

A Structural Theory of Currency Unions and Monetary Alliances

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ABSTRACT

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Anastasia Xenias

In 2003 Jonathan Kirshner published an influential volume on the politics of money that opened with the following statement: “The rise to preeminence of monetary phenomena is one of the principal defining characteristics of the contemporary global economy.” One such important monetary phenomenon is monetary alliances, particularly the outcome of a currency union. Although often treated as a new phenomenon, currency unions are actually a recurring outcome in international monetary history. Explaining the recurring outcome of currency unions in the international monetary system is the subject of this dissertation. To do so I develop a structural theory of monetary alliances and currency unions, with specific focus on the latter. The theory is derived from Waltz’s structural theory, which can add much to the discussion but has thus far been omitted from the literature. I argue that the basic tenets of Waltzian neorealism—*anarchy, self-help for survival, competition for resources, and socialization*—are robust and fungible to international monetary affairs with strong predictive power for explaining the political decision of states to enter into monetary alliances broadly, and currency unions in particular. I begin by deriving a simple equation defining power in an open economy using the Mundell-Fleming model to show that relative capabilities, as traditionally defined, can be influenced by monetary variables. I then apply each of Waltz’s basic tenets to international monetary relations, and to cases of currency union in America, Europe and Latin America as well as proposed currency union in Asia using primary and

secondary sources. Two empirical tests examine the robustness of the theory and its predictive power. I develop a dataset of national capabilities indicators for 125 countries over 1940-2001 and run regressions of selected monetary variables on a composite measure of relative power and relative capabilities traditionally defined (such as military expenditures). Further, I develop two multi-country original surveys for the regions of Latin America (in Spanish) and Asia (in English) where I ask over 2,000 respondents per region questions on the expected effects of a currency union. The results broadly support the relevance of structural theory for explaining monetary alliances and currency unions.

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Dedication

In loving memory of my grandmother, Herrietta Papaioannou

Chapter One

Structural Arguments for Common Currencies, Theoretical Modeling and Methodology

Introduction

There are two significant vacuums in international relations theory today. The first is a lack of a systemic treatment of power in international economic relations, a deficiency shared by the economics literature. The second is a comprehensive study of currency unions as a recurring outcome in the international monetary system. And, as noted by Andrews et al (2006) there is a distinct neglect of the subject of power in IPE discussions of monetary phenomena such as currency unions. I have not found a comprehensive study of all cases, past and present, of currency unions—the tightest outcome of monetary integration. It is unlikely that one exists in the English language. I have located only one study of the broad relation of the concept of power to economic theory.

These perhaps seem like odd statements. After all, there are voluminous studies of monopoly power, hierarchy in business organizations, labor studies, economic and monetary union in the European Union, African monetary unions, the prospects of Asian monetary union, and increasingly, dollarization in Latin America. But most are specific to the issue area they discuss and very few provide a broader systemic theory that can be applied to or tested on other cases, or used to make predictions on future outcomes. While the current literature adds significantly to our understanding of the specific cases they study, when considering broader questions in international economic relations we are still left with big questions. What is the relationship of power calculations to

international economic outcomes? Why is it that a state is expected to balance in the security arena but not in the economic arena? Do states really only care about relative gains in military capabilities and not economic capabilities? Why do states relinquish control over monetary policy and enter into various schemes of monetary integration? What systemic factors, if any, result in the outcome of a currency union? Are there determining factors similar for all cases at different times in history? Which, if any, theories in international relations are useful in explaining the systemic outcome of recurrent monetary integration? A small number of important studies such as Andrews (2006) and Kirshner (2003) have recently begun to incorporate elements of power and politics into the discussion of monetary outcomes and are discussed in chapter two. However, although many recent studies build on balance of power and structural theory, including some by economists (e.g. Cohen 2004), all fail to address structural theory outright with the notable exception of a single article by Andrews (1994).

I propose that neorealist structural theory may provide some answers to the questions raised above regarding monetary outcomes in the international political economy, and make a significant contribution to the current IPE debates about money and power. The basic structure of Waltz's theory is robust and fungible in international monetary relations so that in the international monetary system, as in international politics, states are socialized to focus on relative capabilities and to seek allies in an environment characterized by anarchy and competition for resources. The anarchy in international finance threatens state sovereignty and power, or state survival as we know it—the capacity for independent action without a decline in status. States are socialized to focus on relative capabilities and to seek allies in order to survive in an anarchical

international system that threatens their sovereignty. The outcome is recurring alliances. If relative national capabilities were understood to encompass finance, and a currency union was defined as an alliance, then it would become easy to see that the systemic pressures of anarchy, threat to survival, and socialization and competition are observable in the international monetary system. This dissertation seeks to extend Waltz's classic theory of structural realism into international monetary affairs where it has not been utilized. I employ a number of methodologies to arrive at this conclusion, including case study comparisons using both primary sources and secondary literature, original large-N regression analysis, original survey data analysis, and algebraic derivations combining simple economic identities with standard conceptions of national power. I begin by drawing on a second set of articles on optimum currency areas that the father of this theory, Robert Mundell, presented at a conference in 1973 that are less frequently cited but more consistent with his support of regional currency unions, especially EMU and a future Asian monetary union. I will also use the Mundell-Fleming Model to show the important role exchange rates can play in a state's relative capabilities and national power. My conclusion is that the outcome of currency unions in the international monetary system can be explained by structural theory, making balance of power as presented by Waltz useful and robust in explaining alliances in the international political economy. In the process I hope to build a simple theory on what Cohen (2004) has called international "monetary alliances" based on Waltz's structural realism.

In this introductory chapter I first give a brief initial discussion of the theoretical relationship between Waltz and Mundell to establish a basis for why the outcome of currency unions may be viewed through structural theory. Section II presents some flaws

in the current international political economy literature in the treatment of currency unions as a basis for considering the alternative of structural theory. A further examination of the literature follows in chapter two. Section III defines currency unions, taking into account other forms of monetary alliance. Section IV presents assumptions and hypotheses examined in this dissertation. Section V presents the methodology under which these hypotheses will be tested. This chapter ends with an outline of the content of succeeding chapters. The purpose throughout is to show that the existing theory of structural realism is robust and useful in analyzing economic affairs, and in doing this take a step in expanding application of neorealism to international economic relations and in uniting the heretofore separate realms of international politics and international political economy.

I. Waltz and Mundell are theoretically related

In a less frequently quoted 1973 essay entitled "*A Plan for Europe*", Robert Mundell provides a political pre-condition for a global monetary numeraire that many IR theorists might easily agree with—the absence of war. To be trustworthy," says Mundell (1973a, 168, 170), "credit arrangements either had to be immune to political disturbances especially war, or else the domain of the currency had to be inside a security area. It is for this reason that the success of the pound sterling was closely tied up with the security domain of the British Empire and that the success of the dollar was and is contingent on the security umbrella of the United States.... [Now, a European] monetary union has become possible because Europe has become a security area, a war-free domain." The

need for an absence of war among currency union partners has been examined by Patrick LeBlond (2006) and is not disputed here.¹ The absence of war, however, is a necessary but not a sufficient condition for a currency union and does not explain why states decide to enter into a currency union even with peaceful partners. We can assume, however, that a state would not enter into a currency union with a military adversary. This assumption is taken as given in this dissertation and the following question is the focus of our attention: given a security domain, why do states enter into monetary alliances?

In the same essay, Mundell goes beyond efficiency reasons for a monetary union in Europe, to describe an important political impetus whose rationale would also be familiar to IR theorists—redressing the global financial hegemony of the United States in favor of European sovereignty. As Mundell (1973a, 168-169) argues:

“The power of the dollar is based on its efficiency in performing financial services, an efficiency based on economies of scale in the production of a multiple-attribute commodity money, or more generally, liquidity. The U.S. monetary system can be thought of as a vast cartel where bank deposits, time deposits and quasi-monies produced by different institutions are convertible into cash at a fixed price. European national monies cannot compete. Along with the dollar comes American civilization...Its production is highly efficient and beneficial to Europe...But its costs have been underrated. These costs involve a loss of control and sovereignty. Under the current system the gains, which are short-run, are acquired at a high price in the long-run. The overall gain, the net benefit, may be negative.”

In other words, American monetary hegemony was a threat to the sovereignty of European nations, or, as will be discussed in chapter five, to their survival as we know it. To regain their lost sovereignty as individual nations, European states should pool their resources to regain relative sovereignty as a group through a monetary union and a

¹ This was the subject of LeBlond's Ph.D. dissertation in the Department of Political Science, Columbia University, presented just a year earlier than my own.

common currency. While the language of a balance of power is absent from Mundell's essays, the spirit of the argument is quite clear—Europe should unite under a single money or face complete domination by America. Mundell (1973a, 170-171) makes this clear in the following passages:

“Money is the key that can unlock the doors that are currently barriers to the flow of information and finance. Instead of gratuitously ceding to the United States the enormous advantages in the fields of both language [English] and money, Europe can take the first fundamental steps through the creation of a money...Europe has for three decades now huddled with relief under the umbrella of a friendly America. The dollar has served as the anchor for a degree of European integration. As long as this system continues the U.S. balance of payments deficit will grow; and as long as it grows European independence will be increasingly undermined, her enormous economic power diminished, the franc, pound and mark humbled; and America, however mistakenly, pushed into control. Mutuality of interests in the Atlantic area is served by a European revival, beginning in finance, and the sine qua non of that revival is a European money serving all the provinces of Europe.”

Balancing monetarily against the United States was an argument Mundell (1971) had made earlier while discussing the problems of the American-led international monetary system under the Bretton Woods regime, stating that “if the Europeans formed a currency coalition against the dollar or created a new sovereign currency, a two-bloc system would reveal the need for explicit coordination of policies to accommodate the financial interests of the two blocs...” Some thirty years later Europe had its own money, and Mundell, saw a clear shift in international monetary power. “Perhaps most important of all,” he said of the euro in 2002, “it created a change in the power configuration of the system, a movement away from a polarized world economy dependent on the dollar to a multipolar world of large competing currency areas.”² Now a Nobel laureate, Mundell is making similar arguments in favor of an Asian monetary union. It is encouraging for

² Mundell and Zak, eds. 2003, 2

structural theory that the father of the theory of optimum currency areas, and the world's leading authority on currency unions, sees a balance of power structure operating in the international monetary system.

"A Plan for Europe", as well as Mundell's other references to a balance of monetary power, raises additional questions. If Europe should form a currency union to balance against the United States, is it then possible that all currency unions are formed to balance power? Is a currency union a mechanism for the preservation of a state's sovereignty in the face of an external threat common to a group? Is optimum currency area (OCA) theory describing a form of monetary alliance formed for the purpose of survival? Could it be that a state's decision to enter into a currency union is ultimately determined by the need for survival and not simply by efforts to obtain efficiency gains of an optimum currency area? Note, that Mundell's argument here falls short of suggesting Europe should unite in order to overtake American financial power; rather Europe should unite under a single money in order to regain some of its own lost monetary sovereignty and in order to survive as an independent entity in the face of the threat of American domination. Mundell does not here call for a European currency union in order to usurp American power, but merely to protect European sovereignty, thus the focus is on survival rather than hegemony. The analogy is quite Waltzian, even if Mundell does not cite Waltz. Mundell (1973a) even goes a step further in directly relating currency to national power, and the lack thereof in a Europe dominated by the dollar. "[European] life," he says, needs a power centre, and money, the creation of the state, is the seat of the power base. The provinces of Europe are getting money, but it is the U.S.

dollar.” And he ends this article quite forcefully: “It is time for Europeans to wake up.” To which Waltz might have added, “...or fall by the wayside.”

In “*Uncommon Arguments for Common Currencies*” published in the same volume as “*A Plan for Europe*”, Mundell (1973b) presents a different and surprisingly modern analytical perspective. If a common currency can be managed so that its general purchasing power remains stable, then the larger currency area—even one encompassing diverse regions or nations subject to “asymmetric shocks”—the better. This is different from the classic OCA article of 1961 where he seems to argue in favor of making currency areas smaller rather than larger. Here we see direct references to currency unions as adding to relative capabilities and thus improving each member’s ability to weather systemic crises. “If two countries,” says Mundell (1973, 115, 122) “form a currency area the domain of risk-sharing is extended as Arthur Laffer has emphasized. A harvest failure, strikes, or war in one of the countries causes a loss of real income, but the use of a common currency (or foreign exchange reserves) allows the country to run down its currency holdings and cushion the impact of the loss, drawing on the resources of the other country until the cost of adjustment has been efficiently spread over the future....The risk from income fluctuations is, therefore, unambiguously reduced.” The new currency is “superior to the two old currencies partly due to its greater size, hence stability, insofar as the adjustment burden has to be borne in inverse proportion to the size of the monetary domain.” The concept is easily transferable to the military arena—bigger alliances mean more military stability, bigger armies mean proportionally smaller losses in war. Mundell is making a clear argument about relative capabilities.

Thirty years later, Mundell begins to contemplate whether the euro will become a rival to the dollar, again in a balance of power fashion, but this time in more classical realist terms. “The significance of the euro in the international economy,” says Mundell (2002a, 6) delivering the Lord Lionel Robbins Lecture in a conference of leading economists in 2000, “lies in its ability to change the power configuration of the international monetary system. When the euro was created it became at once the second most important currency in the world with enormous potential for growth... The euro area is certainly expanding outside the EU itself, and quite rapidly. First, 13 countries of the CFA franc zone in Central and West Africa were automatically attached to the euro, through the French franc. Second another 10 or 12 countries have been slated as “accession countries”, eligible, if they meet the prerequisites, to join the European Union and therefore also the euro area.” Mundell believes “at least another 10 countries in the Middle East, Eastern Europe, Africa, Asia, and South America” will tie to the euro making for up to 40 potential countries in the eurozone, or about 25% of all countries in the world. The euro will have effectively balanced against the dollar.

These essays by Mundell open the door to a neorealist interpretation of currency unions. The question raised is whether and to what extent neorealist theory can explain currency unions, (and all forms of monetary alliance more broadly). Although the arguments developed by both Mundell and Waltz were written over 25 years ago, the modern era lends itself to such an application as the end of the Cold War, unipolarity, and globalization produce new concerns.

1. New Security Concerns

“In anarchy, security is the highest end.”³ Waltz is not alone in this conception; this has come to be part of the basic definition of security. For example, Weigal (2002) in a dictionary of international relations terms defines security along these lines. “Security is defined as the absence of threat—an ultimate goal of the top priority of state behavior and government policy. Traditionally, the emphasis has been on the military aspects, against perceived threats of external attack and invasion or subversion with or without internal upheaval and civil war and on the importance of defense spending. If world politics is an anarchy, then both military elements and the economic base essential to sustain them are required [for security]”. This allows for a definitional extension of security into the areas of economics. But security, one might argue, is about armies and bombs, war and peace, and death and destruction, not currencies or banks or economic ministries. To that I respond that the concept of security is evolving in practice and theory, and while it is expanding to include many new and important areas, it has failed to incorporate finance.

While arms control remains an important issue, recent international relations literature extends analysis of threat beyond military attack to such things as biological weapons, societal disruptions, environmental disruptions, disease (especially AIDS), and even unfavorable male to female population ratios.⁴ These factors are now beginning to

³ Waltz 1979, 126

⁴ Hudson and Boer 2002, make a detailed argument on how the sex-selection practice in child rearing in China has produced a surplus of men, called ‘bare-branches, who are increasingly frustrated by their lonely state of being. These men, they argue, are a source of civil unrest as they are more likely to engage in radical activities as they do not have the stability of a family. Thus they are a threat to national security and possible cause of future wars.

be considered as part of national security and comprise what is called 'human security'.⁵ Reed and Tehranian (1999) add psychological security (i.e. respectful loving, humane relations) and communication security (freedom and balance of information flows). King and Murray (2000) offer a definition of human security that is intended to include only "essential elements" that are "important enough for human beings to fight over or to put their lives or property at great risk," such as poverty, health, education, political freedom and democracy.⁶ In this new and growing literature, however, there is no mention of financial crises which can destabilize a state's economy for years, disrupt political stability, impoverish countries instantly, and endanger economic welfare for millions. The primary preoccupation of all governments today is maintaining a stable and growing economy, even to the exclusion of military security. Financial security can and should be added to notions of national security.

Neither economics nor political science reference texts define threat and survival. Waltz defines survival but not threat. Walt (1987) gives a definition of threat in order to create his balance of threat theory, but not a definition of survival. Given this gap, a certain amount of flexibility is exercised here, and presented in more detail in chapters four and five.

⁵ For a collection of essays on contemporary discussions of security issues encompassing human security see Brown, Cote Jr., Lynn-Jones, and Miller, eds. 2004. See Sheehan 2005; Buzan, Weaver and de Wilde 1998; Khong, 2001; Suhrke 1999; Stoett 1999; Matsumae and Chen, eds. 1995; Bajpai August 2000.

⁶ The first major statement concerning human security appeared in the 1994 UNDP Human Development Report. "Human security can be said to have two main aspects. It means, first, safety from such chronic threats as hunger, disease and repression. And second, it means protection from sudden and hurtful disruptions in the patterns of daily life---whether in homes, jobs or in communities." United Nations Development Programme, 1994, 23. See also Nef, 1999; Tehranian, ed. 1999; King and Murray, 2000.

II. Why the current IPE literature on currency unions is flawed

Present discussions about monetary integration in international political economy suffer from three deficiencies:

- 1) *Single case generalization.* EMU is the only case significantly studied to explain the reasons and circumstances that give rise to currency union. This gives rise to the false assumptions that a) EMU is the only currency union that does exist today or has ever existed—which is incorrect; or b) that the reasons and circumstances surrounding EMU would apply to all cases—this could be true but has not been proven.
- 2) *Equating economic theory with economic policy, or attributes with outcomes.* IPE discussions commonly utilize the macroeconomic theory of the gains from trade to begin to explain state actions in the international political economy. Rationalizations of EMU also begin with and are often based heavily on the assumptions of the classic theory of optimum currency areas (OCA) pioneered by Mundell in 1961. However, OCA provides economic efficiency arguments but no political expectations, no policy implications. OCA tells us what states should do, not what they will do. Can we assume that states will do what they should?
- 3) *Reductionist.* A good part of the currency union outcome may be explained by internal variables, and this is what has been pursued. However it does not cease from being a state action within a broader system. Moreover, the exchange rate is the state policy tool most affected by the actions of other states and in turn affects them, making any state action in monetary affairs a systemic ripple with external

ramifications (the size of which depends on relative capabilities). Thus discussions of monetary affairs as domestic outcomes neglect the open economy model. That a state action in the monetary sphere, (forming a currency union), has not been analyzed in a systemic context is a flaw.

A final deficiency in current IPE literature, albeit one reserved for future discussions, is the tendency to treat all forms of monetary integration as equal. Monetary integration is a continuum much like trade integration, with various stages and levels. Each succeeding stage adds a level of unity, and solves additional monetary problems. A currency union is a special maximal case of monetary integration that addresses issues of seignorage, equal responsibility, and possible cheating that the other stages of monetary integration do not. It is this special case which is examined here. I will argue that a variation of Waltzian neorealism as applied to economics can address the formation of currency unions in the international system as a recurrent outcome. Waltz's *Theory of International Politics* describes international relations in general. There is no exclusion of any one area of international relations, however it has been more widely used by security analysts.

1. Single case generalization

The subject of monetary integration has been analyzed at length in regard to Economic and Monetary Union in the European Union, but not for the broader category of recurrent currency unions and other forms of monetary integration throughout history. In economics and political economy, each case of a currency union has been treated separately with little inter-case comparison. Most discussions of currency unions in the

late twentieth century focus on the European experience of economic and monetary union. Early twentieth century economists have considerable work on the American monetary union and colonial monetary arrangements. A few studies look at the Latin Monetary Union and a few at the Scandinavian Monetary Union. In recent years substantial discussion has surrounded the issue of dollarization in Latin America beginning with the Argentine currency board of the 1990s and then the early 20th century decision of Ecuador and El Salvador to dollarize (that is, to formally adopt the U.S. dollar as the national currency). Most recently there is a growing economics literature on the prospects of an Asian monetary union. The great bulk of the literature however analyzes EMU, alone. Nowhere are cases extensively compared. While most scholars in most instances would discourage using a single case from which to generalize about a universe, where currency union is concerned that appears not to be the case.⁷

2. Attributes and outcomes

Economic theory in general is concerned with the attributes of economies. Classical OCA theory for example discusses the level of factor mobility or trade openness within a potential single currency economy. From attributes one cannot predict outcomes, says Waltz, if outcomes depend on the situations of the actors as well as on their attributes.⁸ Thus where we do predict outcomes from attributes we are assuming that the outcomes are not dependent on the situations of the actors. In the case of a currency union this would mean that the outcome (the currency union) was entirely the result of state

⁷ This criticism is also noted in Andrews et al (2002) who notes that EMU may be over-determined, and the literature almost cries out for additional cases.

⁸ This criticism is also noted by Kirshner et al (2003, 4) who argues in this volume that “economic theory is indeterminate in its ability to account for most of the monetary policy choices and reforms that are observable in the world today.”

attributes (trade openness, etc.) and not dependent on the international monetary system. This is difficult to believe given the size of and speed of movement of international financial markets. If states take actions that produce military outcomes based on the mobilization of armies and speed of missiles of others, why would they not take similar account of the system in monetary policy? How is it that in one area of state relations outcomes cannot be predicted by the attributes of the state alone but in another that is precisely what we are to expect? How can this be true if it is the same statesmen making each set of decisions in each sphere of what is still international state relations in a state system? The systemic nature of prediction about outcomes cannot be different even if the degree of systemic influence is different. Indeed, Mundell's (1973a) "*Plan for Europe*" emphasizes the systemic factor of U.S. hegemony in urging the outcome of a single European money. The economics literature generally addresses the question of choice among exchange rate regimes as an optimization problem, but one limited to issues of either public finance or macroeconomic performance. It pays little attention to the value of political symbolism or insulation from foreign influence. The classic argument is given by Mundell (1961), McKinnon, (1965), and Kenen (1969) in the theory of optimum currency areas. Mundell's Theory of Optimum Currency Areas specifies what characteristics countries SHOULD have to enter a monetary union (free movement of goods, capital and labor, similar economic shocks), not what they DO have. Even if OCA explains why EMU was created, it has not been proven that OCA is a deciding factor among policymakers in all (or even most) monetary unions across nations and across time. Moreover, we attempt to prove the size of costs and benefits assuming that if the benefits are positive then that is why there is an MU decision, but is this correct?

Are there benefits besides efficiency? Several economic studies show that the EU is not an OCA, others show that the United States is not an OCA. This has led economists to call EMU a purely political decision. Even if policymakers agreed to form a currency union because of relevance of OCA, and if economic benefits were significant and positive, the story does not end there. States care about national economic benefits because this augments national power within the system. The purpose here is not to challenge the logic of OCA theory but to test it across time and place and add a political dimension having to do with international politics not domestic politics.

3. Reductionist theories.

According to Waltz, theories are reductionist or systemic, not according to what they deal with, but according to how they arrange their material. Reductionist theories explain international outcomes through elements and combinations of elements located at national or subnational levels where internal forces produce external outcomes. The international system if conceived of at all, is taken to be merely an outcome. For example, international outcomes are simply the sum of the results produced by the separate states and the behavior of each of them is explained through its internal characteristics. By this definition all theories about state actions in international monetary affairs, to date, are reductionist. The topic of this dissertation is currency union so I will refer exclusively to that outcome, although it may be claimed that this tendency at reductionism afflicts all studies of international monetary affairs. For example, all claim to explain EMU as a rational outcome of states doing what is best for their own individual economic actors. The system, and external actors are not taken into

account. Yet this is a state action within the international system. In a discussion of military relations this type of explanation would be dismissed as insufficient. States do not elect the type and level of arms without a particular goal for some gain in mind; they do not enter into a military arrangement with other states without a threat in mind. They are acting and reacting to the outside world—outside their national borders and outside their alliance borders. How is it then that we accept that states elect a particular type of money or enter into a very, very tight monetary arrangement with other states without taking the outside world into account? But this is precisely what functional and liberal theories argue, and for this they are reductionist.

A further reason existing theories may be termed reductionist is that they omit the open economy. The Mundell-Fleming Model developed in the 1960's is useful here. Mundell's criticism of international economics at the time was that national accounts estimates assumed a closed economy where domestic variables were affected only by domestic decisions and domestic markets. By introducing the systemic dynamic of the exchange rate, Mundell showed how an open economy is daily affected by actions of other economies, and how it in turn affects them. Where the economics discipline has caught on, politics has not and a similar criticism may be made of the IPE field today—that is, discussions of monetary affairs that emphasize domestic variables are missing the external effects.

IPE has utilized forms of neoliberal institutionalism to explain EMU as a form of intergovernmental cooperation that defies realist and neorealist predictions of conflict over relative gains. But is it necessarily true that currency union is contrary to realism that also predicts alliances? In looking inside the 'black box' of monetary policy has IPE

overlooked systemic pressures in this area? Could international cooperation in economics also be explained by some of the assumptions applied until now largely to security? Balancing is driven by the desire to avoid losses; bandwagoning by the opportunity for gain (Schweller 1994,1998; Walt 1985, 1987). The aim of balancing is self-preservation and the protection of values already possessed, while the goal of bandwagoning is usually self-extension to obtain values coveted, and involves unequal exchange where the vulnerable state makes asymmetrical concessions to the dominant power and accepts a subordinate role. Could we not also speak of economic losses and gains, in finance? There is nothing in the propositions of balance of power that prevents their application to political economy. Although neorealism is widely accepted, even if at times challenged, by the security specialist, it thus far has not been adequately considered by the political economist (with notable exceptions by Grieco 1996 and Mastanduno 1985, 1991). Political economists agree that security and political economy are fundamentally different in degree of threat and potential destruction (Lipson 1984). But are they so different that the basic tenets of realism and neorealism cannot be applied across both subfields of international relations? I propose that neorealism, as a systemic theory of international relations can apply to both security and political economy and so can apply to international finance and in this case a study of monetary integration. I argue that currency union, a recurrent outcome across time and space, is a form of economic balance of power as described by Waltz's structural theory. This may be a controversial statement but it is an area that has not been addressed and deserves some attempt at explanation.

III. Currency unions as a recurring outcome in the international monetary system

Where Cohen (2004) and Helleiner (2003) see a rise in the multiplicity of monies in the world, many of which are no longer national in character but international, I see a propagation of currency unions as a continuous historical trend, following Eichengreen and Sussman (2000, chapter 2) who show that regionalization of currencies has happened before in medieval and nineteenth century Europe. According to the definition outlined above, we observe several cases of currency union in the present and past centuries. Presently there are 104 ‘countries’ that are in some sort of monetary integration scheme (29 of these areas are official dependencies or territories) and five currency unions comprised of multiple independent countries. In May 2005, 52 of the 184 IMF member states, or 28.26 percent, participated in currency unions.⁹ I believe that structural theory can be used to explain looser forms of monetary integration or monetary alliances, such as currency boards and regional fixed exchange rate arrangements. However, for the purpose of this study, I focus on the specific recurring outcome of currency unions because a significant number of IMF members are currently involved in a currency union while several more are engaged in policy discussions to form a currency union; and because a currency union represents the maximal form of monetary integration with distinctive characteristics. To ensure clarity, I would like to define what I mean by currency union, and explain why I treat official dollarization as a currency union in the cases examined.

⁹ Edwards and Magendzo (2001, 2003) list 14 countries and 15 territories that used another country’s currency as legal tender 1971-1998. Table 1 is adapted from these articles.

Table 1. Current and Past Monetary Unions

| Current Monetary Unions |
|--|
| <p>EMU=Economic and Monetary Union; members share a central bank; 11 member states of the European Union; France, Germany, Greece, Italy, Belgium, Luxembourg, Austria, Netherlands, Spain, Portugal, Finland.</p> <p>WAEMU=West African Economic and Monetary Union; a CFA franc zone where members share a central bank; Togo, Senegal, Benin, Burkina Faso, Cote d'Ivoire, Niger, Guinea-Bissau, Mali</p> <p>CAEMC=Central African Economic and Monetary Community; a CFA franc zone where members share a central bank; Cameroon, Chad, Congo, Central African Republic, Equatorial Guinea, Gabon.</p> <p>ECCU=Eastern Caribbean Currency Union; members share a central bank; Anguilla, Antigua & Barbuda, Dominica, Grenada, Montserrat, St.Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, all except Anguilla and Montserrat are independent countries</p> <p>CMA=The Common Monetary Area; members maintain national central banks and currencies but all are pegged to the rand which circulates freely and is legal tender; South Africa, Namibia, Lesotho, Swaziland</p> <p>AMERICAS DOLLARIZATION= Panama, Ecuador, El Salvador</p> |
| Some Past Monetary Unions |
| <p>Switzerland=until 1848 every individual canton had the right to issue their own money and did so</p> <p>Zollverein=customs union of German states, began in 1818 with the North German Zollverein, expanded in 1834, and 1866.Munzverein=1857 coinage union of German states</p> <p>Italian Monetary Union=1861 following political union</p> <p>Latin Monetary Union=1865-1927 Belgium, France, Italy, Switzerland, Spain (1868), Greece (1868-1885), Romania, Austria (associated 1870)</p> <p>Scandinavian Monetary Union=1872-1924 Denmark, Sweden, Norway</p> <p>United States of America=1792 written into Constitution</p> |

1. What is a currency union?

A monetary union and a currency union are tricky to define. Definitions offered for a monetary union are based on the unequivocal definition of currency areas, presented in Palgrave. A currency area may be defined as a group of two or more sovereign states with close monetary links. Such links may involve any of 3 forms of integration: 1) exchange-rate integration (or stabilization of mutual currency values), 2) financial market

integration (or freedom of capital movements and the effective unification of national financial markets), and 3) policy integration (or the merger of governmental processes and institutions responsible for the formulation and implementation of monetary and exchange rate policy).¹⁰ Currency areas may embody any one or any combination of these three forms of integration, and historically have ranged widely in type from very loose associations of separately managed national monies to the tightness of a jointly shared and controlled common currency (see Mundell 1968, Tower and Willet 1976, and Robson 1980). By contrast there is no precise and generally accepted definition of monetary union or monetary integration in the economics literature which commonly refers instead to the European Commission's Werner Report of 1970 and Delors Report of 1989. According to the Werner Report "within the area of a monetary union, currencies must be fully and irreversibly convertible, fluctuation margins around exchange rates eliminated, par values irrevocably fixed and capital movements completely free." This corresponds roughly to exchange rate integration and financial integration discussed as elements of a currency area. Some economists (Ingram 1973, Corden 1972) use this first set of conditions to describe 'monetary integration', as differentiated from 'monetary union', the latter requiring policy integration as well.

