protection from competition or monopolies granted and enforced to benefit members of the winning coalition. In contrast, free trade and economic integration should produce benefits which are more public in nature.

**H3B. Groups of polities with large winning coalitions are more likely to form economic integration agreements than groups of polities with small winning coalitions.**

Chapter 4 will explore why the motivations of large winning collations are more conducive to deep economic integration. The lowest level of economic integration, the preferential trade agreement,

makes few early demands upon participants. Many of these low level agreements never develop because winning coalition size remains unchanged. There are a number of countries with small winning coalitions who have entered into a PTA for political reasons. Several groups of relatively small winning coalitions initiated PTA during the 1960's and 1980's, including the Latin American Free Trade Agreement (LAFTA) in 1961, the Tripartite Agreement of 1968 involving Egypt, Yugoslavia, and India, and the Global System of Trade Preferences Among Developing Countries (GSTP) in 1990.

### **3.2. Illustrative Cases of Leadership Survival Hypotheses**

Having first established a deductive logic for the impact of winning collations on the initiation of EIA, illustrative cases from different EIA are presented to understand the intuition behind the logic. Examples include a PTA formed by Argentina and Brazil in the 1980s which laid the foundation for the Common Market for the Southern Cone (Mercosur). Another example worth exploring in the context of initiation is the Dickerson Bay Agreement (1965) among several Caribbean countries. This treaty is closely associated with the Caribbean Community and Common Market (Caricom) process. Finally, the early meetings for the establishment of Association of Southeast Asian Nations (ASEAN) date back to the mid-1960s, but significant agreements on economic integration and coordination date only to the 1990s. These cases should provide interesting comparisons and insights into the initiation of economic integration.

#### **3.2.1. The Common Market of the Southern Cone: Mercosur**

The Common Market of the Southern Cone, Mercosur, requires understanding the historical context of past efforts at international economic integration in South America as well as political changes which have occurred. In the post World War II environment, the Bretton Woods negotiations were designed to create an international economic architecture able to avoid nationalist economic policies believed to have contributed to the global economic downturn of the 1930s. The Havana Charter of 1947 would have created an international organization to handle issues related to trade in

goods and employment thus ameliorating the tendency toward nationalist trade policy. However, this treaty was never ratified by the relevant parties. The General Agreements on Tariffs and Trade filled the void left by the failure to ratify the Havana Charter.

In this policy environment, a number of regional attempts were made to initiate economic integration agreements. The Latin American Free Trade Agreement (LAFTA) initiated by the Montevideo Treaty of 1960 provides important context to Mercosur. At the end of the 1940s, the regimes of Latin America are mildly authoritarian along the polity scale (-2), but maintain relatively large winning coalitions as a proportion of the selectorate, .626. As the 1950s progressed, the general trend among the countries of South America was toward generally larger winning coalitions by 1959. These changes apparently contributed to an environment conducive to coordination of regional economic policy.

The LAFTA agreement text holds the promise of a free trade zone in which barriers are lowered over time. However, the agreement was never implemented in a substantive manner (Page 2000). While the focus here is on initiation it is worth noting that the general trend among the LAFTA countries over the next two decades was generally toward more authoritarian government with smaller winning coalitions. In recognition of the problems and failure to implement LAFTA, a new Treaty of Montevideo was negotiated in 1980. The text of this treaty lays down principles under which groups of Latin American countries can negotiate regional trading arrangements, but it cannot be described as an economic integration agreement per se. Rather, it functions as a framework for future negotiations.

During the 1970s, the countries that eventually come to compose Mercosur maintain smaller winning coalitions and more authoritarian institutions than the LAFTA average at the time. In each of the Mercosur members, the military played a strong role. By the mid-1980s, larger winning coalitions (winning coalition/selectorate or W/S) were beginning to take hold, and this is reflected in the leadership survival coding. The members of Mercosur moved from a score, .375, that is approximately half the sample mean in 1976 to an above average W/S score, .75, by 1985. This is important because

in 1986 Argentina and Brazil initiated a preferential trade agreement by signing a series of limited trade protocols (Page 2000; The Financial Post November 10, 1988; The Economist July 16, 1988). These agreements covered industry specific changes. While limited, they clearly fit within the concept of preferential trade agreement described here.

As the average W/S among the four eventual members of Mercosur continued to move toward a broader share of the selectorate, Paraguay and Uruguay became a part of the economic integration in the southern cone. In 1991 the Treaty of Asuncion, created a customs union among the four member countries.

### **3.2.2. The Caribbean Community and Common Market: Caricom**

In the Caribbean basin, island colonies began achieving independence in the 1950s and 1960s. Early in their existence, these new states began seeking methods for coordinating economic policies. Compared to other new independent states, the Caribbean islands who eventually became members of Caricom developed and maintained relatively large winning coalitions from the time of their independence. In 1966, the Dickerson Bay Agreement, involving Antigua, Barbados and Guyana, came into force and marks the initiation of Caricom.

In the Caribbean basin, another group of islands also initiated an integration process as well. Less well known than Caricom, the Organization of Eastern Caribbean States (OECS) was originally formed in 1958 as the West Indies Federation. The original members, Antigua and Barbuda, Barbados, Dominica, Grenada, Jamaica, Montserrat, the then St Kitts-Nevis-Anguilla, Saint Lucia, St Vincent and Trinidad and Tobago, were seeking to create regional institutions to deal with common problems created by their newly independent status. While not perfect, the Caricom and OECS states maintained relatively large winning coalitions when they initially sought to integrate and coordinate their economic policies.

These cases seem to provide some support for hypothesis 3B. As polities develop larger winning coalitions, they begin to seek out international solutions to problems of economic policy

coordination. Hypothesis 3A makes a different theoretical claim; initiation of economic integration agreements merely requires similar incentive structures created by winning coalition size. Hypothesis 3A presents the argument that incentives of member states simply need to be in alignment for initiation to occur. Besides LAFTA, there are several good examples of groups of states from the developing world which did not maintain particularly large winning coalitions or democratic regimes but none the less initiated a low level economic integration agreement.

### **3.2.3. The Global System of Trade Preferences (GSTP) and Similarity of Incentives**

The Agreement on the Global System of Trade Preferences for Developing Countries (GSTP) serves as an excellent example of why Hypothesis 3A and not 3B may have greater support in the data under examination.

During the 1970s, the 28 original signatories maintained relatively small winning coalitions compared to the sample average-around .4 compared to a sample average of .58. However, they maintained a relatively homogeneous group with a W/S standard deviation of a mere .22 in 1975. Since 1975, the eventual signatories to the GSTP have developed leadership institutions with generally larger winning coalitions. The groups have remained relatively homogeneous. The parties to this agreement first began serious negotiations in the early 1980s. In 1990 the first year the GSTP was enforce the W/S had increased somewhat to approximately .5, but the group as measured by the standard deviation had also become somewhat more homogeneous.

### **3.2.4. Conclusions from the Illustrative Cases**

Based upon the evidence presented from these three anecdotes, changes in winning coalition size and the relative similarity or difference of potential members influence the probability of agreement initiation. However, we cannot be certain of the validity of anecdotal evidence until it has been placed under the scrutiny of a larger sample. In Section 3.3, the statistical model and variables necessary for a more authoritative test will be discussed. Section 3.4 will present evidence from the quantitative analysis.

### **3.3. Existing Research on Trade Protectionism and the Initiation of Trade Agreements**

The research being undertaken in this study speaks to existing studies of domestic trade policy and research on trade agreements by addressing several key issues necessary for understanding international economic agreements. Much of the existing literature on the role of domestic institutions is monadic, focused on the state level, in its approach to trade policy. Generally, research on domestic protectionism is understandably focused upon domestic economic and political factors which shape trade protectionism. Another body of literature which is focused on international trade agreements focuses more on interaction, but limits its analysis to initiation of trade agreements. In order to understand how the research undertaken here speaks to studies of trade protectionism and trade agreements, a few representative works for these two literatures will be examined.

Many states have provided protection to industries from foreign trade as a form of employment policy. Joining trade agreements may challenge an entrenched policy of protection against a relatively small group, which has a strong incentive to resist changes to government policy. This makes trade agreements risky for political leaders who may potentially anger politically active constituents who benefit in the form of employment from trade protection, (Rogowski 1987). In this framework, the comparative advantage of a society, the amounts of land, labor, and capital relative to the rest of the global economy, shapes who benefits and who is harmed. Trade protection benefits any group who owns factors of production in which society is poorly endowed. Liberalization benefits groups in society who hold abundant factors relative to the rest of the world.

The main problem with Rogowski's approach or the trade policy explanations of Hiscox (2002) and many other scholars of protectionism is a focus on state level explanations when in fact international economic policies such as those under study here are fundamentally interactions between countries at the international level. This type of phenomena must be considered in a framework which internalizes interaction in order to understand policy outcomes.

Even in the body of research which focuses on trade agreements, explanations have often been monadic and inwardly focused. Grossman and Helpman (1995) emphasizes the importance of balanced trade between two small countries in order for these agreements to occur. However, they offer no explanation as to how the process might unfold over time or that the initiation of trade agreements might unfold in the context of a broader range of issues. Moreover, economic integration occurs among a range of countries, and this variation requires a more general explanation.

Other research offers only narrow explanations of the role domestic politics plays in the negotiations of trade agreements. Rosendorf and Milner (1997) for example claim “to demonstrate how domestic politics in its simplest form may shape international negotiations,” (119). However, their model is build to only explain the behavior of democratic governments with particular decision making structures. The virtue of the leadership survival approach as developed here is to explain the negotiation behavior of governments generally by focusing on domestic incentive structures which cuts across the idiosyncrasies of particular regime types. This is a major contribution to existing research.

Progress is being made toward an understanding of how domestic institutions interact at the international level. Mansfield, Milner and Pevehouse (2007) begin by noting how preferential trading arrangements have spread throughout the international system since World War II but then use a version of Veto Player theory to explain why states will not enter into trading agreements. Developing a theory which emphasizes why an event will not take place when it has been spreading seems at odds with the event.

In effect, their theory is that the more veto points a society has the more difficult it is for the polity to arrive at trade agreement, but this logic would apply to all activity by the state. The articles lack a theory of trade policy, or international economic activity more generally.

At no point in the article are the interests of actors incorporated into their model. They claim that interests groups are represented here indirectly by their impact on the preferences of the executive and the parties (Mansfield, Milner, and Pevehouse 2007, 422). However, in their empirical models the

only domestic variables are regime type and the number of veto players. Neither of these variables acts as a proxy for a particular set of interests in the dyadic model employed in this analysis.

We can overcome the multiplicity of theories which place power in particular interest groups by focusing on the interests of actors in society which have the greatest influence over relations with other international actors. The leadership of states and how their differing needs for survival affect their policy preferences. Leadership survival theory can offer a simple and powerful tool for understanding how domestic interests in the broadest possible range of states will influence international policy by focusing on the interests of leaders as the mediating device which shapes foreign policy. Existing research fails to address economic integration agreements as a process and focuses either on protectionism or on the initiation of free trade agreements and customs unions in isolation. This study has presented theoretical arguments that trade agreements are simply one phase in broader process and to understand this process we must focus on the incentives of leaders and how they interact at the international level. Over the next several chapters these propositions will be demonstrated through empirical evidence.

### **3.4. Modeling the Initiation of Bilateral and Regional Integration**

This study explores the circumstances under which a group of states will decide to initially form an economic integration agreement. While controlling for the effects of economic conditions, international power, peer states and geography, the study tests the effects of winning coalition size on the initiation of economic integration agreements. By focusing on the first instance in which a pair of states forms any type of economic integration agreement, an important distinction can be made between states exploring untested waters and the process of deepening the degree of economic integration. This analysis will be modeled using Cox proportional hazards, a form of event history analysis. The dependent variable in the event model will be the initial formation of any agreement among a pair of states.

### **3.4.1. Statistical Model of Initiation**

An event history approach is precisely the tool to address the rate and timing of states initiating economic integration agreements. Variables in event history models describe the risk that an event occurs as they progress through time. Estimation of baseline hazard rates yields some notion of how a social process is or is not time dependent (Box-Steffensmeier and Jones 1997, 1438). The hazard rate reflects the probability an episode ends in a given period, assuming that the duration has not terminated prior to the beginning of this interval (Box-Steffensmeier and Jones 1997, 1419). Because we are interested in explaining when states join trade agreements, a duration model that places few restrictions on the hazard function seems most appropriate.

### **3.4.2. Independent Variables for the Model of Initiation**

As discussed in section 3.1, two primary hypotheses of initiation are being tested. First, hypothesis 3A argues similarly sized winning coalitions will be more likely to initiate economic integration agreements than states with divergent winning coalitions. In empirical modeling, the variable for hypothesis 3A will be derived from the W/S variable and constructed as the standard deviation of  $W/S_{AT}$  and  $W/S_{BT}$ . This will provide a sense of whether or not degree of difference affects initiation.

In both this chapter on initiation and chapter 5 which focuses on adding new members it is important to use a measure of the absolute distance between the two polities which is not affected by the order of countries in the calculation. Simply subtracting the W/S score of country B from country A presents a problem. The resulting positive or negative number will generate noise in the regression analysis because we are interested in the absolute distance. The standard deviation is a useful tool in this situation because it produces a standardized measure of dispersion which is unaffected by the order of the component parts. Additionally, the metric is easily calculated in modern statistical software.

Hypothesis 3B argues groups of polities with large winning coalitions are more likely to form

economic integration agreements than groups of polities with small winning coalitions. Therefore, hypothesis 3B is accounted for in the empirical model using the average value for W/S in a given dyad year. As the average increases hypothesis 3B predicts the hazard will increase.

### **3.4.3. Control Variables for the Model of Initiation**

Political economy research suggests a number of factors which should be included as control variables in a model of initiation, including: bilateral trade (Keohane and Nye 1973), GDP per capita (Frankel 1997), distance (Gleditsch 2002), system power concentration (Lake 1993; Gilpin 1987), level of conflict and years of peace (Haftel 2007), and democracy (Mansfield and Reinhardt 2003). The control model has been discussed in detail in Chapter 2, but a brief review is probably necessary.

Initiation of trade agreements is one phase in the process of economic integration which has been studied by a number of scholars. The interaction of domestic economic conditions and international economic relations influence initiation. Higher levels of bilateral economic interaction create political interdependence (Keohane and Nye 1973). Interdependence may create the need for political solutions to manage disputes. This need might arise because commercial or political disruptions create instability domestically; therefore, states will desire a method of reducing uncertainty about the supply of goods (Mansfield and Pevehouse 2007). Bilateral trade serves as a measure of how interdependent a pair of states is. In order to operationalize bilateral trade as a control variable, Gleditsch's (2002) expanded bilateral trade data is utilized; version 4.1 covers the period 1950-2000.

The gravity model of trade attempts to explain the level of trade between countries and relies heavily on factors such as GDP size, GDP per capita, distance, cultural links and geographic factors. The theoretical roots for the role of GDP size, income level, and distance are associated with the costs of trade (Frankel 1997). Large economies will tend to trade less with other countries all else equal because the cost of trade outside of a national economy is generally greater. Distances which must be

crossed add cost. Geographic barriers add cost. The costs associated with projection of power also come into play in international conflict (Lemke 2002).

Generally, analysis of trade agreement initiation in the field of political economy has controlled for the effects of economy size, level of bilateral trade, distance and contiguity (Haftel 2007; Mansfield, Milner & Pevehouse 2007; Mansfield and Reinhardt 2003; Mansfield and Pevehouse 2000). Population and GDP per capita are drawn from the Gleditsch and Ward modified Penn World Tables data available as a user dataset in Eugene. Distance from capitol to capitol and Contiguity will be accounted for using data from the Correlates of War Project Version 3.0.

Several strains of international political economic theory argue that a global system of relatively free trade requires the dominance of a single power (Lake 1993; Gilpin 1987). In the absence of a single global economic leader, economic integration agreements may allow states to gain benefits of increased specialization while managing the political costs of free trade (Gibb and Michalak 1994). The relative concentration of political power and the policy perspective of those wielding power probably plays an important role in shaping the probability of bilateral and regional economic integration agreements being formed. In a hegemonic system, bilateral and regional solutions would be less common than in systems with more diffuse power structures.

Changing political power may explain changes in the initiation of trade agreements. To capture the role of power in the international system, data from the Correlates of War project will be relied upon. These concepts are operationalized as the concentration of power in the international system using the Composite Indicator of National Capability, (CINC scores version 3.02) and the number of major powers in the international system (COW State System Membership, version 2004.1).

The level of conflict among potential members of economic integration agreements may also play a role in shaping the probability of the agreements being initiated. Researchers have demonstrated that some types of preferential trade agreements have a significant effect on the frequency of militarized interstate disputes (MID) in regional settings (Haftel 2007). This feeds into a

larger literature which has demonstrated that international organizations and trade appear to have a role in reducing interstate conflict (Russett and Oneal 2001). Perhaps relatively peaceful relations are a foundational element in the process of establishing economic integration agreements. Years of peace and the highest level of conflict for the Correlates of War Militarized Interstate Dispute dataset (version 3.1) will be used to capture the level of conflict at the dyad level (Ghosn, Palmer, and Bremer 2004). In the statistical model a measure of alliances may also capture important aspects of political relationships which shape economic policy. Alliances among pairs of states will be operationalized using the unweighted portfolio available through the Correlates of War project, (Gibler and Sarkees 2002).<sup>1</sup> Concentrations of power, the number of major powers, and militarized disputes all capture aspects of the role politics at the international level play in shaping economic policy.

A body of existing research has examined the role of domestic political characteristics in explaining aspects of trade agreements. Frequently, some measure of democracy and autocracy has been included in this analysis (Haftel 2007; Mansfield, Milner & Pevehouse 2007; Mansfield and Reinhardt 2003; Mansfield and Pevehouse 2000). The twenty-one point Polity scale functions as a common control variable capturing the concept of regime type. Polity captures institutional characteristics of both democracy and autocracy; other concepts such rule of law and freedom of the press are not directly incorporated in the scale (Marshall and Jaggers 2002). Bueno de Mesquita et al (2005) maintains W/S is distinct from Polity and captures important aspects of political life which are only partially accounted for by Polity (139). Therefore, it is important to include a measure of the democracy-autocracy scale alongside winning coalition size to determine if a distinct leadership survival effect exists. Empirical analysis will rely upon a modified version of the Polity scale designed for use in time-series analysis. This study may offer an important test of the extent to which variables

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<sup>1</sup> Various measures of alliance portfolio were tested during the initial phases of this research. The results were insensitive to various in the specific alliance portfolio measure used.

central to Leadership Survival analysis are distinct from a common institutional concept of democracy used in empirical research.

#### **3.4.4. Handling Country Level Variables in a Dyadic Model**

The models in each chapter of this study focus on interaction of polities at the international level. Some variables fully capture this level of analysis, such dyadic distance or bilateral trade. Other variables capture systemic characteristics such as the number of great powers in the system. Many of the variables in the models considered in this analysis demonstrate how unit level characteristics influence outcomes, for example GDP per capita or the military capabilities of a state. In this study, dyadic average will generally be presented when the direction of effects, positive or negative is the same. When the empirical results of unit level characteristics move in opposite directions, the variables have been sorted as high and low values for each dyad and presented as such. This is similar to how the Polity score and other unit level variables are presented in dyadic models of the democratic peace (Oneal and Russett 1999).

### **3.5. Results**

In order to test the validity of Hypotheses 3A and 3B, a Cox proportional hazards model is applied to a dataset of all available dyads between the period 1950 and 1999. The results of three models are presented in Table 3.1 and are the focus of discussion in this section.

The event, or in the language of the model “failure,” occurs when a pair of states initiate some form of Economic Integration Agreement (EIA). In the vast majority of cases, initiation involves the creation of the lowest level of EIA, a preferential trade agreement. The results presented in Table 3.1 represent three variations on a similar model in which over 17,000 dyads are observed for over 400,000 dyad years. Model one includes 1,635 failures and Models two and three include 1,588 failures. The models present the hazard ratio of each variable. In the case of hazard ratios, results greater than one imply the risk is increasing as the independent variable increases, and when a hazard ratio is less than one the risk decreases as the coefficient increases, (Box-Steffensmeier and Jones 2004,

**Table 3.1. Cox Proportional Hazard Analysis of EIA Initiation by Dyad Year, 1950-1999**

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Average Winning Coalition (Winning Coalition/Selectorate)	0.7412 # (0.1283)		0.5298 *** (0.0947)
Std. Deviation of Winning Coalition		0.3466 *** (0.0549)	0.3162 *** (0.0485)
<b>Control Variables</b>			
Polity Average (Democracy-Autocracy)	1.0320 *** (0.0069)	1.0254 *** (0.0049)	1.0441 *** (0.0072)
GDP per capita High	0.9999 *** (7.95E-06)	0.9999 *** (8.12E-06)	0.9999 *** (8.23E-06)
GDP per capita Low	1.0002 *** (0.00001)	1.0001 *** (1.12E-05)	1.0002 *** (1.11E-05)
Imports from A to B plus B to A	1.0000 (0.00001)	1.0000 (1.31E-05)	1.0000 (0.00001)
Capabilities High (High CINC Score)	1.49E-15 *** (6.63E-15)	3.26E-16 *** (1.46E-15)	1.37E-15 *** (6.01E-15)
Capabilities Low (Low CINC score)	14,200,000 # (124,000,000)	64,343 (592,549)	402,711 (3,606,041)
Distance	0.9998 *** (0.00001)	0.9998 *** (1.36E-05)	0.9998 *** (1.37E-05)
Politically Relevant	1.8975 *** (0.1980)	1.8202 *** (0.1899)	1.8102 *** (0.1883)
Number of Great Powers	0.9536 (0.0321)	0.9785 (0.0336)	0.9592 (0.0335)
Avg. Population	1.000005 *** (8.61E-07)	1.000005 *** (8.46E-07)	1.000005 *** (8.37E-07)
Alliances (Unweighted Global S)	3.0323 *** (0.4809)	2.2737 *** (0.3642)	2.2821 *** (0.3659)
Dyads	17904	17021	17021
# of Observations	427274	407599	407599
Wald chi2(12)	744.04	805.05	886.54
Prob.>chi2	0	0	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value $\leq$ .01, \*P-value $\leq$ .05, and # for a Prob.  $\leq$ .1 (all are two-tailed tests).