Currency union encompasses those properties of its predecessors and adds some distinct costs and benefits that derive from the adoption of a single currency. A single currency by definition eliminates a number of problems and shortcomings inherent in the use of several currencies. These are: 1) the elimination of imperfections in the sustainability of currencies as detailed above; 2) the elimination of any possibility, even if

¹⁰ Palgrave, 2001

remote, of changes in par values thus eliminating cheating and the “sucker’s payoff”;¹¹ 3) the elimination of destabilizing speculative capital flows within the union;¹² 4) the elimination of the need for intra-union international reserves, required to make the commitment credible and to offset possible speculative capital flows; 5) the facilitation of the conduct of the necessary unitary monetary policy, and elimination of free-rider problems; 6) the elimination of currency competition within the union and competition between monetary policies that result in either the breakdown of the fixed exchange rate commitment or in the dominance of one currency; and 7) the expansion of status as a single currency of a larger economic area would carry more international weight and enable the union to reap the benefits of seignorage.¹³ In addition, interventions in the foreign exchange market vis-à-vis other currencies would be greatly facilitated and would require a smaller amount of international reserves vis-a-vis the rest of the world. This provides relative gains for the members of the currency union vis-à-vis non-members above and beyond any gains from trade or national income as a result of using the single currency.

Mundell (1973b) specifically refers to what political scientists might recognize as defection problems within a monetary arrangement in describing the benefits of a single currency area. When there are different currencies, he argues, the threat of devaluation

¹¹ The expression, ‘irrevocably fixed exchange rates’ has no practical significance, as history is full of examples of ‘irrevocable commitments’ to fixed exchange rates that have broken down. The reason is simple and familiar to international relations: assuming that national governments behave rationally, if the benefits of ‘defecting’ from the union become too appealing as compared to the costs, the government concerned may be tempted to change parity, even if this means breaking an international agreement. A single currency ensures that no state is in danger of a sucker’s payoff. On the point of a sucker’s payoff see Axelrod, 1984.

¹² A fixed exchange rate system does not eliminate the risk that a member country may alter the parity. Rational economic agents know this, hence the possibility of speculative capital flows and of an uncertain climate for businesses.

¹³ See New Palgrave Dictionary of Economics, 2001 edition

[*defection*] introduces an additional element of uncertainty [*threat*] into the system. The common currency [*institution, alliance or agreement*] assures an automatic and equal sharing of the risk of the fluctuations. The gains from a common currency system, he notes, arise from the opportunity it allows a country to redistribute through time the burden of random fluctuations. This is not dissimilar to the reasons for and manner in which states strive to achieve cooperation under anarchy (Oye 1985) and quite consistent with a desire to expand one's relative capabilities. A single currency adds two costs not present in a monetary union: 1) the transactions costs of transforming the system of payments such as the costs of changing existing monetary values into the new currency; and 2) the psychological cost to the public of introducing and accepting the new currency.¹⁴

Thus, currency area, monetary integration, monetary union and currency union can be seen as the increasing degrees of integration on the monetary side, just as there are increasing degrees of integration on the trade side (free trade area, customs union, common market, etc.), where each item in the list contains something more than the previous one. In the current literature, however, 'monetary union' is seen as a phenomenon that has various degrees of intensity, from minimal (the first set of conditions) through intermediate (all three forms of integration) to maximal (plus a single currency and a single central bank). Finally, IMF economists Carmen Reinhart and Kenneth Rogoff developed an exchange rate regime dataset utilized in the empirical tests of this dissertation in chapter seven. This dataset divided exchange regime type into fourteen fine categories and six course categories ranging from currency union to freely

¹⁴ See Alesina and Barro (2000) for a recent model of currency union formation; also see Cassella 1992; DeGrauwe 1992.

falling. For the purpose of this study, currency union will be defined as the maximal form of monetary union.

Based on these definitions, I divide monetary integration into stages, as follows:

1. Floating Exchange Rates (no integration)
 - a. free float
 - b. managed float
2. Independently Fixed Exchange Rates
 - a. crawling peg
 - b. hard peg
3. Currency Area with fixed but flexible exchange rates
4. Monetary Integration (exchange rate + financial market integration)
5. Monetary Union (exchange, financial and policy integration without a single currency)
6. Currency Union (single currency)

2. Dollarization as a currency union.

A monetary union between two states exists when: 1) the value of a unit of the currency used in state A has a fixed relationship to the value of the currency unit used in state B, 2) this fixed relationship is enshrined in law, and 3) the states participating in the monetary union are subject to a single monetary policy, set and implemented by a single common central bank. A currency union involves all conditions of a monetary union and in addition requires the use of a single currency in each state. By this definition

dollarization entails a currency union with the United States by unilateral decision of the dollarizing country.

Currency substitution occurs when residents of a country extensively use foreign currency alongside or instead of the domestic currency. When the foreign currency used is the U.S. dollar, the phenomenon is called “dollarization”. Commonly, the term dollarization is shorthand for the use, officially or unofficially, of any foreign currency by residents of another country for their own domestic transactions and assets. It is typically a response to economic instability and high inflation, and to the desire of domestic residents to diversify their asset portfolios. However dollarization in some Latin American and Asian countries has continued and even accelerated in recent years even with successful economic stabilization. Although “dollarization” commonly means of *“adopting a foreign currency as one’s own”* since the definitions are the same for dollar, euro, yen or other currency, for the purposes of analyzing Latin America, however, I refer to dollarization to mean use of the U.S. currency. While much attention has been paid to the European monetary union, comparatively little research is available on the costs and benefits of dollarization, although that is quickly changing. Recent papers discuss some important characteristics of dollarized economies. For example, one study of the potential costs and benefits of dollarization (or currency union with the United States) for Central America found the benefits in terms of transaction cost reduction in trade and investment to be potentially large given the large costs associated with the present need to transact in two currencies.¹⁵

¹⁵ See Edwards and Haussman, 2001. Ricardo Haussman, the former chief economist of the InterAmerican Development Bank, has been a vocal supporter of dollarization as is Kurt Schuler, economist for the United States Treasury Department (formerly for the U.S. Senate). See Edwards, 2001; Moreno-Villalaz, 1999; Bogetic, 2000; Calvo, 1999; Panizza, Stein and Talvi, 2003. See also <http://www.dollarization.org>

Table 2. Unofficially and Semiofficially Dollarized Countries as of August 2005

Unofficially dollarized--U.S. dollar: Most of Latin America and the Caribbean, especially Argentina, Bolivia, Mexico, Peru, and Central America; most of the former Soviet Union, especially Armenia, Azerbaijan, Georgia, Russia, and Ukraine; various other countries, including Mongolia, Mozambique, Romania, Turkey, and Vietnam.

Semiofficially dollarized--U.S. dollar: Bahamas, Cambodia, Haiti, Laos (also Thai baht), Liberia, Guatemala, Costa Rica, Nicaragua, Cuba (until 2004).

Officially dollarized--U.S. Dollar: Panama, Ecuador, El Salvador, Marshall Islands, Micronesia, Palau, East Timor.

Unofficially 'dollarized'--other currencies: French franc—some former French colonies in Africa; German mark--Balkans; HongKong dollar--Macau and southern China; Russian ruble--Belarus.

Semiofficially 'dollarized'--other currencies: Bhutan (Indian rupee); Bosnia (German mark, Croatian kuna, Yugoslav dinar); Brunei (Singapore dollar); Channel Islands, Isle of Man (British pound); Lesotho (South African rand); Luxembourg (Belgian franc); Montenegro (German mark, Yugoslav dinar); Namibia (South African rand); Tajikistan (use of foreign currencies permitted—Russian ruble widespread).

Officially dollarized--other currencies: Liechtenstein (Swiss franc); Monaco (euro); San Marino (euro); Lesotho (South African rand); Namibia (South African rand); Swaziland (South African rand); Greenland (euro); Andorra (euro); Kiribati (Australian dollar); Nauru (Australian dollar); Brunei (Singapore dollar).

Source: www.dollarization.org

Recent economic studies find further evidence of the growing trend of dollarization of any form. Krueger and Ha (1996) estimate that foreign currency notes in the mid-1990s accounted for 20 percent or more of the local money stock in as many as three dozen nations inhabited by at least one third of the world's population. By a different measure, using foreign currency deposits rather than paper money, the IMF (Balino et al 1999) identifies 18 nations where in the mid-1990s a foreign currency accounted for at least 30 percent of the money supply. The extreme cases with ratios above 50 percent included

comprehensive site of information on dollarization created and maintained by Kurt Schuler. Table 2 was developed from information on Schuler's website.

Azerbaijan, Bolivia, Cambodia, Croatia, Nicaragua, Peru, and Uruguay. Another 39 economies had ratios approaching 30 percent, indicating “moderate penetration”.

3. What is a currency crisis and financial crisis?

Monetary stability can be defined as stability in the general level of prices, including the exchange rate. Financial stability refers to the smooth functioning of the institutions and markets that make up the financial system. While not the same, the two are clearly related, with stability in one domain facilitating stability in the other domain, and vice-versa. In the same way, a currency crisis, which designates severe instability in the exchange rate, is different from a financial crisis, which designates severe instability in the banking system. But the two are similarly interrelated, with one producing or accompanying the other (or both, producing what economists call “twin crises”). Stock market instability and crashes are similarly related, with a severe financial crisis reverberating into a sharp decline in equity markets. A currency crisis occurs when market participants (frequently speculators) lose confidence, (rightly or wrongly), in the sustainability of a currency’s current exchange rate and seek to reduce their exposure to that currency by selling reserves of the currency or assets denominated in that currency. The result is frequently a forced devaluation. The mechanism is quite similar to a bank run, and depending on the severity and the economic strength of the country, often precipitates a crisis in the banking system and asset exchanges as well (hence we speak of the Asian financial crisis). Frequently, non-economists will refer to any of the above crises as “financial crises”, and often a currency crisis is inferred when one speaks of “financial crisis”. Currency crises are by far the more frequent variety of financial crises;

banking crises are the longest term and can go on for several years. For the purposes of this dissertation, I generally refer to financial crisis as that which can involve both currency and banking system instability, i.e. the more severe variety that can have the most dramatic repercussions on an economy.¹⁶

IV. Testing structural theory in international monetary relations

Rivalry does not stop in the military arena. Economic rivalry can be just as consuming for states, and financial capabilities are as important as trade capabilities. Pursuit of power, and concern over relative power vis-a-vis potential rivals, fear of defections and desire for self-preservation and welfare encompass all actions of state relations. Accordingly, currency unions, across time and space, may be explained as a form of economic balancing. If monetary integration is a recurring phenomenon in the international monetary system, then specific cases must share common causal factors that may be explained using international relations theories. To test this I apply the three principle factors in Waltz's structural theory, anarchy, threat, and socialization, to certain cases of currency unions at different points in world history and in different geographic regions. I also give an empirical test to the effect of the exchange rate on relative capabilities, and expectations on the effects of future currency unions on relative capabilities in two of those cases, Latin America and Asia. The selection of cases is discussed in section IV.3 below. This section presents the underlying assumptions in this dissertation, and the hypotheses and propositions to be tested.

¹⁶ Typically, banking, debt, currency or stock market crises are referred to as financial crises in the IPE literature even if the economic literature definitions distinguish between these.

1. Assumptions, Hypotheses and Propositions.

In order to proceed with an application of structural theory in international monetary affairs, I make three specific assumptions regarding units and outcomes. First, in line with neorealism, I assume the state is a unitary actor in the international system (in both politics and economics). Second I hold military threat among the monetary allies constant, and thus assume that security considerations are favorable to a monetary alliance. Third, I assume a currency union is a recurring outcome in the international monetary system. The following sections explain these assumptions .

a. The state is a unitary actor in the international system.

However a state's position regarding a specific decision or policy is made, when it negotiates an international agreement, signs a treaty or adopts a regime it is not each constituent part inside the black box that is sitting at the table, it is the representative of the state as a whole and distinct unit. This is true regardless of the issue area under consideration. Just as a state joins a military alliance, not its ministry of defense or its arms producers, a state joins a trade pact, not its ministry of commerce or business units, so too a state joins a currency union not its finance ministry, central bank or capital markets. Certainly a state's action, reaction, or non-action vis-à-vis any military, trade, or monetary issue is going to affect its various ministries and constituent interests and they in turn will attempt to sway the state in one direction or another. But at the end of the day it is the state that decides, the state that signs on the dotted line, the state that ultimately produces the outcome in the international state system. This assumption is shared by several noted IPE scholars. For example, Kirshner (1995, 29) notes, "while

most governments are not usually in the trading business, they are, in the domestic economy, always the exclusive producers of currency, with complete control over its output and autonomous with regard to its manipulation.” Pauly (1988, 2) notes that “a global village does not just spring up: it must be created. Politics within distinct state structures remains the axis around which international finance revolves.” Frieden (1987, 166) argues that “political consent made the global financial integration of the past thirty years possible.” Strange (1986, 29) emphasized that “it is very easily forgotten that markets exist under the authority and permission of the state, and are conducted on whatever terms the state may choose to dictate, or allow.”

b. Security considerations are favorable among currency union members.

That is, the members of a currency union are not at war (or expect an imminent war) with each other at the time the currency union decision is made. A state would not choose to join a currency union with an adversary that it is at war with, just as it would not choose to join a trade agreement with such an adversary. This is not unusual. States do not join military alliances with their wartime adversaries either. This would run counter to Waltzian expectations of seeking allies for survival. The subject has been discussed by LeBlond (2006), who showed empirically that monetary integration is negatively correlated to military conflict. Moreover, the existence of a relatively stable security environment among currency union members at the time of its creation is also noted by Mundell (1973a) in his advocacy of a single European money. The relationship between military conflict and economic alliances certainly deserves further research. However further treatment is reserved for future studies.

c. Currency unions are recurrent outcomes in the international monetary system.

While the specific negotiating circumstances and treaty details may have been specific to EMU, this was not the first time a single currency was formed out of many, or even the first time it was attempted in Europe. Table 1 above shows how multiple monetary and currency unions have been formed prior to the euro, and several exist today. That this dissertation was able to select from a pool of case studies is a point in fact. And as the case studies show, there are many instances when independent political units (state actors) have decided to relinquish their independent monetary policy and own money in favor of joining a larger single currency area with other independent political units (state actors).

Based on these assumptions, the overarching goal of this dissertation is to explore one main hypothesis and one main proposition, specifically:

Hypothesis I: Currency unions display characteristics of neorealist balancing alliances. Neorealist structural theory is robust and as useful in explaining outcomes in international state relations (in both security affairs and economic affairs).

Proposition I: Currency union is a recurring outcome in international political economy that can be explained by structural theory.

The **null hypothesis** is that currency unions do not display characteristics of economic balancing as might be described by structural theory.

To test this new application of neorealism, the theory had to be divided into its components and examined one at a time. From this exercise a number of hypotheses and corresponding propositions arise that are derived in chapter three and examined in detail in each of the subsequent chapters. These are:

Hypothesis 1: If monetary independence is limited, then states will form currency unions.

Proposition 1a: Power is defined by the capacity for independent action and independence from influence.

Proposition 1b: If power is an important concept to state relations and states interact in both economic and political arenas, then a social theory of power is needed that is applicable to both areas of state relations.

Hypothesis 2: If relative capabilities increase with a single currency, then we should expect a monetary alliance with a currency union.

Hypothesis 2a: If balance of power theory applies to states across space and time in international politics, then it must also apply to states across space and time in international economic relations.

Proposition 2c: Cooperation under anarchy arises in finance as in politics due to the relative gains of a balance of power.

Hypothesis 3: If states are subject to frequent financial crises, then we can expect recurring monetary alliances.

Proposition 3a: Anarchy in international finance, as in international politics, is conducive to recurring crises.

Proposition 3b: Anarchy is at least as prevalent in international finance as it is in international politics, characterized by a lack of government.

Hypothesis 4: Given systemic disruptions such as crises, if there are no international dispute resolution mechanisms in finance, then states will seek self-help monetary alliances.

Hypothesis 5: If crisis severity increases, then states will be more likely to seek allies in a currency union.

Proposition 5a: Monetary alliance in a currency union will be more likely to be observed if the severity of financial threats rise.

Proposition 5b: Financial crisis is a threat to the survival of independent state actors.

Proposition 5c: A state will seek monetary allies that expand its relative capabilities.

Hypothesis 6: If socializing agents (or selectors) favor/reward monetary stability then states will be socialized into a monetary alliance.

Proposition 6a: States compete for investment capital and financial market share, and are socialized to reducing transactions costs and adopting policies favorable to capital market actors (selectors).

Proposition 6b: Selectors favor high stability and low transactions costs leading to a socialization of actors and a similarity of outcomes.

Proposition 6c: The forces of socialization are pressing for states in both economics and politics. Similar pressures should lead to similar outcomes in both politics and economics (trade and finance).

Hypothesis 7: If structural realism can be applied to international economic relations, then it is a progressive theoretical program.

Table 3. Summary of Hypotheses
(operationalizing the theory)

| Hypothesis | Dependent Variable (outcome) | Independent Variables |
|--|-------------------------------------|---|
| If monetary independence is limited, then currency union; where power defined as freedom from influence, or independence | Monetary Alliance (currency union) | Independent (monetary) action |
| If a relative capabilities increase with a monetary alliance, then currency union; to the extent monetary variables affect relative power | Monetary Alliance (currency union) | Relative gains in capabilities (economic and/or military) |
| If frequent financial crises, then monetary alliance; assuming anarchy in international monetary system | Monetary Alliance (currency union) | Crisis frequency |
| If no governance then self-help alliances; assuming anarchy in international monetary system | Monetary Alliance (currency union) | (lack of) Government or Dispute resolution mechanism |
| If financial crisis severity is high then monetary alliances; to the extent financial crises pose a threat to state survival as we know it without a decline in status | Monetary Alliance (currency union) | Crisis severity = f{macroeconomic decline, political instability} |
| If selectors reward economic attributes, then states are socialized towards outcomes producing those attributes; assuming competition for capital and investment | Monetary Alliance (currency union) | Selectors favoring/rewarding stability |
| If structural theory can explain monetary outcomes, then it is robust and progressive | Monetary Alliance (currency union) | Hypotheses H1-H6 |

The result is what I call, Waltzian economics. To be ‘Lakatos novel’ a fact must be “improbable or even impossible in light of previous knowledge.” (Lakatos 1970, 118)

Structural theory has not previously been applied to currency unions. By this criterion, therefore, this study aspires to be ‘Lakatos novel’.

V. Methodology: case studies, large-N panel data regression, and original survey data.

A number of methodologies are used to test the theory, both qualitative and quantitative. This project conducts a large-N panel data statistical analysis of monetary factors on national capabilities for 125 states in the period 1940-2001, a broad regional survey of Latin America and Asia on the prospects of currency union in those regions, and a multiple case comparative analysis on the political economy of selected currency unions past and present. The objective of the case studies is to examine structural factors leading to a currency union and to determine whether they remain consistent across four centuries and geographic region. The main theoretical departure will be to apply neorealist ideas of anarchy, threat, survival and alliances (whether balancing or bandwagoning), and socialization and competition to an area of international political economy.

1. Qualitative case studies

Despite the use of quantitative tests, the dominant methodology in this dissertation is the qualitative case study. I apply a deductive approach following the principles of critical rationalism. I deduce a number of predictions from my theoretical model and hold them up to empirical evidence to assess the model's explanatory power. Popper argues that, in order to test a theory's validity, we should start by stating an initial problem or puzzle and, suggest theoretical trial solutions, confront the trial solution with empirical evidence, and if possible present mechanisms whereby the theory can be falsified. Depending on the test result we should restate our initial problem and formulate

new trial solutions and repeat the process over again (Popper 2002, 68). This procedure is beneficial because it ensures models and theories meet certain standards of good science. However, applying Popper's standards is also associated with certain problems - particularly the doctrine of falsification, which has been contested among social scientists and largely rejected. King, Keohane, and Verba (1994, 101-104), for example, argue that, if the principle of falsification is rigorously applied, we may just about reject all social science theory. Compared to the hard natural sciences, social science theories are much weaker and easy to falsify because they deal with the realm of social interaction which is much more uncertain and unpredictable than the realm of physics. For this, social science theories should not be judged according to their ability to survive falsification, but rather by how much they explain. Waltz (1979) argues, that testing is not a simple and straightforward task but rather a difficult and subtle one because of the interdependent relationship between fact and theory. Moreover, within social science testing is problematic because of the non-experimental quality of the field. Therefore, testing by verification as well as falsification is problematic and for this, we should test social science theories in as many ways as possible e.g. by their intellectual power, by falsification, and by subjecting them to hard confirmatory tests (Waltz 1979, 123-124). However, even though, falsification as a testing strategy is largely rejected, most social scientists agree that falsification must be possible in principle in order to distinguish scientific theories from pseudo-scientific ones (Popper, 2002). This implies that theories should be formulated in such a way that data which would falsify the theory can be readily defined – although it may not now be available (Van Evera, 1997, 20). To this end, I formulate my propositions so that they may be falsified.

King, Keohane, and Verba (1994, 4-5) argue that qualitative research designs may be equally sound as surveys. In fact, according to King, Keohane, and Verba all research - quantitative or qualitative are founded on the same underlying logic of inference and must adhere to the same set of general rules of science to produce valid and reliable results such as paying attention to internal theoretical consistency and falsifiability, potential bias in case selection, controlling for spurious causal relationships, and reporting uncertainty. Thus the differences between the two types of method are more stylistic than substantial. To be sure, in qualitative studies that often are small-n studies it is more difficult to draw inferences about central tendencies and range of variation in a data set, to evaluate a pattern against random chance, and to determine whether the findings are fundamentally disturbed upon by variations in other likely explanatory variables. But it is certainly not impossible. When applying qualitative methods one merely must be especially careful regarding the observations selected and cautious about the conclusions reached (King, 2004). Furthermore, qualitative methods facilitate detailed investigation, allow for greater attention to complexities, and open the possibility of detailed discussion and careful elaboration as to the characterization and operationalization of variables. This allows more time to be devoted to explaining and defending the coding of concepts and variables since fuller description allows one to explain carefully just what one means when specifying that one particular variable varies in a certain manner (King 2004, 10-11). Finally, since the late 1980's qualitative research designs have been adopted by many IR-scholars, not least among those who work from the realist perspective. For example, Kirshner (1995) used case studies in his discussion of using monetary power as a form of coercion. Walt (1990, 1996) used qualitative

research designs extensively in his major works on alliance formation and the relationship between revolution and war. Furthermore, Walt (1999) has explicitly and vigorously argued in favor of this method in relation to security studies compared to more statistically inclined methods favored by proponents of the rational choice approach. Snyder (1991) applied the case study method in a test of three competing explanations for the sources of great power expansion. Snyder and Christensen (1990) applied the case study method in their attempt to refine balance of power theory. Schweller (1998) applied the case study method in order to explain the causes of World War II applying his balance of interest theory. Finally, Mearsheimer (2001), made extensive use of qualitative methods in his study on offensive realism. In sum, qualitative methods may be as powerful and convincing as statistical ones provided that the researcher pays close attention to the generally accepted rules of scientific inference such as internal theoretical consistency and falsifiability, potential bias in case selection, controlling for spurious causal relationships, and reporting uncertainty (King, Keohane, and Verba, 1994).

In order to adhere to these standards I conduct case studies according to the principle of matched comparison or structured focused comparison (George, 1979; McKeown and George, 1985) The central point of structured focused comparison is, in accordance with the congruence procedure, to compare the results of the case study to the predictions of a theory (George, 1979, George and McKeown, 1985). A comparison of two or more cases is *focused* if the researcher singles out only those aspects of each case that are believed to be relevant to the research objectives and data requirements of the study in question and deals with them selectively (McKeown and George 1985, 41). A comparison is *structured* insofar as the data requirements of the case studies are clearly

defined and standardized in the case study design. This is achieved by formulating theoretically general questions to guide the examination of each case. In accordance with these requirements the case studies of this dissertation are focused because I infer specific hypotheses from the theoretical model, as stated above and derived in chapter three, to guide the study and to assess the degree of congruence between outcomes and expectations. Furthermore, the analysis is structured because I standardize the empirical material around explicitly selected cases by subjecting them to following analytical procedure. First, the cases are characterized in order to substantiate their comparable nature in the second half of chapter two. Second, the values on the outcome (or independent variable) of currency union and the causal factors (or intervening variables) of anarchy, threat, and socialization are assessed and expectations derived. Third, the cases' strategic actions are identified and, fourth, the outcomes are related to the theoretical statements and alternative explanatory variables accounted for. On this background, the conclusions are drawn and perspectives outlined. Rather than test hypotheses on self-contained cases, each chapter tests a distinct set of propositions formulated to test each intervening variable on the same set of cases. This approach allows for a more focused comparison of the cases and greater analytical depth toward theory building as each hypothesis is further elaborated in each chapter.

2. Regression analysis

To test the hypotheses concerning relative capabilities, threat and socialization empirically, I conducted a number of regressions utilizing the Stata9 statistical program and new panel data. The dataset was developed utilizing the Correlates of War for

traditional indicators of national power (military expenditures, military personnel, energy, iron and steel production, and population), the Penn World Tables for national income measures (GDP, consumption, government expenditures, investment) and the exchange rate, the POLITY dataset for a measure of “democraticness” or degrees of democracy, and the Reinhart-Rogoff exchange regimes classification dataset. A discussion of country selection and variable selection from these datasets is included in chapter seven. A series of empirical tests is used to determine whether the exchange rate and exchange regime has an effect on relative military expenditures, relative national income, and the degree of democracy (or “democraticness”). A simple power equation is derived in chapter three using military expenditures and national income and is used to develop an empirical measurement of power and relative power. Tests on relative power, relative military expenditures and relative national income relate directly to the national power capabilities question as discussed in chapter three. Tests on relative national income, and related tests on relative government expenditures, examine one aspect of threat; tests on “democraticness” examine another aspect of threat, as defined in chapter five. Tests on relative investment provide an indicator of socialization, as capital investment in particular tends to be highly susceptible to herding as discussed in chapter six. The results are presented in chapter seven, with the Stata commands included in Appendix I. Methodological barriers in this test involve the lack of preceding studies available as a frame of reference. The level of military expenditures, for example, has not been tested against any monetary variables.

3. Survey data analysis

To test the degree of socialization as defined in chapter 6, I developed two original surveys administered to a sample population in multiple countries in Latin America and Asia, the two regions included in the case studies where the outcome of currency union is either in its infancy or under discussion. Questions on the survey were developed using similar studies conducted by the European Commission in the decades prior to the EMU treaty and the launch of the euro, and ask respondents various questions related to whether a currency union would increase relative capabilities in business transactions, trade, and capital accumulation, protect the state from currency crises, and be politically acceptable. Respondents were selected at random from a large database maintained by the U.S. Department of Commerce of foreign businesses, government officials, associations, academics and non-profits involved in international business (in either manufacturing or services, both importers and exporters, of all sizes and industries). The survey was developed as a proxy for state socialization to the extent that the sample population was representative of those groups most likely to both be informed of the issues related to socialization and be in a position to influence or develop state action. A number of selector questions examine correlation of answers with educational level, size of enterprise, political affiliation, and international exposure. A discussion of the broad results by region is presented in chapter eight, with full individual country results presented in Appendix II. Methodological barriers consist of standardization of results given a wide variation in responses per country and response rates among countries. This is typical in mail or internet surveys.

4. Case selection.

Each of the hypotheses concerning anarchy, threat, and socialization is examined qualitatively in the corresponding chapters using primary, archival and secondary literature for each selected case study. The cases to be examined are colonial America and the early United States in the 18th century, European monetary unions in the 19th and 20th centuries—(Scandinavian Monetary Union, Latin Monetary Union, and EMU), the trend of dollarization in Latin America in the 20th and 21st centuries, and the prospects for an Asian Monetary Union in the later 21st century. I present the cases using structured focused comparison (George 1979) to analyze the currency union outcome across time. Case study is conducted because for Waltzian economics to be a systemic theory it would have to be shown to apply to different cases over historical periods and different geographic regions. As Waltz (1979, 72) notes, “Systems theories explain why different units behave similarly and, despite their variations produce outcomes that fall within expected ranges.”

I have chosen two “most different” cases---one at the beginning of the period under consideration and involving many “states” of roughly equal economic development and one at the end of the period under consideration and involving only a few states with vastly different and unequal levels of economic development---American monetary union and dollarization. The aim is to test the extent to which structural considerations to form a currency union are present over time, geographic region and level of development. The second pair of cases is a “most similar” comparison with a small number of European states at comparable levels of economic development---EMU and the Latin and Scandinavian monetary unions of the late 19th century. The theory can be falsified by a

case where predicted conditions for a currency union exist but one does not take place. The prospects for Asian Monetary Union will be examined as a case where no form of monetary integration has yet developed despite a growing degree of economic integration and systemic pressures.

The cases selected vary in time. There is also cross-sectional variation among the currency unions related to material differences among the countries involved in each currency union. Materially, the organizational/political structure and resource availability of each state varies. There is also variation as to whether the currency union is formed between industrialized or developing countries or a combination. With respect to structural theory of balance of power, this dissertation is an exercise in applying existing theory to a new area of study. With respect to optimum currency areas (OCA), this is an exercise in applying the theory to different cases in the international political economy across time and space. Methodological barriers are presented by the varying quantity of available primary sources for each case.

5. The Plan of the Study: Chapters outline.

The chapters for this dissertation proceed as follows. Chapter two provides an overview of current literature on monetary affairs that relate to this dissertation with particular attention to political science as well as economics literature on currency unions. Chapter three provides the theoretical application of Waltz's structural theory to international monetary affairs and offers a simple power equation in an open economy. Chapters four, five, and six go into more detailed theoretical and case examination of the three major premises of Waltz's theory—anarchy, threat and survival, and socialization

and competition, respectively. Chapter seven presents statistical findings from the large-N panel data regressions. Chapter eight presents the results from the original survey on the prospects for currency unions in Latin America and Asia. Chapter nine offers some predictions for the future based on a neorealist view of international monetary affairs and directions for future research. Appendix I provides a statistical appendix for the regression analysis. Appendix II provides a graphical summary of the survey results in Latin America and Asia by region. Appendix III provides a listing and description of acronyms used in this dissertation. A short summary of the case findings along with competing theories is presented in Table 4 below.

Table 4. IPE Theory and Selected Currency Unions, What Applies?

| | EMU IN THE EUROPEAN UNION | AMERICAN MONETARY UNION | LATIN MONETARY UNION | SCANDINAVIAN MONETARY UNION | DOLLARIZATION IN LATIN AMERICA | MONETARY UNION IN ASIA |
|---|---|--|---|---|---|---|
| Domestic policy goals | Yes. Discipline economic policy | No. No discussion of domestic economic policy targets. | No. | No. | Yes. stabilize monetary policy, discipline economic policy | No. Current discussions lack domestic policy targets. |
| Political goals other than domestic politics (eg. Regional political union) | Yes. <i>Nation building</i> Germany embedded in a United States of Europe | Yes. <i>Nation-building</i> | No. | No. | No. | No. |
| Ideas and epistemic communities | Yes. Monetary policy should stabilize currency and inflation | No. No discussion of monetary policy targets | No. Gold Standard is disputed as best system but adopted due to systemic imperatives | No. Gold Standard criticized. | Yes. Monetary policy should stabilize currency and inflation | Yes. Monetary policy should stabilize currency and inflation; expand growth. |
| Socialization towards common trade and investment goals and competition with others (<i>Increase Y</i>) | Yes. Reduce transactions costs and facilitate business activity. Competitiveness with US & Japan | Yes. Reduce transactions costs and facilitate business activity | Yes. Reduce transactions costs. Competitiveness of France with UK. | Yes. Reduce transactions costs | Yes. Reduce transactions costs and facilitate business activity. * <i>secure international financing</i> | Yes. Reduce transactions costs and facilitate business activity. Japan (and China) desire regional leadership. |
| Relative capabilities | Yes. Curb adverse policies of group members | Yes. Curb adverse policies of group members | Yes. | Yes. | Yes. Import positive policies of group member. | Yes. Import positive policies of group member. |
| Systemic threat imperatives (Anarchy) | Yes. Volatile international financial markets. | Yes. Volatile financial markets. | Yes. | Yes. | Yes. Volatile international financial markets. | Yes. Volatile international financial markets. |
| Power relationship with third party or external actor | Yes. Dissatisfaction with American made system. Desire for autonomy. | Yes. Dissatisfaction with British system. Desire autonomy. | Yes. Dissatisfaction with Britain | Unclear (unclear based on limited available sources) | Yes. | Yes. |
| | | | | | | |

Chapter Two

The Currency Union Outcome in the International Monetary System in International Political Economy and Economics Literature

When I first proposed a study of international monetary affairs based on structural theory and a balance of power in 2001, the general response from IR theorists was one of skepticism, with the notable exception of Ken Waltz. But a lot can change in five years. In 2006 David Andrews published a path-breaking edited volume entitled *International Monetary Power*, redirecting attention from efficiency to relational power to explain outcomes in the international monetary system. This study was preceded by Kirshner et al (2003) who focused on structural power and monetary policy as economic statecraft; and by Andrews, Henning and Pauly (2002) who argued that monetary studies that rely on the attributes of the “Unholy Trinity” to predict outcomes are deficient in both the narrowness of their interpretation and scope.¹⁷ Andrews (2006) enlightens the IPE literature on the issue of power and money, and I hope alleviates some of the skepticism in our discipline so that additional studies, my own included, can make a contribution. Despite much original rigorous analysis in Andrews (2006), Kirshner (2003) and Andrews, Henning and Pauly (2002), however, Waltz’s structural theory is not cited once, allowing room for an alternate interpretation of how power enters the realm of the international monetary system, and international political economy in general.¹⁸

¹⁷ The Unholy Trinity is a phrase coined by Cohen to describe the impossibility of maintaining an independent monetary policy, a fixed exchange rate and free capital mobility all at the same time.

¹⁸ I return to Andrews (2006) and Kirshner (2003, 1995) in section I.3 below within the framework of review and critique of relevant IPE literature.

Where international politics has produced systematic schools of thought (realism, liberalism, constructivism) to explain outcomes, international political economy, where it deals with monetary and financial affairs, it focuses on unit-level theories or economics. The literature is deficient in theories with predictive power and is distinctly missing sufficient studies based on realism or neorealist structural theory. A few significant studies map the historical evolution of the system, notably those by Benjamin J. Cohen (1977, 1998, 2004), Eric Helleiner (2003a) and Barry Eichengreen (1996). There is a vast IPE literature on the international monetary system that discusses the Bretton Woods regime, the Classical Gold Standard, and Economic and Monetary Union in the European Union, but comparatively little on other monetary outcomes. A large and still growing economics literature provides insight on currency unions as a systemic outcome, but focuses mainly on its attributes. Some important studies focus on the de-linking of money from the state, but pose several problems when viewed within the context of inter-state relations. This chapter first reviews some important literature on the international monetary system and considers why it might be suboptimal in light of the three deficiencies identified in chapter one —reductionism, equating attributes with outcomes, and single case generalization. Second, I outline some important economic studies on currency unions and financial crises. Third, I discuss the state theory of money and consider some flaws. The fourth section of this chapter presents some prominent works describing the selected cases used in this dissertation, and, before moving forward with an application of structural theory, briefly considers whether some of the IPE theories critiqued here might have had explanatory or predictive power if applied to these cases. Throughout the review I note where structural theory may be applicable to existing

studies. The chapter ends with an argument of why a structural theory of monetary outcomes is important in light of deficits in the current literature.

I. The international monetary system

In chapter one I argued that Waltz and Mundell are theoretically related given Mundell's argument in "*A Plan for Europe*", where a single currency is framed in distinctly balance of power terms. There is further evidence of the applicability of structural theory to international monetary relations in the works of two other great economists, Benjamin Cohen and Barry Eichengreen. Some of the most prominent current works in international political economy, and some of the few that describe a broader international monetary system, are presented by two economists, Cohen and Eichengreen, and one political scientist, Eric Helleiner, who I contemplate under the state theory of money below. None of these authors uses structural realist theory to explain outcomes in the international monetary system. Yet each inadvertently makes reference to neorealism in describing the forces of anarchy, threat, socialization and competition for relative capabilities, and the need for self-help and allies. In this section I explain this position taking note of important studies by Cohen and Eichengreen to show that structural theory can have broader applicability in international monetary affairs.

1. Cohen – The Future of Money

In the most recent volume of what can be considered a trilogy, Cohen presents a theory of monetary alliances to describe changes in the international monetary system.

Cohen (2004,7-8) directly refers to monetary alliances for the purpose of pooling sovereignty. He also argues that currency competition is rising, again as competitors to the international status of the U.S. dollar are surfacing. This effectively means American monetary unipolarity is giving way to a multipolar international monetary system, with the euro and the yen as effective competitors. Cohen's discussion lends itself to a balance of power framework, and he makes several references in this regard, although he himself refrains from using one directly. For example, Cohen (2004, 37) notes "that hierarchy among currencies might influence the distribution of power between states is clear. ... Not only is the issuing [top currency] country better insulated from outside influence or coercion in the domestic policy arena. It is also better positioned to pursue foreign objectives without constraint or even to exercise a degree of influence or coercion internationally" through its control of access to financial resources directly or indirectly. Like competitive strategy in oligopolistic market theory, he argues:

"Currency policy too, can be either offensive or defensive, aiming either to preserve or promote market share. In turn each approach may be pursued either unilaterally or collusively, yielding a total of four possible broad strategies. These are: 1) *Market leadership*: an aggressive unilateralist policy intended to promote use of the national money, analogous to predatory price leadership in an oligopoly; 2) *Market preservation*: a unilateralist status-quo policy intended to defend, rather than augment, a previously acquired market position for the home currency; 3) *Market followership*: an acquiescent policy of subordinating monetary sovereignty to a stronger foreign currency, analogous to passive price followership in an oligopoly; 4) *Market alliance*: a collusive policy of sharing monetary sovereignty in an exchange-rate union or monetary union of some kind, analogous to a tacit or explicit cartel."¹⁹

¹⁹ Cohen (2004, 37) also notes that a firm's behavior can be termed offensive or defensive. "The former seeks to match the firm's strengths and weaknesses to its environment, taking the structure of the industry as given. The latter seeks to improve the firm's position in relation to its environment by actively influencing the balance of forces in the marketplace."

Cohen here is really talking about alliances to increase relative capabilities, and power based on relative capabilities. The framework lends itself neatly to the structural theory model presented in this dissertation, while Cohen's own work would have benefited by integrating Waltz, allowing for a more parsimonious argument.

Although states largely retain dominance over the supply of currencies, Cohen (1998) points out that they no longer control demand for the currency they issue. Since market actors have increased access to alternative foreign currencies, governments must increasingly compete for the allegiance of these actors both inside and across borders. The resulting growth in authority of markets may help to check the arbitrary exercise of governmental authority, but Cohen emphasizes that this shift in authority raises serious questions about equity and the legitimacy of governance in this new world of currency "deterritorialization". Helleiner (2003a) considers deterritorialization further and explores the international monetary system as a fluid process where currency permeated borders, then was confined by state borders, and now is again becoming "deterritorialized" as a result of globalization. He also argues that states are increasingly unable to enforce legal tender laws or influence monetary choices through their citizens' everyday activity. And citizens have lost faith in the state's ability to manage the national currency to the point where it is no longer considered a good store of value. Thus the state has no choice but to limit its own monetary powers which are weak anyway. This would then mean that a monetary alliance is a capitulation of the state to the market, and this is how it is frequently presented. However, we cannot equate attributes with outcomes, and because a state is presented with a decidedly significant threat to its autonomy does not mean that resulting outcomes are necessarily acts of surrender. They may be self-help alliances.

2. Eichengreen – *Globalizing Capital, and Capital Flows and Crises*

Eichengreen (1996,5-6) argues that international monetary arrangements are interdependent national (i.e. state) decisions based on “*network externalities*” and “*path dependence*”. “[T]he international monetary arrangement that a country prefers will be influenced by arrangements in other countries, “ he says, indicating the outcome is a systemic effect based at least partially on the actions of other states. “Insofar as the decision of a country at a point in time depends on decisions made by other countries in preceding periods, the former will be influenced by history. The international monetary system will display *path dependence*. Thus, a chance event like Britain’s “accidental” adoption of the gold standard in the eighteenth century²⁰ could place the system on a trajectory where virtually the entire world had adopted that same standard within a century and a half.” But the world adopting the British standard is not path dependence without good reason, it is bandwagoning with the most powerful state, one all states needed to trade with and borrow from. If Portugal had independently adopted the gold standard in the same period it is unlikely to have had the same effect.

Eichengreen (1996,7) notes Britain’s economic preponderance: “[w]ith Britain’s industrial revolution and its emergence in the nineteenth century as the world’s leading financial and commercial power, Britain’s monetary practices became an increasingly logical and attractive alternative to silver-based money for countries seeking to trade with and borrow from the British Isles.” However, his central argument is one of efficiency, not power.²¹ Its hardly likely that Europe would have followed Spain, or Holland; that

²⁰ The “accident” refers to when Sir Isaac Newton, as master of the mint, set too low a gold price for silver, driving silver from circulation.

Argentina would have followed Mexico or Brazil if the United Kingdom had not been on gold. Eichengreen makes similar arguments of path dependence and network externalities as determining the Bretton Woods regime and the subsequent dollar-based system.

Eichengreen's argument is one of socialization based on relative capabilities, toward the monetary standard of the leading financial state that dictates that if you want my goods and credit you should *pay* by my rules. Network externalities do not simply arise on their own, they begin with the policy of the most powerful state, the state with the relatively largest economic capabilities, the state that because of its relative economic power is the systemic leader, and filters through the system as other states find it beneficial to follow the leader, or fail to prosper, fall by the wayside, or worse, remain outside the system entirely, and suffer. The network externality is based on power. Its follow the leader, not follow the neighbor, and the distinction matters. So long as there is a systemic leader, unless the leader moves, no one else has an incentive to, and if the leader moves the system shifts and the nature of externalities change. When the distribution of relative power capabilities changes, so does the "path dependence". What Eichengreen is describing are the attributes of the system, and he is assuming they caused the outcomes. The externalities are important of course, but the decision-making process is not automatic or based solely (if at all) on efficiency. States, and the statesmen who run them, make decisions based on gain. What matters is not the existence of the externalities but what they will contribute—a relative gain in various economic activities

²¹ Efficiency here refers more to ease based on trade and finance patterns than optimality. Eichengreen notes that Milton Friedman showed how bimetallism would have delivered a more stable price level than the gold standard, but since trade and finance were centered in Britain, it made for decreased transactions costs to adopt the standard of the system's economic leader.

by joining the leader and being inside the system relative to what one would have outside the system.

Like Cohen, however, Eichengreen (1996, 196) also calls for monetary alliances (although he does not call them such) for security within a volatile monetary system. “For the majority of smaller, more open economies” he argues, “the costs of floating are difficult to bear. While domestic political constraints preclude the successful maintenance of unilateral currency pegs except in the most exceptional circumstances, volatile exchange rate swings impose almost unbearable costs and are disruptive to the pursuit of domestic economic goals. As their economies are buffeted by exchange market turbulence, these countries are likely to seek cooperative agreements that tie their currencies securely to that of a larger neighbour.” Countries seeking cooperative arrangements for security might have easily been described by Waltzian structural theory, even using the same phraseology.

Eichengreen ends *Globalizing Capital* with a prophecy picked up in this dissertation. “The desire [for currency security in a regional arrangement] is already evident in Europe in the effort to form a monetary union centered on the Federal Republic of Germany. One can imagine that, with sufficient time, similar tendencies will surface in the Western Hemisphere and Asia, and that the United States and Japan will be at the center of their respective monetary blocs. But a happy conclusion to this project remains a distant project.”²² In 2003 he turned the prophecy into a direct argument in favor of currency unions to guard against destabilizing financial flows and currency crises in *Capital Flows and Crises*.

²² Perhaps not so distant in 2007, if we consider the evidence from the survey results in chapter eight of this dissertation where many in Latin America and even more in Asia show strong preference for such a “happy conclusion”.

3. *The three most studied cases*

The three most studied cases in IPE literature on monetary affairs are the classical gold standard, the Bretton Woods regime, and Economic and Monetary Union in the European Union. Together, these three cases comprise the bulk of the IPE literature on the international monetary system where many excellent works have analyzed the workings of one of these three cases, but generally only that specific outcome within that specific time period, and frequently only considering the actions and reactions of a handful of states, typically those with the greatest relative capabilities. Prominent within the discussions of the gold standard and Bretton Woods in particular, is the relevance (or not) of hegemonic stability theory, especially the need for a single state to act as a system leader and lender of last resort. The literature on the gold standard and Bretton Woods is vast, and continues to grow. Because we are looking at cases within the international monetary system in this dissertation, it might be useful to briefly review those cases that already figure prominently in the literature, with the recognition that a few pages is insufficient to do them justice, but perhaps sufficient to raise some questions and consider a possible application of Waltzian structural theory at a later date.

a. The Classical Gold Standard.

IPE discussions of the international monetary system often begin with the classical gold standard. The gold standard per se, is a form of monetary system where national currencies are linked to the value of gold. The arguments in favor of gold are quite similar to arguments in favor of fixed exchange rates and monetary unions, that is, the system limits or eliminates exchange rate volatility, and eliminates currency

uncertainty, artificial inflation, and irresponsible or arbitrary government action in monetary policy. The so-called Classical Gold Standard period is associated with the latter half of the 19th century (a period often referred to as Pax Britannica for Britain's economic dominance and adherence to the gold standard) and beginning of the 20th century. This is, however only one limited period in the previous century, with the attributes of British financial hegemony often synonymous with the outcome of a nearly global monetary union around gold, while relatively few comparisons exist between the classical gold standard and prior periods of monetary gold standard. International monetary affairs certainly did not begin 150 years ago, just like currency and money did not begin at that time, while the financial strength of Great Britain did not translate into stability for all countries. Countries under the gold standard underwent debt crises and depressions throughout the history of its use.²³ As already noted in reference to Eichengreen (1996) above, efficiency arguments are insufficient in explaining the political decision to adopt this regime, while a Waltzian discussion based on relative capabilities might be useful but thus far is neglected.

One interesting study that lends itself to structural theory is De Cecco (1984) who argues that the system was a product of the British Empire, essentially a sterling standard, and its stability was eminently due to Britain's preparedness to serve as the center of the system. He further argues that states adopted the gold standard in order to increase, rather than decrease centralized control over monetary affairs since joining the gold standard meant the creation of a Central Gold Reserve and Monetary Authority to manage it, thus

²³ See Eichengreen 1996. The literature on the classical gold standard period is vast and an exhaustive discussion is not possible here. Some additional significant studies on this monetary outcome include Kindleberger 1986, revised edition; Officer 1996; and Bordo 1999. See also Bayoumi, Eichengreen, and Taylor, eds. 1996; Eichengreen ed. 1985; Bernanke and James 1991; Bordo 1982; Bordo 1993; Bordo and Schwartz, eds. 1984; Cooper 1982.

ironically bringing more state control into economic activity during the era celebrated for laissez-faire capitalism. The implication then would be that states in this period allied with Britain in order to maintain stability and increase their relative capabilities in both economic growth but also political governance and regulation, thus maintaining or regaining monetary sovereignty. The interpretation is related to structural theory, even if DeCecco's argument is not.

b. Bretton Woods.

A second important period comprising a large amount of the literature on international monetary affairs is the Bretton Woods system, arguably, a global monetary union around a U.S. dollar convertible into gold and enshrined in a treaty agreement that created the International Monetary Fund to bridge temporary imbalances of payments. Like the classical gold standard, Bretton Woods is treated as a systemic outcome based on the attributes of American financial hegemony. As with the classical gold standard, this monetary unipolarity is considered ideal, even necessary, since a lack of hegemony is destabilizing. Kindleberger (1986) attributes the Great Depression to the lack of a hegemonic leader in the international monetary system to act as a lender of last resort. This argument was widely used in discussions of Bretton Woods in terms of the role of the United States, and the concept of hegemonic stability theory coined by Keohane (1984) and argued by Gilpin (1987).²⁴ Discussions of Bretton Woods center around the role of the United States as global hegemon, its policy of 'benign neglect' (Gowa 1983),

²⁴ Keohane (1984) discussed why international institutions set up by a hegemon might continue to function even after the hegemon's decline based on regime theory. Few non-American scholars have been positively inclined toward regime theory. Susan Strange was the most vocal critic of regime theory that she considered either a fad or a device to legitimate America's global domination; see Strange 1983.

the rise of the welfare state and the concept of embedded liberalism (Ruggie 1982), and causes of the system's breakdown, famously the Triffin Dilemma of excess liquidity (Triffin 1960).²⁵ Critics, such as Pollard (1985) and Kolko (1972) have argued that this was a manifestation of American imperialism. Supporters, such as Gilpin (1987, 2001) have argued that it was another example of global stability and emphasize the burdens on the hegemonic leader.²⁶

While they are explaining the monetary systems of distinct time periods, the classical gold standard and Bretton Woods, these studies are not systemic. That is, they do not explain state monetary relations through extended periods of time, do not explain recurring outcomes and, because they are focused on the period, they are limited in predicting future outcomes. The notable system theory to have emerged from this literature is the so-called hegemonic stability theory (HST) that might explain the recurring outcome of a lender-of-last-resort hegemonic leader given its emphasis on stability with unipolarity and instability with multipolarity. But HST does not attempt to explain the recurring outcome of hegemony across space and time, simply the outcome during two cases not often compared—Pax Britanica and Pax Americana. And as some critics have pointed out, the lender of last resort function these states supposedly played did not extend to all states at all times but has been conditional and selective. The theory has come under varying criticisms, prominently by Keohane (1984) who argues that stability can be and is maintained after hegemony with the utility of institutions that

²⁵ On the policy of 'benign neglect' see Gowa 1983. On the compromise of embedded liberalism see Ruggie 1982 reprinted in Krasner ed. 1983. On excess liquidity see Triffin 1960.

²⁶ Like the classical gold standard, the Bretton Woods period has a vast literature. For a discussion of both revisionist and traditional interpretations of this monetary outcome see for example, Pollard 1985; Kolko and Gabriel Kolko 1972; Gilpin 1987, 2001. See also Andrews, Pauly, and Henning, eds. 2002; and Eichengreen and Bordo 1993.

hegemonic leaders help create, but also by Eichengreen (1996) who attributed the Great Depression to a structurally flawed and poorly managed international gold standard, citing how countries that abandoned the gold standard earlier saw their economies recover more quickly. Finally, Xenias (2007) argues that American postwar financial policy was guided by a desire to expand American capabilities. Other states may have joined for the same purpose.

c. Economic and Monetary Union in the European Union.

Despite the existence of several other currency unions and monetary unions in the history of the international monetary system within the modern Western state system, as discussed in chapter one, IPE monetary integration analysis revolves largely around the single case of economic and monetary union in the European Union, which is often explained in the context of regional integration in Europe. The theoretical debate over the issue of European integration is characterized by the dichotomy between the neofunctionalist approach, largely based on E.B. Haas' 1958 seminal study *Uniting Europe*, and the intergovernmental approach (prominently supported by Sandholtz 1993; and Moravcsik 1991, 1999).²⁷ Where neo-functionalists trace back the origins of international and supranational commitments in the interests of national and European level interest groups, intergovernmentalists emphasize the interests of the states in a state-centric study of international events, within a specific region (Europe). These approaches

²⁷ See also Haas 1964 and Moravcsik 1993, 1995. Functionalism is adapted from psychology where functionalism was the idea that mental processes were useful as functional activities to living creatures in their attempt to maintain and adapt themselves in the world of nature; thus in political science states attempt to adapt themselves to the system and in so doing create institutions that perform certain functions allowing greater efficiency in state relations.

may offer some elements that may be useful in explaining the broader phenomenon of monetary integration but they have not been applied to other cases and generally limit their discussion to unit level analyses without sufficiently taking the broader monetary structure into account.

4. Unit-level analyses: Functionalism, Domestic Politics, Epistemic Communities, and International Institutions

There are three popular bodies of literature in international political economy which together comprise a large portion of the scholarly work on monetary affairs, especially EMU. The first are theories based on domestic politics and the effects of interest groups on state behavior. Within this IPE literature, those that rely on domestic political variables are juxtaposed with functionalist alternatives because of the economic efficiency benefits that are reaped by at least one significant interest group within a state, that is, the trade benefits with respect to EMU. A second body is comprised of constructivist theories that emphasize the influence of groups of experts and ideas in determining outcomes, such as the consensus surrounding the Unholy Trinity of free capital mobility, fixed exchange rates and independent monetary policy, or optimum currency areas. A third body of literature emphasizes the role of international institutions and regimes, especially their role in promoting the desired outcome of cooperation by addressing the main problem of cheating through a mechanism of transparency. Here, EMU is commonly interpreted as a spillover of the process of integration and the role of the European Commission figures prominently. I discuss each of these and their weaknesses in explaining recurring currency unions in succession.

a. Functionalism and Domestic Politics.

The “spillover” thesis suggests that when states cooperate in one area, they may become dissatisfied because of insufficient cooperation in another area. As Haas (1961) suggests, demands and expectations for further centralized spheres of activity develop from perceptions of inadequate performance on the part of existing institutions. Nye (1971) notes that the spillover concept, while containing certain ambiguities, had as one clear element the idea that “imbalances” in one specification of cooperative tasks may yield to a progressive expansion of that task specification.²⁸ Neofunctionalism argues that states represent some subset of domestic society on the basis of whose interests state officials define state preferences and act purposively in world politics. Because neofunctionalism and domestic politics arguments base state actions on constituent interests they are considered unit-level analyses with unit-level explanations for outcomes. In the case of EMU it is argued that a single currency benefits business by simplifying and expanding trade and investment, (European Commission One Market, One Money 1990; Emerson 1992; Cecchinni 1990) thus domestic business interests were an important domestic constituent in favor of EMU. Liberal or functionalist interpretations of EMU, or currency union more broadly, while convincing politically do not always hold up to robust economic analysis, which creates problems for unit-level approaches based on the assumption that policymakers respond to domestic pressures and interests of actors, in this case presumably economic actors. Economic analysis at the time argued that there was no real benefit to trade and investment, and economists still debate this issue today. For example, studies by Bayoumi and Eichengreen (1992) and Garrett (1998) showed

²⁸ For a further discussion of functionalist arguments in favor of regional integration see see Haas 1968; Schmitter 1968; and Lindberg and Scheingold, eds. 1971.

that although certain countries might benefit from EMU, France was not one of them. Yet France was a leading proponent of EMU. In the IPE literature, Chang (2003) agrees that economic efficiency was not key to EMU and points instead to a marriage of convenience between French desires for autonomy from the U.S. and German desires for acceptance following re-unification. It is difficult then to argue that states adopted EMU for the efficiency gains economists said weren't there to begin with. A number of IPE scholars have begun to question whether economic efficiency is the driving force in international monetary affairs. The authors in Kirshner et al (2003), for example, all argue that various levels of political calculations rather than any economic efficiency calculations have played a central role in determining monetary outcomes in places like Africa, Argentina, China, and the former Soviet Union, among others.

Recently many scholars have argued that a more comprehensive and complete explanation of international events must imply the analysis of the domestic process of interest formation. It is argued that the almost exclusive international focus of systemic approaches is problematic because it rests upon a series of unexamined assumptions about domestic politics that are crucial to the result (Milner 1992, 1993). Putnam (1988) provided for one of the most well known attempts to find an integrated domestic-international politics approach to international agreements in his two-level games. Frieden (1991) provides for the application of Putnam's thesis to the issue of international exchange rate commitments. Scholars have devoted attention to the role of domestic factors in the process of preference formation in the choice of monetary policy. Aspects emphasized within this literature are economic sectors (Frieden 1991), partisan orientation (Oatley 1997, Simmons 1994), the role of interest groups (Hefecker 1996),

domestic industry-government relations (Henning 1994), and the interactions of domestic institutional and societal structure, in particular the issue of central bank independence (Goodman 1992; Heisenberg 1999; Henning 1994; Kattenthaler 1997, 1998; Kennedy 1991; Loedel 1999). Within this context, McNamara (1998) and Oatley (1997) apply state preferences and policy ideas, and domestic institutional structure, respectively, to EMU and conclude that new ideas and domestic interests were what drove the EMU project. This approach also has not been applied to other cases of monetary union except EMU, and in its focus on unit-level analyses to the exclusion of system effects, it is reductionist. States in the European Union especially cannot make decisions without taking the effects and reactions of other states into account. To the extent that domestic interests or ideas in each state were moving simultaneously in the same direction, this is an indication that there were systemic factors at play and that these systemic factors are omitted by attempts to reduce outcomes to the unit level.

b. Policy preferences and epistemic communities.

Theories based on epistemic communities generally argue that ideas and the acceptance of ideas among a select community of experts influence the policymaking process to the point of determining outcomes in international relations. Ikenberry (1992, 1993) for example, argued that a community of economic experts played a central role in the negotiation of the postwar monetary and trade regimes. Similarly, a number of scholars have argued that it was changing ideas within the political landscape that propagated Europe's EMU project. However, because these studies emphasize that ideas change as a result of a changing environment it is difficult to differentiate this process

from that of socialization as described by structural theory. For example, Sandholtz and Zysman (1989, 113) have argued that increased Japanese competition, domestic political change in key countries such as France, and leadership by the EC Commission brought about the reform of the Community during the 1980s because “the left had been transformed in such a way that socialist parties began to seek market oriented solutions to economic ills....The Commission perceived the international structural changes and the failure of existing national strategies, and seized the initiative.” Similarly Moravcsik (1991) and Cameron (1992) have shown in separate studies that a convergence in policy preferences among policy elites during the early to mid-1980s in France, Germany, and Britain regarding the utility of more open markets enhanced the prospects for the Single Market program, and Sandholtz (1993) has shown that this convergence in policy preferences regarding more open markets was a crucial precondition for closer EC cooperation. These scholars and Hoffmann (1989) have also argued that the EC revitalization has been driven in part by the strong personalities of staunchly pro-European leaders such as French president Francois Mitterand, German chancellor Helmut Kohl, and especially EC Commissioner Jacques Delors. However, to the extent that a change in the environment is producing the change in preferences the causation is in the system not in the socialized leaders.