63). As a reminder if the hazard ratio of a variable is reported as 1.2, then a one unit increase in the variable results in a twenty percent increase in the hazard of an event. If the hazard ratio for another variable is reported as .8, then a one unit increase in the variable results in a twenty percent decrease in the hazard of an event taking place.

Hypothesis 3A argues groups of polities with smaller differences in winning coalition size are more likely to form economic integration agreements than groups of polities with large differences. In order to test this claim, the standard deviation of each dyad year is estimated. This provides a measure of how dispersed the data is. Smaller standard deviation numbers represent groups of countries which have greater similarity in terms of winning coalition size. The statistical model presented here supports claims that when initiating EIA polities seek partners with similar incentive structures. As the standard deviation in Model 3 moves from one, the largest possible difference, to zero, the smallest possible difference, the hazard of initiation increase by sixty-five percent. The smaller the differences between a pair of countries in terms of winning coalition size then the more rapidly they will form an EIA.

Hypothesis 3B argues larger winning coalitions will be more likely to initiate economic integration agreements than polities with smaller winning coalitions. In order to test this claim, the leadership survival data created by Bueno de Mesquita et al (2005) is used to derive an average for each dyad year of the ratio winning coalition divided by selectorate. The results do not support the claims of hypothesis 3B that larger winning coalitions will be more likely to initiate EIA. In fact, the results seem to support the idea that polities with smaller winning coalitions are more frequent initiators of international agreements. This line of research suggests authoritarian governments need to make the overt international commitments to accomplish domestic and international objectives. The initiation of agreements is very distinct from the development of a deeper relationship or adding new members. States with small winning coalitions have often entered into agreements with limited objectives and limited impact on global trade. However, these results illustrate the need to focus on a broad range of states, not just developed democracies, to understand events at the international level.

One of the most striking features of both models in Table 3.1 is the statistical insignificance of the measure of trade, summed imports from both countries in a given dyad year. The idea that economic interaction would play an important role in determining which polities form EIA would seem plausible. However, the results here do not support such a claim. In contrast, political factors play an important role in selecting initial EIA partners. The sign of the coefficient and size of the hazard ratio indicate that politically relevant dyads will initiate agreements more rapidly than politically irrelevant dyads, all else equal. Further support for the relevance of political factors is offered by the role of alliances in determining the decision to initiate economic integration agreements. The unweighted global S score, maintained by the Correlates of War Project, is a measure of how closely the alliances of two states correlate with each other. Here highly similar alliance portfolios produce more rapid initiation of the first instance of an EIA agreement.

While the Polity scale and W/S are related in important ways, the leadership survival measure, W/S, focuses on the size of the population necessary to keep a leader in power. The Polity scale focuses on a different set of institutions and maintains a positive coefficient suggesting more democratic regimes will tend to join together more rapidly in initiating EIA.

Per capita income levels do impact the hazard of initiating an EIA but the high and low GDP per capita measures for each dyad year move in small and opposite directions. These results suggest that the hazard of initiating an EIA are greatest when the pair of countries being measured are both middle income countries.

Compared to GDP per capita, differences in state level power play a major role in driving the decision to initiate EIA. Leadership theory (Lake) and Hegemonic Stability Theory (Gilpin) would suggest more powerful countries have a strong incentive to construct and maintain a global system of trade which they benefit from. Weaker countries will tend to act more like free riders in this system; playing by the rules when it benefits them and cheating when possible. The capability index scores produce hazard ratios indicating that powerful countries will take longer to initiate EIA with another

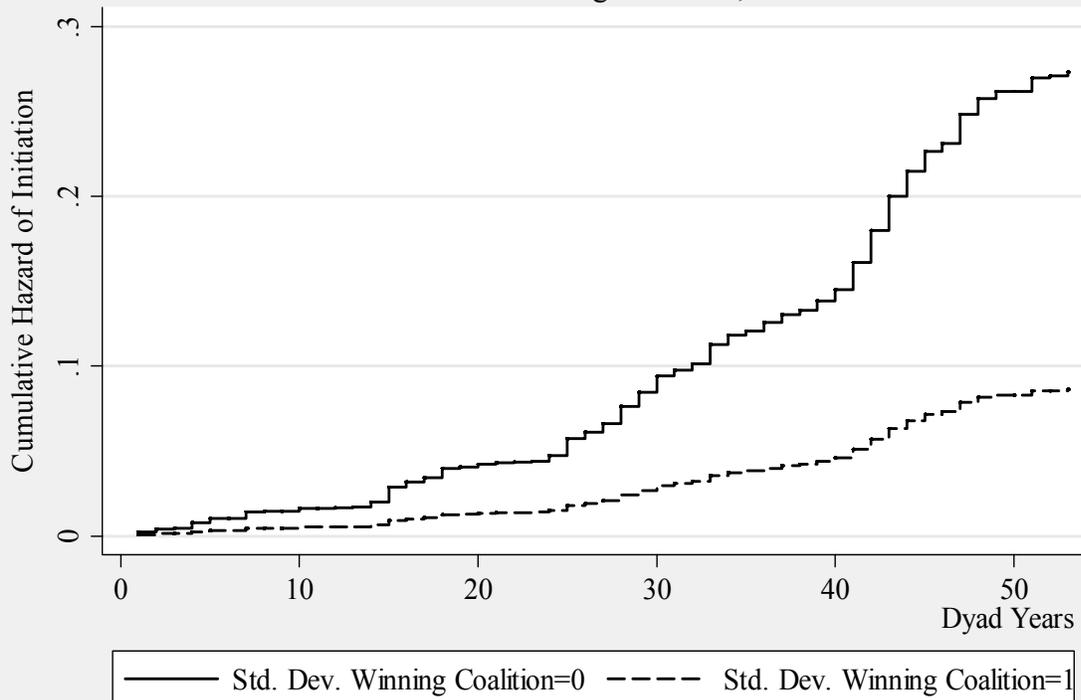
country all else equal. In contrast, very weak countries will rapidly seek out EIA partners to initiate preferential trade agreements.

Figure 3.2 illustrates the cumulative hazard of initiation when standard deviation of winning coalition size is set to two different extremes. As previously articulated, polities will seek out partners with similar political incentive structures because of a confluence of interests. Figure 3.2 clearly illustrates this reality. Smaller standard deviations uniformly result in a higher cumulative hazard rate over time. The longer two dyads have existed with no difference in winning coalition size the stronger the possibility that initiation will occur over most of the life of dyads. If two dyads persist for fifty years with polar opposite differences in winning coalition size, then we can expect the hazard of initiating an economic integration agreement to be about fifteen percent lower than the other extreme.

### **3.6. Conclusion**

In the initiation of economic integration agreements, the political process has been shown to be crucial. Specifically, groups of polities with similar incentive structures are drawn to each other. In contrast, the amount of international trade among a pair of countries cannot be shown to impact the decision by governments to initiate EIA. This result underlines the extent to which economic integration is driven by political factors. Hypothesis 3B makes the claim that larger winning coalitions will tend to initiate EIA. Given the results, we have to ask why this was not supported by the evidence. What appears to have happened is the influence of a small number of broad agreements among developing countries skewed the results. These include LAFTA and the GSTP. On balance, the results did provide strong evidence that similarity of leadership survival incentive structures is critical to initiation of EIA. In Appendix B, two sets of alternative models are presented. One set of models focuses on the impact different measures of interstate conflict have on economic integration agreements. Another set of models examines how an alternative specification of time impacts model results. We will see in the next chapter that size of winning coalitions plays a strong role in determining whether or not initial agreements develop depth.

Figure 3.2. Cumulative Hazard of Initiation Given Extreme Values for the Std. Deviation of Winning Coalitions, 1950-1999



**Figure 3.2. Cumulative Hazard of Initiation Given Extreme Values for the Std. Deviation of Winning Coalitions, 1950-1999**

## **CHAPTER 4. DEPTH OF ECONOMIC INTEGRATION AGREEMENTS**

### **4.1. Leadership Survival Theory and the Depth of Integration**

Leaders in large winning coalitions have a strong incentive to improve economic conditions because rising incomes and stable low prices for consumer staples are a good which benefits large segments of the population. However, leaders also have an incentive to minimize politically volatile economic dislocation. Economic prosperity is a broadly beneficial good which can be particularly useful to the incumbent in a large winning coalition attempting to maintain sufficient support to retain political office. Therefore, leaders will tend to gravitate toward international economic partners with similar political incentive structures, and the process of integration when successful will generally take place in an iterated fashion.

Higher levels of economic integration within agreements generally should result in larger markets for both producers and consumers. In general, economic integration should benefit society as a whole because increased specialization will result in greater material wealth in an economy. Those groups harmed by economic integration have a strong incentive to mobilize and act in order to receive protection from leaders. Groups in smaller winning coalitions threatened by economic integration will be more effective at maintaining protection because of the nature of leadership incentives. As the winning coalition grows larger, leaders shift to the provision of more public goods because of the percentage of the population which must be paid off by the leadership. Therefore, we can expect that groups of leaders from polities with large winning coalitions will seek methods of producing economic policies which produce broad based benefits for the public such as economic integration agreements.

Higher levels of economic integration require that barriers to exchange and movement generally be lowered; this is at odds with the incentive structure in small winning coalitions. In contrast, large winning coalitions need to produce public policies which benefit the selectorate generally because the winning coalition becomes too large for private payoffs. Leaders of polities with large winning coalitions have an incentive to improve economic conditions over time by lowering

barriers to exchange. All else equal, integration with other polities can provide this outcome by reducing the costs to exchange and expanding the market for producers and consumers. The similarity of incentive structures for large winning coalitions are such that over time groups of polities with large average winning coalitions generally arrive at higher levels of economic integration all else equal.

Economic integration is a process in which trust and international institutions must be built over time and with repeated interaction because there are costs to protected sectors of an economy. Additionally, higher levels of integration involve the creation of institutions which require long term coordination for benefits to be realized. Therefore, groups of leaders need to establish long term relationships in order for the integration process to work effectively. The central problem of international political economy is coordination of exchange to maximize benefits to producers and consumers. The problem of international coordination has often been represented as a classic one shot, two-person, non-zero-sum game known as the Prisoner's Dilemma with the Nash equilibrium of "Defect, Defect" (Morrow 1994). The result of this game is that both players are worse off than they could be. To overcome the incentives to cheat, international exchange either requires a powerful leader to establish and enforce rules, or players require intense repeated interaction. With repeated interaction, cooperation can be sustained at the international level even in the face of a rare defection because players account for the future in their calculations (Morrow 1994, 262-265). Given both the domestic and international considerations of leaders, the process of moving from the lowest level to a higher level of economic integration will unfold over time.

**Hypothesis 4A. Groups of polities with a large average winning coalition will have higher levels of economic integration over time.**

Having developed a hypothesis which explains how interaction over time among groups of states will, *ceteris paribus*, result in increased economic integration, a logical extension will be to consider how changes in the size of a winning coalition might impact economic integration among a group of countries. The spread of democracy and more broadly representative institutions is one of the major political trends of the past two hundred years. Within a number of the agreements being studied,

the size of the winning coalition and selectorate has changed over time. As the institutions change, a leader's incentive structure also changes. As the average size of the winning coalition rises within an existing economic integration agreement (EIA) over time, the depth of economic integration among countries should rise. This will occur because increases in the winning coalition size will result in the need by leaders to produce more public and less private goods.

In conventional political economy models, factors such as distance, trade, investment, conflict, and power would all be incorporated into a model of economic integration. The problem with most existing theory and empirical research in this area is a focus, not on a political process, but rather on a single event—the initiation of trade agreements. I intend to demonstrate that the process of economic integration among polities is shaped by iterated political interaction at both the domestic and international levels. The economic integration policies taken by heads of government are motivated by the need to produce relative quantities of broadly beneficial or private goods. This motivation is shaped in large measure by the incentive structure which connects leaders of polities to their populations.

This research advances the field of inquiry by presenting a unified explanation of a broader range of phenomena than has previously been attempted by other scholars. Furthermore, a new dataset created for this purpose enables the study to measure economic integration over time along a zero to six ordinal scale. A one represents a low level of economic integration, preferential trade agreements, and six represents a deep level of economic integration, monetary union.

#### **4.2.1. Existing Arguments for Institutional Variation in International Agreements**

The scholarly literature has tended to treat all trade agreements as the same institution. The reason for variation in international trade agreements among small groups of states has its roots both in domestic politics and in the interaction of states at the international level. In order for the literature to move forward, scholars must develop explanations of institutional design. Based on the body of existing research, several factors influence the design of international economic integration

agreements, these include: economic structure, interest groups, and interaction of different regime types.

Researchers believe economic structure shapes the trade policies of states. States considering partners in economic integration agreements can choose economies which are relatively similar in comparative advantage (a high degree of substitutability) or states with significant differences in comparative advantage (high degree of complementarity). When Viner (1950) or Balassa (1961) consider the implications for global welfare of any economic integration among states, assumptions made about the degree of complementarity or substitutability of the production in the member economies seriously affects model outcomes. The types of economies a state should seek as a partner on economic grounds has been controversial (Frankel 1997, 208).

Generally, two competing models which connect economic motivation to domestic political interest have shaped research on the politics of trade policy. In the Heckscher-Ohlin model, factor specificity is low, and in the Ricardo-Viner model factor specificity is high (Alt et al. 1996). In the Ricardo-Viner framework, trade protection benefits any group who owns factors of production in which society is poorly endowed (Rogowski 1987). Liberalization benefits groups in society who hold abundant factors relative to the rest of the world. These theoretical frameworks vary in the degree to which labor and capital can adjust to changes in the economy. Each of these competing theoretical claims shares the underlying premise that domestic economic structure translates in a relatively unproblematic way into political mobilization and changes in trade policy.

Another area of theoretical focus which shapes the design of economic integration agreements is the interaction of different political regime types at the international level. A body of research has developed which demonstrates that interaction at the international level between different types of political regimes produces different outcomes. A series of papers and books including, Oneal and Russett (1999) and Maoz and Russett (1993), have developed the argument that democracy, economic interdependence, and international organizations independently are forces which reduce the probability

of conflict between states. Democratic peace scholars argue democracies are less likely to fight one another either because of the institutional process required for two democratic states to confront one another or norms of compromise developed at the domestic level in consolidated democracies (Reiter and Stam 2002). Moreover, the consent of the public means democratic leaders must have a greater degree of certainty about the outcome of war before initiating it.

Insights about institutions and norms of behavior can inform our understanding of variation in international institutional design. Leaders heading relatively broad winning coalitions must respond to the economic concerns of a broad segment of society by producing broadly beneficial goods. However, narrow domestic constituencies, who are harmed, may be able to condition international compromises which require the phased implementation of deeper levels of integration over a period of time long enough to make transition politically acceptable.

Previous research in economics, comparative politics, and international relations each offers insights into theoretically relevant factors which may influence variation in the design of economic integration agreements.

#### **4.2.2. The Institutional Perspective on Change**

The process of integration in Europe beginning with the European Coal and Steel Community (ECSC) to the European Union (EU) is the most carefully analyzed case of economic integration in the post World War II era. Theories explaining the evolution of European integration dominate the study of economic integration. Until the 1990s the dominant theoretical traditions explaining international relations among the European powers were neofunctionalism and intergovernmentalism. Neofunctionalism envisioned initial efforts by states to pool sovereignty at the international level as creating pressure to expand authority into other related areas. Eventually this process would result in a tight union of states. In contrast to neofunctionalism which implies the reduced relevance of the state as an actor, intergovernmentalism asserts the European process would reflect the continuing dominance of the state (Pollack 2005; Hoffman 1966).

Bela Balassa, the Hungarian economist, viewed economic integration as being defined by the absence of discrimination between national economies. While his mechanism of economic integration is never explicitly defined, the ideas argued in his work on economic integration are neofunctionalist in their orientation. Levels of integration in Balassa's theoretical framework are distinguished by the degree of coordination between two or more states (Balassa 1961). The highest degree of integration is achieving full economic and political integration in a regional framework. Economic regionalism occurs because states seek to promote welfare through efficiency gains. This creates greater negotiating leverage with third parties in international negotiations and augments regional political cooperation (Gibb 1994, 22). In the Balassa framework integration at lower levels breeds demands for more integrated economies.

The institutional perspective broadly defined focuses on how mechanisms for aggregating interests do not simply sum up but actually reshape interests. Institutions allow people to reach decisions, even when there is no clear-cut consensus (Immergut 1998). Institutionalism has been at its most effective when comparing the benefits and costs of particular sets of institutions designed to accomplish similar tasks. Rational choice (North 1990 and Riker 1982) and historical (Thelen and Steinmo 1992) represent two broad theoretical approaches to the study of institutions.

Rational-choice approaches begin with a set of individuals, assumed to have a well-defined set of preferences. Institutions affect individual interaction and constrain choices (Weingast 2002). Change in the rational choice framework occurs when rules of the game are changed. Change is a planned and sequenced process. At the international level, Moravcsik's model of institutional choice represents a rethinking of intergovernmentalism in a rational choice framework. For Moravcsik (1993), domestic factors are critical at the initial stage of negotiations over the rules of international agreements. In the second stage, the rules set by international agreement reflect the preferences of member states. Over time at different iterations in the game, a gradual process of preference

convergence in the EU has occurred (Pollack 2005). International institutions are critical to increase the credibility of international commitments.

Historical institutionalism represents another contemporary perspective on institutional change. In historical institutionalism, institutions evolve a dominant set of values during formative periods of time. Historical institutionalism treats the process of change as relatively orderly (Peters and Pierre 1998). The historical perspective on institutions tends to view change as relatively path dependent. Political institutions are characterized by increasing returns (Pollack 2005; Pierson 2000). This will result in a relatively low probability of change in international institutions when unanimity or consent of supranational organizations is required. Institutional change in this model is often linked to external events such as economic and social conditions which shape institutions.

The incentive structure facing political leaders attempting to remain in office is generally ignored in existing scholarship. Leadership survival offers a powerful tool to explain the policy choices of political leaders in the process of designing international institutions. In the following sections, a statistical model is designed and tested to weigh the relative impact of leadership survival incentives on the depth of economic integration agreements (EIA).

#### **4.3. The Logic of an Ordinal Measure for Economic Integration Agreements**

The reason a preferential trade agreement might precede a free trade agreement, a free trade agreement might precede service agreements, and a common market might precede monetary union is related to the degree of coordination and the yielding of sovereignty required for each level along the EIA scale. Successively higher levels along the EIA scale represent both increasingly more substantial coordination and pooling of sovereignty by governments. In terms of domestic sovereignty, or maintaining a monopoly on the legitimate use of force, reaching agreement with another state to establish limited special trading relationships in specific areas simply requires less of the member states making domestic political tradeoffs in a PTA, than lowering trade barriers on the exchange of virtually all goods and/or services. Lowering trade barriers requires less coordination with other states

than establishing a common system of collecting external tariffs and redistributing the receipt of tariffs among the members as in a customs union. Furthermore, coordinating tariff collection with non-members is arguably a less significant demand on the sovereign claims of a government than allowing the free flow of capital, labor, and technology which defines the requirements of a customs union. From the stand point of a government, the only thing more central to sovereignty than control of national borders might be control over domestic policy. In a monetary union, states are shifting control of an economic tool to an international organization which not only plays an important role in shaping economic business cycles through management of interest rates, but states are also effectively yielding substantial control over a type of taxation, seigniorage, derived from the premium received from the printing of money.

States could hypothetically attempt to form a monetary union with no other elements from the EIA scale present. However, this is extremely unlikely and would probably fail because all research on currency unions stresses the importance of highly integrated economic activity as a precondition of monetary union. According to the research of Nobel laureate Robert Mundell, optimal currency areas, such as a monetary union, require extremely flexible movement of labor across borders, (Arnold 2005). Thus, a common market as defined here is a prerequisite for a successful monetary union. A unified monetary policy for multiple economies with little connection to each other would inevitably create inappropriate monetary policies for member countries because appropriate interest rate policy for one country unconnected to the political and economic models of another might create interest rates with disastrous consequences for other members of the hypothetical union. The result would be economic chaos for members in stages of the business cycle out of sync with the aims of interest policy in a given time period. As EIA have been conceptualized here, they can be ordered according to the demands of degree of interstate coordination required. Lower level EIA require less coordination of political activity and economic policy. However, the absolute distance from one level to the next

cannot be established. Therefore, an ordinal scale of economic integration may prove to be an appropriate way of translating the concept of economic integration into data.

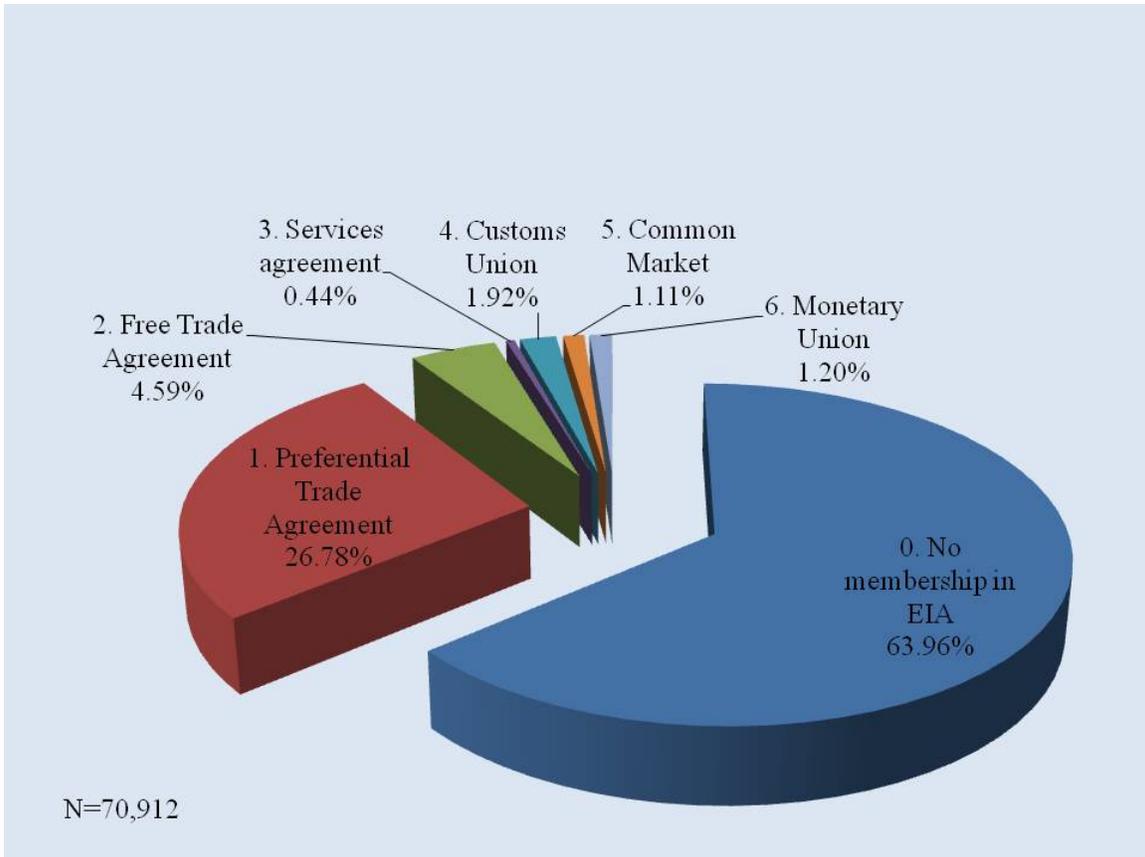
#### **4.4. Modeling Depth of Integration**

Is there a process of deepening economic integration which evolves over time? Or, are trade agreements formed by states relatively static events? This chapter will develop deductive models which explain the depth of economic integration based upon the logic of political survival.

##### **4.4.1. Statistical Model of Depth**

The empirical analysis of this chapter centers around a set of regression models focusing on the depth of integration within an agreement. The dependent variable will be operationalized as an ordinal scale based in part on the ideas of integration conceptualized by Balassa (1961) and reconsidered by Gibb (1993). The scale will be constructed such that: 0=No Agreement, 1=PTA, 2=FTA, 3=Service Agreement, 4=CU, 5=Common Market, and 6=Monetary Union. Figure 4.1 presents the distribution of this data over time across dyads which spend at least one year as a member of an EIA. As the figure clearly illustrates, 64% of the dyad years under study do not have an EIA present. An additional 27% of the data is classified as a preferential trade agreement. The number of observations at higher levels grows progressively smaller. This distribution would conform to the basic hypotheses presented above, because the distribution of leadership survival data in general terms follows a similar pattern. The presence of EIA has increased as the number of dyads which share large winning coalitions has increased.

This dependent variable is modeled using ordered Logit. The critical explanatory variables will focus on changes in the winning coalition over time within the agreement. The concept of economic integration is being made concrete using an ordinal scale because the actions taken by states to integrate their economies can be observed as cut points of particular actions taken. In practice, the central components of lower levels on the ordinal EIA scale appear to be cumulative at higher levels. However, the EIA scale is not an interval measure because the distance between the categories is



**Figure 4.1. Distribution of Integration Agreement Observations, 1950-1999**

unknown. The structure of the phenomena being studied does not lend itself to ordinary least squares regression analysis because the events are discrete binary events in the case of initiation or represented along an ordinal scale in the case of deepening.

#### **4.4.2. Independent Variables for the Model of Depth**

In this chapter the unit of analysis will be the EIA itself and will cover the period 1950-1999. The statistical model will hopefully capture reasons for movement along the ordinal scale from zero to six. Hypothesis 4A proposes a test of the extent to which the effects of winning coalition size impact EIA depth. As previously discussed, creating international institutions to coordinate economic policy among a group of states may require time to build trust and expectations. To capture this effect, the Bueno De Mesquita et al. (2005) leadership survival variable, Winning coalition size divided by Selectorate size (W/S), is calculated as an annual average. This captures the effect of large winning coalitions interacting at the international level.

#### **4.4.3. Control Variables for the Model of Depth**

A statistical model of economic integration agreements (EIA) needs to account for economic factors, institutions, power, and history. Many trade policy researchers have focused on the structure of an economy. Furthermore, the types of economies a state should seek as a partner on economic grounds has been controversial (Frankel 1997). Scholars such as Viner (1950) contended that regional trade blocs could be either trade creating or trade diverting depending on the design of agreement rules and the structure of member economies. Bhagwati (1993) and other economists have been far more pessimistic about the impact of trade agreements on global welfare. The long term economic performance of the members may also be an important metric in determining the willingness of members to move forward with economic integration. Therefore, a measure of per capita GDP for EIA members is an appropriate control. For the polities involved, trade is a central policy element in the economic integration agreements under study so it makes sense that intra-EIA trade would be a control

variable in the statistical model. The bilateral trade data will be taken from Gleditsch (2002) because it offers the broadest coverage for the period under study.

Domestic characteristics are hypothesized to be central to every phase of the integration process; therefore, including commonly used explanatory domestic political factors provides an important comparison to the impact of leadership survival. The Polity measure of the relatively authoritarian or democratic institutional characteristics of a regime offers a substantial challenge to the impact of leadership survival.

The relative concentration of political power and the policy perspective of those wielding power probably plays an important role in shaping the probability of bilateral and regional economic integration agreements being formed. In a hegemonic system, bilateral and regional solutions would be less common than in systems with more diffuse power structures.

Changing political power may explain changes in trade agreements. To capture the role of power in the international system, capability data from the Correlates of War project will be relied upon. These concepts are operationalized using the Composite Indicator of National Capability, (CINC scores version 3.02). Models of joint membership in international organizations have demonstrated that political alliances and physical distance impact dyadic behavior (Russett and Oneal 2001, 320). The presence of military disputes has also been demonstrated to impact both trade and joint membership in international organizations (Russett and Oneal 2001, 321). To further capture the character of interaction between dyads distance, similarity of alliance portfolios, and the years since the last militarized interstate dispute are included in the model as controls.<sup>1</sup> Table 4.1 presents the summary statistics for control variables used in the models of this chapter.

#### **4.5. Results**

Having developed a political model of economic integration which controls for economic conditions and international power, Table 4.2 presents the primary model of the chapter. The

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<sup>1</sup> Additional modeling presented in this chapter's Appendix illustrates that while these factors are statistically significant the basic model functions fine in their absence as well.

connection of leadership to the population, as represented by the size of the winning coalition impacts interaction at the international level in the area of economic integration. Ordered Logit modeling explains the structure of the dependent variable.<sup>2</sup> Additionally, the models are clustered on the dyad and robust standard errors are employed to account for the data structure.

In all models of EIA depth presented in the chapter or the accompanying appendix, the average size of the winning coalition is positive and statistically significant at the .05 or .01 levels. The analysis employs predicted probabilities to examine the substantive implications of winning coalition size on the ordinal measure of economic integration.

The data in this analysis has a dyadic structure and a number of the variables included in the empirical modeling cannot exist without interaction between a particular pair of countries. For example, the distance between countries, trade between countries a and b, correlation among alliances, or years of peace between the country pair all require the existence of multiple polities. The interaction of country level characteristics is believed to influence outcomes because they shape the costs and benefits of economic integration.

Table 4.2 presents a model of economic integration in which the dyad average for winning coalition divided by the selectorate (W/S) is positive and statistically significant as hypothesized in Hypothesis 4A. This is hypothesized because of the need by leaders of larger winning coalitions to produce the economic goods of integration. In this version of the model, we can safely state that W/S and polity have independent and statistically significant effects. The statistically significant negative coefficient for distance signals that states which are further apart are less likely to integrate their economies. In contrast, integration becomes more common over the time period examined as suggested by the time trend variable, Year.

Several national level characteristics are separated into the high and low values for each dyad year so the separate effects can be identified. GDP per capita is negative for the high value and positive

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<sup>2</sup> An appendix at the end of the chapter explores the robustness of the model with cubic splines, lagged dependent variables and other permutation of the primary model.

**Table 4.1. Summary Statistics for Variables in the Dyadic Model**

<b>Variable</b>	<b>Observation</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
EIA code	70912	0.5764	1.0830	0.00	6.00
W/S avg. (Winning coalition /Selectorate)	70912	0.5786	0.2375	0.00	1.00
Polity avg. (Democracy-Autocracy)	70912	-0.2961	5.9719	-10.00	10.00
Avg. GDP per capita	70912	3,410	4,279	114.46	35,972
GDP per capita Dyad High	70912	4,557	5,521	122.83	44,322
GDP per capita Dyad Low	70912	2,263	3,465	82.86	28,809
Imports Country A to B and B to A <sup>3</sup>	70912	459	4,728	0.00	342,127
Capabilities avg. (Average CINC score)	70912	0.0058	0.0086	0.00	0.17
Capabilities High (Dyad High CINC score)	70912	0.0095	0.0157	0.00	0.32
Capabilities Low (Dyad Low CINC score)	70912	0.0021	0.0032	0.00	0.07
Distance	70912	3,580	3,183	0.00	12,324
Population avg.	70912	34,309	69,105	165.87	1,123,749
Alliance Portfolio	70912	0.7975	0.1884	-0.01	1.00
# of Years Since last MID (COW Peace Years)	70912	27.36	27.86	0.00	183.00
Year	70912	1979	13.23	1950	1999

Note: Sample includes 1,916 dyads and excludes missing values from the analysis.

<sup>3</sup> “Imports ab+ba” refers to a variable in which imports from country A to country B and imports from country B to country A are summed in each dyad year.

**Table 4.2. Impact of Winning Coalition Size on Integration Agreement Depth, 1950-1999**

Variable	Model
W/S Avg. (winning coalition/selectorate)	0.5583 * (0.2198)
<b>Control Variables</b>	
Avg. Polity Score (Democracy-Autocracy)	0.0750 *** (0.0096)
GDP per capita High	-6.4E-05 *** (9.55E-06)
GDP per capita Low	0.0002 *** (1.42E-05)
Imports from a to b plus b to a	5.52E-06 (9.61E-06)
Capabilities High (High CINC score)	2.4822 (3.5303)
Capabilities Low (Low CINC score)	28.2040 * (13.9812)
Population Avg.	-3.23E-06 *** (6.66E-07)
Distance	-0.00013 *** (1.31E-05)
Alliances (Unweighted Global S)	1.670277 *** (0.2137)
# of Years Since last MID	0.004483 *** (0.0013)
Year	0.122221 *** (0.0034)
Dyads	1916
# of observations	70912
Wald chi2(13)	2562.22
Prob.>chi2	0
Pseudo R2	0.2879

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value  $\leq$  .01, \*P-value  $\leq$  .05, and # for a Prob.  $\leq$  .1 (all are two-tailed tests).

for the low value. These results are not surprising. While the European project is perhaps the best known of EIA agreements, these results should highlight for the reader that depth of integration is not driven by high standards of living per se. A range of middle income countries have been involved in integration agreements. In the economic debate about what types of economies to form partnerships with, political leaders have tended to favor partners with similar economies.

To understand the effects of GDP per capita on the depth of integration imagine two countries- one very wealthy and the other very poor. From the stand point of trade theory, two countries with extreme differences in comparative advantage can reap significant mutual benefits from the free exchange of goods and services. However, the economic integration agreement scale is not designed to solely capture trade. Instead, it measures the degree of coordination among states in the area of economic policy. As the high GDP per capita becomes lower and the low GDP per capita becomes higher, the ability to coordinate economic policy increases because of the commonality of their mutual problems becomes greater.

Taken together these effects suggest the closer two economies are in terms of average standard of living, then the more likely they are to move along the ordinal scale of integration. The lower level of capabilities is positive and statistically significant. As the power of a weaker state increases, the probability of moving to higher levels of integration increases. Both the high and lower levels of population are negative; this means that all else equal smaller states will arrange higher levels of economic integration. Small states integrating their economies at the international level makes a great deal of sense because their economies are more exposed to the international economy and would theoretically reap larger benefits from integration policies than a similar but larger economy.

The variable “Alliances” represent the unweighted global S score available through the COW project. This is a correlation between the alliance portfolios of the dyad members. The variable is positive and significant. Countries with a high degree of accord in international relations likely have a high degree of integration in the realm of international political economy. Additionally, the model

includes a measure of COW peace years which is statistically significant. This measures the number of years since the last militarized interstate dispute involving the pair of countries. We do not have to worry about multicollinearity between Year and Peace Years with a correlation coefficient between the two variables of only .17. In these models time is controlled for with a linear time trend using the variable Year. Given the current state of methodology in IR and comparative, scholars may wonder if a time plays a more complex role in the results. First, readers should note that robust standard errors are employed in all analysis to create a more difficult hurdle for the variables to overcome. To further allay concerns about time, an appendix to this chapter focuses on robustness testing and includes three models using a cubic spline with four knots. The results are not altered in any meaningful way when a cubic spline is included in the model.

Because of the ordered Logit model structure, regression coefficients are not interpretable in isolation and must be used to produce predicted probabilities for each outcome. After a level one on the EIA scale the predicted probabilities of the model become extremely small, but this is understandable because these are extremely rare events. In this analysis, 148 states from both the developing and developed world are involved in creating the over 1,900 dyads and approximately 70,000 observations in this model. Change in the economic integration agreement (EIA) status occurred in over 25,000 dyad-years, but only around 9 percent of all observations in this analysis involve more intense forms of economic integrations-free trade agreements, service agreements, customs unions, common markets, or monetary unions.

Table 4.3 is designed to assisted readers in comprehending the implications of changes in winning coalition size on the depth of economic integration. As winning coalition size increases, the absolute changes of an agreement moving deeper as winning coalition size increases are relatively small. Table 4.3 presents the cumulative percentage changes in the probability of achieving a certain level on the EIA scale as the size of the winning coalition increases.

When we consider the relative change, or percentage change, in predicted probabilities of our key explanatory factor, the substantive significance of the model becomes clear.<sup>4</sup> Table 4.3 illustrates to degree to which changes in the winning coalition size produces relative changes in the predicted probability of a level of economic integration being achieved as winning coalition size (W/S) increases. W/S is not just statistically significant; the substantive significance of W/S is comparable to other factors in the model. For example, moving from the extremely small .01 on the W/S scale to .25 produces approximately a 13.6 percent growth in the predicted probability of forming a free trade agreement. Cumulatively the impact on the probability of establishing a Free Trade Agreement by moving from one extremely of winning coalition to the other grows by over seventy percent.

#### **4.6. Illustrative Cases of Integration Depth**

Given the results of empirical modeling in this chapter, cases have been selected to compare the processes in different EIA and present illustrations of the large sample results. Three cases; the EU, Caricom, and ASEAN; each highlight important features of economic integration agreements.

Perhaps the most complex web of economic integration agreements exists among the nations on the European continent. The central elements in the European web of economic integration can be identified as the Benelux project, EC/EU process, and the EFTA. At the end of World War II, Belgium, the Netherlands, and Luxembourg re-established sovereign governments which depended on the largest possible winning coalitions relative to the selectorate. In March of 1947, they signed a protocol in The Hague which began the process of implementing a customs union in 1948. The Benelux arrangement has persisted until the present. By 1968, the European Community's Treaty of Rome had been implemented to the point of equaling a customs union; however, for twenty years the Benelux countries maintained a level of economic integration far surpassing their European neighbors. All of these efforts emerged in European states where leaders relied upon broad winning coalitions as a percentage of the selectorate to maintain power.

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<sup>4</sup> The percentage change is calculated as  $\% \Delta = [(Y_t - Y_{t-1}) / Y_{t-1}] * 100$ , where Y equals the variable and t equals a reference point. Here Y equals moving from 1 to 2 on the EIA scale. The reference point is the explanatory variable.

In the wake of World War II many European leaders sought to reorder continental politics. The preamble to the treaty constituting the European Coal and steel Community makes clear the objectives are not simply the equitable distribution of coal and steel. Rather, “Considering that world peace may be safeguarded only by creative efforts equal to the dangers which menace it; convinced that the contribution which an organized and vital Europe can bring to civilization is indispensable to the maintenance of peaceful relations; conscious of the fact that Europe can be built only by concrete actions which create a real solidarity and by the establishment of common bases for economic development,” (Germany et al. 1951). The preamble makes clear the objective of those parties who have pursued the development of a European community.

Over short periods of times, the process of economic integration among the states of the European community has been anything but a straight path. Over time and iterated negotiations, the states of Europe have achieved progressively higher levels of economic integration. In July of 1968, a customs union entered into force abolishing remaining customs duties in intra-Community trade (Berglund et al 2006). The Common Customs Tariff was introduced to replace national customs duties in trade with the rest of the world. During the 1970s, several plans were developed to establish a more coordinated and integrated monetary policy but the results were mixed. The EC/EU process often represented a means of overcoming limitations in the domestic economic policy process by establishing EC organs capable of achieving a better economic outcome.

Some of the deepest economic integration has actually taken place in the Caribbean. The Caribbean Community (Caricom) provides an important example of the role changes in winning coalition size makes in the depth of integration. When the Dickerson Bay Agreement of December 1965 initiated the Caribbean Free Trade Association among the original members (Antigua, Barbados and Guyana), these three territories were engaged in the early stages of a post-colonial life. The governments were neither strongly democratic nor strongly authoritarian in terms of regime type, rather like many other post-colonial states, their institutions had elements of both regime types.

**Table 4.3. Cumulative Percentage Change of Predicted Probabilities as Winning Coalition Size Increases**

Winning Coalition Size		No Agreement	Free Trade Agreement	Customs Union	Monetary Union
Small	0.25	-2.99	+13.59	+13.78	+13.49
Medium	0.5	-6.37	+30.02	+30.51	+29.86
Large	0.75	-10.02	+49.13	+50.11	+49.04
Extremely Large	0.99	-13.75	+70.42	+72.14	+70.58

Note: The base value for each calculation is the predicted probability for each category when winning coalition size is set to .01. The predicted probabilities used to make these calculations were made using the package Clarify in Stata.

They maintained an average winning coalition size of .625 compared to an average of .58 for the sample under study from 1950-1999. The agreement among them began the process of integration in the Caribbean, but it is not until significant changes in winning coalition size among the membership in the 1990s that a deeper agreement could be reached.

The Caribbean Free Trade Association became the basis for further negotiations which produced the original Caricom agreement. Caricom was negotiated among a broader section of the Caribbean basin and replaced the Caribbean FTA. This agreement held a broader membership with Barbados, Jamaica, Guyana and Trinidad & Tobago as the original members and came into effect on August 1, 1973. The agreement membership expanded further in 1974 to include Belize, Dominica, Grenada, St. Kitts-Nevis-Anguilla, St. Lucia and St. Vincent. This broader membership had an average winning coalition size which is roughly equivalent to the previous membership, around .61. Caricom for all intensive purposes creates the basis for future negotiations and can be thought of as a preferential trade agreement with aspirations for full integration. Article 33 of the original Caricom agreement (1973) lays out a transition period and the promise of further negotiations.

Substantive negotiations furthering the role of Caricom did not develop until the mid 1990s. In the interim, the Caricom member states on average maintained a winning coalition size slightly larger than the sample average for all countries from 1950-1999. Polity scores the members during this time as being on the mildly authoritarian side of the Polity scale. It is not until the early 1990s that political institutions among the Caricom members begin to change. As the leadership began to rely upon a broader share of the population to maintain power, Caricom members began to actively pursue negotiations which result in new agreements deepening the role of Caricom in coordinating and managing economic policy issues for the membership.

While the Caribbean states attempted to begin a process of economic integration in the 1960s. Depth of economic integration was not achieved until domestic political changes began to occur among the dyads. By the early 1990s leaders of Caricom countries on average relied upon large

winning coalitions to maintain their position. Following this transition, progress was made on integrating the Caribbean economies. By the mid-1990s, a service agreement was in place and negotiations were moving steadily forward. With the implementation of Protocol IV in 1999, Caricom countries had installed a customs union. By 2002, the elements of a common market were also in place with the completion of a program to remove capital and labor controls.

When considering the process of economic integration in East Asia one of the first points worth noting is that unlike South America, most of the eventual members of the Association of South East Asian Nations (ASEAN) trace their origin as states to the post colonial period of the 1950s and 1960s. Many are relatively young states in the international system. As a political entity ASEAN has a relatively long history dating back to the Bangkok Declaration of 1967. The joint statement by the foreign ministers of Indonesia, Malaysia, Philippines, Singapore and Thailand who founded ASEAN promised to accelerate economic growth, improve agriculture, and provide mutual assistance in economic, social, and cultural fields. Until the early 1990s, ASEAN countries reached several agreements on political matters; however, ASEAN did not develop a preferential trade agreement or another form of EIA. Given their slightly authoritarian character on average, the members maintained surprisingly large winning coalitions.

The 1980s included several agreements by ASEAN members on economic cooperation, but it was not until an agreement on the common effective preferential tariff scheme for the ASEAN Free Trade Area in January of 1992 that ASEAN members initiated an EIA. By this time, winning coalition size had shifted to the somewhat larger .68 from a score around .55 to .6 in the early 1980s. This means leaders went from below average winning coalition sizes to relatively larger sections of the population necessary for maintaining power. Additionally, Polity notes a shift from the mildly authoritarian to the mildly democratic around this time as well. Following the signing of the treaty, ASEAN members spent the next five to ten years implementing aspects of the agreement.

There is a long history of attempts by Southeast Asian states to find accommodation in regional forums. However, achieving economic integration has generally been elusive. While many factors surely limit progress, one important factor in the context of this research has been the generally authoritarian character and small winning coalitions of the governments in the ASEAN process. Even today the region is characterized by a heterogeneous mix of different winning coalition sizes and region types. These differences in domestic political incentives for leaders undoubtedly have limited progress toward deeper integration until now.

#### **4.7. Conclusions and Implications**

Many states have resorted to developing economic integration agreements with neighbors and states great distances from their borders. The goal of this research is to elucidate whether or not a process of economic integration is taking place among states in the international system. The study has successfully established the factors driving this process of economic integration. The incentive structure created by the ratio of the winning coalition to the selectorate shapes the mixture of public and private goods that leadership of a polity attempts to produce. This incentive structure affects how polities interact with each other at the international level.

Having developed a comprehensive database on the characteristics of economic integration agreements since the end of World War II, testing the hypothesized relationships demonstrates that different types of political regimes interact with each other in distinct ways in the area of economic integration. Because of the way subsets of economic integration agreements have been operationalized, they have been treated as relatively homogenous in recent research. Yet, they make very different demands on their members.