Helleiner (1994) and others have argued that what Peter Haas (1992) termed “transnational epistemic communities” are especially prevalent among monetary officials than trade officials because the former share a similar knowledge base, common causal and principled beliefs, and the collective policy project of seeking to prevent international financial crises. However, expert agreement over the attributes of the international

system, even if there were such universal agreement, does not determine outcomes. Economists frequently differ on important issues. And even where experts can and do point to problems with a certain level of universality, they do so without moving a single state into action. Global warming is a case in point. Moreover, the consensus among epistemic communities prior to EMU was that a single currency would do little to expand intra-European trade and states were better off with their national currencies in off-setting external shocks, yet the EU went forward with the project anyway. This limits the explanatory power of epistemic communities regarding the EMU outcome, and challenges its explanatory power to other monetary system outcomes given the failure in the self-selected critical case. Recently Grabel (2003) criticized approaches that derive policy credibility from the epistemological status of economic theory as denying the significance of class conflict, income distribution, societal diversity and especially politics and power. Helleiner (2003b) also appears to have shifted his position. In the same volume as Grabel, he argues that the policy advice given by the United States, Britain and France to less developed countries in the postwar era “was driven by ideological perspectives, interest group pressures and broader geopolitical desires to maximize each [rich] state’s power,” and not on the best economic theory.²⁹

Finally, Grieco (1996) and Garrett (1992) have noted that unit-level approaches may not be able to explain fully why the EC countries have selected the particular form of monetary integration that the Maastricht treaty entails. The domestic argument stresses the market-orientation of elites, however market oriented proposals are seldom the ones adopted. For example, the two British proposals for competing currencies were unable to

²⁹ Helleiner 2003b, 76.

gain EC support in spite of the fact that both were significantly more market-oriented than the EMU approach ultimately accepted at Maastricht.

c. International Institutions.

Another important strand of the IPE literature stresses the interconnection of international institutions and state interests and draws attention to such processes as issue linkage, spillover and regime dynamics in the process of interest articulation and policy formation (Cameroon 1993; Dyson 1994; Sandholtz 1993; Woolley 1992). The main focus of neoliberal institutionalism to date has been not so much on explaining increases in the authority of international institutions but rather on their capacity to remain relevant in the absence of the forces that were responsible for their founding. Keohane (1984), for example, argues that regimes for money, trade and oil were founded after the Second World War thanks to U.S. hegemonic leadership and remained important even after U.S. relative power declined because they served useful functions such as preventing cheating and reducing uncertainty. Neoliberal institutionalism suggests that states that have a common interest in cooperation may nevertheless find joint action blocked by mutual fears of cheating and therefore high transactions costs for their interactions. For example, Oye (1986) and others argue that states seek to manage this problem by creating institutions that reduce incentives to cheat and transactions costs associated with opportunism.³⁰ This approach is useful but neglects to factor into the equation the actions external to the institution under consideration, and in doing so limits itself to a portion of the states within the system, thus not describing the system itself. Also, this analysis

³⁰ On the possibilities for cooperation see Axelrod 1984; Oye ed. 1986; Lipson 1984; Stein 1983; and Krasner ed. 1983.

shows how institutions such as the EMS, once established, may remain relevant to its members. Yet, it does not readily explain why, once the EC states established the EMS, they sought to move beyond it to EMU. Finally, while institutions may cut down on cheating, they may also institutionalize inequality. Giavazzi and Giovannini (1989) famously found that, although the EMS functioned well, Germany alone was able to exercise monetary independence, leading to what they called the “German dominance hypothesis”.³¹

For any of these theories to be robust and progressive they would have to be applied to other cases of monetary integration and be shown to have explanatory power in more than one instance; but the literature in this regard is scant. Thus they may only have some explanatory power for a single case, EMU. The case studies of currency union examined in this dissertation do not always show evidence of the utility of domestic politics, functionalism, constructivism or neoliberal institutionalism in explaining the outcome. That is, the primary and secondary literature on these cases did not show, for example, a consistent presence of domestic politics considerations in each case over time, although domestic politics was a factor sometimes. Structural factors, however, were present in all cases, as depicted in the summary chart (Table 4) presented in chapter one.

5. Money, power and coercion.

As already noted, the relationship of money and power is currently an important new subject in the IPE literature. There are some earlier studies, however, that touched on the subject that provide a useful framework for present and future discussions. Hirschman

³¹ An alternative view is presented by Fratianni and von Hagen (1990) who showed that the EMS was interactive.

(1945) still stands as the most prominent work on the use of trade as a mechanism of power through what he calls the supply effect (maximizing your open supply channels) and the influence effect of foreign trade (maximizing your trading partners' dependence on you). While he does not discuss finance or the influence from cutting off loans, his argument can be redefined for this area. For example, Hirschman (1945, 27) argues that “[G]iven a certain ultimate loss, the influence which one country exercises upon another through foreign trade is therefore likely to be larger the greater the immediate loss which it can inflict by a stoppage of trade.... Obviously, the difficulties arising out of a cessation of exports will be greater the greater the exports (and consequently the imports); and the short-run problem is thus intimately connected with the extent of the long-run gain from trade.”³² The same can be said for finance. Consider these arguments restated: Given a certain ultimate loss (to its own financial institutions), the influence which one country exercises upon another through international finance is therefore likely to be larger the greater the immediate loss which it can inflict by a stoppage of funds. Certainly, this type of threat is inversely related to relative capabilities, commercial capabilities in the original statement by Hirschman, financial capabilities in my restated argument.

Others have more directly alluded to financial capabilities or monetary power. Wu (1952, 142) in discussing economic warfare argues that “deliberately selling the enemy’s currency on such unofficial markets or free exchange markets maintained in adjacent neutral countries at increasingly lower rates” will promote price inflation and

³² Hirschman famously argues that commerce and warfare are two sides of the same coin. “It has often been hopefully pointed out that commerce, considered as a means of obtaining a share in the wealth of another country, can supersede war. But commerce can become an alternative to war also—and this leads to a less optimistic outlook—by providing a method of coercion of its own in the relations between sovereign nations. Economic warfare can take the place of bombardments, economic pressure that of saber rattling. It can indeed be shown that even if war could be eliminated, foreign trade would lead to relationships of dependence and influence between nations.” See Hirschman 1945, 14-15.

dissipation of enemy reserves as well as stimulate capital flight in wartime. This interesting tactic, however, would only prove useful for a relatively strong state against a relatively weak one. Italy selling off U.S. dollars during World War II would have had little effect on the United States economy. For Wu's argument to work there must be an underlying Waltzian emphasis on relative capabilities. Kindleberger (1970) noted that "[A] country's exchange rate is more than a number. It is an emblem of its importance to the world, a sort of international status symbol." Strange (1971) was an early, if lonely, voice on power relationships in international monetary affairs, describing the decline of sterling and the rise of the dollar from a European perspective that did not always view American financial hegemony favorably.³³ Knorr (1973, 83) noted that economic coercion can occur if "A acts to put B's international currency position under pressure" but he does not fully explain this position. A few studies on economic tools of power and influence have made note of monetary instruments. Hufbauer and Schott (1985) categorize 74 of the 106 cases they analyze as "financial" sanctions (involving the cutting off of aid and freezing of assets but not destabilizing financial markets or monetary relations).³⁴

Most recently, the ability of states to influence the actions of other states through the manipulation of monetary power has been aptly treated by Kirshner (1995). Kirshner (1995) examines how states can and have used international monetary relations as an instrument of coercive power, defined as currency manipulation to influence the

³³ Most of Strange's work is useful in this regard.

³⁴ On economic sanctions see also David Baldwin 1985. Baldwin mentions the possibility for monetary coercion but does not attribute any of the 28 cases he examines to monetary power or monetary manipulation.

preferences and behavior of other states. Building on Hirschman's idea of dependence as economic vulnerability, Kirshner examines how monetary moves or conditions in the home state can affect the economic future of the target state and determines that monetary power, like economic power from trade described by Hirschman, can be used to perpetuate economic domination. Kirshner identifies four ways in which currency dependency may be coercively exploited by the system leader: 1) enforcement—manipulation of standing rules or threat of sanctions; 2) expulsion—suspension or termination of privileges; 3) extraction—use of a relationship to appropriate real resources; and 4) entrapment—transformation of a dependent state's interests. Under this framework, Kirshner examines 23 instances of the use of monetary power in the 20th century, of which there were 3 failures, 5 cases with mixed results and 15 successes, and notes that the United States was the agent in 14 of these. "Given a reasonably integrated international market economy, monetary power, in theory, should be the most potent instrument of economic coercion available to states in a position to exercise it," argues Kirshner (1995, 30-31) as "...monetary power appears to be both the least inhibited and most efficient instrument." The argument is quite persuasive. However, it is not available to all or even most, or even more than a tiny few states in the international monetary system. Indeed, this type of monetary power applies only to those with the highest levels of relative monetary capabilities, essentially the financial hegemon on a systemic level and (maybe) regional leaders on a regional level.³⁵ Those with weaker relative

³⁵ Monetary power is not an American invention, however. Davies (1994, 76) notes an ancient example: "In 456 B.C. Athens forced Aegina to take Athenian 'owls' [coins with the Athenian 'owl' symbol] and to cease minting her own 'turtle' coinage. In 449 B.C. Athens, in furtherance of still greater uniformity issued an edict ordering all 'foreign' coins to be handed in to the Athenian mint and compelled all her allies to use the Attic standard of weights, measures and money (a silver standard). As Athenian power declined, so the former subject city-states reissued their own currencies..."

capabilities are always vulnerable to being on the receiving end, and, in this system that describes nearly all states. One might expect states in this system to seek increased relative capabilities through alliances, but this is not considered by Kirshner who examines only the attack, not the self-help response, and who fails to apply the tenets of neorealism even as he is describing a system based quite heavily on relative capabilities. This is a happy omission for this author, as it leaves another door open to a neorealist interpretation of international monetary affairs. Finally, Kirshner frequently relates the exercise of monetary power only for political ends and not for economic ends. Since money is a national economic tool, it might be useful to see what it adds to national economic capabilities. As Gilpin (2002, 27) recently reminds us, “whereas the logic of the market is to locate economic activities wherever they will be most efficient and profitable, the logic of the state is to capture and control the process of economic growth and capital accumulation in order to increase the power and economic welfare of the nation.” But this too, is omitted by Kirshner.

In addition, a small number of academic studies have attempted to explain international economic relations using realist or neorealist theory. Brawley (2004) provides an interesting application of realist theory to economic relations. For example, he argues that since economic ties can deliver benefits to both parties, the weaker power might hope to survive in the short run by allying with the hegemonic power, but add to its current economic base as well. However, he ultimately ends up attempting to directly tie-in economic balancing with a quest for military power, rather than discussing how structural theory can affect the economic sphere independently. Grieco (1996) argued that “Italian and especially French support for EMU may in part be explained as an element of a

Franco-Italian balancing strategy with Germany against Japan (and perhaps the United States as a secondary matter),” and Italian and French bandwagoning with a hegemonic Germany.³⁶ Andrews (1994) provides an early attempt to apply neorealism to international monetary affairs based largely on the concept of anarchy and its relation to the capital mobility hypothesis. He argues, for example, that capital market integration meets even the strictest criteria for structural theory as a constraining element that rewards some actions of states while punishing others. This study is useful for our purposes. However, Andrews (1994) does not discuss the specific outcome of currency unions in the international system in relation to anarchy, which is the topic here. The idea of anarchy in international monetary relations is examined in chapter four of this dissertation with the added experience of the 1990s and early 21rst century.

Finally Andrews et al (2006) shares my criticism that power is incorrectly absent from discussions of international monetary affairs. But the approach Andrews and his contributors adopt is more akin to Kirshner’s focus on coercion. Specifically, Andrews (2006, 2) argues that “[I]nternational monetary power exists when one state’s behavior changes because of its monetary relationship with another state.” The book’s nine contributors provide different ways of looking at how money is used as a tool to achieve political aims, and outcomes in the international monetary system are then tied to political goals. This may occur, and occur frequently, but it is not the only way of examining power in monetary affairs. Monetary power gives states greater relative capabilities in monetary issues as well. States ally in the monetary sphere to protect themselves from concerns arising from the monetary sphere. Keeping one foot of IR theory in politics makes for only half a transition. But structural theory is fully fungible.

³⁶ On German monetary hegemony see Giavazzi and Giovannini 1992, 1-6.

a. structural power is not structural theory

Structural theory in international finance should not be confused with a treatment of structural power in international finance, the former has not been addressed, the latter has been argued on various levels at least since Hirschman and is on the rise again . Cohen (1977) first discussed the concept of structural power in the context of international monetary affairs distinguishing between “process power” and “structure power”. Strange (1982, 1986, 1987) argued that structural power was becoming more important than relational power. Kirshner (1995, 267) also argued that dominant states derive both “overt” and “structural” power from the currency blocs they lead, further arguing that “the opportunity for structural benefits...is what motivates states to create monetary systems.” Helleiner (2006) provides the latest discussion of structural power in what he calls “micro-level monetary power” “exercised indirectly and sometimes unintentionally—through the shaping and controlling of the monetary environment within which others must operate...including the ability of currency relations to affect domestic financial regulation, international financial crisis management, economic geography, and identity formation.” The recognition of structural power in monetary affairs then begs the question, don’t the followers react? If there is power and influence exercised over them, more often than not to their detriment, is there no self-help reaction to limit the influence, change the structure and usurp the structural power? Do states just sit around and take it? Certainly not, says structural theory. In such a situation, states would be expected to form alliances and where possible challenge the wielder of the structural power. Adding a Waltzian interpretation to this literature completes the circle.

II. Exchange Rates, Optimum Currency Areas, Currency Unions and Financial Crises

The theoretical interpretation of currency unions in international political economy derives from the economics literature. Even though currency unions as a recurring outcome date to long before the twentieth century, even in Europe, the main theory describing the rationale of a currency union between two or more states, optimum currency areas, does not enter the discussion until the 1960s with the seminal study by Mundell (1961), followed closely by McKinnon (1963) and Kenen (1969). Since the systemic outcome under examination here is the currency union, it is relevant to chronicle some of the important economics literature on optimum currency areas and currency unions. Because a currency union affects the exchange rate first and foremost, and current discussions regarding future currency unions derive in large part from discussions on limiting exchange rate volatility, I begin with some economic studies on exchange rates.

1. Economic Analysis of Exchange Rate Regimes

Baxter and Stockman (1989) is one of the first systematic studies of the consequences for the economy of different exchange rate regimes. Frankel and Rose (1995) give an overview of studies on the issue of international trade and the international monetary regime. Essentially researchers have looked at periods of high and low exchange rate volatility and attempted to map them into trade during the same periods. The time series literature, including important studies by Hooper and Kohlegen (1978), Kenen and Rodrik (1986), and the European Commission (1990), has found it difficult to

establish a consensual view about the size of the effect of monetary regimes on trade, or even its sign. Based on these studies, it was presumed that the effect of exchange rate volatility on trade is certainly not large. This led economists such as Feldstein (1991), Obstfeld (1997) and Wyplosz (1997) to conclude that there will be only small gains from eliminating currency fluctuations within Europe after EMU, a view consistent with the empirical time-series literature. Frankel and Wei (1993), for example, focus on European exchange rate stabilization and find that exchange rate uncertainty has only a faint effect on international trade. Similar weak findings are reported in Eichengreen and Irwin (1995) who analyze the interwar period. Prominent among the euro skeptics, Feldstein (1997) argued that the euro would impose large costs upon its member countries without providing substantial economic benefits. While Collins and Giavazzi (1993) showed that monetary union is neither necessary nor sufficient for bolstering price stability. Some recent studies pioneered by Rose (2000) and discussed below, however, provide an opposite conclusion, showing that not fixed exchange rates, but a common currency can have a large positive impact on trade.

2. *Optimum Currency Areas*

The economics literature on currency unions is a vast discussion of the theory of optimum currency areas (OCA) pioneered by Mundell (1961), McKinnon (1963) and Kenen (1969).³⁷ The term “optimum currency area” was coined by Mundell in his seminal article that defined the concept. The question Mundell posed in this article is ‘when is it advantageous for a number of regions to relinquish their monetary sovereignty

³⁷ For a review of the optimum currency area literature, see Wihlborg and Willett (1991). For some interesting recent revisions to this approach see Frankel and Rose (1998) and Kenen. (2002).

in favor of a common currency?’ Mundell argues that an optimum currency area constitutes a geographic region that experiences similar economic shocks and has a free flow of goods, capital and labor. Economies in such an area could benefit from forming a single currency that would further stabilize the region internally and strengthen it collectively externally. Political science provides an analogous justification for monetary union under the rubric of functionalism. Both OCA and functionalism make an efficiency argument and do not address power relationships among state relations or other political considerations. Indeed OCA is a prescription for what states *should do* and *could do* for a more rational monetary order, but not necessarily what they *will do*; the two should not be confused. Mundell’s theory has frequently been used to both justify and disqualify the European Union’s EMU project (by those who argue that the EU is not an optimum currency area).

A variation of Mundell’s theory provides a different way of viewing the issue. McKinnon (1963) has argued that one criterion for an optimum currency area is the degree of openness. It is in the best interest of highly open economies (those that rely heavily on international trade), to peg their exchange rate against a neighboring country’s currency or better yet, to join a common currency area since small open economies risk more than they gain in using the exchange rate as a means of adjustment. The theory is based on the difference between large and small states. When a large closed economy is suffering from a balance of payments deficit it may be able to bring adjustment by devaluing its currency, making its exports relatively less expensive and its imports relatively more expensive. The large state can insulate itself because imports are not a large portion of its consumption. When a small open economy tries this strategy, it will

not only fail to correct the imbalance, but it is also likely to spur inflation by creating a wage-and-price spiral as the price of all imports rises and real wages therefore fall, (causing labor demands for high wages to compensate). Moreover, if domestic suppliers use the rise in import prices as a result of devaluation to raise prices, the initial drop in the value of the country's currency will do nothing to boost competitiveness. McKinnon argued that an optimum currency area must be big enough to stabilize the purchasing power of the inhabitants of the area.

Kenen (1969) dealt with several issues, including connections between the fiscal domain and currency domain. If the fiscal domain were larger, complex questions would arise regarding tax collection and fiscal policy implying that an optimum currency area might be smaller. Kenen also argued that product diversification played a role in OCA theory. A diversified economy will not have to undergo large changes in its real exchange rate, as the law of large numbers will come into play if it exports many goods (that is, a shock to one has a smaller effect on the economy because there are many others that are not affected). Diversification also reduces the size of the change in the real exchange rate needed to offset the whole fall in demand. This implies that a larger more diversified economy, one less vulnerable to economic shocks, is a primary benefit of OCA.³⁸ In other words, bigger means stronger, less vulnerable. An OCA expands the members' relative capabilities and equips them to better weather external shocks. Entering into a currency union makes a set of such small, open and thus relatively vulnerable states a large and relatively insulated economy. Finally, the economic criteria

³⁸ This would also imply that less developed countries dependent on a small set of similar export industries, say the same agricultural commodities, would derive little benefit from a currency union with each other since such a union would do little to diversify the larger economy and so little to decrease the vulnerability of its members to external shocks or crises.

need not be perfect prior to the union. The theory of optimum currency areas is describing the attributes states might have for whom a currency area would be beneficial; it is not describing how they get there, or outcomes.

3. *Currency unions*

As discussed in chapter one, a significant recurrent outcome in the international monetary system is the currency union. However, beyond analyses of EMU, empirical and comparative studies of currency unions are in infancy even within the economics literature where it builds on the OCA theories of the 1960's. There are a number of new studies on currency boards, for example Schuler (1992), Balino et al (2000) and Gosh et al (2000), and influential new analyses on currency union effects on macroeconomic indicators, most prominently Rose (2000), Frankel and Rose (2001), and Persson (2001). Most recently Shang-Jin Wei (2002) found that the impact of an institutionalized stabilization of the exchange rate, i.e., a currency board or a currency union, generally provides a stimulus to goods market integration that goes far beyond reducing exchange rate volatility to zero; long-term currency unions demonstrate greater integration than more recent currency boards. The consequences of exchange rate volatility, and more generally currency arrangements, are at the heart of open economy macroeconomics; yet scholarly opinion on their impact on goods market integration is divided.

Obstfeld and Rogoff (1996) mention two of the main benefits of currency union as 1) reduced accounting costs and greater predictability of relative prices for firms doing business in both countries and 2) insulation from monetary disturbances and speculative bubbles that might otherwise lead to temporary unnecessary fluctuations in real exchange

rates (given sticky prices). Proponents of tight currency arrangements argue that this is the ultimate credible commitment to nonexpansionary monetary policy. The idea is that when the central bank ties its hands so it could not in the future expand the money supply even if it wanted to, workers expect lower inflation and so exert less pressure on wages and prices. As a result, the country achieves lower inflation for any given level of output. Currency unions go beyond reducing the vulnerability of bilateral exchange rates. They eliminate altogether the risk of future changes in the exchange rate, as well as the transactions costs incurred from converting one currency into another. Thus they facilitate imports and exports. This in turn has a positive effect on real income. More recently trade theorists have studied how an increase in trade might have more than a one-time effect on the level of real income---it might raise the rate of economic interaction with the rest of the world and speed innovation and the adoption of new ideas, adding to technological and managerial know-how and productivity.

As noted above, the empirical economic literature up to 1997 generally reported a small effect of exchange rate stabilization on trade volumes. In contrast, a recent influential paper by Rose (2000), argues that adopting a common currency provides a substantial expansion of the volume of trade; an effect that goes beyond the impact of reducing exchange rate volatility to zero. The presence of a common currency increases bilateral trade among members by as much as 300% over what would be expected between otherwise identical countries. Rose (2000, 2001) uses the gravity model (with weighted national income or economic 'mass') and evidence from existing currency unions in the world economy to estimate the effects of a common currency on trade and finds that a currency union expands bilateral trade between two average member

countries by 200% to 235%, and up to 300% for some countries. Frankel and Rose (2002), Glick and Rose (2002), Engel and Rose (2001), and Rose and van Wincoop (2001) have provided further extensions and support to this claim. Moreover, The endogenous currency area approach put forth by Frankel and Rose (1996) suggests that monetary integration deepens trade and leads to converging cyclical profiles. Building on results in Frankel and Romer (1999), Frankel and Rose (2002) have gone on to argue that having a common currency provides a substantial boost to the member countries' output growth, and income per capita by 1/3 of 1% over a 20 year period for every one percent increase in trade relative to GDP. For example, they estimate that dollarization would raise an average country's income by 4% over twenty years.³⁹ Edwards (2001) shows that when compared to other countries dollarized nations have had significantly lower inflation but also grown at a lower rate, had a similar fiscal record and have not been spared from major current account shocks. He cautions against this rather drastic piece of advice which is being dispensed on the bases of very limited empirical and historical evidence. Persson (2001) testing for the same effect as Rose (2000) using the same U.N. data set but with different estimators finds an expansion of trade by just 13% with one estimate and a maximum of 66% using another. These figures suggest a much more modest expansion of trade: the point estimates are positive, but the prediction that a common currency increases trade is qualified by substantial uncertainty.

Thus economic studies still leave several questions unanswered. Does a common currency have a positive and significant trade expansion effect? If trade is higher among countries using a common currency, is this because of the common currency, or are other factors at work? The indecision of the economics literature casts doubt on IPE

³⁹ For a good set of studies on the economics of currency unions see Alesina and Barro eds. 2001.

explanations of EMU based on economic gains from trade either in aggregate or particular to interest groups. The stark contrast between IPE explanations of EMU and contradictory economic analysis presents a puzzle. A state might be adopting a monetary union for monetary reasons to affect monetary indicators, not just trade, which may nevertheless play an equally important role on national income. In a structural theory of monetary alliances it would not really matter whether a state was focused on trade indicators or monetary indicators. Since both affect national income, then both affect relative capabilities.

4. Financial crises

A second recurring outcome in the international monetary system considered here (the first being currency unions) is financial crisis. Kenen (2002, 102) loosely tied the two outcomes together. “A monetary union,” he argued, “cannot protect its members from currency crises, because its external exchange rate can be attacked. Yet a monetary union may be less vulnerable than its members would be separately.” Kirshner (2003) argues that a principle characteristic of the contemporary global economy is the rise and pre-eminence of monetary phenomena, including international financial crises. Might this imply that the future of the global economy will also be characterized by monetary unions that reduce their members’ vulnerability to crises? As already noted above, this notion of monetary unions as a possible shield against future financial crises has arisen in both Cohen (2004) and Eichengreen (2003). Also, before the era of modern exchange rate instability, Kenen (1969) had argued that an optimum currency area was one that protected the larger economy from external shocks to the productive sector. An argument

Kenen extends to the monetary sector in 2002. It might appear then, that a state would gain from a currency union by a certain level of protection from externally induced (ie. systemic) economic crises, in addition to and independent of any gains from trade, and independent of any possible intent to exercise or evade monetary coercion.

With the notable exception of Kindleberger (1978), who ascribed financial crises to external shocks associated with a financial cycle of boom and bust, and Minsky (1977, 1982) who attributed crises to aberrant behavior, financial crises, like currency unions, are relatively under-analyzed in both the international political economy and economics literature, although this too is beginning to change.⁴⁰

Bordo et al (2001) show that currency crises are a recurrent phenomenon in international monetary history and they incur a certain amount of economic damage. Horowitz (2001) defined an international financial crisis as a sudden, large decline in international competitiveness, as measured on the current and capital accounts, such that large economic policy adjustments are necessary to restore a country's external financial balance. Domestic economic policies can contribute to the probability of a crisis, its spread or intensity. Important culprits include 1) large fiscal deficits, 2) inflationary monetary financing, 3) significant expansions of bank credit, 4) bad loan burdens, and 4) increased amounts of public and/or private debt financed by foreign borrowing, much of it short-term and often facilitated by overvalued fixed exchange rates.⁴¹ Once a crisis occurs, adjustments can take a number of nonexclusive forms. For example, 1) currency devaluation, 2) restrictive monetary and fiscal policies, 3) trade barriers, 4) exchange

⁴⁰ See also Crockett 1997; Kindleberger and Laffargue, eds. 1982.

⁴¹ The reader might note that many of these problems formed the basis of the convergence criteria EU countries had to meet in order to join the EMU.

controls, and 5) structural reforms of the internal economy (including reductions in subsidies, soft credit, regulations and corruption) which improve economic efficiency.⁴²

The standard approach to balance of payments crises follows Krugman (1979). Governments peg the exchange rate until their reserves are exhausted, at which point they float the currency. Government budget deficits are at the root of speculative attacks. Yet there are also cases in which monetary and fiscal imbalances are not clearly apparent in the period leading up to crises. The ERM crisis in 1992 has been studied as such an example by Eichengreen and Wyplosz (1993), Rose and Svensson (1994) and Ozkan and Sutherland (1994). The Ozkan-Sutherland model, in which events abroad can raise domestic unemployment and induce an optimizing government to abandon the currency peg, provides one channel through which developments external to a country can provoke a currency crisis. Gerlach and Smets (1995) show further that a speculative attack that leads to devaluation by one country may threaten the competitiveness of a trading partner through the contagion effect. Yet another possibility is that there exist multiple equilibria in foreign exchange markets and that the collapse of one currency coordinates expectations so as to shift the market from one equilibrium to another. Flood and Garber (1984b) and Obstfeld (1986) first linked multiple equilibria to speculative attacks. There are significant studies on the effects of currency devaluation, for example Cooper (1971), Kamin (1988), Edwards (1989, 1993), but little systematic empirical analysis on the causes of currency crises with the notable exception of Eichengreen et. al (1994) and

⁴² Horowitz 2001. Horowitz and Heo, ed. (2001) compiled an interesting volume that comparatively addresses domestic factors at work, pre-crisis economic policies and post-crisis institutional responses in most countries affected by the international financial crisis of 1997-99, not just Asia (one omission is Ecuador which dollarized in the aftermath of the crisis in January 2000).

Eichengreen (2003), and also Blanco and Garber (1986) on the Mexican peso attacks and Cumby and van Wijnbergen (1989) on the Argentine peso attacks. The decision that a government faces when choosing whether to devalue or float its currency has not been tackled by the economic literature, with the exception of Eichengreen (2003).

Those studies on financial crises that are available often suffer from some of the same flaws identified for the IPE literature on monetary affairs, specifically single case generalization, and reductionism. Studies focus on individual cases rather than considering a broader universe of crises. They often consider only domestic causes and domestic effects for a systemic outcome, and thus recommend domestic measures (often to the chagrin of affected states). Economic studies of financial crises recognize systemic effects from the undisputedly anarchical international monetary system. Recently, some economists (for example, Eichengreen 2003) have begun to suggest that states band together in a currency union as the only effective solution to currency crises caused by speculation, thus linking currency unions with avoiding crises. Cohen (2004) for example, discusses two options in the global competitive marketplace—dollarization or monetary alliance. These studies stop short, however, of empirically analyzing the relationship of a currency union with financial crises and thus lack a system theory as well. Discussions of financial crises tend to be limited to economics, and defense mechanisms recommended tend to focus on reforming the domestic economic policies within each state. While valid, such recommendations do not adequately consider structural changes to deal with structural problems. Currency unions or regional arrangements are such structural changes to the international monetary system, and political discussions of currency unions typically increase following crises.