## **Chapter 5. Adding New Members to an Existing Agreement**

### **5.1. Introduction**

Scholars, policy makers, and the business community have long recognized the critical role of political decisions in shaping the economic and business environment. The only thing worse than bad economic policies is “their absence and the resulting uncertainty,” (Huelin 1964, 435). Therefore, when integrating a new member into an existing economic integration agreement (EIA) current members are particular about who the benefits and burdens of membership will be extended to. In the leadership survival framework, we assume the leadership of potential members joins existing EIAs to generate goods to benefit their winning coalition. The research in this chapter demonstrates how existing members and potential members make decisions about expanding an EIA based upon the interaction of both member and non-member political incentive structures.

#### **5.1.1. Leadership Survival Theory and the Addition of New Members**

Leaders of states both inside and outside of economic integration agreements face incentives to create a certain mix of public and private goods based upon their connection to the winning coalition and selectorate of their polities. As differences in the size of winning coalitions for non-member and member polities grow smaller, the preferences of leaders inside and outside an economic integration agreement become more closely aligned regarding the creation of broadly beneficial and private goods. Based upon the theoretical and empirical work of leadership survival, I expect leaders representing relatively large winning coalitions to have stronger incentives to create broadly beneficial goods rather than private goods. In terms of the material well-being of citizens, larger groups of economies integrating the movement of goods, services, and factors of production should produce benefits in terms of greater specialization and more efficient use of resources.

In attempting to understand the expansion of economic integration agreements, we can draw on theories designed to explain the expansion of NATO. EIA generally and NATO cover two very different issue areas, but the motivations of leaders acting at the international level are essentially the

same in the leadership survival framework. Leaders are seeking to produce goods which facilitate their survival, whether they are security goods or economic goods.

Security alliances are usually designed to increase member security and make attack by outside actors more costly. In contrast, NATO enlargement increased direct costs of defense on many existing members by adding a number of relatively weak new members. One key insight from the game theoretic approach to NATO enlargement has been the realization that trust and relative uncertainty about potential member preferences are crucial in determining which states will be admitted and which states will seek membership (Kydd 2001). The movement to change political institutions and settle long standing disputes in Eastern Europe created a set of preferences more in line with existing NATO members. In the Kydd (2001) conception, existing members reduced the costs associated with future conflicts in Eastern Europe by encouraging potential members to bring the incentive structures of their political and economic systems in line with existing NATO members prior to joining the organization.

As in NATO, the expansion of the European Union (EU) over the past 20 years has generated substantial discussion about the costs of expanding membership. This discussion sometimes focuses relative economic benefits to the new members. More often, concerns about recent rounds of EU expansion members are expressed in terms of labor traveling from low wage new members to high wage existing members, (Browne 2003). In the leadership survival framework, the answer must be that leaders benefit by rewarding their winning coalitions; a segment of the population which benefits from a larger market for domestically produced goods and services as well as lower cost goods and services for consumers in their winning coalition. Leaders in polities with large winning coalitions, who are current members of an economic integration agreement, have an incentive to broaden membership in the agreement because larger integrated markets generate economic goods for their winning coalition.

The interaction of members and non-members is important here because leaders from both sides must find the integration of a new member political acceptable. For the leadership of non-member polities, the size of the winning coalition domestically affects the incentive to join an

agreement as well. In situations where the existing membership and potential members have similar and relatively large winning coalitions, creating economic goods will be relatively less challenging than with dissimilar dyads.

If the members of an existing agreement and a potential member have similar but small winning coalitions relative to the selectorate, then joining an agreement may be able to serve the private interests of the small winning coalitions in each polity. This could take the form industry specific tradeoffs which benefit the narrow segment of the population necessary to keep a leader in power.

The least likely scenarios are member countries with an average winning coalition size which is at one extreme admitting a new member with a winning coalition size at the other extreme because the incentive structures for the leadership are radically different. As political institutions inside and outside of economic integration agreements align with each other, the probability of outside members joining rises.

**H5A. The probability of an outside polity joining an existing EIA rises as the distance between the average winning coalition size of existing members and non-members grows smaller.**

When an agreement is reached to integrate economic activity and reduce protections for domestic producers, winners and losers are produced. States have provided protection to a wide range of domestic industries from foreign competition. Joining trade agreements may challenge an entrenched policy of protection for a relatively small group, which has a strong incentive to resist changes to government policy. This makes liberalizing trade risky for political leaders who may anger politically active constituents that benefit from trade protection (Rogowski 1987). Leaders look for international partners, who will maximize benefits and minimize the risks of integration to political leaders.

**5.2. Illustrative Cases for Broadening of Membership**

By comparing the European Union/European Community process with North America and the integration of some South America states, the motivation to seek out similarity in political institutions

becomes clear. The chapter will focus on several agreements which have seen significant changes in their membership over time.

### **5.2.1. The European Community**

A natural case for focus in this chapter is the European Union. From the early days of the Benelux agreements in the late 1940s and the European Coal and Steel Community in the 1950s, the definition of the European Community has expanded to over 27 members of the European Union today. Furthermore, preparation for membership has been closely associated with a process of political institutional change.

For the purposes of this study, the “European Community” begins in 1952 with the initial implementation of a treaty establishing the European Coal and Steel Community (ECSC) and includes the implementation of a number of agreements including the Treaty of Rome and the Maastricht Treaty. Additionally, a number of other documents including the Single Europe Act (1986) and the Werner Plan from the 1970s have influenced what we today generally refer to as the European Union (Berglund et al. 2006).

The membership of the European Community and European Union has changed dramatically over the past thirty years. While a number of factors have played a role in shaping the membership of EU institutions, changes in the winning coalition size and increasing similarities of economic conditions play an important role in the membership process.

In 1975, the average Winning Coalition size (W/S) for nine members of the EC was .917 extremely high for the period under study. In contrast, Greece experienced a coup during the late 1960s and is actually coded as a zero from 1967-1973. It is not until efforts are made at resolving Greece’s internal political strife that EC membership is granted to Greece in the early 1980s. This is not to say that political challenges were completely resolved prior to membership however, by 1975 the winning coalition measure (W/S) is recording a leadership survival incentive structure more in line with the existing EC membership.

Statements reported by the Greek government at the time indicate accession into the EC served the domestic political goals of enhancing the government's standing with the population. "We do not look on the EC as a final aim...But it is an important preparatory stage for the achievement in European unity. Our country believes in European unity and in the tremendous political role which a united Europe could play in the world today," (Yemma 1981, 8). Thus, the prime minister is touting membership in the EC as a means of benefiting his winning coalition.

In the cases of both Spain and Portugal, their winning coalition size (W/S) became closer to the EC average over time and became exactly the same by the time of ascension to the EC. In the post World War II era, both polities maintained regimes that had small winning coalitions as a percentage of the selectorate. In 1955, Spain's winning coalition size was a mere 28 percent the size of the ECSC average. By 1978 this had increased to 77 percent the size of the EC average, but by 1982 Spain had a winning coalition size exactly the same size as the EC membership. A short time after converging in terms of winning coalition size with the organization's existing members both Spain and Portugal gained membership in 1986.

The political life of the Iberian Peninsula was complex during the 20<sup>th</sup> century. By focusing on the degree of similarity in winning coalition size, we see that convergence preceded membership. Furthermore, we have good theoretical reasons to suspect these changes made the probability of adding these members more likely.

These three instances of adding new members to the European Community also unfolded as we might expect with broad winning coalitions. Each of the new members entered into negotiations with the EC to structure entry so as to minimize politically sensitive economic dislocations which might occur for existing firms and industries in members once new members were incorporated into the organization (Yemma 1981).

### **5.2.2. North America**

Often NAFTA is treated as simply a trade agreement and an event which took place in the

1990s. In contrast, a closer examination of economic integration illustrates a more complex history in North America. The United States and Canada maintained a preferential trade agreement in the automotive industry dating back to the mid-1960s (Canadian Economy 2007; Page 2000). This agreement had benefits for some workers and firms on both sides of the border because it expanded the market for automotive parts. Both sides expanded their political coordination of economic issues in 1989 with the Canada-US Free Trade Agreement. The signing of this agreement followed extensive negotiations and raised the potential for a deeper relationship on the EIA scale. The agreement was implemented over time; therefore, the status of Free Trade Agreement on the EIA scale is not recorded until 1994. While NAFTA was signed in 1993, NAFTA did not immediately raise the EIA scale for Canada and the US. Rather, the EIA scale increased in 1994 for Canada and the U.S. because the terms of the earlier agreement had been implemented to the point that they now qualified as a two, or Free Trade Agreement, on the EIA scale.

Mexico and the United States struggled on a number of occasions since World War II to foster some form of economic coordination. During both the 1960s and 1970s, commissions were established to coordinate various aspects of US-Mexican economic policies but these commissions did not have true negotiating or enforcement power (Icardo 1981). They resulted in little. Furthermore, the political aims of the NAFTA agreement were fairly limited. None of the parties to NAFTA explicitly sought treaty language establishing this agreement as the basis for a more intimate political union in North America (Abbott 2000).

During the entire period 1950-1989, Mexico maintained a winning coalition size that was approximately half the size of the U.S. and Canadian winning coalition size. Yet, the year NAFTA is signed Mexico increased to 75% of the US and Canadian winning coalition size. This is a major change in Mexican political institutions and may partially explain what changed and made the implementation of NAFTA possible. In contrast Mexico experienced a major financial crisis in 1994

and required dramatic US assistance. In the period immediately preceding the implementation of NAFTA, the economic situation in Mexico deteriorated relative to the United States.

### **5.2.3. The Common Market of the Southern Cone**

Various groups of countries in the Caribbean, Central American and South America have on different occasions attempted to integrate their economies. The Latin American Free Trade agreement (LAFTA) came into existence under the Montevideo Treaty of 1960. However, this arrangement was fraught with problems (Page 2000). “In Argentina and Brazil, and to some extent in Chile, the rapid industrial expansion of the 1950s has been followed by comparative stagnation in real incomes as a consequence of anti-inflationary monetary restrictions, with the result that the process of import-substitution in consumer goods, including sophisticated durables, has virtually reached its limits.....In all three of the countries mentioned there has been a real crisis of confidence,” (Huelin 1964, 435). By 1979, economic coordination in Latin American countries was dysfunctional. Only a loose framework agreement, Asociacion Latino Americana de Integracion (ALADI), existed continent wide on economic issues by 1980.

In the relative absence of a mechanism for economic coordination, the Common Market of the South Cone, MERCOSUR, was established by the Treaty of Asuncion in 1991. However, the Common Market of the Southern Cone actually has its earliest roots in a series of preferential agreements between Brazil and Argentina during the mid-1980s as South America was shifting from various forms of dictatorship to more democratic regimes. Beginning in 1986, Brazil and Argentina signed a series of industry protocols coordinating trade in certain sectors, (Page 2000; BBC World Service September 13, 1988; The Economist July 16, 1988). For the purposes of this study, these agreements mark the beginning of an EIA which eventually developed into MERCOSUR.

Paraguay and Uruguay become parties to MERCOSUR, but only after changes in their political and economic circumstances begin to correlate with the circumstances of their larger neighbors. In 1980, Paraguay's leaders relied on winning coalitions 33 percent larger than the other future

MERCOSUR states. But by 1985, political changes in other future MERCOSUR countries had shift dramatically so that winning coalition size in Paraguay was now 33 percent smaller than future MERCOSUR states during the same year. By 1990 Paraguay's winning coalition size had become 94 percent of the of the MERCOSUR average. These changes indicate movement toward similar characteristics.

#### **5.2.4. Implications of the Illustrative Cases**

All of these cases illustrate the hypothesized relationships which explain admitting new members. Political leaders with different winning coalition sizes face domestic incentives to produce a particular mix of broadly beneficial and private goods for their winning coalition. In existing economic integration agreements (EIA), the leadership of member states has an incentive to find states which increase the production of broadly beneficial goods while alienating the smallest possible group of winning coalition members within a state. If a new member is going to be accepted in an existing EIA, then finding other polities with similar incentive structures is optimal.

Non-members also play a strategic role in the decision to join an existing EIA. Likewise, leaders of non-members face incentive structures to produce a particular mix of broadly beneficial and private goods. This is based upon the incentives created by the size of the leader's winning coalition. Non-members will only seek membership in EIA that will benefit their goal of leadership survival, and this will be less likely when political incentives are dissimilar for members and potential members.

#### **5.3. Modeling Changes in Membership**

When member polities agree to admit a new polity to their organization there are both political and economic costs and benefits associated with these choices. The dataset of economic integration agreements created for this research program is used here to weight potential competing arguments regarding the factors which determine if a state is admitted to an existing economic integration agreement.

### **5.3.1. Statistical Model of Broadening**

The Cox proportional hazards modeling process will focus on explaining the probability that in any given year from 1950-1999 a state will become a member of an existing economic integration agreement. Here the unit of analysis is the dyad but any dyad where the pair was part of initiating an agreement during the period under study is excluded. The dependent variable equals one in the dyad year when a new member is admitted to an existing agreement and zero otherwise. Control variables will capture the degree of similarity or different between the EIA and the potential member country in terms of political institutions and economic conditions.

### **5.3.2. Independent Variables for Membership Broadening**

Hypothesis 5A claims the probability of an outside polity joining an existing EIA rises as the distance between the winning coalition size of existing members and non-members grows smaller. Using the previously discussed winning coalition divided by selectorate variable (W/S) created for Bueno de Mesquita et al (2005), hypothesis 5A is operationalized by utilizing the standard deviation for each dyad. As explained in Chapter 3, simply subtracting either country A from country B or sorting the dyad values into high and low then subtracting them creates some problems with interpreting the results. The standard deviation of winning coalition size provides a measure of the degree of similarity or difference in the incentive structures faced by existing EIA members and potential EIA members while avoiding problems created by simply subtracting one half of the country pair from the other. Changes in this variable should lead to changes in the probability of a non-member joining an EIA, all else equal. The relationship is hypothesized to exist because the connection of leaders to their population shapes their incentive structure. Changes in the incentive structure of non-members will bring the interests of members and non-members in closer alignment. Once factors such as distance and population are controlled for, the closer alignment of interests will result in changes to EIA membership.

### **5.3.3. Control Variables for Membership Broadening**

Many of the factors relevant as control variables in initiation of economic integration agreements come into play when contemplating a model explaining if existing EIA members will add a particular country as a new member. To the extent possible, the model needs to control for interaction at the international level.

Economic structure shapes the trade policies of states. Decisions about economic policy are often driven by political considerations, and leaders of states will seek partners who will maximize benefits while minimizing costs. For example, state A's leadership faces the choice between integrating with two different economies. One society, state B, is very similar in terms of per capita GDP, life expectancy, and literacy. The other economy, state C, is a significantly less developed polity, in terms of a per capita GDP, life expectancy, and literacy. The economy of state A and the economy of state C would probably reap significant advantages if no barriers in the exchange of goods and services existed between them. Both economies would become more specialized and more efficiently utilize the factors of production for which they possess a comparative advantage.

However, the transition both economies A and C will experience creates significant economic dislocation for firms and employees who worked in industries which now have difficulty competing. These free trade losers will attempt to resist the economic changes they face by influencing the state's political leadership through whatever levers of influence are available--bribes, the voting booth, or taking to the streets in protest.

At deeper levels of integration, there is less restriction on the movement of labor and capital. Additionally, fiscal and monetary policies are coordinated. These policies can create even greater threats to segments of the selectorate in both the existing agreement and to potential members. "It is considerably easier to integrate economically when there are shared norms among countries regarding domestic institutions such as labor relations or social welfare systems. Second as integration deepens, it becomes more difficult for countries to adopt or maintain social recipes that differ from those of their

trade partners,” (Rodrik 1997, 40). In existing EIAs, the probability of admitting a new member rises as the differences in the standard of living as measured in terms of GDP per capita fall because accommodating the economic dislocations created in similar economies will be politically less costly. As the economic differences between potential members and current members grow smaller in terms of per capita GDP, the probability that a new member will be accepted into an EIA will rise.

The Expanded Gleditch National Accounts Data version 4.1, based upon the Penn World Tables, is used to for the GDP per capita data because it has been structured so that it is readily available for dyadic analysis. As with the measure of winning coalition size, the standard deviation is used because it offers a standardized method for measuring the absolute distance between countries.

Economic gravity once again plays a role. Distances which must be crossed add cost. Geographic barriers add cost. Distance from capitol to capitol and Contiguity will be accounted for using data from the Correlates of War Project (Version 3.0).

Political power is accounted for using the High CINC score, a Correlates of War measure of material power, as well as the number of Great powers in the system at the time. In the appendix, models also include a measure of political relevance which in international relations scholarship generally denotes if pairs of countries share a border, are a certain distance from each other, or include at least one state which is considered a major power. These factors control for the role of power politics in shaping the outcome of international agreements.

#### **5.4. Results**

The results presented in Table 5.1 support the claims of Hypothesis 5A. Hypothesis 5A claims that the risk of an outside polity joining an existing EIA rises as the difference between the average winning coalition size of existing members and non-members grows smaller. Because the analysis is conducted as a Cox proportional hazards model, the coefficients of Table 5.1 are presented as hazard ratios. Hypothesis 5A is operationalized using the standard deviation of winning coalition size, and the model results quantify the impact of this relationship. The hazard ratio for the standard deviation of

winning coalition size of .334 means that moving from a one to a zero results in a 66 percent increase in the hazard of a new member joining an existing EIA. The hazard ratio for winning coalition size basically behaves as predicted. As the standard deviation gets smaller a shorter time occurs until the new member is added to an existing economic integration agreement.<sup>1</sup>

The results also support expectations about the impact of the standard deviation of GDP per capita because the coefficient being less than one means that as the variable decreases the risk of adding a new member rises. As the two economies become closer in terms of per capita GDP, a shorter time will be needed before admitting the non-member to the existing EIA. Here the hazard ratio may appear extremely small at first glance, but it is deceptively small. The standard deviation of GDP per capita ranges between 0 and 34,413. Even though a one unit changes produces a small impact, the variable has a wide range of movement.

The other variables behave in this model as we might expect. For example, the hazard ratio of the average Polity score is greater than one. Therefore, a one unit increase in the polity score increases the risk of admitting a new member by 3.3%. Both distance and population have extremely small but statistically significant impacts in the primary model.

Since these agreements are focused on economic issues, bilateral trade might seem to be a useful proxy for economic interaction among states. However, an alternative model presented in the Appendix which includes trade is not statistically significant in explaining this process.

Figure 5.1 provides a visual understanding of the results presented in Table 5.1. As in Chapter 3, the best way to grasp the impact of the independent variable on the addition of new members is a graph of the cumulative hazard. “A cumulative hazard is like the total number of revolutions an automobile’s engine makes over a given period,” (Cleves et al 2008, 13). The cumulative hazard records the number of times we expect to observe the addition of a new member over time. The cumulative hazard function allows the reader to easily visualize how rapidly a given set of

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<sup>1</sup> For scholars unfamiliar with this type of modeling, Box-Steffensmeir and Jones 2004, 59-67, may be helpful.

characteristics can be expected to produce an outcome. The horizontal axis is the number of dyad years. The vertical axis represents the cumulative hazard; here a .1 represents a ten percent chance of adding a new member. Each line on Figure 5.1 represents the cumulative hazard when the standard deviation of winning coalition size is set to an extreme value, one or zero, and the rest of the model is set to its mean values.

Over time the cumulative hazard is generally increasing, but the cumulative hazard for each scenario is diverging. After fifty years, there is approximately a nine percent difference in the hazard of adding a new member to an EIA when the standard deviation of the winning coalition size is set to extreme differences. This result is substantively significant if the reader bears in mind that adding new members is a relatively rare event.

## **5.5. Conclusions**

In the leadership survival framework, we assume potential members join existing EIAs so leaders can generate goods to benefit their winning coalition. The key variable of leadership survival theory, winning coalition size divided by selectorate size, plays an important role in explaining which states are added as new members to existing economic integration agreements. The incentive structures of leaders are shaped by their winning coalition size as the incentives of members and non-members align. The statistical analysis of this chapter supports the claim that membership becomes more likely as political differences become smaller.

As we briefly illustrated in this chapter adding new members to an existing arrangement can be a politically challenging event; therefore, when integrating a new member into an existing economic integration agreement (EIA) current members are particular about who the benefits and burdens of membership will be extended to. Larger groupings of economies integrating the movement of goods, services, and factors of production should produce benefits in terms of greater specialization and more efficient use of resources. However, lower barriers can alienate groups within a polity which have benefited from protection. As the incentive structures inside and outside an agreement move into

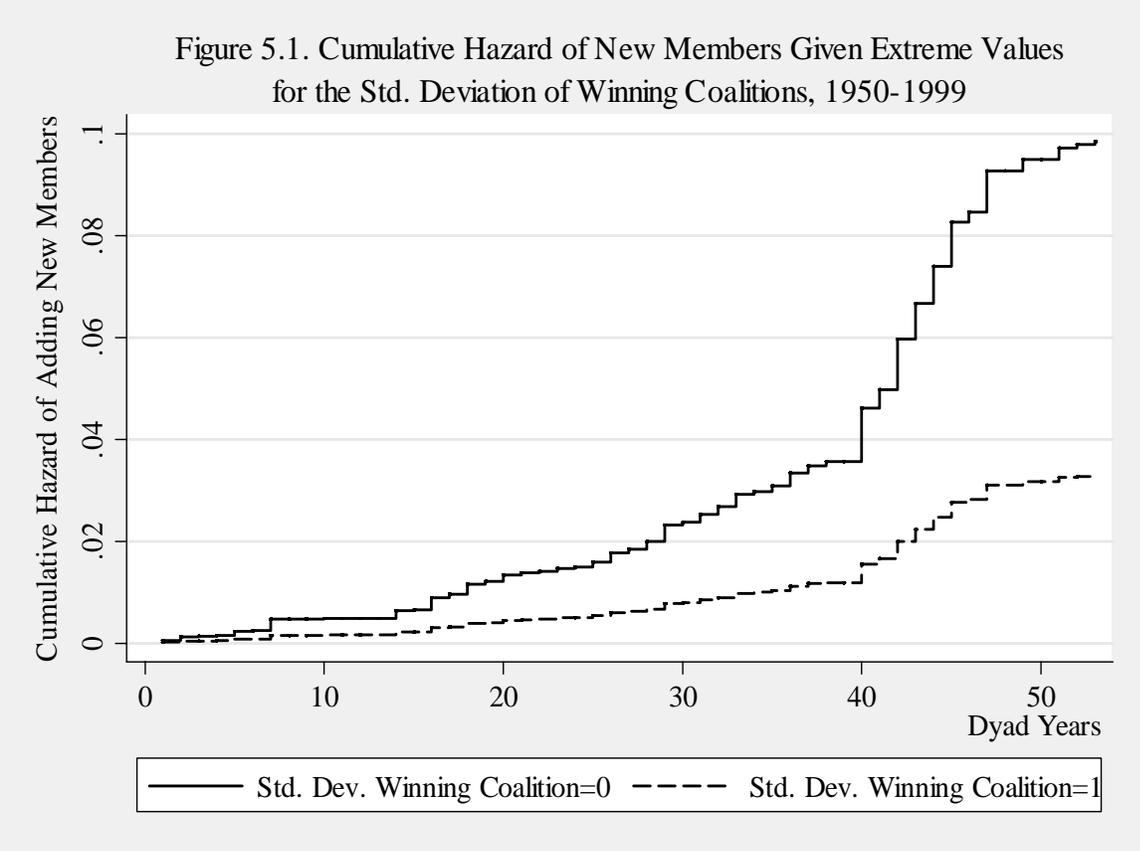
alignment, phase in periods are frequently established so that adjustments to new conditions will be more politically acceptable.