III. State theories of money

To borrow Theda Skocpol's (1985) phrase, there is a need to *bring the state back in* to the study of international monetary affairs. Money, after all, is a tool of the state, issued by the state and controlled by the state. To this end, state theories of money may be relevant to our discussion. The state theory of money, as first formulated by Knapp (1924) states that money is whatever the state declares it to be. In this capacity the power of the state dramatically increased with the rise of the modern nation-state in the 19th century.⁴³ A few well-known scholars—Giddens (1990), Poggi (1978) and Hobsbawm (1992)—have commented on the historical association between the emergence of nation-states and territorial currencies during the 19th century. The tools of the state were 1) expanded policing functions and so enforcement of legal tender laws and 2) expanded role in national economy. Nation-states also enabled modern fiduciary (ie. paper) monetary systems to emerge, says Giddens, because they were better able to cultivate the 'trust' of the domestic population in the state's ability to manage money,⁴⁴ often cultivated by delegating the management of this money to a central bank run by 'experts' from the merchant and banking communities, two groups that were dominant users of bank notes during the 19th century. Universally, the images on the paper currency conveyed the unity and pride of the nation-state. Even as he advocated for a Latin Monetary Union and a larger European monetary union and confederation, French

⁴³ Knapp 1924 [1905] translated by Lucas and Bonar and cited in Helleiner 2003, 43.

⁴⁴ Helleiner 2003, 44. On the expansion of fiduciary money see also Lindgren 1997 and Eggertson 1990.

statesman Felix de Parieu understood the symbolism of a currency. “The coinage is like the emblem of a country and of the sovereignty it represents,” he said.⁴⁵

It has been forcefully stated by proponents of the state theory of money, that money is both a symbol of national identity and an important tool of state economic policy, thus states will be loathe to give it up. Issuance of money provides a state with a source of revenue (through seignorage gains) which strengthens its financial standing and thus its political power. Harmonisation of money throughout its territorial borders facilitates business transactions and so economic activity (which ultimately can be taxed). But money is more than an economic instrument. National money provides territorial cohesion internally and externally, with important implications for nation-building and state-making through its contribution to the centralization of bureaucracy and the territorialisation of state power (Smith 1986, Helleiner 1996a 1996b, Anderson 1992, Gellner 1983). Moreover, it is a constant reminder of nationality for each and every individual, citizen or tourist, several times a day, and a reaffirmation of the nation-state’s authority, its jurisdiction over its citizens and the history that it projects. No other symbol can begin to cover such ground.⁴⁶ It is astounding then, and wholly irrational for any state to consider eliminating its national currency, regardless of the benefits to trade, or any efficiency externalities to be had by its industry.

Helleiner (1999, 2003) has argued that the origins of national currencies can be located in many of the broader historical processes that accompanied the rise of nation states in the 19th and 20th centuries—such as the growth of the state’s administrative

⁴⁵ Parieu, *L’union monétaire*, 1866, 17 as cited in Einaudi 2001, 289.

⁴⁶ On the national symbolism of a currency see Renan 1990 and Gilbert and Helleiner eds. 1999.

capacity, the rise of industrial capitalism, expanding fiscal needs of the state, and emerging nationalists sentiments. If Helleiner is correct and territorial money is only a 19th and 20th century phenomenon then the same should hold true of seignorage. If the state did not have exclusive responsibility to issue currency then it also would not have exclusive advantage to seignorage gains. But Kindleberger (2007) describes at length the seignorage gains *sought* by kings, princes, and bishops in issuing currency within their domains. It is also hard to reconcile Helleiner's ideas with the known coinage systems of the ancient world, particularly Rome and Byzantium whose coins reached far across their empires. Finally, as Davies (1994) notes, early coins found from the ancient civilizations of for example Cappadocia and Knossos between 2250 BC and 2150 BC show state guarantee of both weight and purity, and a state seal.⁴⁷ However, the monetary challenges to the post-Westphalian state system as a result of currency substitution indeed has been overstated. Helleiner aptly shows that currency substitution was widespread and common in the 18th and 19th centuries, and in no case did this challenge the state system. On the contrary, during this period the state system grew and consolidated itself eventually leading to national territorial currency.

A significant problem with Helleiner (2003) is his emphasis on the emergence of national territorial currencies in the 19th century. He writes: "The idea of nationhood flourished for the first time on a widespread scale during the nineteenth century, the same era that territorial currencies were first created in many parts of the world."⁴⁸ This is

⁴⁷ Davies (1994, 5) notes that even in ancient times, in both China and the Mediterranean "...coins were state-authenticated, more or less identical, and guaranteed symbols of value, with their authorization clearly indicated by the inscriptions they carried....the state played a dominant role in coinage in [ancient] China and although there were hundreds of mints, the state insisted on control and uniformity of standards." Davies (1994, 123) further notes in discussing the Celts, "In a number of instances we have learned of the existence of certain rulers only through their representation on their coins."

problematic not because it is the era when we see political unifications of several European countries that were formerly fragmented into sovereign political entities or under the jurisdiction of an empire. Naturally if there was no single national territory there could be no national territorial currency. Territorial currencies are *not* a new phenomenon in the contemporary world. National currencies are but so are nations. There were however local currencies issued by the sovereign political units that would later make up the states of Europe. Sovereign political units issue their own currency, whether these are called Principalities, States or Nations is another matter. Moreover, the 19th century saw two multi-national currency unions in Europe—The Latin Monetary Union and the Scandinavian Monetary Union.

The ability to regulate and enforce laws is and will remain in the hands of the state. There are fundamental cleavages between one group of authors who conclude that national diversities are likely to disappear and another group of authors who predict the long-term persistence of fundamentally different national models.⁴⁹ Helleiner (2003, 100-101) concludes “that 3 central features of nation-states may be challenged by the erosion of national currencies: their economic territoriality, the direct link between state and domestic society, and the sense of collective national identity that binds the members of nation-states together. Indeed, the erosion of national currencies is often made possible only because these features are being challenged already for various reasons.” “Perhaps the most obvious way that territorial currencies were seen to foster national identities was

⁴⁸ Helleiner 2003, 100.

⁴⁹ See for example the articles in Berger and Dore, eds. 1996.

through the imagery emblazoned on them.”⁵⁰ While Hobsbawm (1983) only briefly acknowledged that money is the “most universal form of imagery.”⁵¹

Throughout history the imagery changed to reflect the new sovereign. As republics replaced monarchs the imagery on money changed to reflect the new sovereignty of the people. The concept is not so new as is the underlying political organization of the political unit issuing the money. As people residing in Austria-Hungary knew they were subjects of the Emperor emblazoned on their coins, so the people of France knew they were citizens of the new republic after the revolution through their new money. The coin carries the face of the governor. Where An emperor governs it is the face of the emperor; where a king governs it is the face of the king. Where the people govern it is the face of the people through an image they select (be it a parliament house, bridge, president, or new design). This point is missed by Helleiner.

Helleiner and others argue mainly that it is modern global changes that are causing states first to lose control of national money and then elect to disband their monetary power. But this would presume that currency unions are entirely a modern phenomenon as well and that if they had occurred in the past it was for entirely different reasons. This assumption is flawed. The formation of the American monetary union of the 18th century, and the German, Italian, Swiss, Latin and Scandinavian monetary unions in Europe in the middle of the 18th century all challenge to a degree the notion that contemporary phenomena are what is forcing states into compromising monetary

⁵⁰ Helleiner 2003, 100-101. Helleiner points out that even recent writings on the sociology and culture of currencies ignores this issue. On the sociology or social meaning of money see also Dodd 1994; Zelizer 1994; Parry and Bloch 1989.

⁵¹ Hobsbawm 1983, 281 as cited in Helleiner 2003, 101.

sovereignty. Still, once formed, a single currency has a powerful unifying force among the people who share it. If only for the symbolic value, one would expect every state and statesman to fight to maintain the national currency even where its economic value were minimal. Yet all arguments of state monetary sovereignty point to an all too easy capitulation of the state to the powers of global capital markets in one way or another. It is not conceivable that a state would cut off one of its own arteries only because of international pressures to be responsible (there are really no international pressures to currency elimination; all capital markets look to is good economic management, as they define it, that promotes confidence in the capital markets). A state after all is not a drug addict so helpless from the pressure of kicking its bad habits that it allows itself to attempt suicide. Are we to assume that states no longer care about symbols of national unity? Are states so secure in their governance and existence that they can afford the luxury of losing a symbol or two? If states are so extraordinarily challenged by the environment we live in isn't it reasonable to expect them to cling to symbols rather than relinquish them? If states have no choice but to forgo such a strong unifying national symbol as a national money how can we expect them to meet government obligations on domestic and international fronts? Either the symbol is not so important, the loss is not so great, or the potential gain is so much greater that it would enhance state power rather than detract from it.

IV. Selected cases of currency union for this dissertation

Many of the topics discussed above that have been analyzed with respect to EMU, are likely to arise again in the 21st century as Asia begins to consider and debate a regional monetary solution of its own. At the end of the 20th century, Latin America has done the same, and in many cases is still debating the subject of a regional currency union with the United States through dollarization. But the story of currency unions does not begin with EMU. There have been other instances of various forms of monetary alliances and currency unions throughout history, even in Europe. It is especially noteworthy that there were four currency unions in Europe in the 19th century, yet currency union in Europe today is treated as a historical breakthrough, at least by most American scholars. Moreover, we in the United States need look no further than our own colonial and revolutionary past to see multiple independent political units each with a distinct “national” currency, coming together to form a single money, not out of nationalism but out of self-help for survival. The cases of currency union in America, in 19th and 20th century Europe, in Latin America and that proposed in Asia form the case studies for this dissertation. In the following section I review some of the literature that describes each case, and briefly consider whether some more prevalent theories of monetary integration or the state theory of money might have predictive power in each case.

Each succeeding chapter will consider the factors of anarchy, survival, and socialization for each set of cases in historical order beginning with the case most relevant for an American audience, the monetary union of the United States. However, in

order to engage the reader in how the literature presented above and the study conducted here may provide answers for outcomes in the future, in this chapter I begin with Asia.

A. The Asian Monetary Union Debate.

Asia is a case where monetary integration seems to be at the beginning stages of some form of regional multilateral alliance. The Asian financial crisis of 1997-98 led to discussions of regional monetary arrangements with initiatives toward currency union directly as a result of the crisis. Significant studies and initiatives were also advanced by Japan, which continues to support a regional arrangement. The final report of the Japanese Finance Ministry's Study Group for the Promotion of the Internationalization of the Yen indicated that a unified currency would increase financial and economic cooperation among ASEAN countries, Japan, China and South Korea. Haruhiko Kuroda, the Asian Development Bank (ADB) Japanese president, strongly supports increased financial cooperation in Asia and an eventual monetary union. In 2006 he launched an initiative for an Asian Currency Unit to be based on the 10 members of the Association of South-East Asian Nations (ASEAN) together with Japan, China and Korea (ASEAN+3) that already have limited monetary cooperation. The ACU, he said in a February 2006 speech at Harvard University, will not be "an official kind of currency unit like the Ecu." It would just be an indicator of exchange rates, with no exchange market intervention and no settlement involved." The ACU could, however, be a useful denominator for bond issues, and "could also help facilitate development of an Asian multi-currency bond market and a deepening of capital markets, which could help reduce exposure to external

shocks.”⁵² ADB officials say the initial purpose of the ACU will be to help monitor divergence between east Asian currencies and those of the rest of the world, as well as to analyze unusual moves by individual member currencies.⁵³

The debate has produced a small but growing literature from economists. Ling (2001) suggests that there exists scope among selected groups of East Asian economies for potential monetary integration, based on the conditions described by OCA theory. Bayoumi and Eichengreen (1994, 1999) find that supply shocks are symmetrical among two sets of countries—1) Japan, South Korea and Taiwan and 2) Hong Kong, Indonesia, Malaysia, and Singapore, where demand shocks are also symmetrical.

Kwan (1994) presents the case for adopting the yen as the anchor of east Asian countries. Eichengreen and Bayoumi (1996) review the optimum currency area arguments and cautiously conclude that the time is not ripe, for economic rather than political reasons. Williamson (1999) favors some degree of fixed exchange regime in the region and suggests the implementation of basket pegs as a way of stabilizing exchange rates. Coleman (1999) looks at another part of the broad region, Australia and New Zealand and concludes that for New Zealand the costs of a monetary union are smaller than often believed and the benefits larger, making it a viable, possibly desirable option. Kawai and Motonishi (2004) review the level of trade integration and show that by themselves the members of ASEAN do not trade much with each other, about 25% in 2003 versus about 18% in 1980; likewise, by themselves, the Newly Industrialized Economies (of South Korea, Singapore, Hong Kong and Taiwan) do not trade much with each other, about 17% in 2003 versus about 8% in 1980. But taking all these countries

⁵² Clift 2006, 3-7.

⁵³ *Financial Times* [Asia Edition] London, March 27, 2006, pp.2.

together with China shows a 40% level of intraregional trade in 2003, up from 20% in 1980. When Japan is added, intraregional trade rises to more than 50% in 2004 up from 35% in 1980. This is comparable to the EU figure of 60% of intraregional trade.⁵⁴ Kwack (2004) and Zhang et al (2004) find evidence of high correlations of demand and supply shocks, (although the correlations for Japan and China are somewhat lower), and in general, not much different from those across Europe in the early 1990s.

Asia's monetary politics has been largely ignored by the IPE literature with the exception of Henning (1994) who compared monetary policymaking between Japan, Germany and the United States, and notable recent exceptions of Grimes (2003) who discusses Japan's policy of internationalization of the yen as a matter of political and economic insulation from the United States and systemic instability; and Wang (2003) who discusses China's decision not to devalue the yuan during the Asian financial crisis as a matter of prestige. Important recent economic studies by Henning (2002), Kenen (2006) and McKinnon (2006) each focus on East Asia's financial and monetary cooperation since the Asian financial crisis. Henning (2002) considers the Chiang Mai initiative in some detail and concludes that an Asian monetary arrangement would provide benefits from for international stabilization finance and surveillance of exchange rate volatility. Kenen (2006) focuses on a regional monetary arrangement for Asia as a result of inadequate global solutions to financial instability. McKinnon (2006) examines how East Asia might achieve exchange rate security under a dollar standard.

⁵⁴ An important distinction between intraregional trade in Asia and that in Europe is the high component of raw materials trade in Asia. About half of intraregional trade in Asia is in raw materials and components for the manufacture of finished goods ultimately exported outside the region, for the most part. So indirectly and directly, East Asian countries still depend heavily on exports to the U.S. and Europe and so remain exposed to currency movements in the dollar and the euro.

Could unit level theories explain an Asian monetary union? It is not likely. Ideas on the subject are at the beginning stages of formation regionally. But where they are observed they reflect more a strategic, balance of power, rhetoric than an epistemological consensus. Regional institutions, such as ASEAN, are much weaker than the European Union, and much younger than other regional organizations such as those in Latin America, although regional trade and investment is growing. Domestic interests have generally not surfaced on the subject, at least not in the way Western scholars might expect to see them, as industrial lobbying, party platforms, official company statements and the like. But that does not mean they are not there. Still, if we cannot see them, we cannot analyze them. Some economists note that OCA theory can be applied, but as already discussed, this is not enough to predict state action. State theories of money would be inappropriate since there is neither the institutional framework to expect a federal type of development nor a deeper regional ethnic identity. Yet, Asia is today discussing the merits of regional monetary arrangements and, as the survey in chapter eight shows, influential segments of popular opinion are in favor of a currency union.

B. Dollarization in Latin America.

Latin America, like Asia and Europe, has been moving toward regional integration since the end of WWII. Beginning in the 1950's, regional economic integration became of high interest in Latin America giving rise to four institutional structures, the Central American Common Market, the Caribbean Common Market, the Andean Community, and Mercosur, each with distinct memberships, institutional arrangements and customs unions, all for the purpose of promoting intraregional trade.

An attempt was made for a LAFTA that quickly floundered. Mexico joined the U.S. and Canada in the North American Free Trade Agreement (but not a customs union or institutional structure). The institutional structures of Latin American regional groups include forums for monetary cooperation. The Andean Group, for example, has its own regional monetary and development fund. Also, discussions for regional currencies date back to at least the 1960s, when there was, for example, a failed attempt at a Central American peso. But it is dollarization that has received the most attention.

Following the collapse of the Argentine Currency Board and the near collapse of the Ecuadorean economy leading up to official dollarization, this monetary outcome became the subject of much interest in the region. While Argentina considered official dollarization amid its crisis following a proposal by former President Carlos Menem, Ecuador abolished its national currency and adopted the U.S. dollar as its currency in 2000 and El Salvador followed suit in 2001 (albeit without a preceding crisis of its own). Panama has been dolarized for decades.⁵⁵ The dollar is the medium of exchange in Panama, while the Panamanian currency (Balboa) is a unit of account and exists only as silver coins. These states have not only forgone monetary policy and national currency, they did so unilaterally and without negotiations indicating that even as Latin America has long been an informal 'dollar bloc', it also may be moving into formal currency union with the United States. Ecuador was the most dramatic example of a Latin American country turning to the dollar for economic prosperity, but other countries in the region have debated taking similar measures. A common disenchantment with national monetary policy emerges in these debates, often surpassing an equally vocal nationalism.

⁵⁵ For a Latin American perspective on the costs, benefits and results of the dollarization debate see for example Chang and Velasco 2001; Catao and Terrones 2000; Acosta 2000; Moreno Villalaz 1997; Moreno-Villalaz 1999; Gonzalez 2000.

Recent papers by Edwards (2001), Edwards and Hausman (2001), Berg and Borensten (2000a, 2000b), Bogetic (2000), Frankel (1999), Moreno-Villalaz (1999), and Calvo (1999) discuss some important characteristics of dollarized economies, where the costs mirror those of EMU in terms of a loss of monetary sovereignty, and loss of the monetary policy as a tool of economic stabilization. The benefits center on lowering inflation and interest rates, a long-term problem for Latin America.⁵⁶ Panizza, Stein and Talvi (2003) studied the potential costs and benefits of dollarization (or currency union with the United States) for Central America and found the benefits in terms of transaction cost reduction in trade and investment to be potentially large given the large costs associated with the present need to transact in two currencies. Benefits from credibility and reductions in inflation may reduce financial fragility as well.

Colombian economist David Khoudour-Casteras (1999) extracts similarities between the European monetary developments of the 1970-1999 period and Latin America that could be amenable to what he calls a Latin American Monetary System ("Sistema Monetario Latinoamericano). Cuban economist Manuel Castro Formento (2002) examines the possibility of a Latin American monetary union using EMU as a model, noting that the U.S. proposal of a Free Trade Area of the Americas, as well as dollarization, are inadequate at resolving the problems of underdevelopment in the region and, in the case of dollarization, may have a negative economic and socio-political effect. Formento (2002) finds that Latin American policymakers identify dollarization as a formula for resolving the problems of financial crises and underdevelopment. However,

⁵⁶ Ricardo Hausman, the former chief economist of the InterAmerican Development Bank, has been a vocal supporter of dollarization. See also Fratianni and Hauskrecht 2002; Eichengreen 1998; Edwards 2001. For the American perspective on dollarization see Schuler and Stein 2000.

reflecting nationalist sentiments throughout the region, Formento also argues that dollarization simply reestablishes in the beginning of the 21st century a new formula for slavery and neocolonial exploitation, this time enveloped under the powerful financial yoke of the U.S. dollar, from which it will be very difficult to depart once the assimilation of the dollarized monetary orders complete (a point also made by Helleiner 2006). Formento thus offers an alternative to dollarization in the form of a regional Latin American monetary union as a way to balance against the encroaching financial power of the United States. Regional integration and regional union is the only way to block the encroaching fortification of American hegemony.⁵⁷

Would unit level theories do a better job of predicting a Latin American monetary union? Possibly, although some might point to a regional currency rather than the dominant topic and trend of dollarization. Latin America has three regional organizations, each with a forty to fifty year history, multiple regional institutions, various treaty arrangements and a unifying Latin culture, which, although diverse from country to country, nevertheless provides a certain level of solidarity absent in Asia. All countries except Brazil share a common colonial past with Spain. And of course, except for Brazil, Latin America shares a common language in Spanish. Institutional theories might expect a spillover effect of regional integration into regional currencies, and state theories of money might offer some basis for the same. Domestic interests might point in the opposite direction, towards a national currency to protect domestic industry, and the home-grown ideas of import substitution might seem applicable in an environment of

⁵⁷ The left-wing turn in Latin American politics in the beginning of the 21st century, with leftist governments in Venezuela, Brazil, Chile, Bolivia and Ecuador, among others makes neo-dependency arguments more credible as representative of at least some popular opinion.

resurgent populism currently engulfing the region. The contemporary monetary debate, however, in many countries in Latin America is whether to dollarize or not. And while certain domestic interests may prefer a national currency, often more for nationalistic reasons than economic reasons, few are calling for a regional solution on any grounds, as is evidenced in the survey results in chapter eight. Those that do favor dollarization do so for reasons of financial stability and economic competitiveness rather than nation-building with the United States (which few want), institutional spillover (which does not exist). Some domestic interests, however, would likely favor dollarization and lobby for it based on their own personal gain from more trade with the United States. Survey results, however, show mixed results in this area with smaller proportions than not expecting gains from dollarization, even as they prefer it to a regional currency.

C. European monetary unions.

There is a large literature on monetary integration centered around the European Union experience which may be useful in presenting arguments in favor and against relinquishing the national currency.⁵⁸ The process was a rather long one commencing in the 1960's, not the 1990's. The Werner Report was not the EEC's first discussion of monetary integration. The Treaty of Rome had already acknowledged that the exchange rates of member countries should be regarded as a matter of "common interest." The revaluation of the Dutch guilder and the German mark in 1961 then prompted discussion

⁵⁸ Some prominent works include Padoa-Schippa 1994; Fry 1991; and Committee for the Study of Economic and Monetary Union, *Report on Economic and Monetary Union in the European Community* [the Delors Report] 12 April 1990. On earlier discussions, the snake, and the formation of the EMS see Tsoukalis 1977; Kruse 1980; Ludlow 1982; Coffey 1984; Ungerer, Evans and Nyberg 1983; Ungerer et al 1990; Ferri ed. 1990; Giavazzi and Giovannini 1989; de Cecco and Giovannini eds. 1989.

of how the customs union could be extended to the monetary domain. By the mid-1960s this had led to the creation of the Committee of Central Bank Governors.⁵⁹

But EMU is not the first time Europe attempted a regional currency union. There were two attempts at a broader European monetary union in the 19th century (and two more involving the formation of the nations of Germany and Italy). The Latin Monetary Union was formed in 1865 by France, Belgium, Italy and Switzerland. Greece joined the union in 1868 while Spain, Finland and Venezuela adopted the system without officially joining. The LMU adopted a coinage system based on the French franc as the unit of value. These nations agreed to accept without distinction, and to use as interchangeable, gold pieces not reduced in weight by natural abrasion more than 0.5%. Five-franc silver pieces conforming to certain conditions were also acceptable. While the unit of value was the same in each country, it was known by different names: franc in France, Belgium and Switzerland, lira in Italy, drachma in Greece (peseta in Spain, markka in Finland and bolivar in Venezuela). In effect the union ceased to operate after the outbreak of World War I and was officially dissolved in 1921, although Switzerland did not formally inform of its dissolution until 1926.⁶⁰

Einaudi (2000) shows that there was a lively debate in Europe regarding the merits of a Latin (as the British called it) monetary union, and that the arguments reflected a clash between sectoral and national interests as well as the state of economic theory at the time. A comparable alignment of interest groups emerged in France,

⁵⁹ For a discussion of the costs, benefits, and reasons of Economic and Monetary Union in the European Union see for example, DeGrauwe 1999; Overturf 1999; Giovannini 1995 Levitt and Lord 2000. Older treatments with much the same conclusions can be found in for example Economist Intelligence Unit Trends #3 1990-91; *One Market, One Money*, Commission of the European Communities 1991; Giavazzi et al 1988, and Giavazzi and Pagano 1988.

⁶⁰ For an extraordinarily detailed discussion of the Latin Monetary Union see Einaudi. 2001; for an earlier interesting account see Reddish 1993.

Germany and Britain, with the majority of economists and chambers of commerce in all three countries favoring monetary unification on the gold standard, while bankers in general were against it. However, he makes quite a different argument in various parts of the study. “The union”, Einaudi (2000, 287) says, “was a Latin European coinage agreement, formed to fight international speculation in silver divisionary coinage.” “By attempting to join the union, states with poor public finances wanted to facilitate their international trade, improve the standard of their internal currency, acquire monetary credibility, and gain access to international financial markets.”⁶¹ Ultimately, he concludes, those countries that joined the LMU were those that needed to improve their monetary position; Britain and Germany did not and so stayed out.

The Scandinavian Monetary Union was formed by Norway, Sweden and Denmark in 1873 in which the single gold standard and the same monetary unit were adopted—the krone. A Scandinavian Monetary Commission met in Copenhagen in August 1872 and an agreement to form a monetary union was signed in Stockholm in December 1872. The treaty was initially rejected by the Norwegian parliament, and so Denmark and Sweden formed a bilateral monetary union in 1873. Norway reconsidered and joined the union by treaty in 1875. The SMU was based on gold and adopted a common unit, the krona, equal to the old Swedish riksdaler, but notes (the favored method of payment in the region), coins and token coins of each member were accepted at par by every other member. The Swedish central bank accepted Norwegian and Danish notes at par from the beginning of the union, reciprocated by Norway in 1894 and Denmark in 1901.

⁶¹ Einaudi 2000, 288.

It is interesting to note that both 19th century European currency unions were formed during the period of the gold standard and British hegemony, presumably one of ‘hegemonic’ stability as is often described in IPE. Moreover, state theories of money cannot explain past currency unions that occurred precisely at a time the theory claims “nationalization” and “territorialization” was at its apex. They are equally weak in explaining the “national” monetary unions of Germany and Italy.⁶²

In Germany, the development of the Zollverein of 1834 can be interpreted as the first step toward political union through regional integration. However both modern and contemporary writers are skeptical about the wider political and economic effects of the German customs union, attributing political union to the political will of and use of military force by Bismarck.⁶³ Moreover, the adoption of a single currency in 1873 and the creation of a central bank in 1875 followed rather than preceded political union, and were created in the midst of financial crisis. Arguments regarding nation-building might be credible, except that the independent political units in Germany had made attempts at monetary agreement decades prior to political union, even as they resisted Bismarck’s onslaught. The standardization of coinage had been actively debated in the 1830s. In 1837 the Munich Coinage Treaty specified common standards for the gulden. In 1838 the Zollverein states agreed at the Dresden Convention that all states would choose either the gulden or thaler as their currency and accept the specific silver content provided by the convention, effectively creating a fixed exchange rate monetary system. The 1857 Vienna Coin Treaty gave the thaler legal-tender status throughout the Zollverein.⁶⁴ Germany

⁶² See James 1997.

⁶³ On this point see Borchardt 1973 and Lowell 1896 cited in James 1997.

participated in the International Monetary Conference of 1867 called by Napoleon III, where the Prussian delegate, Counsellor Meinecke and Germany's foremost economist, Adolf Soetbeer, representing the German Trade Assembly, both strongly supported the French monetary proposals, reflecting an eagerness by the industrial community to facilitate international business. Germany however did not join the LMU and, following the Franco-Prussian War of 1870-71, adopted its own Prussian-centered monetary standard creating the mark with the Coinage Act of 1873. The Act, however, allowed silver gulden and thaler coins to remain in circulation until 1907, and also stipulated that the faces of the various sovereigns of the formerly independent principalities and duchies that now formed Imperial Germany would remain prominently on one side of the new coins. Thus nation-building only takes us so far. The year 1873, however, is one of financial instability, culminating in the financial crash of 1873 (Grunderkrach) which might have had some influence in the timing of the new monetary union.

Italian unification, like the German, was born out of a series of wars from 1859 to 1870 led by Garibaldi of Piedmont (Kingdom of Sardinia). Before unification there were several different currencies in the Italian states—the Tuscan lira, Piedmontese lira, Austrian florin, Sicilian ducat, and the Papal scudo romano. The Piedmontese currency was bimetallic and tied to the French franc since 1817, while the Sicilian, Tuscan and Austrian provinces were formally on a silver standard. As in Germany, exchange rates among the Italian currencies fluctuated and monetary transactions had a multiplicity of regional weights and measures. Monetary union began after the 1859 war between Piedmont and Austria-Hungary, where the acquired provinces also acquired the

⁶⁴ On German monetary union see also Holtferich 1993; for monetary developments in Austria-Hungary at the time see Flandreau 2003 and Einaudi 2003.

Piedmontese lira. Foreman-Peck (2005) examines whether the states brought together in the Italian monetary union of the 19th century constituted an optimum currency area, and found little evidence, even negative correlations in economic shocks between North and South. The results are due to widely differing economic sectors, which, according to unit-level theories, would have had diverging sectoral interests from their Northern neighbours. Institutions for Italian integration, in contrast to the German Zollverein, were completely absent. And Northern Italian states were notorious for their disdain of the South and their preference for a strictly Northern Italian union. Thus unit-level theories and state theories of money present a problem here as well.

D. *American monetary union.*

Thus far, unit-level, constructivist and state theories of money have proven problematic in predicting currency unions in the case studies examined. Would they have predicted the American monetary union? State theories of money would likely argue that the American monetary union around the U.S. dollar was clearly an act of nation-building. However, they would have been wrong. There is no archival evidence that nation-building was the primary focus of America's financial founding fathers. McNamara (2002) also argues that nation-building was not a primary focus in America's early monetary history. Instead, the writings of Alexander Hamilton, Robert Morris, and Thomas Jefferson show a debate about the persistent need for facilitating commercial transactions, stabilizing the economy, and obtaining credit, while not being overshadowed by Britain.