Adding new members to an existing agreement is a complex process, but the interests of leaders and the goods they must produce to satisfy their winning coalition shapes the types of policies pursued.

**Table 5.1. Cox Proportional Hazard Model for Adding New Members to an EIA, 1950-1999**

<b>Variables</b>	<b>Hazard Ratio</b>	
Std. Deviation of the Winning Coalition (Winning Coalition/ Selectorate)	0.3341	***
	(0.0844)	
<b>Control Variables</b>		
Polity Avg. (Democracy-Autocracy)	1.0325	***
	(0.0081)	
Std. Deviation of GDP per capita	0.9998	***
	(1.63E-05)	
Capabilities High (High CINC Score)	2.21E-12	***
	(1.14E-11)	
Distance	0.9997	***
	(2.23E-05)	
Number of Great Powers	1.7580	***
	(0.0749)	
Avg. Population	1.000005	***
	(1.06E-06)	
Dyads	15,959	
# of Observations	385,183	
Wald Chi2(7)	1006.65	
Prob.>Chi2	0	

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001,  
 \*\* P-value  $\leq$  .01, \*P-value  $\leq$  .05, and # P-value  $\leq$  .1 (all are two-tailed tests).



**Figure 5.1. Cumulative Hazard of New Members Given Extreme Values for the Standard Deviation of Winning Coalitions, 1950-1999**

## **CHAPTER 6. THE FAILURE OF ECONOMIC INTEGRATION AGREEMENTS**

### **6.1. Leadership Survival and Failure**

Failure is never a minor event. Failure of international agreements can be extremely costly for contracting parties. Yet, few scholars have systematically examined why economic integration agreements (EIAs) might fail or developed an explicit theoretical framework to explain failure of this phenomenon. For the purposes of this study, failure at a minimum refers to the withdrawal from an economic integration agreement by at least one member, but also includes the complete collapse of an EIA. Table 6.1 presents the 10 instances under study between from 1950-1999 when EIAs experienced the withdrawal of at least one member or a complete collapse of the agreement. These failures involved a total of 61 polities involved with the various agreements. Economic integration agreements are constituted by member states and as a rule their existence depends heavily on the support of the membership.

Given the dependency of EIA on their state members, failure of agreements is probably closely linked to changes or problems with the states themselves. If the institutions connecting leaders to their polities change, then the policies of the leadership will change as well. When an EIA has been reached by a group of countries with relatively broad winning coalitions, this agreement will offer a certain bundle of public goods to individuals in the selectorate of those member states. If at a future date the regime of a polity changes, such as a junta seizing power in a coup d'état, the size of the winning coalition has undergone a dramatic change. Consequently, the leadership in this new environment may have an incentive to create a mix of broadly beneficial and private goods very different from the types of goods an existing economic agreement was designed to produce.

Leaders are generally drawn to other actors with similar incentive structures because they are able to reach accord on the substance (or lack thereof) in a particular agreement. In the framework of leadership survival theory, the focus is on how domestic and international activity facilitates the

leadership of a polity remaining in office. International agreements impose costs and benefits upon the parties to those agreements. Remember from the introductory chapter that winning coalition size as a proportion of the selectorate is the characteristic of a polity which creates incentives for political leaders to promote differing mixes of public and private goods. Because of a congruence of interests, leaders with similar connections to their polity can better coordinate their international economic interactions; thus failure of economic integration agreements will be less likely.

If the incentives for the production of political goods change, the reasons for a leader and her state to maintain membership may become divergent. Groups of leaders with divergent incentive structures will be less likely to successfully maintain an economic integration agreement because the mix of broadly beneficial and private goods they must produce for their respective winning coalitions are in conflict.

Chapter four examined the role of winning coalition size in the depth of economic integration. In the case of small winning coalitions, leaders maintain their power by paying off a relatively small group of individuals such as security forces and key actors in important industries. While they may initiate a low level preferential trade agreement, creating deep economic integration is unlikely. If some states develop larger winning coalitions they will need to produce goods for a broader segment of the population, leaders in these larger winning coalitions will have an incentive to create deeper integration over time-free trade agreements, customs unions, common markets, and monetary unions. Existing economic agreements which benefit narrow segments of an economy may be a hurdle to this new broader winning coalition. If distance increases between an existing group of small winning coalitions and a member facing incentives to produce a different and conflicting set of goods, then strains will develop for the economic integration agreement (EIA).

In contrast, groups of states with large winning coalitions maintain economic integration agreements because they permit the production of goods which benefit a broader segment of the

**Table 6.1. Selected EIA Failures<sup>1</sup>**

<b>Agreement</b>	<b>Date of entry into force</b>	<b>Failure Date</b>
Honduras withdraws from the Central American Common Market (CACM)	1960	1970
Denmark and the UK withdraw from the European Free Trade Agreement (EFTA)	1960	1972
Chile withdraws from Andean Pact	1969	1976
East African Community	1967	1977
Latin America Free Trade Agreement (LAFTA), Problems began in the 1960s, but not coded as failure until the agreement is formally dissolved in 1980.	1960	1980
Portugal withdraws from the EFTA	1960	1985
Tripartite Agreement (India, Egypt, Yugoslavia) not renewed following expiration	1968	1994
Austria, Finland and Sweden leave the EFTA	1960	1995
Lesotho & Mozambique withdraw from the Common Market for East and Southern Africa (COMESA)	1994	1997
Solomon Islands leaves the MSG	1994	1999
<b>Noted Failures Excluded from Statistical Analysis because of Missing Data</b>		
The West Indies Federation Collapsed	1958	1962
Mauritania leaves Economic Community of West African States (ECOWAS)	1975	2000
Tanzania withdraws from COMESA	1994	2000

<sup>1</sup> The three failures excluded from statistical analysis are not used for one of two reasons. First, in the case of the West Indies Federation collapse the Caribbean island nations were all under the minimum population of one million used by all the control and explanatory variables as a minimum size. The other two failures noted in Figure 6.1 occurred after the last year of recorded data for the primary explanatory variable.

population. If a state's domestic institutions become smaller, then the leaders of this changing state will need to produce a basket of goods which create tension with other EIA members.

Failure is conceived as a distinct phase because other phases involve the creation or expansion of agreements. Failure of EIAs is extremely rare and marks a distinct phase of the EIA which none the less is expected to adhere to the logic of leadership survival incentives. Leaders need to produce economic goods for their respective winning coalitions. Based upon the preferences of different winning coalition sizes, relative similarity or difference is expected to shape the decision by member states to withdraw from EIA obligations. In cases where leaders face vastly different incentive structures, an acceptable set of terms will be relatively more difficult to maintain. Change however does not necessarily produce failure. This study of the process of economic integration has analyzed events at the level of international interaction and failure involves the interaction of states at the international level. If winning coalition size changes in a similar manner for members of an agreement then the stress placed upon the organization will be minimized. While the EIA may need to adjust in order to meet changing demands, incentive structures which change at a similar pace will do little to increase the failure of an existing EIA relationship, rather these domestic political changes will be reflected in the level of economic integration agreements.

**H6A. If the size of an individual member state's winning coalition diverges from the average among members of an existing EIA, the hazard of failure rises.**

## **6.2. Alternative Explanations of Failure**

Some alternative threads of international relations thought are also worth considering in the context of agreement failure. Realists might argue that any explanation of failure regarding economic integration agreements must account for the role power plays in structuring economic integration agreements. Additionally, liberal institutionalist international relations scholarship emphasizes how international organizations can influence the behavior of individual members through the costs and benefits of membership. A model of failure must account for these influences.

### **6.2.1. Realist Theory and EIA Failure**

Contemporary realist theory argues that international institutions are unable to mitigate anarchy's constraining effects on interstate cooperation (Grieco 1988, 187). The realist critique of institutionalist theory argues that anarchy will force states to focus on relative gains from cooperation. A state in a joint arrangement may exit from an otherwise beneficial arrangement because the partner is achieving relatively greater gains (Mearsheimer 1994; Grieco 1988). Thus, the success of economic integration agreements would be extremely sensitive to cheating and the relative distribution of gains by partners. If we view economic integration agreements as simply manifestations of power and political alliances, then neorealists would argue the existence of economic integration agreements (EIAs) would be extremely sensitive both to relative gains among the members and the need to engage in balancing as the distribution of power shifts (Waltz 1979). Therefore, realists would expect domestic institutions to be irrelevant to the hazard of EIA failure.

When relative economic differences between members increase, realist theory expects this dynamic to strain an EIA. On the other hand, when serious economic challenges impact members of an EIA uniformly, we can expect little impact on failure because the members are all facing the same challenges. Conversely, if one member becomes extremely prosperous relative to other members of an EIA this could also strain the organization. This logic follows a justification for the role of economic factors discussed in Chapter 2 as well as other sections of the dissertation. The empirical model presented in Table 6.2 controls for the impact of relative economic changes as well as the material power on the hazard of failure. Portions of Appendix 6.1 explore the impact of militarized interstate disputes (MIDs) on EIA failure.

### **6.2.2. Liberal Institutional Theory and EIA Failure**

In Liberal International Relations theory generally, the behavior of polities is not shaped purely by material power. International regimes play a role in shaping the expectation of actors in the system (Krasner 1983). In this family of international relations theory international organization establish

patterns of mutual conformity and play a critical role in providing information (Keohane 1984).

Extending these ideas to the smaller grouping under consideration here, economic integration agreements help members overcome policy challenges not address in a more global understanding.

Even though economic integration agreements are generally extremely decentralized they are still capable of shaping the behavior of members. “Governments may comply with rules because if they fail to do so, other governments will observe their behavior, evaluate it negatively and perhaps take retaliatory action,” (Keohane 1984, 103). Almost all international agreements have costs associated with membership and the abdication of treaty membership. In some cases, these costs are partially codified as escape clauses in international agreements. According to Rosendorff and Milner (2001) as well as Maggi (1999), escape clauses permit members to address domestic constituencies without requiring the complete withdrawal from an agreement, thus failure should be extremely rare. The model in Table 6.2 controls for the costs of withdrawal from an agreement by including key institutional characteristics of particular EIA.

### **6.3. Illustrative Cases of EIA Failure**

Failures have taken place in both the developed and developing world. Failures have occurred in the Western Hemisphere, Europe, Africa and Asia. Having presented a theoretical case for the role of changing political incentive structures in shaping the failure of existing economic integration agreements, attention will now be focused on three illustrative cases which highlight the role changes in the relative size of the winning coalition can have. Failures in both the Andean Pact and the Common Market for Eastern and Southern Africa (COMESA) clearly demonstrate how changes in relative winning coalition size impact the interaction among EIA members.

#### **6.3.1. Chile and the Andean Pact**

One of the clearest cases is Chile’s withdrawal from the Andean Pact. The Andean Pact was initially formed with the signing of the Cartagena Agreement in Columbia in 1969. The five original members (Bolivia, Chile, Colombia, Ecuador and Peru) produced an agreement advocating import

substitution and industrial planning (Page 2000). The goals were in line with import led industrialization advocated by some development economists at the time. At the time of initiation, the Andean Pact is coded as a preferential trade agreement. However, the aspirations of the arrangement were ambitious and analogous to the Caribbean Community and Common Market (CARICOM).

These agreements stand in contrast to the Latin American Free Trade Agreement (1960) which primarily aimed to eliminate tariffs and other trade restrictions over a 10 year period of time. “The amount of the region’s international trade that was intrazonal remained at only 10 per cent, and most of this (70 per cent) was accounted for by only three countries-Argentina, Chile, and Brazil,” (Gwynne 1994, 193). The benefits of LAFTA were concentrated among a small subset of the LAFTA membership. However, the moves toward greater integration were largely obstructed by Latin American countries resisting the removal of tariff barriers. These policy positions are sometimes attributed to the popularity among Latin American political elite of import substitution led industrialization (Gwynne 1994).

The Andean Pact comes into existence when the liberalizing goals of the broader LAFTA arrangement were not being realized for most of the signatories. In 1969, the average winning coalition size for the Andean Pact was about 17 percent smaller than average winning coalition size for other countries who either were or would eventually join an EIA. In contrast, Chile at the time maintained a winning coalition size about 71 percent larger than other members of the Andean Pact.

With the rise of Chile’s military dictatorship in 1973, the winning coalition size drops from the relatively large .75 to zero. This rapid change dramatically altered the incentive structure facing the Chilean government relative to the other Andean Pact members. Despite the fact that the Andean Pact countries had relatively limited formal obligations under the agreement, the aspirations among the countries were for a much more integrated economic, social and political arrangement. By 1976 Chile had formally withdrawn from the Andean Pact, but other factors such as economic conditions and the international distribution of power had remained largely unchanged. On balance changes in the

incentive structure facing Chile's political leaders appears to have dramatically shifted their foreign policy.

The withdrawal of Chile is typical of many of the failures in the sense that it did not result in the total destruction of the Andean Pact. By 1997, the remaining Andean Pact members had signed the Sucre Protocol in Quito, Ecuador. This resulted in the creation of a true free trade agreement coded as a two on the EIA scale.

### **6.3.2. The Withdrawal of Mozambique and Tanzania from COMESA**

COMESA is an interesting case both in terms of failure but also in the broader question of what drives the process of economic integration agreements (EIAs). The Common Market for Eastern and Southern Africa has a history which dates back to the early 1980s when the treaty establishing the Preferential Trade Area for Eastern and Southern Africa was signed in December of 1981.<sup>2</sup> However, the composition of COMESA has changed on seven occasions between 1993 and 2006. The PTA was established to take advantage of a larger market size with the aspiration of creating an economic community (Common Market for Eastern and Southern Africa 2008). The PTA Treaty made provision for the elimination of tariffs over the ten-year period, 1982 to 1992 (Khandelwal 2004). During this time, the EIA dataset used in the statistical analysis records this period with COMESA as a preferential trade agreement because the agreement reduced tariffs on a group of selected products agreed upon by the member states. Two interesting events in COMESA's history are the withdrawal of both Mozambique in 1997 and Tanzania in 2000.

Between 1981 when the original PTA for the COMESA countries was signed and 1993, the winning coalition size for the group remains an average size compared to the sample average. COMESA winning coalition size did fluctuate some rising slightly in the early 1980s then falling

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<sup>2</sup> The 19 original members included: Angola, Burundi, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Rwanda, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe (Common Market for East and Southern Africa 2008).

slightly in the late 1980s and early 1990s. Until 1994, the leadership of both Mozambique and Tanzania relied upon winning coalitions which are relatively smaller than the average winning coalition size for the COMESA group. However, in the mid-1990s the winning coalition size of both Mozambique and Tanzania began to change relative to the other members of COMESA. Mozambique went from being approximately ten percent smaller than the COMESA average in 1993 to being twenty-two percent larger than the EIA average in 1994. The withdrawal from COMESA followed just a few years later in 1997 (Dique 1997; Mulenga 1997). In a strikingly similar pattern, Tanzania maintained a winning coalition size approximately eighteen percent smaller than the COMESA average in 1994, but this changed rapidly in 1995 when Tanzania's winning coalition size became eighteen percent larger than the COMESA average. By 2000, Tanzania had withdrawn from the organization (Mwamunyange 2004; Kibanga 1999).

In addition to the relative changes in winning coalition size experienced by Mozambique and Tanzania, the COMESA countries were also attempting to deepen their EIA. In 1994, the treaty establishing a common market as goal was signed, thus greater demands were being placed on the members to coordinate their economic policy at the same time relatively dramatic changes were taking place for both Tanzania and Mozambique. This combination probably placed stress on the leadership of both countries to consider their own interests in maintaining a relationship with the COMESA organization. By 2000, the withdrawal of several members as well as disputes about the coordination of tariffs had led some observers to question the viability of COMESA as a going concern (Page 2000, 47). Furthermore, domestic political issues have been cited as part of the problem with members implementing agreements and the withdrawal of members in the COMESA case (Khandelwal 2004, 10).

### **6.3.3. Common Lessons about Failure**

These cases are important because they each clearly link changes in domestic political changes critical to leadership survival institutions to the withdrawal from economic integration agreements.

Changes in winning coalition size relative to other EIA members can move in either direction. In one case, Chile moves toward a much smaller winning coalition and the change relative to other Andean Pact members is so drastic that abdication of treaty obligations occurred almost immediately. In the two African cases, both Mozambique and Tanzania developed relatively larger winning coalitions. Direction of the change is not the issue. Stress on EIA membership is created when institutions of individual members move away from the group.

#### **6.4. Empirical Modeling**

The empirical study of failure covers the period from 1950-1999, and the unit of analysis is once again the dyad, or country pair. The dyad is the best means for the study of failure because failure involves both country level characteristics, interaction at the international level, and agreement level characteristics. As Table 6.1 illustrates some cases involve the entire agreement collapsing, but in other instances smaller groups of countries or a single country withdraws from the EIA.

##### **6.4.1. Statistical Model of Failure**

As in other chapters, regression analysis will cover the full 1950-1999 time period. Leadership survival theory suggests failure of agreements must be closely tied to the incentives leaders face to stay in office. When domestic incentives change radically for one or more countries, the probability that it will pull out of an existing agreement will rise putting the existence of an EIA agreement in jeopardy. Failure is a time dependent process driven by changes among the members of an agreement.

##### **6.4.2. Independent Variable of the Failure Model**

According to hypothesis 6A, if the size of the winning coalition in a state changes diverging from the average among members of an existing EIA, the hazard of failure rises. The underlying idea is that relative changes in member interests generally lie at the heart of failure for international institutions. If the incentive structure a leader faces changes in a dramatic fashion compared to other members, then the past international arrangements may no longer meet the needs of new leaders. In

contrast, all members changing in the same way would not necessarily increase the hazard of failure because incentive structures would shift together.

The explanatory variable for hypothesis 6A is operationalized as changes in W/S for a particular country relative to the average W/S for the EIA in a given year. Under the theoretical framework created here to explain the impact of domestic political institutions on economic integration, interaction at the international level of different regime types is hypothesized to impact integration. A dramatic change, which takes a single state out of line with the group, is hypothesized to create strains on international relations because the incentive structure has changed domestically.

### **6.4.3. Control Variables of the Failure Model**

In sub-Section 6.2.1, the expectations of Realist theory regarding the failure of economic integration agreements was considered in order to understand the sensitivity to relative economic gains and power. In the body of this chapter and the appendix two related measures of economic conditions are used to capture sensitivity to relative economic gains. First, in this chapter the Standard Deviation of GDP per capita is used to capture the degree of similarity or difference among the dyad pair in a given year. In the Appendix, one model is offered which presents GDP per capita relative to the broader EIA membership in a given year. In order to capture the role of material power for each dyad year the high value of the Composite Index of National Capability is used.

In order to address the costs of exit with available data for the wide range of agreements being considered, the Depth of Integration and the Number of EIA Members are used as proxies for the costs of withdrawal. The two dynamics, while not perfect, are readily available and capture the political costs of withdrawal. In deeper agreements, the country has ceded control over progressively more intimate areas of policy control to a collective institution designed to coordinate and implement policy at the international level. The political and economic conditions of the members have become more intertwined; therefore, the cost of withdrawal from a group increases.

Finally, armed conflicts might affect EIA relationships or the ability of states to maintain

their commitments. In Appendix 6.1, some alternative models are presented to demonstrate the robustness of the basic model. In the Appendix, the presence of a militarized interstate dispute (MID), and intensity of MIDs among a pair of countries are each employed to further examine the degree to which conflict impacts EIA failure.

## 6.5. Results

Table 6.2 presents hazard ratios for two models which test the primary hypothesis of this chapter. The Cox proportional hazards models imply that shifts in the winning coalition size of an EIA member relative to the group impacts the hazard of failure both statistically and substantively. As previously discussed in earlier chapters, the hazard rates for each variable represent the coefficients taken to the exponential power,  $e^b$ , and the hazard rate relative to one signals if a one unit increase causes the event, in this case failure of an EIA, to increase or decrease.

A central tenant of leadership survival theory is the strong motivation leaders exhibit to remain in office. Interaction at the international level by polities is influenced by the size of the population necessary to keep a leader in office. Table 6.2 presents a test of leadership survival theory by examining how leadership survival incentives, represented by winning coalition size, relative to other members of an EIA impact the hazard that members will withdraw from an EIA.

In order to appreciate the impact of winning coalition size for a dyad relative to the EIA average, readers must remember that zero and one represent extreme opposites of the variable. Therefore, in Model one a .01 increase in the difference between winning coalition size and the EIA average produces a 24.46% increase in the hazard of failure. As the difference between the winning coalition size of a dyad and the EIA average grows larger, the hazard of failure increases. This statistical evidence supports the main theoretical claim of the chapter.

The control model performs as we might expect. A one unit increase in the average polity score for the dyad produces a 4.6% decrease in the hazard of EIA failure for either member of the dyad. The hazard ratio for the average polity score is .954, and .954 minus one equals .046. In contrast,

increasing the number of great powers in the international system by one increases the hazard of failure occurring by 103%. We can arrive at this by calculating 2.03 minus one equals 1.03.

Two alternative theoretical explanations for failure were offered. One set of thinking is derived from Realist theory which emphasizes power and sensitivity to relative gains. We measure sensitivity to relative economic gains using the standard deviation of GDP per capita. Theory would expect this hazard ratio to be greater than one. In contrast, this variable is extremely close but smaller than one. While the substantive impact is small and in the opposite direction Realist theory might suggest, it is statistically significant. The second concept discussed in Section 6.2.1 which presents an aspect of Realist theory is material capability. Material capabilities do appear to reduce failure in a substantial way. The variable “Capabilities Max” illustrates that power can create cohesion among EIA members which makes failure of an arrangement less likely. Having a powerful agreement partner, which can impose high costs for defection, lowers the hazard of agreement failure.