An American money predated the American revolution. The issue of the Continental Currency was authorized at the very inception of the American national movement at the Continental Congress in Philadelphia May 10, 1775. Thereafter there were three kinds of paper currency: that issued by the states, that issued by the Continental Congress, and that issued by the States and the Continental Congress jointly. Thus the currency of the approaching new nation was not conceived as an exclusive right. This situation continued for a number of years. The Articles of Confederation adopted in 1777 (becoming effective in 1781 until the remainder of the revolution), gave Congress coordinate power with the states to emit bills of credit and regulate the value of money, but no power to levy taxes. Article IX provided that: "The United States in Congress assembled shall also have the sole and exclusive right and power of regulating the alloy and value of coin struck by their own authority or by that of the respective states—fixing the standards of weights and measures throughout the United States." Thus the states retained the power to coin money coordinately with the Confederation, and only the power to regulate its value was given to Congress.⁶⁵ The U.S. Constitution went into operation in 1789 giving the U.S. Congress monetary authority in Article I section 8 with the power "To coin money, regulate the value thereof, and of foreign coin, and fix the standard weights and measures" and "To provide for the punishment of counterfeiting the

⁶⁵ See Hepburn, 1924, 35. Hepburn (pp.13) also dismisses nationalism as a cause for currency union at the time. The Continental Congress, he argues, authorized the issuance of a continental currency not out of nationalism or nation-bulding or even a symbol of the revolution, but because it lacked both reserves and credit, and no other means of payment was available. See The Articles of Confederation on the U.S. National Archives & Records Administration website www.archives.gov. The draft of the Articles prepared by John Dickson and submitted to Congress on July 12, 1776 had given Congress "the sole and exclusive Right and Power of...Coining Money and regulating the Value thereof" but was removed from the final text approved by Congress on October 25, 1777. See Ferguson 1978, vol.4, 38 fn.5.

securities and current coin of the United States.”⁶⁶ While the Constitution created an American monetary union in reality this was not achieved immediately or easily.

The American colonies prior to the Confederation in 1778 had almost as many systems of money as there were distinct colonies. The issuance of the state bills was temporarily halted when in 1777 Congress required the states to desist in favor of the Continentals. But the states were reluctant to give up their ‘money-making’ powers and the issuance was resumed in 1780 following the collapse of the Continentals. Following 1789, although the states under the Constitution no longer had the power to coin money, they could charter private banks that could issue notes, and indulged widely in such chartering. Thirty-eight of these banks existed in 1800, 89 in 1811, 208 in 1815, 307 by 1820, 330 in 1830 and 704 in 1845. As if to increase the confusion, paper money of small denominations was issued by municipalities, by bridge and turnpike companies and other enterprises, and foreign coins maintained legal tender states.⁶⁷ Further, states resisted federal regulation of their currency system. The Coinage Act of 1792 provided that “all accounts in the public offices and all proceedings in the courts of the United States” had to be kept in conformity with the new regulations (i.e. Bimetallism, the decimal system and the dollar as official currency). In practice, the states were slow in adopting the new system. Massachusetts did so in 1794, New York in 1797; Maryland

⁶⁶ References to the emergence of territorial currency in the United States as a matter of national policy for the first time in the 18th century are incorrect. The Constitution of the United States set the monopoly issue of money with the federal government. What circulated during this time were bank notes, resembling more what today might be commercial paper or letters of credit. That these were traded actively and held as a store of value more frequently than U.S. currency is a statement in the confidence of the national currency but not a disaffirmation of its existence.

⁶⁷ While the plethora of individual bank notes in circulation created confusion and fluctuations in the money supply, they were not the legal tender issued by the government of an individual state. What determined the outcome was the Constitutional provision for a federal monopoly on currency issuance as the creation of an American monetary union.

designed as late as 1812 to pass an “Act recognizing the coin of the United States and the value of foreign coins as established by the Acts of Congress of the United States”. And New Hampshire, whose 1784 constitution provided for the establishment of the shilling as the monetary unit did not do away with the Constitutional provision until 1948. Similar resistance was offered by the American people. Americans had reckoned in dollars before 1792, and the change from the Spanish to the U.S. dollar was generally ignored.⁶⁸ The foreign coins remained in circulation and the more important among them, especially the Spanish (including the Mexican) dollars were declared by Congress on February 9, 1793 to be legal tender. Acceptance of foreign coins as legal tender, however, like the issuance of bank notes, does not alter the decision to refrain from issuing a sovereign currency by an individual state and does not confer any benefits on the state allowing the foreign currency circulation as would a sovereign currency.

Adoption of a single currency for the new United States was a long process subject to multiple proposals and slow consideration by Congress. Thus official monetary studies and experiments were spread over 14 years after the Declaration of Independence. The first congressional interest in a mint arose early in 1777 and a committee on money and finance formed in 1778 chaired by Robert Morris and including Thomas Jefferson and Alexander Hamilton. But the original proposal for a U.S. currency was not even one commissioned by Congress. On January 7, 1782 Congress directed Robert Morris (or *the Financier*, as he was called because of his banking expertise and prominence), to determine the value to be assigned to foreign coins received in taxes and report to them a table of rates at which the foreign coins then circulating in the new United States should

⁶⁸ Nussbaum 1957, 55-56, 64-66.

be exchanged at the treasury. Instead of reporting the subject assigned to him, he took the opportunity to introduce a plan for an American coinage system setting the groundwork for an American monetary union centralized in the federal government and Congress. The report dated January 15, 1782, was drafted by the Financier's assistant, Gouverneur Morris, recommending the adoption of a monetary system with a silver standard and based on the Spanish dollar to promote commerce and financial stability.⁶⁹ Congress laid the proposal aside until Robert Morris sent a letter to Congress on April 30, 1783, further urging adoption of the monetary unit he had proposed a year earlier. Nothing more was done until 1784 when Congress formed a committee on the subject that included Thomas Jefferson. Jefferson saw merits to Morris's proposal but also a major flaw—it was “too minute for ordinary use, too laborious for computation either by the head or in figures. The price of a loaf of bread 1/20 of a dollar would be 72 units.”⁷⁰ Jefferson proposed an alternative system based on decimalization to better promote commerce and financial stability, but also recommended introducing the Spanish milled dollar as the monetary unit since it comprised most of the coins in circulation already. On January 17, 1785 Congress appointed a ‘grand committee’ to consider Morris's proposal. Following correspondence between Morris and Jefferson made available to Congress, and further debate, Jefferson's plan was unanimously adopted on July 6, 1785. The Mint Act was

⁶⁹ As Morris put it: “If Congress are of Opinion with me, that it will be proper to Coin Money, I will immediately Obey their Orders and establish a Mint; and I think I can say with Safety, that no better Moment could be chosen for the Purpose than the Present; neither will any thing have a greater tendency to restore public Credit.” See Robert Morris letter to the President of Congress (John Hanson) 15 January 1782, Ferguson 1978 vol.4 37, 30-38. Morris had made earlier allusions to the need for a mint in a letter to Benjamin Franklin dated 13 July 1781. Jefferson also proposed the U.S. adopt the Spanish dollar because it was in such high circulation already. Morris noted that it was the most stable of all monies circulating at the time. The astute reader might note that this meant the United States would be the first state in the Western Hemisphere to *officially dollarize*.

⁷⁰ Thomas Jefferson, autobiography written January 6, 1821, reproduced in Peterson, ed. 1984, 46-47.

passed in 1786. However in 1790 in his *Report on the Subject of a Mint*, Hamilton as Secretary of the Treasury, was still arguing for a single American money, which Congress that debated it “with painful slowness”.⁷¹ Eventually, and with the direct support of President George Washington, the Coinage Act of 1792 was adopted. The Coinage Act officially adopted the dollar as the American unit of account, laid out the decimal subdivision of the currency, officially established a bi-metallic standard based on 371.25 grams silver or 24.75 grams of gold, declared that both gold and silver coins would be unlimited legal tender three years after the American coins came into circulation, and set-up a national mint in Philadelphia. The Philadelphia Mint began issuing coins in 1794. The new American coins did not have full unlimited legal tender status until 1797 when President John Adams proclaimed that all foreign coins except the Spanish dollar would cease to be legal tender. Thus, for 10 years following the first assembly of the Congress of Confederation, over 15 years after the end of the Revolutionary War (in 1781), and more than 20 years after the Declaration of Independence the United States of America was not a monetary union under a single currency. Had nation-building been a factor in creation of an American monetary union, Congress would have acted quickly to produce one, the legal tender status of foreign coins would have immediately been revoked, proposals would have emphasized a national spirit rather than commercial transactions, and met with little resistance.

⁷¹ For various accounts of American monetary development especially colonial and early American currency see for example Davies (1994) especially the section of American Monetary Development Since 1700 pp.455-546. The seminal study on American monetary development is perhaps Friedman and Schwartz 1963. Officer (1996) discusses Anglo-American monetary history from 1791 to 1931, and devoted a chapter to early American monetary development. For earlier historical studies focused on the United States see Dewey 1934; Del Mar 1899. For the most detailed study on the American colonial monetary system see Brock 1975. One recent study that discusses American monetary union in comparison with EMU is found in McNamara 2002.

V. Concluding Remarks: Why a structural theory of currency unions is important.

The vast literature on different aspects of the international monetary system, briefly explored above demonstrates the breadth of the field, but does not address the problems identified in chapter one. In each area I noted how a select few cases are over-identified, while several others are barely considered at all. Unit-level analyses provide some insight into the specific cases they examine, but fall short of addressing systemic interaction or predicting recurring outcomes. Systemic theories based on efficiency arguments fail to take into account issues of state sovereignty and ultimately are deficient in providing convincing predictive power since they assume systemic outcomes are synonymous with systemic attributes. A number of studies, mostly from economists, describe the need for states to form monetary groups—monetary alliances, to borrow Cohen’s phrase—in order to better protect their economies from the crisis-prone globalized financial order, maximize autonomy from monetary coercion (which is all too real), and perhaps even move up the monetary hierarchy. Yet not a single study frames this discussion using structural theory, even when they are lamenting the burdens of structural power. Finally, the specific recurring outcomes of currency unions and financial crises remain under-analyzed by IPE scholars, leaving the state out of an area historians at least consider crucial to state formation and identity—money.

That government makes decisions based on “commonsense”, “economic efficiencies”, “natural choice”, “logical progression” is paradoxical. In no other topic of discussion would scholars of political science, or a layman for that matter, choose to refer to a government decision in those terms. The idea that states would enter into a currency

union for efficiency alone is hard to fathom. If that were true then scores of bureaucratic and inefficient government programs would be eliminated and political science would not have a vast literature on government inefficiencies. The notion that states would enter into a currency union because of political ties is also problematic. We can be friends without handing over a slice of sovereignty. Why not eliminate foreign policy as well? Why can't friendly nations share a foreign ministry, a diplomatic corps, or a pension system?

Helleiner (2003a) believes that if national currencies are being called into question today, some causes are likely to be found by exploring the extent to which these earlier historical processes, and the historical structures that they created, are being transcended and transformed. That is, “[a] challenge to the currency is a challenge to the nation-state.” This still does not explain why the nation-state capitulates. Capital markets can still be regulated to stop their influence on macroeconomic figures. Yet states are making a conscious decision, a choice, in favor of limiting monetary policy as opposed to limiting capital mobility. Limiting national power as opposed to international capital. Why? Economics provides a clear answer—for economic efficiency. Economic gains to trade are greater than economic benefits of independent monetary policy. A single currency with trading partners and/or a stable currency for the rest of the world is good business. This would be a sufficient answer if a state were no more than a manager of domestic interests and not an actor in its own right. Even if we accept that a currency union is beneficial to a significant domestic constituency—certain business interests---we have yet to show that it is an appropriate action for the state, especially when relinquishing the national currency relinquishes national power. That the state is not

simply a manager is clear in the plethora of activity in Washington and other capitals by lobbyists attempting to influence state policy and extract favorable actions. The other side of the argument is that there may be more than one constituency in favor of a currency union. Yet this too is not enough. Popular opinion in Europe was opposed to the euro. A considerable portion of citizens in a number of European countries opposed the idea of abolishing their national currency in favor of a European currency, and in other countries only a minority supported the euro. According to Eurobarometer, at the end of 1996 a majority of citizens in Denmark, Sweden, the United Kingdom and Finland were against the introduction of a single currency. On average in these countries about 60% were against the euro, 30% were in favor and 10% held no opinion. In Austria, Germany and Portugal support for the euro was less than 50% of the citizens. For the EU (15) as a whole 51% favored the euro, 33% opposed and 16% had no opinion.⁷² In contrast many citizens and businesses in Latin America are in favor of a currency union with the United States but states are opposed despite increasing informal trends toward unofficial dollarization. An overwhelming majority in ASEAN member nations would prefer a regional currency, and states there show some discussion of a movement in that direction.

There is another aspect of the importance of money to the state. Finance is intricately woven into the creation, development and maintenance of the modern nation-state. The state needed not only to fight and to trade, but also to borrow to survive (Kindleberger 1984; Mann 1986), something America's founding fathers knew all too

⁷² European Commission 1997, Eurobarometer Public Opinion in the EU Report #46, Brussels; and report #47 in 1998.

well.⁷³ But where its ability to borrow is severely restricted or costly at least partially due to the low confidence of the market in its monetary institutions and value of its currency, it would be rational for the state to consider a measure that would alter these circumstances in the very interest of survival. Thus if my cost to borrow decreases with a currency union with a powerful money, then my chances for survival improve. Such a policy then would be a tactical calculation rather than a capitulation to creditors, be they the international financial markets, international organizations or individual countries.

The above discussion shows that, although the international political economy literature on monetary affairs is voluminous and growing in important areas, there is still room for an alternative explanation of monetary outcomes that is offered by an application of Waltz's structural theory. In addition, despite many important contributions, the present literature exhibits certain flaws that structural theory might not. The academic significance of this dissertation lies in addressing gaps in the current literature in terms of lack of comparison, lack of formal proof across time and space, and lack of system theory in international political economy's treatment of monetary integration, by utilizing what seems eminently applicable but oddly absent, Waltz's structural realism.

⁷³ The need for credit is also very prominent in the papers of Robert Morris, Alexander Hamilton and Thomas Jefferson in the period 1780-1792.

Chapter Three

Waltzian Economics

Structural realism is applicable to international economic relations in matters of money and finance independently of military effects. This represents progress in both international relations and economics as neither presents a structural theory of power as a social concept affecting economic relations. Structural realism applies to economics in the pre-eminence of competition and power in international relations and economics and the parallels of anarchy, threat and survival, socialization, self-help alliances and concern for relative capabilities. These comparisons become most evident in international monetary and financial relations. In this chapter I examine the fit of structural realism with international economic relations. The chapter is divided into five sections. Section I discusses the need for a unified social science concept of power. Section II discusses the relationship of economics to national power in an open economy and presents a simplified model that is further elaborated with empirical testing and survey data in chapters seven and eight. Section III revisits Waltz and discusses how Waltz's conceptions of anarchy, threat and survival, and socialization apply to international finance. Each of these main tenets of structural theory is further elaborated in subsequent chapters. Section IV pays particular attention to the central nature of competition in politics and economics. Section V discusses progress in international relations and how an application of structural theory to international political economy can be progressive. The positive outcome is what I call *Waltzian economics*, after the founder of neorealism.

I. Towards a unified concept of power.

Political science has frequently borrowed from economics, and in some instances mathematics, in formulating theories to explain the world of state relations, elections, trade agreements, and diplomacy, among others. We can think of rational expectations, the gains from trade, maximizing utility, Pareto optimality, and Nash equilibrium. Yet political science has rarely crossed the boundary to contribute to economics. Here we can think of bounded rationality, but little else. This is perhaps an aberration since in the real world of government and commerce one realm cannot function without the other. One notable gap in economics, which perhaps can begin to be filled by political science is the social concept of power as an organizing principle.

Despite a voluminous literature on monopoly power, market forces, oligopolistic competition, and dependency, power as a social concept, has by and large escaped study in modern economics, both in the discipline itself and in political economy. As already mentioned in chapter two, a few scholars have addressed the issue of power in IPE in the past, notably Susan Strange (1983, 1986) in monetary relations and Albert Hirschman (1945) in trade relations, and a few are beginning to revisit the issue with a particular focus on monetary power, notably Kirshner (1995), Kirshner et al (2003) and Andrews et al (2006), while Cohen (1977, 1998, 2004) has repeatedly referred to a hierarchy in the international monetary system implying structural power. Some realists argue implicitly that economic policy decisions are related to power politics; in this regard we can think of hegemonic stability and structural power theories. Yet they rarely develop a comprehensive understanding of how well their concepts translate into the economic

realm and so fail to develop a parsimonious theory with predictive power.⁷⁴ Thus the treatment of power in IPE remains fragmented and underdeveloped.

In economics, the study of power as a social concept is practically virgin territory. In one of the few studies on economics and power available, Randall Bartlett (1989, 3) laments the inability of economics to incorporate the important concept of power, a defining principle in social relationships for millennia. It is an aberration, he says, that the “self-declared queen of the social sciences” does not have a concept of power: “There is as yet no well-structured theory of power in economic relationships...Nor is there a coherent vision of power in other social sciences that can be readily transplanted to an examination of markets and human relations.” International political economy has a similar problem perhaps resulting from its heavy borrowing of economic theory that lacks power analysis. However it is incorrect that no unifying theory in the social sciences can be used to analyze power in economics. Waltz’s theory of structural or systemic realism, which redefines the balance of power in state relations in terms of survival, is such a theory. In fact, recent contributions notwithstanding, Waltz is the most applicable theory of power to economics because Waltz emphasizes the need for alliances for protection, not necessarily attack or domination, as do many economists (notably Mundell, Cohen, and Eichengreen as already noted in chapters one and two), and competition for capabilities, as economists emphasize competition for resources

The other area that has escaped economics is real integration of the state in policy. “One of the most important intellectual limitations of economics,” says Gilpin (2003, 56)

⁷⁴ One very recent exception is Brawley (2004) who identifies international economic policies associated with the five essential balancing strategies: external balancing, internal balancing, bandwagoning, buck-passing and appeasement, and the conditions that lead states to pursue such strategies. This study however focuses entirely on converting wealth into military assets.

is its neglect of the role of the state in economic affairs and especially in international economic developments...Economists formulate laws of economic behavior on the assumption that markets count and states do not.” IPE seeks to fill this gap, however, even within IPE economic policy decisions are frequently analyzed simply using the economic efficiency models related to that area. If a policy is economically efficient then IPE generally shows how politicians saw that benefit and acted on it or how market actors demanded it (or opposed it) producing pressure on governments for action, broadly speaking. This reasoning however is flawed on at least two counts: 1) it assumes that states act to improve efficiency, an idea contrary to much academic scholarship and popular opinion on the functioning of government; and 2) it assumes that governments do not also act in their own interests apart from pressures of constituencies, again contrary to academic scholarship on government which shows the state, as well as individual state institutions, taking on their own personalities as independent actors.⁷⁵ Every economic policy decision is a political decision, and political decisions always weigh efficiency against power on a scale where efficiency never wins. An economic application of structural theory might also integrate the state in a resource maximizing framework economists can easily understand.

Where many political scientists borrow economic theories in formulating their own political economy concepts, I would like to lend a political science theory to economics. I propose that companies actually act like states or that companies and states alike, act to secure survival in a competitive environment. A unified theory of power applicable to economics and politics could be stated as follows:

⁷⁵ Skocpol 1985, ch.1 in Evans, Rueschemeyer and Skocpol, eds. 1985.

Independent actors within a system characterized by a certain level of uncertainty act to minimize losses and maximize gains for themselves by first protecting themselves from harm and then competitively advancing their relative position; both goals are achieved by maximizing relative capabilities (however they are defined) alone or with allies.

This notion is directly derived from neorealism and equally applicable to state actors in either international politics or international economic relations, but also to economic actors (firms or individuals) in a market economy.

To begin to make this point, I discuss structural theory in relation to monetary affairs, and the outcome of currency unions. To do this, structural theory must first be shown to be broadly applicable to international economic relations. The purpose of this chapter is to explain this position by demonstrating the fit between Waltz's theory and economics, hence the title.

II. Power in an Open Economy

What do currency, exchange rates and monetary policy have to do with power? The question is highly relevant. In discussing relative capabilities of states, we are effectively discussing state power. For neorealism to apply to monetary affairs it must first be shown that monetary affairs affect power through relative capabilities. Money is a source of power and currency is a mechanism for the exercise of that power, and not simply a medium of exchange in commercial transactions as has been argued since Adam Smith.⁷⁶ This is true to the extent that it provides independence of action to those who possess it. If power ultimately is defined by independence of action then that which

⁷⁶ Smith, 1776, *The Wealth of Nations*, Book I Chapter IV "On the Origins of Money".

bestows independence bestows power. A brief discussion of traditional definitions of power will clarify this position and allow a derivation of a simple power equation in an open economy.

1. Definitions of Power

There are as many definitions of power as there are of the national interest in political science and although the conception offered by Robert Dahl⁷⁷ is the one most utilized, there is little agreement as to which is THE definition of power. Given this ambiguity I reserve the opportunity to pick a favorite or two. I prefer one offered by Max Weber (1947, 152): "Power is the probability that one party in a social relationship will be able to carry out his will despite resistance." This implies a certain amount of independence which also arises in structural theory. Waltz (1979, 192) defines power by "the old and simple notion that an agent is powerful to the extent that he affects others more than they affect him". Power is not simply sought to influence others but to secure insulation from the influence of others. It is first the capability to get everyone to do nothing, or the ability to be immune to others' actions whether they are attacks or mistakes. Frequently, individual actors are not in a position to secure such insularity on their own. This is a position reserved for the most powerful. For most, power and independence can come only in connection with others, either the pooling of power among the weak or the borrowing of power from attachment to the strong. Standing alone does little good. This is the essence of balancing or bandwagoning.

⁷⁷ Dahl (1963) defines power when A gets B to do something it might not otherwise do.

a. Power in economics

In economics the study of power is in a 'prescientific state', argues Bartlett (1989). This seems like an odd statement considering multiple references in all types of economic relations of the power of one group over another in the marketplace. But after close consideration it becomes clearer that power discussions in economics are as fragmented (perhaps more so) as those in IPE--always specific to a particular situation where the analysis is not fungible to other economic relationships in other situations, unlike most political science theories which are broad and encompass the discipline. Moreover, where power is considered in economics it is usually in the context of monopoly power or labor relations.

Marxism of course considers power a great deal but exclusively as it relates to class conflict, class hierarchy, or class-captured states. A more modern interpretation is often found in labor relations. Mercantilism defines power in terms of gold (and exports) and encourages hoarding. In *Capitalism and Freedom*, Friedman (1962) says power is coercion, or the absence of voluntary trade. Markets are collections of voluntary trades and hence power and markets are mutually exclusive. Governments do not exercise voluntary trades and thus exercise power. Markets thus equal freedom while government equals coercion, broadly stated. For Galbraith (1952, 1983), American capitalism has been a system of countervailing power where organized interest groups struggle and ultimately cancel each other out. While important discussions of one aspect of power in economic relations, none of these, is applicable to a broader range of issues. However, economic actors might fully understand independence. With independence they might be free to avoid exploitation, engage in voluntary trades, price their goods as they wished,

and stay in business. In such a definition, markets and governments might not be diametrically opposed, but similar actors seeking similar outcomes.

b. Power as independence

Most often treated as a relational variable, power is defined in terms of outward motion, that is, how can I influence others.⁷⁸ The flip side of that coin however is how to keep from being influenced. It would seem that maintaining freedom from influence, coercion, bribes, threats or any forced behavior (however it might be induced) is also desirable and a source of power. If the situation is divided into the actors and reactors, it is far more favorable to be in the position of actor as frequently as possible and in the position of reactor as little as possible. “[T]he strong have many more ways of coping with adversities than the weak have,” argues Waltz (2000, 54) “and the latter depend on the former much more than the other way around.”⁷⁹ The key always is to be on the stronger side of the fence. Maintaining control over one’s fate is a source of power. In this regard, any loss of national sovereignty is considered bad because it limits action. This would then be an argument against any formal alliance that ties one to another. But where action is already limited and threats abound, states in international politics have found that there is safety and strength in numbers. In international monetary affairs, economists have also similarly noted that where monetary action is already limited and

⁷⁸ Despite some discussion of structural power in international political economy, even the most recent treatment of international monetary power by Andrews et al (2006) primarily considers power as a relational variable. For a discussion of power as causation see for example Herbert Simon 1957; James March 1955; Jack Nagel 1976. Also useful in a discussion of a social concept of power is Harold Lasswell and Abraham Kaplan 1961.

⁷⁹ In this passage Waltz is referring to security affairs after the Cold War, but the statement could just as easily describe economic affairs in the age of globalization, which is the main theme of the article. For a similar argument see also Waltz 1999, 683-700.

vulnerability to financial crises abound, states have safety and strength in numbers, through a currency union or a monetary alliance.

Power is independence, the capability to act independently of external pressure, and is directly proportional to the relative capabilities a state possesses. Today, the richest country in the world is also the most powerful and most independent, and it is the one with the most coveted national currency. As Waltz (2000) says, “the United States is truly blessed. Precisely because the United States depends relatively little on others, it has a wide range of policy choices...”⁸⁰ Power and independence are inextricably tied together. Neither I, nor Waltz, are alone in this argument. Specifically discussing power in international monetary relations, Cohen (2006, 32) gives an almost identical argument:

“Influence, is not the only relevant meaning of power...A state is also powerful to the extent that it is able to exercise policy independence—to act freely, insulated from outside pressure in policy formulation and implementation. In this sense, power does not mean influencing others; rather, it means not allowing others to influence you—others letting you have *your* way. A useful synonym for this meaning of power is autonomy...Logically, power begins with autonomy, the internal dimension. Influence, the external dimension, is best thought of as functionally derivative—inconceivable in practical terms without first attaining and sustaining a relatively high degree of policy independence at home.”

Defined by independence, power pervades all aspects of state relations (economics and security) both at peace and at war, whether states are revisionist or status quo. As E.H. Carr (1939, 105) noted: “It is necessary at this point to dispel the current illusion that the policy of those states which are, broadly speaking, satisfied with the status quo and whose watchword is ‘security’ are somehow less concerned with power than the policy of the dissatisfied states, and that popular phrase ‘power politics’ applies to the acts of the latter but not to those of the former...power politics are equally

⁸⁰ Waltz 2000, 53.

predominant on both sides.” Even those states satisfied with the status quo and their relative position are no less interested in achieving and maintaining the capacity for independent action which in all social relations is directly related to relative capabilities.

Power as independence also contrasts with notions of interdependence.

Hirschman (1945) argued that while economic interdependence may be characterized by mutual but unequal dependence where economic power arises from the capacity to interrupt economic relations, while economic ties among states almost always involve power relations. Keohane and Nye (1977) distinguish between “sensitivity” interdependence and “vulnerability” interdependence, definitively weighing in on the former as the distinguishing factor of the present world economy.⁸¹ A fully independent state would be neither “sensitive” nor “vulnerable”. While few can be fully independent, as all are at least partially sensitive in a global economy, in order to achieve maximum autonomy states (like any systemic actors) must and do seek to minimize vulnerability in any arena of interaction.

2. Measurements of Power

The greater problem is how to empirically measure power and thus know which action will produce more or less of it. In economics, power is not measured, but market strength of corporations is usually some function of total revenue qualified by factors such as sales growth and debt structure; and for states economic strength is largely a function of gross national product (GNP), frequently qualified by infrastructure and growth. In politics, national power has been measured by a score of both tangible and intangible factors. Resembling Morgenthau (1967), Waltz (1979: 131) suggests that

⁸¹ The idea of interdependence was actually first discusses by Waltz 1970.

capabilities of states can be ranked according to “how they score on all of the following items: size of population and territory, resource endowment, economic capability, military strength, political stability, and competence.” Morgenthau (1967:114) directly ties economic capacity to war-making ability that has stuck ever since. “What gives the factors of geography, natural resources, and industrial capacity their actual importance for the power of a nation is military preparedness.” A much broader set of indicators is produced by Cline. For Cline (1975, 1977, 1980), the calculus of national power includes “nuclear weaponry and its potential for the deterrence of war, non-nuclear arms and forces, economic capacity, and economic resources, the size and location of territory, the nature of frontiers, the populations, the raw-material resources, the economic structure, the technological development, *the financial strength* [italics added], the ethnic mix, the social cohesiveness, the stability of political processes and decision-making and, finally, the intangible quantity usually described as national spirit.”⁸² He further notes that coherence in formulating concepts of national purpose and the degree of consensus expressed as political will substantially alter the way military and economic power can be used. Carr (1939, 108) noted that, “political power in the international sphere may be divided into three categories: a) military power, b) economic power, c) power over opinion. We shall find however that these categories are closely interdependent; and although they are theoretically separable it is difficult in practice to imagine a country for any length of time possessing one kind of power in isolation from the others. In its essence power is an indivisible whole.” If power is an indivisible whole, then one might

⁸² Cline 1977, 33. Cline’s power equation is as follows: Perceived Power = {CRITICAL MASS (population + territory) + ECONOMIC CAPABILITY + MILITARY CAPABILITY} x {STRATEGIC PURPOSE + WILL TO PURSUE NATIONAL STRATEGY}

expect states to be equally concerned with each of its parts and so seek to maintain and augment both military and economic capabilities. And, Nye (1990, 2004) might add, worldwide public opinion manifested as the intangible but influential quality of 'soft power'.⁸³ Baldwin (1979, 161-74) focuses on scope, weight and domain and finds that the observation that a state has a great deal of capability begs two vital questions—'capability to get whom to do what?' I would argue that this question is not always relevant. First one seeks independence from coercion, then, perhaps, the capability to coerce, but not necessarily.

Wolfers (1962) relates power to purpose: "Let us suppose that a government has picked its objectives and also has decided to rely on the accumulation and use of power as the chief means of reaching its goal... Does it not stand to reason—provided the government in question is acting rationally—that it would seek to preserve or acquire as much power as appeared adequate to assure the success of its policy?" Why then do we assume that a state would relinquish a piece of that power by giving up monetary policy for the sake of efficiency? This would not be rational unless that state had reason to believe that another aspect of its power equation would rise accordingly.

⁸³ The term itself was coined by Nye in 1990. While certainly an important consideration for any state seeking to exercise influence, soft power however is far less necessary for a state to remain free from influence. For independence, it is the tangible capabilities that matter most, and money is one of those capabilities as it has a direct effect on national income accounts. Even the intangible "confidence" that financial markets bestow on a currency is based on hard data, or purports to be. For these reasons, soft power is not further treated here.

3. Deriving A Single Power Equation.

From the above discussion we can derive a simplified equation of national power as combining in aggregate form four important factors that most scholars who have considered the matter seem to agree are key: income, arms or military capacity, population, and political stability. Technology reflects the skill of human capital and is an element in national income, represented through investment. Population is partially reflected in the size of the armed forces and in the size of national income. Diplomacy is at least partially related to political stability, since unstable states would have little bargaining power.

$$\text{POWER} = \{\text{INCOME} + \text{ARMS} + \text{POPULATION} + \text{POLITICAL STABILITY}\}$$

Because population is already a factor in the size of national income and military expenditures (ie. more guns for more soldiers), and because political stability, at least stable democracy, is directly related to a large middle class⁸⁴, itself a derivative of national income, we can further simplify as follows:

$$\text{POWER} = \text{INCOME} + \text{ARMS}$$

From basic macroeconomics we know that economic strength as measured by national income is equal to the sum of consumption, investment, government spending, and the trade balance.

$$\text{INCOME} = \text{GNP} = \text{Y} = \text{C} + \text{I} + \text{G} + (\text{X} - \text{M})$$

Combining two prominent equations, income from economics and power from politics we can see clearly how the two are directly related, one subsumed within the other.

$$\Rightarrow \text{POWER} = \{\text{C} + \text{I} + \text{G} + (\text{X} - \text{M})\} + \text{ARMS}$$

⁸⁴ On the relationship of democracy to a middle class see Barrington Moore's seminal study, *Social Origins of Dictatorship and Democracy*. While removed here for greater simplicity, both population and political stability are included as variables in various regressions on the power equation in chapter seven.

If stronger money leads to an increase in investment (I), for example, this leads to an increase in INCOME. An increase in INCOME leads to an increase in POWER, all else being equal.⁸⁵ From chapter two we know that currency unions can have a positive effect on national growth by expanding trade and that the effect is robust in the long-run simply by increasing (X-M) without considering the effects of increased trade on consumption, investment or government expenditures, and without considering the effects of an open economy on monetary indicators. However most, if not all, states in the international system are affected to varying degrees by international financial movements through its impact on national income. From economic analysis we also know that unstable exchange rates can lead to a slowdown of both trade and economic growth detrimental to national income, and so national power. Omitting the effects of an open economy on national income also omits the effects of monetary indicators on national power. It is necessary, therefore, to adapt present conceptions of national power to incorporate open economy monetary indicators, something the economics discipline did several decades ago with the Mundell-Fleming model.

a. Adding an open economy to calculations of power

The Mundell-Fleming Model⁸⁶ by introducing foreign trade and capital movements demonstrated that the effects of a state's stabilization policy hinge on the international mobility of financial assets and depend crucially on the exchange rate

⁸⁵ Those familiar with trade theory might note that a weaker currency may also increase income by making exports cheaper and imports dearer. However, this only works well if a country exports more than it imports (that is, for a larger, less open economy). For a small open economy a weaker currency might actually decrease income if imports constitute a larger share of the trade balance, and further decrease income if it dampens investment.

⁸⁶ Developed independently by Fleming (1962) and Mundell (1963, 1968) with important modification by Dornbusch (1976) who added the concept of exchange rate overshooting.

regime. In terms of international political economy, this draws some important conclusions:

- 1) A state's economic capabilities will depend in large part on its monetary relationship with other states, represented through the exchange regime. This will be more critical for states with relatively small and open economies.
- 2) A state's domestic economic policy cannot be created without taking into account the economic policies of other states as they may affect trade and capital flows.
- 3) Relative economic capabilities matter, and they are strongly affected by the exchange rate (which, in turn, is strongly affected by other states).

Because national economic policies are made by states (however they may be influenced), the international state system underlies the Mundell-Fleming Model. By Mundell-Fleming we know that the economic policy actions of other states can increase or decrease domestic trade, increase or decrease the domestic exchange rate, increase or decrease the domestic interest rate, and increase or decrease domestic capital inflows and outflows. And the effect may be large or small depending on the relative size of the resources mobilized by any state's economic policy actions. The relative size of resources mobilized, in turn depends on the relative economic size of the state taking action (say, the United States) and the relative economic size of the state affected by the action (say, France, or Korea) or the rest of the world.

Essentially, Mundell-Fleming highlights the importance of the exchange rate on national income. As an important intervening variable to national income, it then also becomes an important intervening variable to national power, both conceptually and

through a simple algebraic derivation. From the discussions above, we can derive a simple equation representing national power capabilities in an open economy as follows:

Where political scientists have traditionally defined power as essentially money and arms, we have: **Power = Income + Arms**

From basic macroeconomics we understand that income is defined by the aggregate income demand, we have: **$Y = C + I + G + (X - M)$**

From Mundell-Fleming we add the important factor of the exchange rate as a determinant of aggregate demand and so national income: **$Y = G + A(Y, r, e)$ and $D + R = L(L, r) \quad r = r^*$**

Combining all three we have:

$$\mathbf{Power = C + I + G + (X - M) + Arms}$$

$$\mathbf{Aggregate Demand = C + I + (X - M)}$$

$$\mathbf{Power = G + Aggregate Demand + Arms}$$

where, Aggregate Demand is affected by income, interest rates and the nominal exchange rate, $A(Y, r, e)$.

Substituting $A(Y, r, e)$ for Aggregate Demand to take Mundell-Fleming into account we have the following:

$$\mathbf{Power = G + A(Y, r, e) + Arms}$$

By Mundell-Fleming, **A** equals aggregate demand and depends on interest rates (negatively), exchange rates (positively in a one country model in flexible exchange rates; positively for the lead country **A**, but negatively for country **B** in a two country model under flexible exchange rates) and national income (positively); **D+R** represents the money stock and equals domestic government bonds (**D**) and reserves (**R**) and **L**

equals demand for money (based positively on national income and negatively on the interest rate). Where r increases, Y decreases where Y decreases **POWER** decreases. In an open economy, e , the nominal exchange rate is not determined only by national policy but by outside actors, especially the state whose currency is the numeraire of the international monetary system. The exchange rate then becomes a variable embedded within the national power equation allowing national power capabilities to be directly, and immediately, affected by other state actors. A graphical representation helps to clarify this.

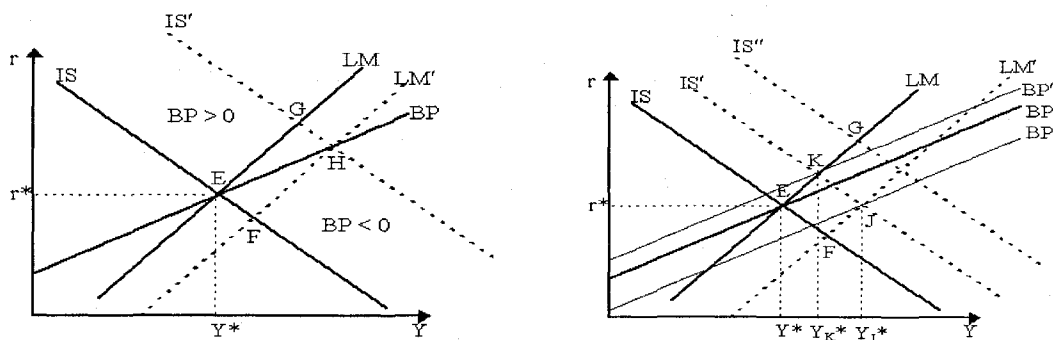


Figure 1. Mundell-Fleming IS-LM with flexible exchange rates, small open economy, one country model; following a fiscal shock, money supply and balance of payments shift to bring the economy back to equilibrium.

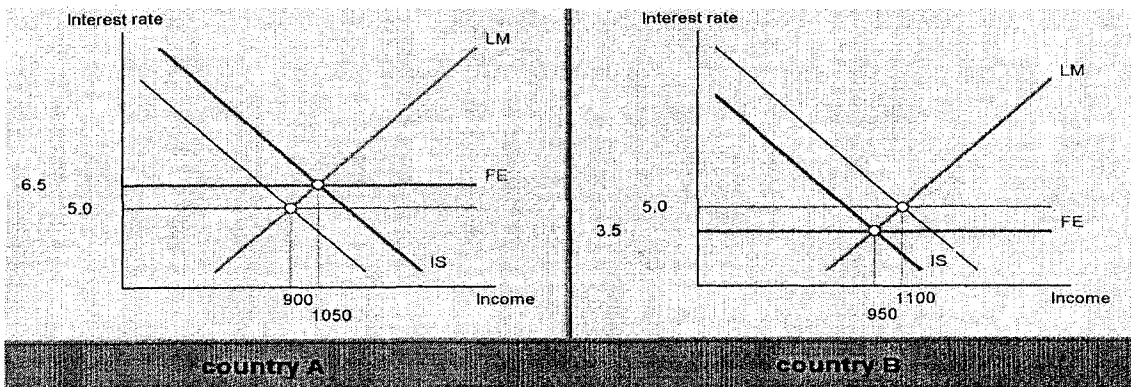


Figure 2. Mundell Fleming IS-LM with flexible exchange rates, two-country model; graphs show effects on income if the exchange rate, e , increases, note how income rises in country A but falls in country B.⁸⁷

⁸⁷ For a good interactive demonstration of the effects of the exchange rate on small open economies in a two country model see <http://www.fgn.unisg.ch/eurmacro/tutor/2countrymundellfleming.html>

Under perfect capital mobility, domestic and foreign financial assets are perfect substitutes, and arbitrage in financial markets will bring parity between the domestic and foreign interest rates (given static expectations about the exchange rate) by spurring capital inflows and outflows where interest rates diverge. Where exchange rate expectations are dynamic, interest rates will diverge and exchange rate expectations will play a crucial role in determining the size of the spread and so the cost of capital to domestic borrowers (private sector and government alike). Typically, as the exchange rate increases (or depreciates), the domestic interest rate rises, dampening investment and national income. The stabilization instruments G (fiscal policy) and D (monetary policy) are exogenous variables controlled by the state. However, the exchange rate affects both the interest rate, and through it, money demand, money supply, and aggregate demand directly and indirectly through its effect on interest rates (which in turn affect aggregate demand). In this it affects national income and so national power, as defined here. Moreover, the exchange rate also determines currency reserves, R, one of the two components of the money stock.

The question then is, if states can use the exchange rate to expand relative capabilities and power, why relinquish it? My answer here is that not all states have that capacity by themselves. Mundell-Fleming shows how states are integrated in the international economy, and what one state does affects another, where the larger states affect the smaller states more but are affected less themselves. Where states have large financial capabilities the exchange rate can be used independently to expand national power; where they are relatively small they cannot.⁸⁸ From a basic national power

⁸⁸ Chapter five on 'threat' emphasizes this point.

equation, the specific individual tools of government policy are unimportant. It is only the ultimate effect of government action on the aggregate power indicators that matters. Thus it would seem that an action which eliminated a government policy tool (as a currency union eliminates national monetary policy) but expanded national income would have a positive effect on national power. In the power equation presented here, that outcome which minimized volatility of the exchange rate and the level of the interest rate would maximize aggregate demand and so power. And a more powerful nation means a more powerful government. Is there a statesman alive that would not prefer to lead a more powerful nation rather than a less powerful one given a choice? This then would mean that where states were thought to act contrary to the expectations of balance of power theory by submitting to a policy which took away one of their governmental tools (as they do in a currency union) they were in fact acting well within the tenets of power relations! This is a paradox for neoliberal and constructivist interpretations of currency unions and monetary cooperation, indeed for any economic cooperation. But it is neatly explained by neorealism. There are two ways we can think of that could save this paradox and falsify the realist interpretation presented here: 1) a case where states acted to eliminate an important policy tool the effect of which did not produce any economic gains, and 2) where market actors demanded a policy which limited government action but produced no market efficiency gains. Neither case makes much sense conceptually, nevertheless both are conceivably possible.

b. currency and capabilities

If we define power as independence, and we understand that in monetary affairs independence is contingent on the effect of the exchange rate as determined by the actions of other states, then it is easier to see how power is maximized by minimizing the influence other states have on economic indicators through the exchange rate. This is best achieved by large and relatively closed economies, with more relative economic capabilities, by definition. Power relations in economic affairs do not have to be about aggression. As Waltz defines neorealism, states seek power for survival in uncertainty. This is not about beggar-thy-neighbor policy but security policy, making one's economy safer in an uncertain environment, attracting friendly capital and repelling unfriendly speculation. In this quest money is an important factor. As Mundell (1973, 149) noted, "The exchange rate is but a price but it is not a price like the price of cabbage. It is a special price which establishes the goal of monetary policy, provides a basis for expectation of future policy and this links the national money as a unit of account to the international price level." Money is not just a medium of exchange or a facilitator of trade. While of course it does play that primary role, money also factors into national income accounts by affecting inflation and interest rates, consumption and government spending, investment and savings. The level of a country's currency does not only affect the price of exports and imports, but also debt-to-income ratios, net debt payments as a percentage of national income (GNP), international credit ratings, ability to attract foreign investment, capital inflows and outflows, and interest rates of new and existing borrowing. All of these affect income and in affecting income by definition also affect national power. And because currencies are determined *relative* to other currencies, the

direction of a currency change (either up or down) will affect national economic capabilities *relative* to other countries (as well as absolutely). Whether states use the economic gains for the purchase of military capabilities or other capabilities becomes a domestic policy decision. As Cohen (2004, 1) notes, “though seemingly technical in nature, the management of money in fact is anything but neutral in its implications for the distribution of wealth and power across the globe. Whoever controls money gains access to real resources—goods and services of all kinds—which in turn are key to attaining economic and political advantage.”⁸⁹ In other words, money bestows relative capabilities, and therefore has a position in determining national power. Because monetary variables are shown to be integral to a national power equation, this opens the door for an application of structural theory to monetary affairs.

III. Waltz Revisited

That the exchange rate is embedded in the power equation still begs the question, how does neorealism apply to economics or international political economy? This section addresses this question by examining anarchy, threat, and socialization in monetary affairs. First, however, a review of structural theory is in order with an eye to its broader

⁸⁹ Cohen (2004, 21) goes on to argue that currency does indeed affect national power. “But is state power correspondingly augmented for countries with more competitive monies? At first glance there seems no doubt. The broader a currency’s functional domain, the easier it should be for its issuing government to exploit the fiscal benefits of seignorage. Not only is the domestic monetary monopoly protected, but now foreigners, too, can be turned into a source of revenue to the extent that they are willing to hold the money outside the country of origin. Expanded cross-border circulation generates the equivalent of a subsidized or interest-free loan from abroad—an implicit transfer that represents a real-resource gain for the economy as a whole. Economists refer to this as international seignorage, in order to distinguish it clearly from the more traditional domestic variety. International seignorage can be quite considerable in practice, as the historical experiences of both the pound sterling and the dollar have amply demonstrated. But international seignorage can be exploited only so long as a currency retains its competitive superiority in the marketplace—an advantage that can never be permanently guaranteed.”

application. Waltz presents a theory of how the international system constrains state behavior, including a theory that explains the recurrent formation of balances of power. The international system is divided into structure and units. The structure is defined by three characteristics: the anarchic nature of the international system, the functional similarity of the units, and the distribution of capabilities across the units. The units, states, are treated as rational actors.⁹⁰ Anarchy is defined as the absence of a central authority or government.⁹¹ The anarchic nature of the international system means that it is a permissive environment in which states are free to do whatever they can. The main constraint on what states can do is the limit of their own capabilities. This permissiveness also implies that an anarchic environment is one of self-help. Because there is no higher authority or centralized government, there is no place a state in trouble can go for aid. Other states may for a time share its interests and lend a helping hand, but ultimately a state can depend on no other unit but itself. The permissive nature and self-help character of the international system in turn means that relative power differentials become important. The ability of a state to defend itself or to accomplish its goals depends on its relative power. The international system thus constrains and socializes states to care about relative gains—to monitor and safeguard their relative standing.⁹² The preoccupation with relative gains prompts states, at a minimum, to try to prevent others from gaining over them. In addition to relative gains, the existence of threat to survival

⁹⁰ Each of the elements of Waltz's theory continues to be criticized. See for example Keohane 1986; Baldwin 1993; Wendt 1992.

⁹¹ Waltz 1979, 114. For similar definitions of anarchy see also Lake 1988, 21; Oye 1986, 1; Stein 1991, 4-5; and Gilpin 1981, 27-28.

⁹² Waltz's argument spawned yet another debate about the correct characterization of state's concerns with relative gains as well as the importance of that concern. See the discussion among Grieco, Snidal and Powell 1993.

plays a central role in shaping the prospects for conflict and cooperation in the international system. Finally, states compete for scarce resources and relative standing.

Anarchy, relative gains and threat have been analyzed almost entirely in the military realm. The notable exceptions are Grieco (1995) on the European economic and monetary union, Andrews (1994) on anarchy in finance, Mastanduno (1992) on Japanese telecommunications, and earlier by Hirschman (1945) on trade and dependence. The accepted position in the modern international relations literature up until now has been that power has no real place in the economic realm. While this seems to be beginning to change, there is still a resistance to applying structural theory in IPE. *However, there is no well-developed reason why the effects of anarchy, threat, socialization and the corresponding concern with capabilities as presented by structural theory should be different in the economic realm.* If the logic of anarchy inextricably leads to the effects above, then those effects should be evident in both the economic and military realms. Because according to the balance of power theory the anarchic nature of the international system leads states to balance (Waltz 1979, 118), asking whether states balance in the economic realm is a way of asking if the permissive nature and self-help character of the international system influences state behavior in the economic realm in the same way that they do in the military realm. Moreover, to the extent that studies have not attempted a Waltzian application to economics, its robustness cannot be rejected.

Waltz argues that the formation of balances of power follows more or less directly from the anarchic nature of the international system. He begins his balance of power theory with assumptions about states, stating that: “they are unitary actors who, at a minimum, seek their own preservation and, at a maximum, drive for universal

domination. *States, or those who act for them*, [italics added] try in more or less sensible ways to use the means available in order to achieve the ends in view...To the assumptions of the theory we then add the conditions for its operation: that two or more states exist in a self-help system, one with no superior agent to come to the aid of states that may be weakening or to deny to any of them the use of whatever instruments they think will serve their purposes.”⁹³ A state’s relative power determines its ability to achieve its own goals and influence the behavior of other states. Thus although Waltz does not assume that all states pursue relative power, his theory implies that any state who wishes to survive will, to the best of its ability, try to increase its own relative power and to limit the relative power of other states. Waltz states clearly that it need not “be assumed that all of the competing states are striving relentlessly to increase their power.” But those states that ignore the systemic imperative and do not pursue relative power “will fail to prosper, will lay themselves open to danger, will suffer.”⁹⁴ Waltz’s explanation of the formation of balances of power thus differs significantly from balance of power theorists who argue that states explicitly act so as to create and maintain balances of power.⁹⁵ For Waltz, balancing behavior comprises any action that increases a state’s relative power, because it is the interaction of such actions by all states in the system that lead to the formation of balances of power. In neorealism, unbalanced power is itself a threat, because of the anarchic character of the international system and the

⁹³ Waltz 1979, 118.

⁹⁴ Waltz 1979, 118-119. Of course one can always risk suffering with inaction or even choose to suffer, and thus be called neutral or heroic, or, alternatively, lazy and foolish.

⁹⁵ See for example Kaplan 1957.

insecurity it produces.⁹⁶ This incorporates structural power. Applying Waltz to trade, for example, Martin (1997) shows that the American perception of a threat from Great Britain did not rely on a belief that Great Britain had decided to destroy or coerce the United States. Rather, policies that Great Britain followed in its own self-interest were seen to be damaging to the United States, regardless of whether or not Britain intended to inflict such damage.⁹⁷

a. criticism one: structural theory and psychology

Two interesting criticisms of Waltz are offered by Robert Jervis in considering whether neorealism is a progressive theory. First, Jervis (2003) notes that Waltz fails to take into account the different predispositions in individual leaders (who are after all human beings, with all the psychological ramifications) for bellicosity or conciliation and the possibility that certain pairs of leaders, for reasons of personal affection or disaffection will be more prone to cooperate or not. Jervis is correct. Structural theory does not take psychology into account; it is a theory of state interaction at the system level, not personal interaction among statesmen. But neither do neoliberal or constructivist theories in IPE take psychology into account. For example, if bellicose leaders are less likely to cooperate in international politics regardless of relative capabilities, then they are also less likely to cooperate in international economics, yet

⁹⁶ Waltz 1979, 105.

⁹⁷ Other options to balancing are standing alone or bandwagoning. Schroeder (1994) shows that states need not necessarily balance; they may also ignore or try to hide from a threat, attempt to 'transcend' a threat through international institutions, or bandwagon by allying with the state that poses the threat.⁹⁷ Although he adds that states are rational actors operating within an external environment of competition and opportunity and shows that bandwagoning is consistent with premises of power, threat and net gain. Standing alone, balancing and bandwagoning might be considered as outcomes on a single continuum of options for states, based on relative capabilities. This alternative interpretation is considered in chapter five.

they are assumed to be more cooperative in the latter by unit-level theories. Psychology does not allow one to have a type A personality (call it aggressive) when dealing in security affairs and a type B personality (call it conciliatory) when dealing with economic affairs—unless of course the statesman is a schizophrenic! Similarly, personal affection or disaffection among pairs of leaders should work in the same direction on all issue areas, not just one. Freud might agree, and go further to point out that we are all consumed by an aggressive, greedy ID on all matters practically all the time, where love and cooperation are simply masks for want. Thus criticisms of structural theory on the basis of psychology cannot be taken seriously until they are also applied to neoliberal institutionalism and constructivism on the same basis.

b. criticism two: structural theory and democracy

Secondly, Jervis (2003, 282) argues that Waltz fails to differentiate between democracies and non-democracies where leaders of democracies are presumed to think differently than authoritarian leaders, and with strong socialization effects among democracies.⁹⁸ It is not quite clear that the evidence in economic affairs would substantiate Jervis' criticism. One would presume that this different mindset covers all state actions, economic and military. Thus we would expect to see democratic states having fewer trade disputes with each other, for example, while they might have more trade disputes with non-democracies. But WTO dispute resolution mechanisms shows that the vast majority of these are between the United States and the members of the European Union, arguably the strongest democracies in the system. Whether the

⁹⁸ Jervis 2003, 282 in Elman et al.

democracy-authoritarian divide would hold in financial disputes is unknown due to the lack of an international dispute resolution mechanism in finance. Still, I would venture that it would have little effect. What states argue over in trade is relative resource and capabilities distribution. Where their economic agents are hurting states are unlikely to refrain from argument for the sake of a leader's predisposition to 'be nice' or 'like the other guy'. As Machiavelli noted, a man is more likely to forgive the death of his father than the loss of his property, and thus advises *The Prince* never to take people's property if he wants to avoid being hated. Where money is at stake friendship quickly goes out the window and each state quickly mobilizes to get the most it can for itself.⁹⁹ It may even be true that in economics more than in security affairs, states are less inclined to cooperate where their interests are not served. The major difference is that in economics hard bargaining is considered a good thing, while conciliation is always bad. Quite the opposite is frequently true in security. Structural theory asks how a state is likely to behave given its placement in international politics and leaves the study of intra-state differences to be separately done. It does not dismiss intra-state differences; it simply does not address them, just as unit-level theories do not address systemic structure.

⁹⁹ This may sound quite materialistic, but where the reader might object to such an argument rightfully arguing that so many other things are more important than property, certainly family, he might also want to consider whether he still recalls debts owed to him but never repaid.

IV. Structural Theory and Monetary Affairs

Having established that 1) monetary variables affect relative power capabilities, and 2) neorealism may provide an alternative framework to explaining outcomes in international economic relations, I proceed to briefly discuss each of the main tenets of structural theory as they might apply to the area of monetary affairs and the outcome of monetary alliances or currency unions. Each is further developed in succeeding chapters accompanied by case study evidence from currency unions in America, Europe, Latin America and (proposed) in Asia.

1. Anarchy, Cooperation and Absence of Government.

Anarchy in international politics consists in the absence of an overarching governmental structure to ensure the security of all states. This uncertain situation compels states to fend for their own security and survival by seeking an increase in their capabilities (or power) and self-help alliances arise as a response. Thus the first necessary condition for structural theory to predict a monetary alliance is the presence of an anarchical monetary system. In international economics the state is challenged by both market forces and other state actions, frequently with no recourse. This is especially true in monetary affairs where foreign states directly affect domestic income through the exchange rate, as demonstrated by the Mundell-Fleming model discussed above. It is interesting, then, that it is in economics where many IPE scholars frequently argue that state action is restricted by global forces, that anarchy is also so frequently ignored.

a. finance and uncertainty

Anarchy is most prevalent in international finance. It is common in international relations literature for scholars to lament the loss of the monetary sovereignty of states by highlighting the expansion and unforgiving nature of market forces, particularly international financial markets.¹⁰⁰ The conventional view labeled by Andrews (1994) ‘the capital mobility hypothesis’, is that the growing world-wide integration of financial markets—financial globalization—has effectively cost states their traditional monetary autonomy. Most dramatic in this debate has been work by Susan Strange (1996).¹⁰¹ “Some of the fundamental responsibilities of the state in a market economy”, argues Strange (1996, 14), “are not now being adequately discharged by anyone. At the heart of the international political economy, there is a vacuum ... What some have lost others have not gained. The diffusion of authority away from national governments has left a yawning hole of non-authority, ungovernance it might be called.” In a similar vein, Cohen (1998, 2003) describes how states no longer control the demand for the currency they issue and must compete with other states for the allegiance of financial market agents, a competition increasingly relentless since the removal of capital controls in most countries and the growth of offshore markets. Typical descriptions of the international monetary and financial system are “unexpected volatility”, “wide swings”, “wild fluctuations”, “speculation”, “uncontrollable”, “crisis-prone”, “producing economic

¹⁰⁰ There are those who make a counter-argument, that is they dispute that globalization has led to erosion of national sovereignty and point out that states still maintain the monopoly over issuing money. See for example Dodd 1994 and 1999, 182-198.

¹⁰¹ See also Susan Strange 1982, 337-54; and Strange 1986 and 1998. It is noteworthy that very few non-American scholars have been positively inclined toward regime theory or involved in its development. See Rittberger ed. 1993.

disruption”, and “non-system”. It might also be called *anarchy or an anarchical international environment*.

Waltz (2000) and others disagree over the extent to which national action has been compromised under globalization. However Waltz (2000) also agrees that finance may be the only economic sector that is truly global where financial capital moves freely about most states.¹⁰² Therefore, if we were to observe neorealist alliance formation, these should be visible in an anarchical environment, such as international finance.

b. ineffective regimes and lack of government

At least since Bretton Woods, the international economy has seen the rise of international regimes formed for the stated purpose of reducing uncertainty, minimizing transactions costs and preventing market failures. These are assumed to be able to function even without a hegemonic leader by redefining national interests and taking on a life of their own.¹⁰³ Essentially, the desire for cooperation is assumed, and regimes and institutions are supposed to solve the prisoner’s dilemma that inhibits cooperation.¹⁰⁴ One needs to be careful, however, not to confuse the existence of institutions as equivalent to effective institutions. There may be a plethora of institutions in a given area but with

¹⁰² The debate over the extent of national autonomy under globalization is well argued in the articles in Berger and Dore eds. 1996. See also Weiss 1998.

¹⁰³ Keohane 1984.

¹⁰⁴ The classic statement of the problem of cooperation under uncertainty is presented by Axelrod 1984. See also Lipson (1984) who argues that the situational context is crucial to achieving cooperation in a repeatedly played PD, and, further, that this context is significantly different in economic and security issues.

limited capacity to resolve real problems for most states. In such a case states would still be left to fend for themselves as if the institutions did not exist at all.¹⁰⁵

The lack of an effective governance structure is especially problematic in international monetary affairs where, despite a plethora of discussion forums and monitoring agencies, there is no formal dispute resolution body as there is, for example, in the World Trade Organization. The International Monetary Fund is authorized to monitor the international monetary system to ensure that no state is engaging in adverse activities that may destabilize the system (that is, no beggar-thy-neighbor policies). But because its only enforcement mechanism is its financing ability, its advisory reports need only be heeded by the indebted seeking fresh funds. Moreover, the advisory policies typically address one state at a time, and not relations among two or more states. The IMF has no authority over the markets or individual market actors, and has never issued an advisory report on say, George Soros or JP Morgan Chase.

Those monetary institutions that do exist, may even be making the system more unstable. Crises are allowed to happen while bail-outs are at the mercy and strict terms of the lenders.¹⁰⁶ The harm is almost entirely borne by the victim while benefits accrue to the predator market agents and post-crisis lender in the form of profits and interest. Tight control of monetary and fiscal policy—what Krugman (2001b) calls “root-canal economics”—is central to the adjustment programs demanded by the IMF in return for its financial assistance, while austerity programs often lead to depressed growth, greater

¹⁰⁵ On the constrained sense of economic competition see J. Hirshleifer 1977, 1978.