The second alternative theoretical approach to EIA failure is derived from Liberal Institutionalism. Model two presents evidence international institutions impose costs on states which influence their actions at the international level. The characteristics of an EIA agreement have a substantial impact on the hazard of failure. Increasing EIA depth by one unit decreases the hazard of failure by 74.9%. Additionally, increasing the number of EIA members by one reduces the hazard of failure by 3.3%. Both domestic and international actors can influence the ability of a leader to remain in office so we should not be surprised to find that international costs influence behavior.

In order to fully appreciate the impact of relative changes in winning coalition size on the failure of an EIA, we rely once again on a graph of the cumulative hazard function. Remember in this chapter average winning coalition size for the EIA is subtracted from the average winning coalition size for both dyad members. Figure 6.1 presents the cumulative hazard function of two different environments. In one world, the difference between the winning coalition size of both members and the larger EIA is set to zero. In the other world, this difference is set to one. In both cases, all other

**Table 6.2.**  
**Impact of Relative Winning Coalition Size on Hazard Ratio of EIA Failure, 1950-99**

Variables	Model 1	Model 2
Winning Coalition Dyad Average Minus EIA average	25.4656 *** (21.5720)	20.6776 ** (20.4238)
<b>Control Variables</b>		
Polity Avg. (Democracy-Autocracy)	0.9544 (0.0272)	0.9869 (0.0338)
Std. Deviation of GDP per capita	0.9997 * (0.0001)	0.9996 * (0.0002)
Capabilities Max (High CINC Score)	4.73E-55 ** (1.81E-53)	9.04E-40 * (3.63E-38)
Distance	0.9997 *** (5.78E-05)	0.9997 *** (6.81E-05)
Number of Great Powers	2.0254 ** (0.4370)	2.7487 ***
Avg. Population	1.00001 ** (5.35E-06)	1.000009 (5.43E-06)
EIA Depth		0.2515 *** (0.0700)
# of EIA members		0.9674 *** (0.0087)
Dyads	1644	1644
# of Observations	19201	19201
Wald chi2	72.15	137.66
Prob.>chi2	0	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001,  
 \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

values are set to their mean. Figure 6.1 illustrates what a powerful impact incentive structures can have on the failure of EIA. There is a virtually non-existent hazard of EIA failure in a world where no difference exists between individual winning coalition size and the EIA average. In contrast, we can expect mathematically one failure approximately every 50 years in the other world where extreme differences exist between the group and a member.

In addition to the models present in the result section of this chapter, an alternative model is presented in Appendix 6.1 which presents a wider array of control variables and operationalizes each of the control variables in a manner similar to the principle explanatory variable.

## **6.6. Conclusions**

Of all the chapters, these results have the most novel and interesting results for international relations theory broadly and policy makers as well. Leadership survival theory teaches us that domestic incentive structures such as winning coalition size impact the behavior of leaders and states at the international level. In Chapter 6, we are given clear evidence that international agreements can and do fail when the interests of a political leadership shift out of line with other international partners. These interests can be explained by the leadership's connection to its population.

The modeling technique used in this chapter is essentially the same as in Chapters 3 and 5; however, the situation is distinct in many ways. In those earlier chapters, Cox proportional hazards analysis served as a tool to analyze some aspect of EIA formation. In this chapter, the same statistical tool is used to understand a different phase in the process of economic integration agreements. When things fall apart the results of this chapter clearly indicate the critical role leadership survival incentives play in explaining outcomes.

The results of this chapter have important implications for the survival of international institutions. Clearly, foreign policy decision makers interacting at the international level must account for their respective domestic constituencies because survival of an EIA is difficult when changes occur

to winning coalition size. If negotiators want to design lasting agreements then taking account of potential contingencies in partner countries is essential.

Figure 6.1. Cumulative Hazard of Failure Setting Winning Coalition to Extreme Values  
Cox Proportional Hazards, 1950-1999

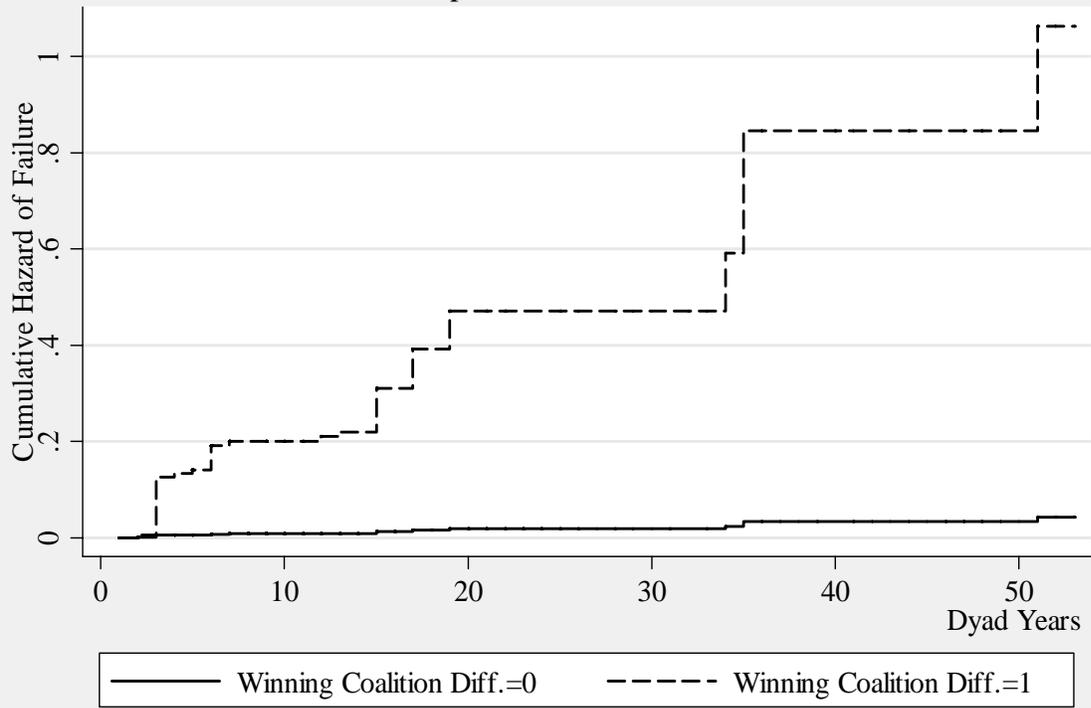


Figure 6.1. Cumulative Hazard of Failure Setting Winning Coalition to Extreme Values  
Cox Proportional Hazards, 1950-1999

## **CHAPTER 7. CONCLUSIONS AND IMPLICATIONS**

### **7.1. Introduction**

This study was designed to accomplish two goals. First, the study demonstrates that a process of economic integration is taking place which connects distinct types of international economic agreements. Second, the desire by leaders to remain in office shapes their interaction with other actors at the international level. Domestic institutions, which connect leaders to their populations, play an important role in the process of economic integration agreements because they shape the types of policies pursued by leaders. Many states have resorted to developing economic integration agreements, but existing research has focused mainly on free trade agreements and customs unions. The scope of this study incorporates a broad range of international economic agreements within a more generalized theoretical framework focused on leadership survival motivations mediated by domestic institutions. Leaders of states pursue economic integration in order to improve the probability they will retain office. Thus, each phase of economic integration identified within this study is intimately tied to domestic political incentives and how they impact the interaction of polities at the international level.

Institutional frameworks create differing winning coalition sizes, which then shape the mixture of broadly beneficial goods and private goods promoted by political leaders. This study has demonstrated that winning coalition size impacts how groups of polities interact in every phase of economic integration agreements. As we draw conclusions and attempt to understand the implications of this study, the topics covered can be divided into four broad subjects: theoretical advances, empirical findings, policy implications, and future research.

### **7.2. Theoretical Advances**

The major theoretical advance of this study is to explain the political process which shapes four distinct phases of economic integration. The main theoretical focus centers on the role of a set of domestic incentive structures which theory suggest impact the decision making process and the types of policies pursued by a polity's leadership. Leaders are generally drawn to other actors with similar

incentive structures because they have mutual interests in producing a similar mixture of goods for the winning coalitions keeping both sets of leaders in office. International relations theory has been advanced by applying leadership survival theory to understand how domestic incentives influence interaction in the area of economic integration policy. Leadership survival is an active and growing thread of international relations scholarship. This study advances leadership survival theory by expanding the policy areas where it has demonstrated relevance.

In chapter 4, this study demonstrated broad winning coalitions make deep economic integration more likely over time. Theoretically this occurs because leaders must have both the incentive to produce broadly beneficial goods for their public as well as experience with their partners over time complying with their obligations.

Substantial variation exists in the design of economic integration agreements (EIA). In the context of leadership survival theory, the products of an EIA can be understood as a mix of broadly beneficial and private goods. As we move along the EIA scale, the mix shifts toward broadly beneficial goods. Leaders connected to their polities by relatively small winning coalitions are less vulnerable to poor military or economic performance and are more likely to produce a mix of goods weighted toward private payoffs. In an extremely small winning coalition, this would consist of payments to the security services and industrialists who facilitate the leader's survival. In societies with relatively large winning coalitions, poor economic performance is potentially threatening to leaders, but leaders in relatively large winning coalitions must satisfy too many people to rely heavily on private payoffs. Rather, leaders of large winning coalitions produce a mixture of goods weighted toward the broadly beneficial. The relative similarity or difference in these incentive structures shape the types of partnerships which are formed and how they develop over time.

This study improves the field of international political economy by taking a body of research which has focused primarily on free trade agreements and customs unions and placed them in the broader context of economic integration. Existing research has tended to treat these agreements as

relatively homogenous and unconnected, but this study has emphasized the need to examine systematic variation in the economic integration process. The political process of economic integration agreements involves movement from less politically demanding forms of integration to extremely intimate forms of policy coordination. Trade agreements are simply one level in the degree to which economies are politically integrated.

When focusing on the initiation of economic integration agreements, leaders are generally drawn to other actors with similar incentive structures. Because of a congruence of interests, leaders with similar connections to their polity can better coordinate their international economic interaction and consequently improve their survival in economic integration agreements. Groups of leaders with divergent incentive structures will be less likely to successfully initiate an economic integration agreement because the mix of public and private goods they must produce for their respective winning coalitions are in conflict. This study demonstrates that the initiation of economic integration generally involves polities with similar demands for public and private goods.

As the winning coalition grows larger in a polity, leaders shift to the provision of more public goods because the percentage of the population whose loyalty must be maintained makes private payments inefficient. This study has demonstrated that groups of leaders from polities with large winning coalitions will seek methods of producing economic policies which produce broad based benefits for the public such as economic integration agreements. Higher levels of economic integration require that barriers to exchange and movement generally be lowered; this is at odds with the incentive structure in small winning coalitions. In contrast, large winning coalitions need to produce public policies which benefit the selectorate generally because the winning coalition becomes too large for private payoffs. Leaders of polities with large winning coalitions have an incentive to improve economic conditions over time by lowering barriers to exchange. The similarity of incentive structures for large winning coalitions are such that over time groups of polities with large average winning coalitions generally arrive at higher levels of economic integration.

The problem with most existing international political economy explanations of preferential and regional trade agreements is a focus, not on a political process, but rather on a single event. In part, the process of economic integration among polities is shaped by iterated political interaction at both the domestic and international levels.

Leaders of states both inside and outside of economic integration agreements face incentives to create a certain mix of public and private goods based upon their connection to the winning coalition and selectorate of their polities. As differences in the winning coalition size for non-members and members of EIA grows smaller, the preferences of leaders inside and outside an economic integration agreement become more closely aligned. If members of an existing agreement and a potential member have similar leadership survival incentives, the probability of adding new members will be higher than other potential members. Joining trade agreements may challenge an entrenched policy of protection for a relatively small group with strong incentives to resist government policy. Therefore, leaders look for international partners, who will maximize benefits and minimize the risks of integration.

Finally, theory has been expanded by developing a theory of international agreement failure. Given the dependency of EIA on their state members, failure of agreements is probably closely linked to changes or problems with the membership themselves. If the institutions connecting leaders to their polities change, then the policies of the leadership will change as well. When an EIA has been reached by a group of relatively broad winning coalitions, this agreement will offer a certain bundle of public goods to individuals in the member states. If significant changes in winning coalition size place a state outside the general orientation of an EIA's other members this will place a strain on the bonds of an agreement and make its failure more likely.

### **7.3. Empirical Findings**

Collectively, the most important empirical contribution of this study is the demonstration that leadership survival shapes each phase in the process of economic integration agreements: initiation, depth, adding new members, and failure. This collective contribution is built upon the work

represented in five chapters.

A comprehensive database on the characteristics of economic integration agreements since the end of World War II is created for the purposes of testing each of the hypothesized relationships presented in the preceding chapters. Because of the way subsets of economic integration agreements have been operationalized in recent research, they have been treated as relatively homogenous.

One of the important contributions to the field of this research has been the creation of a dataset which categorizes economic integration agreements along a typology which ranks the degree of integration. This typology makes possible testing theoretical arguments about the nature of economic integration agreements. Much of the recent empirical research has tended to homogenize economic agreements. The data collection efforts and empirical testing has demonstrated the utility of thinking about the variation of economic integration agreements.

In the initiation phase, there is strong evidence that polities with similarly sized winning coalitions, both with small winning coalitions and large winning coalitions, will be more likely to initiate economic integration agreements than polities with divergent winning coalitions. Based on the size of the winning coalition, leaders need to produce particular bundles of goods. Reaching agreement on an initial EIA is easier for groups of leaders facing similar demands at home.

While the similarity of potential partners is critical in the initiation phase, large average winning coalitions make achieving deeper levels of integration more likely. As argued in the beginning of this study, leaders in their desire to remain in office are shaped by the type of connection they maintain with their population. This relationship impacts the types of goods produced in a leadership survival model. When focusing on the depth of economic integration, the results are clear. As the average size of the winning coalition rises, the level of integration deepens.

When considering new members in an existing agreement, both parties seek out political entities where the leadership within and outside an EIA share a great deal in common. Over time differences in leadership survival incentives play an important role in determining which non-members

are eventually added to an agreement. Over time, non-members with similar incentive structures are more likely to be admitted to an existing arrangement. The expansion of the European Community, the addition of Mexico in the North American process, and the expansion of the southern cone to include Paraguay and Uruguay, each illustrate the important role that changing institutions each play in shaping how the expansion of an agreement unfolds.

Failure of economic integration agreements is an extremely rare event, yet this does not place it beyond the realm of explanation. To the contrary, the most important empirical and theoretical contribution to international political economy maybe the finding that leadership survival incentive structures operationalized as winning coalition size shapes the success or failure of economic integration agreements. Realist theories assume that domestic institutions do not play a significant role in shaping state behavior. The examination of EIA failure illustrates how changes in domestic institutions influence changes in interaction at the international level.

#### **7.4. Policy Implications**

For several decades, policy makers and scholars have weighted the proper structure of regional and bilateral economic relationships (Schiff and Winters 2003; Switky 2000). The policy consensus in economics has been to discourage regional and bilateral economic coordination in favor of broader global architecture (Bhagwati 1993). This study helps explain patterns of behavior in the formation and development of economic integration agreements by highlighting the role that leadership survival incentives play in shaping decisions about international economic coordination.

Researchers at the World Bank have suggested that regional trade agreements can alleviate the pressure for economic migration and promote peace (Schiff and Winters 2003). The results of this study have demonstrated that successful development of an EIA generally requires both time and leadership partners who share common objectives. There are political risks to leaders when long-term coordination arrangements are made. Economic integration agreements are rare events because leaders want agreements which will deliver tangible benefits for their winning coalition. Countries seeking to

expand their markets or pursue other political economy goals should seek out partners who share common leadership survival incentives.

Based upon the results of this study, a particular set of institutions should not be attempted simply because they worked with a different set of countries. The results of this study indicate that deeper levels of integration such as common markets and monetary unions last longer and are more successful when they are built upon two foundational elements. First, it is important for partners to begin their relationship by building trust and cooperation at lower levels of integration, with preferential trade agreements, then free trade agreements, followed by customs unions. Second, depth of economic integration can only be achieved if it is in the interest of each polity's leadership. Similarity of domestic institutions is critical both in the initiation and maintenance of an arrangement. Broad based winning coalitions are on average important factors in moving to deeper levels of economic integration.

This analysis focused on the period between 1950 and 1999. We also have some sense of events which have transpired since the main body of empirical analysis; therefore, it is possible to speculate about changes to be expected in some existing EIA. The reader should treat the following statements with a degree of caution because the predictions focus a single variable in a process which is conditioned by a number of factors. Additionally, this speculation is by its nature outside the time period analyzed. With the afore mentioned caveat in mind, we may see significant changes both in Caribbean Community and in ASEAN.

The Caribbean Community, better known as CARICOM, has achieved substantial progress towards its stated goals.

“Conscious that these objectives can most rapidly be attained by the optimum utilization of available human and natural resources of the Region; by accelerated, coordinated and sustained economic development...; by the efficient operation of common services and functional cooperation in the social, cultural, educational and technological fields; and by a common front in relation to the external world;”  
(Barbados et al. 1973, Preamble).

Citizens in CARICOM countries now have common passports and the states have benefited from integration efforts. Given the stated goals of CARICOM and the broadening of their winning

coalitions the possibility of moving toward a common currency seems within the universe of probable outcomes.

Based upon the results of the study, the Association of the Southeast Asian Nations (ASEAN) could be another area where deepening of EIA may occur in the future. Unlike CARICOM, ASEAN has only achieved a preferential trade agreement. Some of the ASEAN countries have experienced the expansion of winning coalition size over the past twenty years, for example the Philippines and Indonesia. However, a number of the members still maintain average to small winning coalitions, including Vietnam, Brunei, and Malaysia. If nothing else changes, these institutional differences may place strains on the EIA portion of the ASEAN organization. Their agreement is probably sustainable because it is only a value of 'one' on the EIA scale. Deeper integration among ASEAN would depend partly on several countries broadening their winning coalition size.

### **7.5. Future Research**

This study has brought together two separate areas of inquiry. A number of studies examine preferential trade agreements and other types of international economic agreements. Here we have focused on understanding how a range of economic policies are related to each other over time within the concept Economic Integration Agreement. Leadership survival theory focuses on the role of domestic incentives in shaping the types of policies a leadership engages in. The finding contained within this document provide evidence for the claim that the size of domestic winning coalitions shape the types of partners and rules that groups of polities form when establishing international economic arrangements.

Many of the primary source texts of economic agreements include aspirational statements about the goals of the agreements. What does variation in the depth of economic integration agreements imply for economic outcomes in terms of trade and economic growth?

Writing in 1943 Pitman Potter worried about the potential of regional economic integration in Europe to fuel future military conflict. Preferential Trading Agreements and regionalism in the global

economy have been serious concerns at least since Viner published *The Customs Union Issue* in 1950. Viner's (1950) concerns were the theoretical welfare effects of regionalism. Research on the effects of trade agreements demonstrates that some subsets of these agreements do have effects on a range of dependent variables, including respect for human rights (Hafner-Burton 2005) and democracy (Mansfield and Pevehouse 2006). However, research conducted in other chapters of this dissertation suggests some logical extensions and refinements of previous research on the effects of EIA on certain political outcomes. Given the results of the research contained here, we need to consider how the depth of integration impacts these outcomes, not just the presence of a free trade agreement or a customs union.

Mansfield and Milner (1999) presented a challenge to the political science community to establish the political implications of economic regionalization. Recent scholarship has begun to address the political implications of trade agreements. Mansfield and Pevehouse (2000) argue that all international organizations are not the same. They modify the data employed by Oneal and Russett (1999) to demonstrate that trade agreements supplant joint membership in international organization in their ability to reduce conflict in a dyadic relationship for the period 1948 to 1989. In other words, international organizations generally do not reduce conflict among state dyads but free trade agreements and customs unions do. We can now extend both the theoretical and empirical findings of Mansfield and Pevehouse (2000) to ask how depth of economic integration impacts Militarized Interstate Disputes.

Recent research can be furthered in several important ways. First, most research treats the various kinds of institutions being lumped together as trade agreements as homogenous. In fact the restrictions, obligations, dispute resolution mechanisms, and other aspects of the institutions take on a wide range of forms. Using data gathered from the text of the agreements themselves, we can ask about the implications of this variation. Given the work of Hafner-Burton (2005) on human rights,

statistical models can be developed which examine what aspects of the economic integration agreements are affecting the behavior of states in terms of human rights.

A second implication of this research may impact international relations scholarship more broadly. Failure of EIA is linked to changes in the degree of similarity or difference of winning coalition size. This insight may identify a distinct factor which shapes the failure of a broader range of international agreements.

## **7.6 Concluding Thoughts**

Leadership survival theory helps explain international interaction by connecting the actions of leaders to the domestic incentive structures they face. This study builds upon existing research by illustrating how various types of international economic agreements are linked together. Moreover, this study applies leadership survival theory to explain the political process of economic integration agreements.

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## **APPENDIX A. A GUIDE TO CODING THE ECONOMIC INTEGRATION AGREEMENT SCALE**

Groups of states have engaged in a process of coordinating and integrating their economic activity. The Economic Integration Agreement scale attempts to capture the degree to which two or more states have created policies which formalize a special economic relationship between their countries along a seven point scale. The EIA scale has been discussed in other parts of the prospectus. Appendix A has been designed to provide a concrete example of how, economic integration can be translated into a social science variable utilized in this research.

The gold standard for establishing an observation on the EIA scale is the primary text of international treaties, pacts, agreements, or accords in which parties agree to specific actions. Published information from international organizations and academic secondary sources are relied upon to determine the extent to which obligations presented on paper translated into action. The series of agreements associated with the European Community/European Union will be used to illustrate the coding process.

In post-World War II Europe, a number of countries have created special economic arrangements related to trade and other areas of economic policy. Among these arrangements, Benelux and the European Community/ European Union (EU) have long histories which have changed over time. European EIA arrangements are generally the most complex in the international system and in many cases overlap. They are also well documented in academic work and popular non-fiction. Therefore, the EC/EU process and the Benelux serve as excellent case of how the EIA dataset is constructed.

The treaty signed in Paris on April 18, 1951 establishing the European Coal and Steel Community (ECSC) is coded as a Preferential Trade Agreement in 1952 for the signatory states because this is the year it came into force (Germany et al. 1951).<sup>1</sup> The primary text clearly specifies the parties to the agreement. The EIA coding can be reached by reviewing the language in several

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<sup>1</sup> Available through European Navigator, [www.ena.lu](http://www.ena.lu).

articles of the treaty. Article four contains specific language eliminating all import and export duties for coal and steel products, “measures or practices discriminating among producers, among buyers or among consumers,” (Germany et al. 1951). Restrictive practices are also eliminated. The document discusses specific actions the members have agreed to take; this is the kind of information coders should take note of in the available documents, treaties, or official announcements for other agreements.

The ECSC treaty also describes a legal process for settling disputes by creating a body with a “juridical personality,” in Article 6, (Germany et al. 1951). Furthermore, specific executive, legislative and judicial institutions are created with the authority and financing to enforce the treaty as law in the community (Germany et al. 1951, Title II). Additionally, a number of academic and governmental secondary sources corroborate this interpretation of the European Coal and Steel Community as a preferential trade agreement that created a framework for reduced political restriction to trade for a specific industry (Coal and Steel) across international boundaries for member countries, (Berglund et al. 2006; Fransen 2001; Page 2000).

In some cases, individual states are involved in a complex web of agreements. Benelux and the EC process provide an example of how to deal with this reality in the EIA coding system. The unit of analysis in this research is generally dyadic, pairs of countries, or in the case of admitting new members the existing agreement and potential members is a dyad. Therefore, the final code for a particular dyad-year represents the deepest level of integration among a pair of countries. The Benelux countries reached agreement on a Customs Convention in London on September 5, 1944 as well as a protocol signed in The Hague on March 14, 1947 (Belgium, Netherlands, and Luxembourg 1958). If the data set is measuring depth of integration between a pair of countries then the relationship between Belgium, Luxembourg, and the Netherlands receives a code of a customs union as of January 1, 1948. The Benelux countries had established amongst themselves an agreement for a common external duty and the elimination of internal barriers to trade in goods or services (Page 2000; Bleich 1948).

The Benelux agreement was renegotiated and reaffirmed because of the founding the European Economic Community (Belgium, Netherlands, and Luxembourg 1958, Articles 2, 3, and 4). This treaty clearly eliminates restrictions on the movement of capital among the members of Benelux but does not achieve a Common Market on the EIA scale because the 1958 treaty does not eliminate restrictions on the movement of labor across international borders.

The European agreements have been selected for this example of coding for several reasons. Countries with joint membership in Benelux and the EC offers some insight into how overlapping agreements are in fact not a serious problem because coding for this research generally focuses on the dyadic relationship between pairs of countries. Therefore, the most intense degree of integration is the level which the dyad-year will finally receive when analysis is conducted.

The European case also highlights the importance of timing. As a coder, you have to make a determination when an event has taken place. Do you assign a value to a given year for a pair of countries (a dyad-year) when an agreement is signed, when an international agreement comes into force in a de jure sense, or when the implementation of the agreement has taken place. The Kellogg-Briand Pact famously renounced war in 1928 as a tool of national policy. Yet, war continues to be a policy tool used by states against both international and domestic actors. The moral aspirations embodied in this international agreement are inspiring, but illustrate why a coder must be careful to avoid assigning values on the EIA scale to aspirations.

Coding for the EIA scale seeks to assign a value to a given dyad-year when the minimum elements for a particular value on the scale are present. The key to faithfully coding in this system is to find primary source documents which explain in concrete detail what will be done and how it will be implemented. Furthermore, the description contained in secondary sources such as news accounts, government documents, and academic sources should correspond to events described in the written agreement.

A good example of how this translates into actual coding of observations in a particular time period is illustrated well by the decision when to assign the European Community the status of a Customs Union. The Treaty of Rome (1957) is the legal document announcing the creation of the European Economic Community, and the treaty came into force the following year. Article 2 enumerates the aim of the treaty, “establishing a Common Market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities,” (Belgium, Germany, et al. 1957). The coder must be careful to not leap at platitudes and aspirations.

Coders should be looking for specific actions which correspond to the particular category. An agreement among countries must contain the core elements of the particular level along the EIA scale. For a Customs Union, the member states must have removed virtually all barriers, duties, tariffs, and non-tariff barriers to trade, among the members as well as a common system of duties and tariffs for third parties. Additionally, a common market requires the free movement of both labor and capital across the borders of member countries. For a common market, the sticking point is often the free movement of labor across borders. The test for free movement of labor should be whether a citizen of one country can move to another and work there under the same legal conditions as a citizen of the other country. Generally, foreigners have special restrictions on the length of time or type of work they can engage in a host country. In a common market, or a five on the EIA scale, workers from the different countries are permitted to move freely across the borders within the agreement area, live, and work without distinction to state of citizenship.

We discover that the Treaty of Rome will be implemented over the course of twelve years. Specific actions are outlined Article 8 of the 1957 treaty which would lead a contemporary reader to reasonably infer, “The common customs tariff shall be applied in its entirety not later than at the date of the expiry of the transitional period,” (Belgium, Germany, et al. 1957). Because certain actions are being taken immediately, the EC is assigned a 3, a free trade and service agreement, in 1958 when the

treaty comes into force. Clearly something more substantial than a preferential trade agreement of the European Coal and Steel Community is in place at the end of 1958, but a common external tariff, the key element of a customs union, was not in place for a number of years. Several other sources reflect this judgment that the customs union is not in place until 1968, (Centre Virtuel de la Connaissance sur l'Europe 2007; Berglund et al. 2006; Page 2000).

We must carefully distinguish aspiration and action. For example, a reader of the Treaty of Rome (1957) would be right to ask why not code the EC as a common market in 1958 or in 1968 for that matter. Article 48 for example states, “1. The free movement of workers shall be ensured within the Community not later than the date of the expiry of the transitional period,” (Belgium, Germany, et al. 1957). Article 48 goes on to clarify this statement in way which conforms in large measure to a reasonable understanding of the free movement of labor critical for a common market on the EIA scale. However, there is often a difference between words and deeds, and in coding the EIA scale a diligent coder should seek to find primary documents connected to actions taken by the countries and described in secondary accounts. Unlike the articles which detail specific plans for implementing the EEC customs union over a twelve year plan, Article 49 states, “the Council, acting on a proposal of the Commission and after the Economic and Social Committee has been consulted, shall, by means of directives or regulations, lay down the measures necessary to effect progressively the free movement of workers, as defined in the preceding Article...,” (Belgium, Germany, et al. 1957). The diligent coder should translate this language to mean, “We intend to set up a common market and have outline a process to realize this goal, but have not worked out how to do it just yet. Therefore, we are entrusting a committee to work out the details. We will make a decision in the future.” Coders should be looking for documentary evidence to determine if the treaty aspirations are actually realized.

While a number of efforts to coordinate monetary policy and economic policy occurred between 1968 and the Treaty of Maastricht in 1992, the detailed commitments and implementation of Maastricht (1992) marks the establishment of a common market when the treaty entered into force in

1993. The Treaty of Rome as amended by the Treaty of Maastricht (1992) still leaves some matters to be sorted out, but it establishes important elements which on balance suggest 1993 marks a reasonable date to fix as the initial year of a common market in Europe because it enumerates a process to “(a) the elimination, as between Member States, of customs duties and quantitative restrictions on the import and export of goods, and of all other measures having equivalent effect;

(b) A common commercial policy;

(c) an internal market characterized by the abolition, as between Member States, of obstacles to the free movement of goods, persons, services and capital;” (Belgium, Denmark, et al. 1992, Art 3). The treaty also creates European Union citizens who have the power to reside in any of the member states and vote in local and municipal elections where they reside (Article 8). Furthermore, Article 73 effectively ends any restrictions on the movement of capital with the European Union.

Maastricht (1992) also lays out clear guidelines for the creation of a true unified monetary policy. While the common monetary policy and a unified currency is not present in 1993, a reader can find ample documentary and physical evidence in future periods that the specific goals and objectives laid down actually become a reality. The functioning of the European Central Bank and the introduction of the Euro by all accounts meets the goals laid out in the Maastricht treaty and constitutes a monetary union for the European Union by 1998, (Duisenberg 1998).

Having provided a detailed example of the coding process using the EC/EU, coders should now recognize the importance of primary source information. Coders should seek policy actions not platitudes.

## APPENDIX B. ALTERNATIVE MODELS OF INITIATION

The purpose of this appendix is to provide readers with additional information about the topics covered in the body of the chapter and anticipate a few questions which may arise in readers' minds. The information is primarily contained in three tables each focused on a distinct issue area. Table B.1 presents the summary statistics for the chapter. Table B.2 addresses the role of peace years and militarized disputes on the initiation of economic integration agreements. Finally Table B.3 presents the results from a model of initiation using calendar years as the basis for the time variable.

The impact of military conflict on economic integration agreement is an open question. In general, the process of economic integration is envisioned to take place over time, and the quality of that relationship should impact initiation.

The findings of Table B.2 indicate small but statistically significant impact of peace years on initiation of EIA. Peace years represent the length of time since conflict has occurred. In part, integration takes place in iterations over time. In order for two states to voluntarily enter into an economic agreement we have argued that trust must be built over time. The data behaves as we might expect; longer periods of time since the last militarized interstate dispute (MID) produce more rapid initiation of EIA. In contrast, other variables more closely associated with MID such as onset and the level of hostilities are not statistically significant factors in explaining the initiation of EIA. These findings loosely correspond to the results of an appendix attached to Haftel (2007) which found that militarized disputes do not explain a twenty-one point measure of dyadic economic cooperation.

Typically, when there is a time element in data analysis the casual reader might think the appropriate marker is the calendar year. In the case of this analysis, the critical factor is the amount of time a particular dyad has maintained a relationship. If all countries in the analysis existed at the time of the left censoring point and existed during the entire life of the analysis, then few problems would be created by simply using the calendar years. Unfortunately, the composition of the international

community has changed dramatically during the period under study. Therefore, the most appropriate time factor to use in this event history analysis is the dyad duration.

In the interest of robustness testing, Table B.3 presents the results of essentially the same analysis as the working the main body of Chapter 3, but the time factor has been changed to the chronological year. The most important message from the results is that the basic findings of Chapter three are largely unaffected by this change in time. The directions and effects of the variables in the model are largely the same as in Table 3.1. One notable difference is the weaker statistical findings for the average winning coalition size, the variable used to test Hypothesis 3B. The direction and magnitude of the substantive impact are approximately the same; the variable is only statistically significant at the .1 level of confidence. It should be noted that the predicted probability value for this coefficient is actually .06 so the confidence in rejecting the null hypothesis is still relatively high.

As noted by Beck, Katz, and Tucker (1998), the ordinary Logit model produces biased results when applied to panel data. However, Table B.4 presents a cross sectional time series Logit model designed to deal with the type of data used in the analysis of EIA initiation. Beck, Katz, and Tucker (1998) advocate for the use of the panel Logit model because they believe it presents a tool which is easy for non-experts to understand. This type of model serves as an acceptable alternative to the Cox proportional hazard model. The results in Table B.4 demonstrate that the primary findings of the chapter are robust. The standard deviation of winning coalition size is statistically significant and maintains a negative sign; this is essentially the same results as in Cox proportional hazard model. When all values are set to their mean, the predicted probability of initiating an EIA is .3 percent. Given that the average dyad duration in this sample is approximately 26 years, this result is roughly analogous to the Cox proportional hazard model presented in the body of the chapter. Table B.5 provides predicted probabilities of the Logit model when the standard deviation of winning coalition size varies. These results illustrate that like the Cox proportional hazards model initiation of EIAs is most likely when no difference exists between the winning coalition sizes of either country in the dyad.

**Table B.1. Summary Statistics for Dyadic Data Analyzed in the Initiation of EIA, 1950-99**

<b>Variables</b>	<b>Obs.</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
Initiation	476797	0.0040	0.0634	0	1
W/S avg. (Winning coalition/Selectorate)	476797	0.5917	0.2131	0	1.0014
Std. Deviation of Winning Coalition/Selectorate	476797	0.2332	0.1833	0	0.7081
Polity avg. (Democracy-Autocracy)	476797	-0.2746	5.8667	-10	10
Avg. GDP per capita	476797	4,028.23	4,163.42	65.43	39,024.11
GDP per capita Dyad High	476797	6,126.35	6,451.55	82.86	44,322.44
GDP per capita Dyad Low	476797	1,930.10	2,727.42	48.00	33,725.77
Imports Country A to B and B to A	476797	157.2898	2317.138	0	342127
Capabilities avg. (Average CINC score)	476797	0.00699	0.015897	6.00E-06	0.246331
Capabilities High (Dyad High CINC Score)	476797	0.01274	0.030586	9.00E-06	0.319499
Capabilities Low (Dyad Low CINC score)	476797	0.00124	0.003515	1.00E-06	0.184529
Distance	476797	4743.116	2728.01	0	12347
Population avg.	476797	29974	73111.04	134.26	1123749
Alliance Portfolio	476797	0.7509	0.1895	-0.1877	1
# of Years Since last MID	476797	22.2069	22.0741	0	183
Year	476797	1981	12.8816	1950	1999
Sample Dyad Duration	476797	19.5119	13.8793	0	53

**Table B.2. Peace and Conflict as Influences on the Initiation of EIA, 1950-1999**

<b>Variables</b>	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>	
Average Winning Coalition	0.5361	***	0.5297	***	0.5290	***
	(0.0959)		(0.0947)		(0.0945)	
Std. Deviation of Winning Coalition	0.3164	***	0.3164	***	0.3167	***
	(0.0485)		(0.0485)		(0.0485)	
Polity Average (Democracy-Autocracy)	1.0409	***	1.0441	***	1.0441	***
	(0.0073)		(0.0072)		(0.0072)	
GDP per capita High	0.9999	***	0.9999	***	0.9999	***
	(8.18E-06)		(8.23E-06)		(8.23E-06)	
GDP per capita Low	1.0001	***	1.0002	***	1.0002	***
	(0.00001)		(0.00001)		(0.00001)	
Imports from A to B plus B to A	1.0000		1.0000		1.0000	
	(0.00001)		(0.00001)		(0.00001)	
Capabilities High (High CINC Score)	3.36E-16	***	1.30E-15	***	1.24E-15	***
	(1.52E-15)		(5.72E-15)		(5.44E-15)	
Capabilities Low (Low CINC score)	1,038,431		442,138		473,280	
	(9,244,796)		(3,964,671)		(4,235,859)	
Distance	0.9998	***	0.9998	***	0.9998	***
	(0.0000)		(0.0000)		(0.0000)	
Politically Relevant	1.8992	***	1.8235	***	1.8322	***
	(0.1995)		(0.1905)		(0.1932)	
Number of Great Powers	0.9761		0.9591		0.9590	
	(0.0349)		(0.0335)		(0.0335)	
Avg. Population	1.0000	***	1.0000	***	1.0000	***
	(8.58E-07)		(8.39E-07)		(8.39E-07)	
Alliances (Unweighted Global S)	2.2323	***	2.2834	***	2.2841	***
	(0.3569)		(0.3661)		(0.3662)	
Years Since Last Militarized Interstate Dispute (MID)	1.0052	***				
	(0.0014)					
Onset of a MID			0.8531			
			(0.2650)			
Level of MID Hostilities					0.9563	
					(0.0657)	
Dyads	17021		17021		17021	
# of Observations	407,599		407,599		405,599	
Wald chi2(12)	893.41		886.73		887.16	
Prob.>chi2	0		0		0	

Note: Robust Std. Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value  $\leq$  .01, \*P-value  $\leq$  .05.

**Table B.3. EIA Initiation with Alternative Time Specification, 1950-1999**

<b>Variables</b>	<b>Hazard Ratio</b>
Average Winning Coalition (Dyad Average Winning Coalition/Selectorate)	0.7147 # (0.1275)
Std. Deviation of Winning Coalition	0.3887 *** (0.0584)
<b>Control Variables</b>	
Polity Average (Democracy-Autocracy)	1.0214 ** (0.0065)
GDP per capita High	0.9999 *** (8.33E-06)
GDP per capita Low	1.0001 *** (1.08E-05)
Imports High	1.00003 (3.55E-05)
Imports Low	0.9999 (5.95E-05)
Capabilities High (High CINC Score)	6.27E-11 *** (2.25E-10)
Capabilities Low (Low CINC score)	2.17E+15 *** (1.27E+16)
Distance	0.9998 *** (0.00001)
Avg. Population	1.000003 *** (8.02E-07)
Alliances (Unweighted Global S)	1.4437 * (0.2289)
Years Since Last Militarized Interstate Dispute	1.0156 *** (0.0010)
Politically Relevant	2.0878 *** (0.2258)
Number of Great Powers	1.99E-07 *** (.)
Dyads	17175
# of Observations	453592
Wald chi2(12)	.
Prob.>chi2	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value $\leq$ .01, \*P-value $\leq$ .05, and # for a Prob.  $\leq$ .1 (all are two-tailed tests).

**Table B.4. Initiation of EIA using a Cross-Sectional Time-series Logit Model with Random Effects, 1950-1999**

Model	Coefficient		Std. Error
Average Winning Coalition	-1.4010	***	(0.1772)
Std. Deviation of Winning Coalition	-1.1970	***	(0.1443)
<b>Control Variables</b>			
Polity Average	0.0650	***	(0.0068)
GDP per capita High	-6.5E-05	***	(6.66E-06)
GDP per capita Low	0.0001	***	(9.74E-06)
Imports from A to B and B to A	-2.7E-05	*	(0.00001)
Capabilities High	-31.2507	***	(3.1754)
Capabilities Low	35.8074	***	(4.6063)
Distance	-0.0002	***	(0.00001)
Politically Relevant	0.5442	***	(0.0822)
Number of Great Powers	0.0315		(0.0287)
Avg. Population	5.47E-06	***	(5.61E-07)
Alliances	0.4552	**	(0.1542)
Intercept	-4.1959	***	(0.2471)
Number of Observations	460,629	Average number of Observations Per	
Dyads	17,177	Group	26.8
		Wald Chi2	1327.46
		Prob> chi2	0

Note: Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value  $\leq$  .01, \*P-value  $\leq$  .05, and # for a Prob.  $\leq$  .1 (all are two-tailed tests).

**Table B.5. Predicted Probabilities for Initiation of the Panel Logit Model When the Standard Deviation of Winning Coalition Size Varies, 1950-1999**

Predicted Probabilities	Standard Deviation of Winning Coalition Size				
	0	0.25	0.5	0.75	0.99
	0.3580%	0.2656%	0.1971%	0.1462%	0.1097%

## **APPENDIX C. CONTROLLING FOR TIME AND AUTOCORRELATION IN THE DEPTH OF ECONOMIC INTEGRATION AGREEMENTS**

The methodologically inquisitive reader may have further questions about the sensitivity of the central findings presented in the body of this chapter. Appendix C is designed to illustrate how the basic results of Chapter 4 remain valid in the face of a range of methodological challenges.

Having developed the role of leadership survival in explaining the depth of economic integration, it is reasonable to inquire how robust the empirical model is to changes. Tables C.1 and C.2 present three models with alternative specifications of the basic model used in this chapter. Different combinations of control variables producing the same result demonstrate the relative strength of the key findings. In every model, the average size of the winning coalition is statistically significant at the .05 level. This provides confirmation for the strength of the basic findings.

Because of the structure of the dependent variable and the nature of ordered Logit modeling, there is no reason a simple time trend would not handle any time effects in the period under study. However, the variable Year in Table 4.2 is statistically significant. To address any potential concerns that a more complex time structure biases the results, a cubic spline with four knots is used in Table C.1. This model is exactly the same as the model used in Chapter 4 to calculate the predicted probabilities. In this case, each of the time variables is statistically significant; however, the substantive results are essentially the same.

Given how rarely change occurs in the dependent variable, there may be concerns that autocorrelation is biasing the results. In order to correct any problems created by autocorrelation Model 1 of Table C.2 presents the basic model with a lagged dependent variable. Based upon the dramatic increase in the Pseudo  $R^2$ , we can infer the lagged dependent variable increases the amount of variation explained. However, the basic results are not substantially altered.

Finally, scholars might be concerned that bilateral imports are statistically insignificant in the primary model presented in the body of the chapter. Distance and trade are related to each other so

Model 2 drops distance, but unfortunately the results for bilateral imports are roughly the same. In this corrected model, bilateral trade is not statistically significant at the .05 level.

The alternative models presented in Appendix C provide some reassurance about the strength and direction of the findings in Chapter 4.

**Table C.1. EIA Depth Modeled using a Cubic Spline, 1950-1999**

<b>Variables</b>	<b>Model 1</b>	
W/S Avg. (winning coalition/selectorate)	0.5746	**
	-0.2188	
<b>Control Variables</b>		
Avg. Polity Score (Democracy-Autocracy)	0.0754	***
	-0.0098	
GDP per capita High	-1.00E-04	***
	-1.00E-05	
GDP per capita Low	0.0002	***
	-1.00E-05	
Imports a to b plus b to a	1.00E-05	
	-1.00E-05	
Capabilities High (High CINC score)	2.811	
	-3.7145	
Capabilities Low (Low CINC score)	28.84978	*
	-14.2343	
Distance	-0.0001	***
	-1.00E-05	
Population Avg.	-3.00E-06	***
	-1.00E-06	
Alliances (Unweighted Global S)	1.638	***
	-0.2158	
# of Years Since last MID	0.0045	***
	-0.0013	
<b>Cubic Spline with 4 knots</b>		
3	0.0003	*
	-0.0002	
2	-0.0004	**
	-0.0001	
1	0.0002	***
	-0.0001	
0	0.2417	***
	-0.0277	
Dyads	1916	
# of observations	70912	
Wald chi2(13)	2555.74	
Prob.>chi2	0	
Pseudo R2	0.2886	

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq .001$ , \*\* P-value  $\leq .01$ , \*P-value  $\leq .05$ , and # for a Prob.  $\leq .1$  (all are two-tailed tests).

**Table C.2. Lagged Dependent Variables with a Cubic Spline, 1950-1999**

<b>Variables</b>	<b>Model 1</b>		<b>Model 2</b>	
W/S Avg. (winning coalition/selectorate)	0.3277 (0.1369)	*	0.3585 (0.1373)	**
<b>Control Variables</b>				
Avg. Polity Score (Democracy-Autocracy)	0.0447 (0.0057)	***	0.0432 (0.0058)	***
GDP per capita High	-0.00003 (0.00000)	***	-0.00003 (0.00000)	***
GDP per capita Low	0.00001 (0.00001)		0.00001 (0.00001)	#
Imports a to b plus b to a	-0.00001 (0.00000)	#	-0.00001 (0.00000)	#
Capabilities High (High CINC score)	7.6272 (2.3629)	**	8.9129 (2.3572)	***
Capabilities Low (Low CINC score)	28.4010 (6.5385)	***	27.0805 (6.1474)	***
Distance	-0.0001 (0.0000)	***		
Population Avg.	-0.000003 (0.0000)	***	-0.000003 (0.0000)	***
Alliances (Unweighted Global S)	0.2524 (0.1168)	*	0.7931 (0.0954)	***
EIA Code Lag	4.9433 (0.0635)	***	4.9634 (0.0634)	***
<b>Cubic Spline with 4 knots</b>				
3	0.0017 (0.0002)	***	0.0017 (0.0002)	***
2	-0.0012 (0.0001)	***	-0.0011 (0.0001)	***
1	0.0004 (0.0001)	***	0.0004 (0.0001)	***
0	0.2796 (0.0337)	***	0.2755 (0.0337)	***
Dyads	1916		1916	
# of observations	70912		70912	
Wald chi2(13)	8559.98		8441.55	
Prob.>chi2	0		0	
Pseudo R2	0.7351		0.7344	

Note: Robust Standard Errors in the parentheses. \*\*\*P-value  $\leq$  .001, \*\* P-value $\leq$ .01, \*P-value $\leq$ .05, and # for a Prob.  $\leq$ .1 (all are two-tailed tests).

## **APPENDIX D. ADDITIONAL STATISTICAL ANALYSIS FOR ADDING NEW MEMBERS TO AN EIA**

The following information is designed to bolster the claims made in the body of the chapter by presenting both a more detailed examination of the principal results as well as some alternative model specifications.

Table D.1 presents an alternative model of the process for admitting new members where a broader range of factors are accounted for in the addition of new members. The first fact that should jump out at the reader is the non-impact that bi-lateral trade plays in admitting new members. This is partly a sign of the critical role that political factors such as winning coalition size, the number of great powers, and Military capabilities play in the decision to admit a new member to an existing EIA.

In the case of standard deviation of Winning Coalition Size, (W/S), the results of the model are roughly the same as Table 5.1. As the standard deviation of Winning Coalition Size becomes smaller, the risk of admitting a new member rises. As the standard deviation moves from one to zero, the hazard of admitting a new member increases by 61 percent.

A realist could argue that preferential trade agreements simply reflect the international political interests of member states. In order to control the similarity of security concerns of states, the affinity of alliances among EIA members and non-members will be operationalized using the weighted portfolio data available through the Correlates of War project. Therefore, the appendix includes a model which controls for alliances in the model. In this alternative model, alliance portfolio is not statistically significant at the .05 level.

Researchers have demonstrated that trade and political conflict are related. In one recent example, some types of preferential trade agreements are shown to affect the frequency of militarized interstate disputes (MID) in regional settings (Haftel 2007). In this body of literature, MID data is often used as a proxy for the level and/or initiation of interstate conflict. Table D.2 presents models which incorporate years of peace, level of conflict, and the initiation Militarized Interstate Disputes (MIDs) are used to determine if conflict impacts the addition of new members to an EIA. Each additional

peace year adds about one percent to the hazard of adding a new member to an existing EIA. In contrast, both the level of conflict and initiation of a MID does not have a statistically significant impact upon the hazard of adding a new member.

Table D.3 presents a panel Logit model for adding new members to existing economic integration agreements. This control model is the same as the main model used in the body of the chapter. As mentioned in the Data and Methods chapter, a panel Logit model should produce functionally similar results as a Cox proportional hazard model with event history data. The results underline the primary results of the chapter; the relative similarity of leadership survival incentives in the form of winning coalition size impacts the probability of admitting new members to an existing EIA. The predicted probabilities in Table D.4 demonstrate that while the addition of new members are rare events similarity of incentives increases the probability of admitting new members.

The results in this appendix support the finding of the primary model of this chapter.

**Table D.1. An Alternative Model for Admitting New Members, 1950-1999**

<b>Model</b>	<b>Hazard Ratio</b>
Std. Deviation of Winning Coalitions (Winning Coalition/ Selectorate)	0.3875 *** (0.0983)
<b>Control Variables</b>	
Polity Average (Democracy-Autocracy)	1.0197 * (0.0081)
GDP per capita High	0.9998 *** (1.14E-05)
GDP per capita Low	1.0002 *** (1.56E-05)
Imports from A to B plus B to A	1.00001 (0.00001)
Capabilities High (High CINC Score)	1.09E-17 *** (6.96E-17)
Capabilities Low (Low CINC score)	0.0973 (1.3583)
Distance	0.9998 *** (2.16E-05)
Politically Relevant	1.5531 ** (0.2637)
# of Great Powers	1.7132 *** (0.0767)
Avg. Population	1.00001 *** (1.19E-06)
Alliances (Unweighted Global S)	1.5867 # (0.4159)
Dyads	15959
# of Observations	385183
Wald Chi2(7)	1153.16
Prob.>Chi2	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001, \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table D.2. Impact of Peace Years and Conflict on the Admission of New EIA Members, 1950-1999**

Variables	Hazard Ratio	Hazard Ratio	Hazard Ratio
Std. Deviation of Winning Coalition	0.3923 *** (0.0996)	0.3871 *** (0.0982)	0.3891 *** (0.0987)
<b>Control Variables</b>			
Polity Average (Democracy-Autocracy)	1.0141 # (0.0083)	1.0197 * (0.0081)	1.0196 * (0.0081)
GDP per capita High	0.9998 *** (1.14E-05)	0.9998 *** (1.14E-05)	0.9998 *** (1.14E-05)
GDP per capita Low	1.0002 *** (1.56E-05)	1.0002 *** (1.57E-05)	1.0002 *** (1.57E-05)
Imports from A to B plus B to A	1.00001 (1.09E-05)	1.00001 (0.00001)	1.00001 (1.11E-05)
Capabilities High (High CINC Score)	6.33E-19 *** (4.29E-18)	1.12E-17 *** (7.12E-17)	9.28E-18 *** (5.94E-17)
Capabilities Low (Low CINC score)	0.5110 (7.1168)	0.0946 (1.3193)	0.1229 (1.7143)
Distance	0.9998 *** (2.18E-05)	0.9998 *** (2.16E-05)	0.9998 *** (2.16E-05)
Politically Relevant	1.7072 ** (0.2971)	1.5398 * (0.2625)	1.5904 ** (0.2714)
Number of Great Powers	1.7743 *** (0.0835)	1.7132 *** (0.0767)	1.7127 *** (0.0766)
Avg. Population	1.00001 *** (1.25E-06)	1.00001 *** (1.19E-06)	1.00001 *** (1.19E-06)
Alliances (Unweighted Global S)	1.4741 (0.3808)	1.5851 # (0.4154)	1.5898 # (0.4167)
Years Since Last Militarized Interstate Dispute	1.0087 *** (0.0020)		
Onset of a Militarized Dispute (MID)		1.1899 (0.5462)	
Level of MID Hostilities			0.8956 (0.107349)
Dyads	15959	15959	15959
# of Observations	385183	385183	385183
Wald Chi2(7)	1197.24	1154.29	1155.26
Prob.>Chi2	0	0	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001, \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table D.3. Adding New Members of EIA using a  
Cross-Sectional Time-series Logit Model with Random Effects, 1950-1999**

<b>Model</b>	<b>Coefficient</b>	<b>Std. Error</b>	
Std. Deviation of Winning Coalition	-0.8771 ***	(0.23876)	
<b>Control Variables</b>			
Polity Average	0.0342 ***	(0.00713)	
Std. Deviation of GDP per capita	-0.0002 ***	(1.6E-05)	
Capabilities High	-27.009 ***	(5.12118)	
Distance	-0.0003 ***	(1.7E-05)	
Number of Great Powers	0.68301 ***	(0.04238)	
Avg. Population	6.43E-06 ***	(9.11E-07)	
Intercept	-9.0024 ***	(0.2779)	
Number of Observations	421816	Average number of Observations Per Group	26.2
Dyads	16103	Wald Chi2	827.83
		Prob> chi2	0

Note: Standard Errors in the parentheses. \*\*\*P-value <= .001, \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table D.4. Predicted Probabilities for Adding New Members of the Panel Logit Model When the Standard Deviation of Winning Coalition Size Varies, 1950-1999**

Predicted Probabilities	Standard Deviation of Winning Coalition Size				
	0	0.25	0.5	0.75	0.99
	0.0689%	0.0553%	0.0444%	0.0357%	0.0289%

## APPENDIX E. ALTERNATIVE MODELS OF FAILURE

In order to address potential concerns, further analysis of the quantitative data is presented here to demonstrate both the robustness of the main hypothesis and the soundness of the statistical model. There are five tables of alternative regression models in this appendix. Table E.1 presents an alternative specification of the main explanatory variable. Tables E.2 and E.3 provide some alternative specifications of the control model. Table E.4 explores the impact of international conflict on the failure of economic integration agreements. Finally, an alternative to the Cox proportional hazard model is presented in Tables E.5 and E.6 using a panel Logit model.

In Tables E.1 and E.2, the independent variables are operationalized differently from the main body of the chapter. In these tables, the winning coalition size variable is first ranked for each dyad year then the average winning coalition size for the EIA is subtracted from the high and low values separately. In the model this type of specification may help determine if there are directional effects depending on the relative position within a country pairing. As the results in Table E.1 demonstrate, the direction and effect of these high and low winning coalition size variables have the same general impact of the dyad variable in the body of the chapter. However, the magnitude of the variables is relatively smaller. In Model one a .01 increase in the difference between winning coalition and the EIA average produces a 9.11 percent increase in the hazard of failure if it is the high value for the dyad year. The same change produces a 3.41 percent increase in the hazard of failure if the polity is the low value for the dyad year. As the difference between the winning coalition size of a country and the EIA average grows larger, the rate of failure increases.

An alternative model of failure is presented in Table E.2 which accounts for two potential concerns. First, Table E.2 presents a novel way of operationalizing each variable in the model. In this model each of the variables are operationalized so they measure the relative difference between the large EIA membership and the particular dyad members. This formulation permits an interpretation similar to the chief explanatory variables presented in this chapter. Given this modification from Table

6.2, the reader should note that the substantive impact of the explanatory variable remains largely the same. The impact of relative large winning coalition size remains similar in magnitude.

Additionally, Table E.2 includes some additional control variables of potential interest. The analysis of this research project has repeatedly demonstrated that bilateral trade is not a major factor in shaping any of the phases of economic integration under consideration in this dissertation. The model in Table E.1 includes a measure of bilateral imports for the dyad compared to the EIA average. The other notable addition is the inclusion of a measure for the dyad alliance portfolio relative to the EIA. The alliance portfolio turns out to play a significant substantive role in failure. As the degree of correlation in an alliance portfolio moves out of line from the EIA average it has a significant substantive impact on the hazard of failure.

Throughout the study distance has been operationalized simply as the distance in miles from capital to capital plus contiguity. Some scholars may wonder if the natural log of distance is a better representation of the effects of distance. As the two models in Table E.3 demonstrate, the operationalization of distance does not affect the basic results that Distance is not statistically significant in this case. This is probably not surprising because the dyads have already initiated an EIA and change of distance does not occur. However, in some test models bi-lateral trade was used in place of distance and as in other chapters the level of bi-lateral trade did not impact failure in a statistically significant manner either.

Adverse events or crises may create situations which make the policies of an existing international agreement intolerable to political leaders. Crises might take the form of war, natural disasters, or economic catastrophes. Thies (2001) suggests that random shocks may at times create an environment which results in dramatic changes to institutionalized policies at the domestic level. In the context of the policy decision making process, leaders who face severe crisis tend to prefer relatively risky and bold action to more incremental or prudent changes (Weyland 2002, 43). When severe security or economic crises occur, states may be more likely to dismantle agreements which limit

policy latitude at the international level. The impact of militarized interstate disputes (MIDs) on EIA failure is explored.

The primary purpose of Table E.4 is to determine the impact of militarized disputes on agreement failure. The introduction of this chapter suggests crises among members of an EIA might place strain on the institution. The onset of a MID for the dyad in Model 1 and the level of the MID in Model 2 are included in these alternative specifications. What we find in both cases is the variables are not statistically significant. These results are interesting because at least one failure, the withdrawal of Honduras from CACM actually occurred at approximately the same time as a well documented war involving Honduras and another CACM member.

Finally, we check the results of the Cox proportional hazard model by using an alternative statistical model, a panel Logit model, which is also appropriate for the event data used in this chapter. The results of this analysis are presented in Table E.5 and some predicted probabilities are presented in Table E.6. This alternative model provides support for the main theoretical claim of the chapter. Similarity of winning coalition incentives plays an important role in shaping the likelihood of EIA failure. As discussed in the Data and Methods chapter, this type of Logit model serves as an alternative to the Cox proportional hazard model, according the Beck, Katz, and Tucker (1998). These results help us quantify the impact of leadership survival incentives, as measured by the differences between individual dyad members and their respective EIA. When no difference exists between a dyad and the remaining members of an EIA, the probability of failure is relatively low at a quarter of a percent. As the difference grows to the high side of the explanatory variable, the predicted probability becomes 5.8 percent. This alternative approach offers evidence that the main approach in Chapter 6 provides valid results.

**Table E.1. Cox Proportional Hazards Model with an Alternative Specification of Winning Coalition Size Relative to the EIA, 1950-1999**

Variables	Model 1	Model 2
Winning Coalition Dyad High Minus EIA average	10.1113 ** (-8.3199)	10.0031 * (-8.9043)
Winning Coalition Dyad Low Minus EIA average	4.413 * (-2.9078)	6.4961 ** (-4.5868)
<b>Control Variables</b>		
Polity Avg. (Democracy-Autocracy)	-0.951 (-0.0292)	0.9709 (-0.034)
Std. Deviation of GDP per capita	0.9997 * (-0.0001)	0.9996 * (-0.0002)
Capabilities Max (High CINC Score)	2.33E-53 ** (-8.86E-52)	2.00E-38 * (-7.62E-37)
Distance	0.9997 *** (-5.83E-05)	0.9996 *** (-6.85E-05)
Number of Great Powers	2.0356 ** (-0.4412)	3.0906 *** (-0.8618)
Avg. Population	1.00001 * (-5.37E-06)	1.00001 (-5.28E-06)
EIA Depth		0.2101 *** (-0.0682)
Number of EIA members		0.9608 *** (-0.0091)
Dyads	1644	1644
# of Observations	19201	19201
Wald chi2	75.72	132.17
Prob.>chi2	0	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001, \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table E.2. Hazard Ratios for an Alternative Control Model of EIA Failure, 1950-99**

Variables	Model 1
Winning Coalition Dyad High minus EIA Avg.	9.6423 * (9.0272)
Winning Coalition Dyad Low minus EIA Avg.	5.0471 * (4.0656)
<b>Control Variables</b>	
Polity Dyad High Minus EIA Avg. Polity score	0.9917 (0.0392)
Polity Dyad Low Minus EIA Avg. Polity score	0.9302 * (0.0340)
GDP per capita Dyad High minus EIA Avg.	0.9997 * (0.0001)
GDP per capita Dyad Low minus EIA Avg.	1.0004 ** (0.0001)
Military Capabilities Dyad High Minus EIA Avg.	6.35E-75 *** (2.68E-73)
Military Capabilities Dyad Low Minus EIA Avg.	1.85E+34 (1.14E+36)
Dyad Distance Minus EIA Avg. Distance	0.9999 (7.99E-05)
Number of Great Powers	1.8294 ** (0.391499)
Population Dyad High Minus EIA Avg.	1.00001 ** (3.40E-06)
Population Dyad Low Minus EIA Avg.	1.00002 ** (6.87E-06)
Imports Dyad Minus Dyad Avg.	0.9999 (1.89E-05)
Dyad Alliance Portfolio minus EIA Avg.	25.1490 * (34.2660)
Dyads	1644
# of Observations	19201
Wald chi2	139.66
Prob.>chi2	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001,  
 \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table E.3. Effect of Alliance Portfolio and Log of Distance  
on the Hazard of Failure, 1950-99**

Variables	Model 1	Model 2
Winning Coalition Dyad High minus EIA Avg.	9.2686 ** (7.3286)	8.9356 * (8.8599)
Winning Coalition Dyad Low minus EIA Avg.	3.4322 # (2.3409)	4.5193 * (3.3839)
<b>Control Variables</b>		
Polity Avg. (Democracy-Autocracy)	0.9529 (0.0293)	0.9439 # (0.0314)
Std. Deviation of GDP per capita	0.9997 * (0.0001)	0.9997 * (0.0002)
Capabilities Max (High CINC Score)	7.97E-49 ** (3.01E-47)	7.56E-51 ** (3.13E-49)
Distance	0.9997 (9.32E-05)	
Natural Log of Distance		0.8406 (0.1157)
Number of Great Powers	1.9485 ** (0.4303)	1.5622 # (0.3577)
Avg. Population	1.00001 * (5.50E-06)	1.00001 * (6.34E-06)
Alliance Portfolio	53.9846 * (93.7142)	
Dyads	1644	1509
# of Observations	19201	17161
Wald chi2	102.13	40.57
Prob.>chi2	0	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001,  
\*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table E.4. Effect of Conflict on Hazard of Failure, 1950-99**

Variables	Model 1	Model 2
Winning Coalition Dyad High Minus EIA Avg.	9.2192 ** (7.2884)	9.2639 ** (7.3416)
Winning Coalition Dyad Low Minus EIA Avg.	3.4538 # (2.3515)	3.4316 # (2.3334)
<b>Control Variables</b>		
Polity Avg. (Democracy-Autocracy)	0.9524 (0.0292)	0.9529 (0.0293)
Std. Deviation of GDP per capita	0.9997 * (0.0001)	0.9997 * (0.0001)
Capabilities Max (High CINC Score)	4.79E-49 ** (1.80E-47)	7.83E-49 ** (2.96E-47)
Distance	0.9999 (9.51E-05)	0.9999 (9.23E-05)
Number of Great Powers	1.9564 *** (0.4337)	1.9486 ** (0.4299)
Avg. Population	1.00001 * (5.56E-06)	1.00001 * (5.59E-06)
Alliance Portfolio	49.9162 * (87.0768)	53.9159 * (92.8647)
Militarized Interstate Dispute (MID) onset	9.86E-20	
MID Hostility Level (0-5)	..	0.9964 (0.2411)
Dyads	1644	1644
# of Observations	19201	19201
Wald chi2	.	104.9
Prob.>chi2	.	0

Note: Robust Standard Errors in the parentheses. \*\*\*P-value <= .001,  
 \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table E.5. Failure of EIA using a Cross-Sectional Time-series Logit Model with Random Effects, 1950-1999**

Model	Coefficient	Std. Error	
Winning Coalition Dyad Average Minus EIA Average	3.1663 ***	(0.6661)	
<b>Control Variables</b>			
Polity Average	-0.0226	(0.0189)	
Std. Deviation of GDP per capita	-0.0003 ***	(7.63E-05)	
Capabilities High	-18.0896	(17.7453)	
Distance	-0.0001 **	(4.53E-05)	
Number of Great Powers	0.2812 **	(0.1044)	
Avg. Population	-6.37E-07	(3.60E-06)	
Intercept	-6.2975 ***	(0.6413)	
Number of Observations Dyads	24984 1769	Average number of Observations Per Group	14.1
		Wald Chi2	62.1
		Prob> chi2	0

Note: Standard Errors in the parentheses. \*\*\*P-value <= .001, \*\* P-value <= .01, \*P-value <= .05, and # P-value<=.1 (all are two-tailed tests).

**Table E.6. Predicted Probabilities for Failure of EIA using a Panel Logit Model, 1950-1999**

Predicted Probabilities	Winning Coalition Dyad Average Minus EIA Average				
	0	0.25	0.5	0.75	0.99
	0.2687%	0.5911%	1.2953%	2.8147%	5.8313%

## VITA

Schuyler Richard Porche was born in New Orleans and raised in Mandeville, Louisiana. As an undergraduate student at Louisiana State University, he majored in both political science and economics. During this time he worked as a radio personality and occasionally wrote for college publications. In addition to his major fields of study, he also studied Mandarin Chinese. After receiving a National Security Education Program scholarship from the federal government, his language study included a year at Capital Normal University in Beijing, China. After returning to Louisiana State University in Baton Rouge, he completed undergraduate course work in 2001 with the Latin honor *Magna Cum Laude*.

Following the completion of his undergraduate degrees, he completed a Master of Arts in economics at Miami University in Ohio. His master's thesis examined the impact of free trade agreements and customs unions on long-term economic growth. During his studies as a master's student he worked as a research assistant for Dr. George Davis, a growth economist.

After successfully defending his master's thesis, Schuyler worked for a year as an economist with the Washington based think tank, the Employment Policy Foundation. At the Employment Policy Foundation, Schuyler analyzed policy issues related to labor economics, including: minimum wage laws, health insurance costs, and the economic value of education.

In 2003 Schuyler returned to Baton Rouge to pursue a doctorate in political science at Louisiana State University. During this time, he was awarded a prestigious Economic Development Assistantship by the university. Under the guidance of his mentor Dr. Cameron Thies, they published two coauthored works related to agricultural protection in the industrialized world. In 2004 Schuyler received a Clogg scholarship from the American Political Science Association Methodology Section. This enabled him to augment his research training by attending the ICPSR Summer Methodology Program at the University of Michigan. In 2006, Schuyler began work on his dissertation under the mentorship of Dr. M. Rodwan Abouharb.

Following the completion of his university assistantship, he began working as a Research Assistant for Siobhan Pietruszkiewicz, LCSW in the Office of Social Service Research and Development. He has helped design and implement data gathering and evaluation efforts for a study of kinship care in the New Orleans area. While completing his doctorate, Schuyler has also taught courses in economics at Baton Rouge Community College and international relations at Louisiana State University.

Upon completion of his doctoral degree, Schuyler plans to work as a researcher at the Joint Warfare Analysis Center in Virginia.