¹⁰⁶ And often at the mercy of the United States, as Waltz (2000) points out.

income inequality, and increasing numbers of people below the poverty line.¹⁰⁷ Recent economic research demonstrates that financial liberalization espoused by the multilateral financial institutions actually increases the probability of serious systemic crisis.¹⁰⁸ Strange (1983, 1986, 1998) and other critics have alleged that such international regimes as those governing trade and monetary affairs had been economically, politically and ideologically based in America's favor, and that these regimes were put in place by American power, reflected American interests and were not (as American regime theorists have argued) politically and economically neutral. This theme was recently revisited by several scholars in Kirshner et al (2003) and Andrews et al (2006). Andrews (2006) and Henning (2006) for example, argue that in direct contrast to trade, formal negotiations on international monetary coordination among key states have been few and far between. And when they did occur it was frequently under the threat or use of the "exchange rate weapon" to pressure states "into making policy changes without the benefit of formal negotiations or as a prelude to official meetings that were typically brief and decisive."¹⁰⁹ International political economy scholars appears to have discovered what international security scholars have known all the time, that there is no sovereign government at the global level to enforce law and order, and that systemic forces both constrain and shape state action. It would seem likely to expect states in such an environment to seek self-help.

¹⁰⁷ On this last point see Przeworski and Vreeland 2000, and Madrick 2001.

¹⁰⁸ See Williamson and Maher 1998, and Eichengreen 2004.

¹⁰⁹ Andrews 2006, 97.

c. hegemony and hierarchy

Some may argue that international monetary affairs does not need a regime, but a hegemonic leader, and to the extent it has one it is a hierarchal system with a certain amount of order, not an anarchy. The theory of hegemonic stability posits that the leader or hegemon assumes provision of certain public goods, acts as lender of last resort, facilitates international cooperation and prevents defection from the rules of the regime through use of side payments, sanctions, and/or other means but can seldom, if ever, coerce reluctant states to obey the rules of a liberal international economic order.¹¹⁰ Hegemony however is not only insufficient, but may even add to systemic disorder.

Hegemons may be followed, for a time, but not loved. As Pauly (2006, 185) recently noted, “few follower states have in fact ever demonstrated a complete willingness simply to trust systemic or regional leaders to maintain macroeconomic policies consistent with their own preferences. Certainly since 1945, key follower states in the middle of the pyramid of international monetary power have always insisted on taking out insurance.” Pauly tellingly quotes Louis Rasminsky on the Canadian position towards Bretton Woods: “Our commitment to multilateralism mainly had to do with the desire to have a buffer between us and the United States. Negotiating head to head with them was never enjoyable.”¹¹¹ This might have been expected. “Superiority fosters the

¹¹⁰ The public goods associated with a liberal international economy include an open trading system and a stable international monetary system. “In short, functions of a leader are capital lending, creation of a foreign exchange regime, macroeconomic coordination, maintaining open markets, and being the lender of last resort.” Kindleberger 1995, 62. See also Kindleberger 1978, 1981, 1987, 1988, 1984.

¹¹¹ Pauly 2006, 192, author’s interview with Rasminsky August 11, 1993. Louis Rasminsky managed the Canadian Foreign Exchange Control Board during and immediately after World War II, played an important role in the drafting of the Bretton Woods Agreement in 1944, served as the first Canadian director of the IMF Executive Board, was deputy governor and from 1961-73 Governor of the bank of Canada.

desire to use it”, says Waltz (2004).¹¹² Conybeare (1987) argued that the optimal strategy for a hegemon would be to extract as much from the system as it could; becoming a “predatory hegemon” paid dividends. Krasner (1983) and Gilpin (1987) both have argued that the hegemon created a liberal international economy primarily to promote its own interests and its political/security interests in particular.¹¹³ Even if a hegemon is not “predatory”, the beneficiaries can, and often do, resent their benefactor. Stability can still mean dominance. Hegemonic stability theory does not argue that other states will find this politically acceptable or that they will not desire and covet the position of hegemon themselves. It assumes that challengers will be slow in coming because of inertia effects and as regards monetary affairs, by the inherently high transactions costs involved in a global shift of numeraire. It does not suppose however, that balancing or bandwagoning will not be attempted. Moreover, it recognizes the power-enhancing effect of being the global financial hegemon—a net positive effect on national power reinforced by the monetary stability it promotes.

Andrews (2006, 92) defines international monetary relations as “a hierarchical state of affairs” where “the weak typically accommodate the policies of the strong without receiving reciprocal concessions.” While “monetary policy coordination takes place primarily on the basis of passive leadership by the strong—sometimes called

¹¹² The quote is from an article adapted from the introduction of a recent edition of *Theory of International Politics* and appears in Waltz (2004, 5).

¹¹³ Some important criticisms of hegemonic stability theory are Conybeare 1984; Lake 1993; Snidal 1985; Milner 1997, 24-25; McKeown 1983; and Eichengreen 1989, 255-98. Note that while refuting HST in monetary relations Eichengreen finds a positive association between hegemony and trade liberalization. On this point see Eichengreen in de Melo and Panagariya, eds., 1995, 120-21. In the same volume (pp.122-27) Mancur Olsen concludes, “thus the world works better when there is a ‘hegemonic’ power—one that finds it in its own self-interest to see that various international collective goods are provided.” Mundell has pointed out that the stability of the international monetary system is dependent upon a dominant power. Frey (1986) has argued that public choice theory suggests that it is impossible for public goods to be provided if there is no hegemon.

“benign neglect”—and unilateral adaptation by the weak.” But this does not mean that the weak do to aspire to be stronger. Indeed, given this utter subordination they are more likely to actively seek gains in relative capabilities than in any other arena. Hegemony and hierarchy also damage any prospects of cooperation under a regime. An analysis of iterated PDs suggests several vital elements of stable cooperation in international affairs: 1) the actors’ perceptions that they are interdependent and that their decisions are mutually contingent; 2) a timely capacity to monitor and react to one another’s decisions; 3) a strong interest in the long haul; and 4) moderate differences between the payoffs for cooperation and defection.¹¹⁴ However, if any one of these elements falters, all bets are off. In international monetary affairs, the leader, who derives maximum benefit from passive inaction, really only has an interest in monitoring; while the rest of the world, conversely, has little monitoring ability but possibly large payoffs for defection. Hegemony essentially means unipolarity, and is as unlikely to remain stable in international monetary affairs as it is in international politics, it creates a preponderance of power that breeds discord not harmony, particularly if others feel the burden of subordination.

Andrews (2006, 104) defines passive leadership in terms of hierarchy and subordination. “Parties that are better prepared to endure discords’s consequences will often be able to avoid those consequences, either altogether or in part, simply by inaction, thereby obligating their more vulnerable partners to adapt their policies instead....because states vary substantially in the range of outcomes to which they are indifferent and because international monetary relations are strategic in nature (exchange

¹¹⁴ Lipson 1984, 65. It is worth noting that these elements apply just as well to alliances as to institutions or regimes, with the primary difference that alliances are exclusive to the group for its protection against some specific ‘other’ and an institution or regime is inclusive.

rates being mutual phenomena), variation in vulnerability normally translates into bargaining power.” Far from a cooperative system, Andrews argues that the costs of adjustment in the international monetary system are disproportionately borne by those states with weaker relative capabilities who assume an asymmetrical adjustment burden. Rather than ordering the international monetary system, therefore, hegemony adds an element of threat that states are likely to balance against, just as they would in international politics.

2. Threat and survival and allies

Even considering the disproportionate burden of adjustment in a hegemonic international monetary system, can we say that there are threats to state survival in the system? My answer is that it really depends on how threat and survival are defined. The concept of threat, at its most basic, involves the idea of doing harm. Frequently, this is associated with physical harm. But there is another way of looking at it. In game theoretic terms, one can think of one player posing a threat to another when she has the ability to negatively affect the other player’s payoff. An economist might liken this to negative opportunity costs, or negative expected value for the targeted player; either way it is a loss. Removing the restriction of physical harm, threat may be simply defined as that which adversely alters the status quo for an actor. In political relations a threat may be to a state’s territorial integrity, population, diplomatic standing, or independent action. In economic relations a threat may be to a state’s market access, capital access such as sovereign lending, diplomatic standing, and independent action. Survival in political relations refers to both physical and diplomatic existence of a state. Survival in economic

relations refers to economic welfare. Although the boundaries of threat and survival are different in the political and economic realms, it is its existence not its defining parameters which affects state action. Where states perceive a threat to their survival they will act for self-preservation, whatever that threat may be and however it affects them. Where do threats come from? Just as they do in international politics, threats in international economics arise partially from human nature but mostly from systemic structure.

a. considering human nature

International relations theory, despite multiple disputes, can at least agree that within an environment of uncertainty, the true nature of the actors is unknowable. And where this is true, states react by forming alliances, institutions, or compatible norms that reduce uncertainty. Realism differs dramatically from neoliberalism and constructivism in its generally pessimistic view of human nature. Structural realism argues that it is the anarchical system which forces certain predictable actions, but it implies a pessimism of human nature since fear for survival would not consume state action if others did not threaten that survival through aggressive behavior. Some at least, if not all, seek your destruction. This is an ancient concept, dating at least as far back as Hobbes, and pervasive throughout the history of political theory.

Rousseau finds the major causes of war neither in men nor in states but in the state system itself. Of men in a state of nature, he had pointed out that one man cannot begin to behave decently unless he has some assurance that others will not be able to ruin him. So dangerous is the international state system and so dependent are states that they

must always be on guard for the moment of attack that is always a threat, regardless of institutions, norms, governance and the like. Morgenthau (1960) sees “the ubiquity of evil in human action” arising from men’s ineradicable lust for power, it is a natural result of competition for scarce resources. Spinoza finds that states are natural enemies and as such must constantly be on guard. According to Herz (1951), states look to their comparative power positions because of the “security dilemma” born of a condition of anarchy, that confronts them. Power appears as a possibly useful instrument rather than as a supreme value that men by their very natures are led to seek. For each state its power relation to other states is ultimately the key to its survival. Waltz tells us the major causes of war are to be found within man, within the structure of the separate states, within the state system—in other words in every level of analysis, the causes of war are everywhere. Most interesting in international relations is that no one questions that this is in fact the environment in which we live, even if some would like to see ways for changing this environment (whether through ideas or institutions) and cast hope on an otherwise bleak picture. How can we presume then that a state operating in such a system would be concerned with relative military gains of others and not relative economic gains? We cannot make such an exception, especially when it is clear that both military and economic gains affect the power equation. Moreover, if it is established that institutions are not available to address systemic problems, as is the case in international finance, then the only alternative would be alliance formation.

b. currency and crisis

Human nature aside, the greatest threats to states in international monetary affairs are systemic, and this is quite visible in the devastating recurring financial crises. It is often argued that military power differs from economic power in ways that suggest that military threats are more time urgent than economic threats, or that the stakes are higher in military than in economic conflicts. Keohane and Nye (1977, 23-24) for example argue that realism assumes a strict hierarchy of issues where the high politics of military security dominates the low politics of economic and social affairs. Martin (1997) argued that military threats trump economic threats in terms of urgency for the attention of the state. I disagree with the proposition that if military threats exist then economic threats will exist as well or that the two are necessarily and immediately related. Threats can arise in finance unrelated to military threats. Financial crises or limiting of action in finance can hinder a state's ability to respond to military threats when and if they arise. *I propose that the threat to the good functioning of the state in its daily capacity is enough to spur response, and no military threat need be present. Economic balancing can take place at all times, including times of peace.* Just as power can be defined in terms of independence, so too the problem of survival does not only refer to arms capability and military attacks. It also has to do with the ability of an independent state to act with as few restrictions as possible. In defining power as independence, we can also define threat as a threat to that independence, necessitating self-help and allies.

Recent economic analysis by Barro and Lee (2003), Calvo and Reinhart (2000), and Eichengreen (2000) shows that financial crises have depressing effects on growth and investment for at least five years and possibly permanent effects on both rich and poor

states, although the size of the downturn is inversely proportional to national wealth. For example, Barro (2001) found that a combined currency and banking crisis typically reduced output growth by 2 percent a year, (compared with 3 percent a year for the Asian financial crisis) and the effects persisted for a five-year period.¹¹⁵ Following the five year negative effects on growth, GDP growth rates tend to rebound by only about 0.6 percent per year in the subsequent five year period,¹¹⁶ meaning it would take a decade or two simply to return to the pre-crisis level of economic output. Declines in output translate into declines in power since national income feeds directly into the power equation, with financial crises capable of making states immediately weaker, by a significant amount, and with a long-term recovery. Since wealthier states with a stronger economic infrastructure are better equipped to weather crises, it might then be expected that states would seek to expand their capabilities in economics for the same purpose that Waltz argues they would seek to expand capabilities in politics, to better protect themselves in times of crisis (or war).

In addition to negative effects on national income, financial crises tend to exacerbate existing political crises or cause political unrest where they occur, threatening both electoral outcomes, regime stability, and at the extreme, state survival as we know it. For example, Remmer (1991, 784) notes that short-term variations in GDP, inflation and exchange rates, combined with party structure, accounts for 60 percent of the variation in incumbent vote loss in Latin America, 74 percent of the variance in the total incumbent vote, and 67 percent of the variance in overall electoral discontinuity, and noted that the magnitude of the incumbent vote hinges on a combination of party structure and

¹¹⁵ See also Park and Lee 2001.

¹¹⁶ See Barro and Lee 2003.

exchange rate depreciation. While Diamond and Linz (1989, 17) argue that “economic crisis represents one of the most common threats to democratic stability.” These effects contrast sharply with the “phoenix effect” of high economic growth following war, and the “rally-round-the-flag effect” of nationalistic support of the state in military confrontation. Thus on a number of political fronts, financial crises may pose a greater threat to the survival of a state’s national welfare, political order and relative power than do wars.

States and statesmen do not fight wars only to preserve the state in any condition, and not to preserve the state as they know it (including themselves in power). Indeed, all wars are fought for this reason because even if one were to be governed by someone else that would not somehow erase, say, the land of France, the city of Paris or the population of Frenchmen. It would simply eliminate the state as we know it—an independent functioning actor with specific governing principles. The internal makeup of a state comprises its being and threats to that makeup threaten its existence as we know it and its status in the international community. The nature of the threat simply shifts, the presence of a threat does not. And because threat to survival exists we could expect self-help for protection and allies.

c. currency and countermeasures

As already discussed in chapter two, Eichengreen (2003) and Cohen (2004) specifically envision states entering into monetary alliances for the purpose of better insulating themselves from the threat of international monetary instability and financial crises. Kirshner (2006, 149, 153) puts the matter plainly: “The awesome power of global

financial markets creates often unwelcome pressures for macroeconomic convergence; globalized markets are also remarkable conductors of financial instability. For those reasons among others, states will look to regional shelters from those monetary storms. For many states, ceding monetary authority to participate in a currency area will net more insulation and autonomy than going it alone....Financial globalization also creates incentives for small states to affiliate with regional monetary associations or to seek cover by closely associating in one way or another with a great monetary power.”

Kirshner then goes further, implying that financial crises are not simply systemic byproducts but purposefully created by the United States adding another incentive for monetary alliances that balance against the threat of a predatory hegemon. He argues that the most powerful have an incentive to allow crises to happen, indeed navigate the system into crisis, in order to extract benefits from those most hurt in exchange for necessary bail-out funds. He specifically notes conditions written into the IMF package to Korea which directly benefited the United States while only marginally related to the causes of the 1997 financial crisis itself, such as the condition for trade liberalization, financial service sector liberalization, and unrestricted foreign direct investment. The implication is that the United States is deliberately engaging in systemic disruption, not “benign neglect”, in order to take political and economic advantage of those financial crises that do occur. Gabel (2003) and Blythe (2003) have similarly argued that the volatile international financial system is actually an American construct to benefit the powerful U.S. financial interests and bolster American monetary power, noting especially that there is little economic evidence to support complete financial liberalization for most countries. Henning (2006, 138) also talks of regional arrangements as countermeasures

against the threat of monetary coercion through the exchange rate weapon. Effectively, this is protection from the United States (or balancing against the United States), the state that Henning notes has most effectively used the exchange rate weapon. "Such countermeasures," says Henning, "include regional arrangements that reduce vulnerability to external exchange-rate shifts, such as EMU, and unilateral measures, such as reserve accumulation and production relocation through direct investment. Regional monetary integration is, of course, motivated by more than simply a desire to deflect exchange rate coercion, but a desire to reduce exchange-rate vulnerability powerfully reinforces other motives to build regional cooperation."

3. Socialization and Competition.

Structural theory argues that systemic pressures socialize states into similar behavior in alliance formation. This concept is easily applicable to economics. In both political and economic interactions states learn and adapt to the most acceptable behavior. In politics it may be argued that states are presently socialized into democratization. In the international economy it has been argued that this tendency leads to a homogenization of economic policies across countries. Regardless of the extent of this "homogenizing" action, socialization is perhaps stronger (if not completely homogenizing) in the economic realm because of the added factor of 'the herd', financial market actors prone to herding behavior.

a. capital and the confidence game

Rational economic agents make decisions based on expectations given the best information available. The formation of positive rational expectations by market agents for a particular state is critical to the economic well-being of that state.¹¹⁷ To attract foreign capital, qualify for sovereign lending, and stem capital flight, states must engage in credible economic policies that produce confidence in financial market actors. This usually means fiscal and monetary austerity, liberalized capital movements and independent central banks. What's more, these requirements weigh more heavily on the relatively poor who must gain market confidence, than on the relatively rich who already have a certain amount of credibility based on their relatively larger economic capabilities. Assuming rationality of states as well as market agents, it may be expected that the most positive information will be emphasized while negative information downplayed. In other words, because of rationality, all participant states are socialized into providing the information market agents expect in order to form the most favorable expectations for that state, if it cares about maintaining market confidence and maintaining and/or attracting trade and capital, (which in turn accumulates wealth and increases power). There is no state that does not care about this. States that repeatedly fail to heed international pressures will "fail to prosper, will lay themselves open to dangers, will suffer."¹¹⁸ Financial markets and especially currency markets are perhaps the most information sensitive. In international finance there is little disagreement that the system clearly rewards conservatism, punishes real or expected instability, and has harmonized ideas about how monetary policy should be governed. McNamara (1998) has argued that

¹¹⁷ This concern is not exclusive to states; the same can be said for corporations as well as individuals.

¹¹⁸ Waltz 1979, 71.

it was precisely such a socialization that led to a new ‘currency of ideas’ converging around fixed exchange rates as a direct result of systemic pressures imposed by capital markets.

The large costs involved in playing the confidence game, in turn, make self-help through independent actions all that more difficult providing an incentive for states to seek self-help through alliances. As Cohen (2006) has noted, “credibility, in short, does not come cheap. To be persuasive to market actors, states must literally put their money where their mouth is—and even then, they may not be successful in defending market share. Playing the confidence game is frustrating and can indeed prove futile.” As Krugman (1998a) summarizes the dilemma: “The perceived need to play the confidence game supercedes the normal concerns of economic policy. It sounds pretty crazy, and it is... Isn’t there a better way?” There is; self-help through a monetary alliance allows several states to pool their resources and arm them all with a larger economy, producing relative stability and credibility for all involved. In the words of Mundell (2000c, 165), an outspoken champion of euroization, “Suddenly they will have a first class currency. They give up currencies that are useless...they are getting something that will give them capital markets and an efficient monetary and financial system.”

b. capital, market share and relative gains from currency union

Relative gains in political relations refers to an increase in state capabilities, typically assumed to mean military capabilities but not necessarily. Relative gains in economic relations refers to an increase in state capabilities, typically assumed to mean income but not necessarily. States frequently compete in arms races. But they also

compete with each other for foreign capital and often compete for financial market share and the top currency position. As mentioned above, part of the rationale behind playing the confidence game is gaining more income (and power) through more trade and investment. This is a daily concern. Certainly in the long-run both money supply and trade increase exponentially. But in the long run we are all dead. In the short run all gains are always relative, while each country's share of global trade and investment is finite. This is quite visible in international rankings of economic capacity.¹¹⁹

In a condition of anarchy relative gain is more important than absolute gain. So why would states cooperate if they knew that all involved would gain in absolute terms? This, it is argued, is the ultimate challenge to realism. But what if the participants anticipate relative gains as compared to a rival or as compared to states outside the cooperating group? If the members of the group expect to gain relative to some other, the issue of relative gains holds and realism is not challenged.

Because an optimum currency area is exclusive it makes the group economically stronger than some others outside. Because not all states are involved it may be reasonable to assume that those within the OCA are relatively better off than many of those outside the OCA. Or at the very least, it will put the OCA members in a relatively better position vis-a-vis outsiders than they were before. Either way, the members of the OCA then will experience relative gains. A political decision to enter into an OCA is rational for a state because it increases economic power while decreasing economic vulnerability. In this interpretation OCA and neorealism become congruent theories and monetary integration is not an aberration of neorealism but fully consistent with it. If

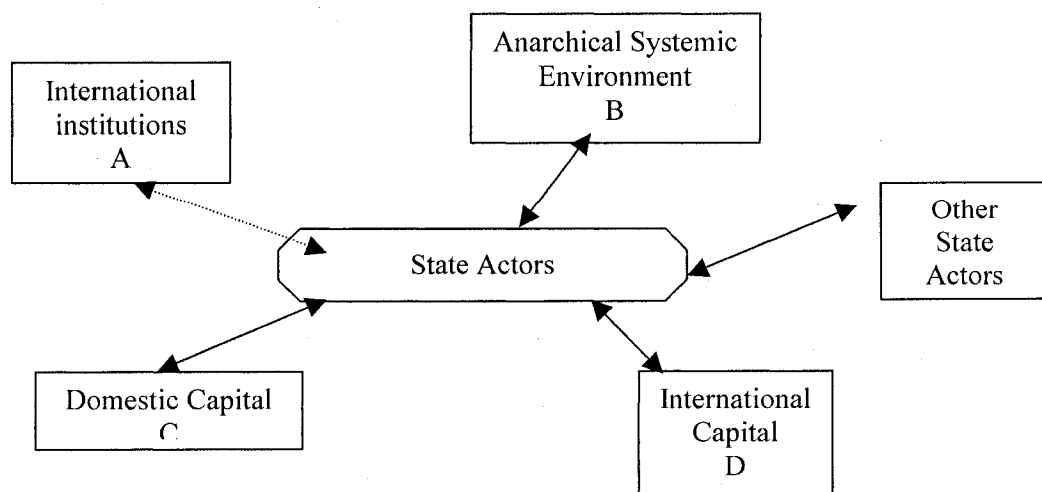
¹¹⁹ Annual rankings reports always make national headlines. Such reports are prepared by the World Economic Forum, the World Bank, the Heritage Foundation and others.

states care about economic gains, we would expect states to attempt to increase their relative economic strength. As a result of this attempt, rough balances of power should form, and an alliance should improve the relative position of the group and each of its members vis-à-vis a third party.

c. a multitude of socializing pressures

There are more socializing pressures in the international monetary system than there are in either international politics or international trade. We said that in international finance, institutions are ineffectual, do not offer dispute resolution, and may even contribute to systemic disruption. Thus the environment more closely approaches anarchy than trade. By the Mundell-Fleming two country model we showed that domestic monetary outcomes are at least partially determined by the actions of other states, and it was also argued that hegemonic states may be predatory. In addition to these, the state faces the pressures of establishing and maintaining credibility in financial markets as it competes for the attraction of foreign capital and the maintenance of domestic capital. A graphical representation will help illustrate this point.

Figure 3. Socializing Pressures in the International Monetary System



In international finance, competitive pressures are exerted on states by B, C, and D. Competitive pressures are alleviated by A only marginally (represented by the dashed line) which may even add to competitive pressures. In the political realm, D and C do not exist, while certain (though not all) security institutions, like NATO, may significantly alleviate systemic uncertainty. In trade, both C and D are present but A provides much stronger assurances based on strong institutions such as the WTO thus B is controlled by A to a much greater extent, while E is partially neutralized since offending states can always be taken to court to sue for damages. International finance then would exert the most competitive pressures on states with the least institutional mechanisms to alleviate pressures. In this situation states are most likely to be socialized into seeking alliances for survival.

Because monetary variables are embedded within the power equation, and because the neorealist tenets of anarchy, threat, and socialization apply to international finance, it may be argued that structural theory is at least as applicable to international monetary affairs as it is to international politics. The reader will have surmised by now that I am not referring to a balance of economic power in the context of a balance of trade. Nor am I considering power in economics in terms of how many weapons money can buy or whether a rich potential rival could attack us in the future if he became richer. Although this can never be ruled out, *I support that power relations as described by structural theory dominate economic relations even without the prospect of war.* To that end all characteristics of power relations are also characteristics of economic relations

even without the threat of military confrontation. This is true because economics and politics are both based on competition.

IV. Competition in International Economics and International Politics

Neorealism borrows heavily from microeconomics, and in so doing establishes a dialogue with the economics discipline that other theories of international politics do not have.¹²⁰ It may even be that neorealism applies more easily to economics than to politics because it recognizes competition for scarce resources as a primary force driving systemic actors, mostly for survival. This corresponds to the centrality of competition in economics where all agents strive to accumulate the greatest amount of resources necessary for either survival or dominance in their realm of interaction (the marketplace). Power and resources are complementary in competition as those with the most resources have more power and those with more power (whether money or influence) have or can acquire more resources. And man always demands more resources.

Mundell (1968, 5) in discussing *Man and Economics*, defines economics in terms of want. "Economics is concerned with want and resources. It examines that aspect of individual and social action by which resources are used to reduce want. Because want is a state of mind, economics deals with man. "Because resources constitute matter, economics deals with nature. Man and want, nature and resources—these are the universal actors in the drama of economics....in economics there is always the confrontation of opposing forces: want and resources, desire and opportunity, man and nature, consumption and saving, supply and demand." Thus in international relations and

¹²⁰ See also Schweller in Elman 2003, 330.

economics we have two disciplines that both study man in a state of nature with a continual presence of and confrontation of opposing forces. How then can we assume that the two disciplines are all that different? Because there is want and resources are scarce economic agents are in constant competition with each other. Because there is want and capabilities are limited states are in constant competition with each other.

1. Competitive Human Nature

Like political systems, economies reflect their creators. Economies aren't out there happening to us. They are us; like mirrors that reflect the philosophies of their agents and creators.¹²¹ This is problematic since many conceptions of markets are grim. Corruption and greed characterize most markets if not most market agents. Statistically they would be a representative sample of the underlying whole of mankind. Neorealism would be less pessimistic. Most of us are not corrupt and greedy, but among us unquestionably lurk the corrupt and the greedy. Whether they are few or many is irrelevant because we often do not know with certainty who they are. The most important thing for most people is survival and so at some level they may become greedy in order to stay alive. We may not behave this way for the purpose of hurting another (although some may believe this to be the case when they are involved in such competitions) but for the advancement of oneself and one's loved ones. If someone is relatively worse off as a result so be it so long as it is not me. Such is the essence of human economic relations. Harsh as it may seem it is this competition to separate winners from losers that produces grand achievements for society.

¹²¹ Breton and Largent 1991 make this argument in a book on *The Soul of Economics*.

“Competitive systems select for success.”¹²² Firms in competition are striving for leadership, not followership. No one plays to lose. No one plays to see someone else be on top. Competition is a way of life for most of us at least at some stage and some level. Embedded as it is in the fabric of human activity and especially in the marketplace it is natural to assume that it would also be embedded in inter-state economic relations. Indeed it is unnatural to think otherwise.

a. utility and rationality

The utility theory of value in neoclassical economics makes the universal generalization that these conditions of competition are pervasive, unalterable, natural characteristics of all human beings in all societies. Thomas Hobbes, writing as capitalist relations were first emerging, draws from an early form of this conception in his portrayal of a “nasty brutish and short” life within an anarchic world that pitted all individuals against each other by virtue of the natural combativeness and competitiveness of human nature.¹²³ Rational decision-making behavior that maximized benefits and minimized costs, entirely necessary within a capitalist market system based on Darwinian survival, came to be seen by theorists within the utilitarian tradition as being at the core of all human decision-making processes,¹²⁴ just as Darwinian survival dominated realist political thought. Rationality is also present within all aspects of international relations

¹²² Waltz 1999, 697.

¹²³ Hobbes, of course, was writing in the political realm and has since formed one of the foundations for classical realism. His anarchical world however is compatible with aspects of human behavior and self-perception under capitalism—atomistic individualism, egoistic utilitarianism, dependence on markets, and calculating rationalism—that were further developed by Bentham, Say and Senior and formed the foundations neoclassical theory of utility and social harmony.

¹²⁴ Hunt 2002, 129-130.

including liberal versions of international political economy. Indeed, especially liberal institutionalists within IPE claim that it is rational states that enter into mutually beneficial institutions and outlying behavior is often explained as irrational. They have forgotten however that it is competition for resources for survival that necessitated rationality. It is competition that is the foundation of rationality not, cooperation.

2. *Competitive Structure*

In economic calculations there is seldom a distinction between 'ought' and 'is'.¹²⁵ Economic decisions are based on cost calculations and profit margins in a system of exchange governed by the market (i.e. the environment or structure). Within the market structure, competition holds a paramount position in economics at least since Smith and Ricardo. Competitive values were assumed to regulate the functioning of the economy even where the concept of free competition was not always clearly defined. As generally understood, free competition included among its many attributes the existence of several independent agents acting as buyers and sellers who possessed perfect information about market conditions, had free and equal access to productive factors and the market, a homogeneity of products, absence of friction impairing the mobility of capital, goods and labor, and a stable monetary unit common to all. While modern economics has qualified virtually all of the attributes of a freely competitive market (we know for example that information is not perfect, mobility is not automatic, and market access is not always free to all) the paramount position of the concept of competition has not changed.

Competition not only defines economic activity, most economists argue that in most cases it is the ideal of economic activity. We can think of 1) Competition as the equalizer

¹²⁵ Moralism in political science is nicely reviewed by Snyder in Elman et al 2003.

of prices for comparable goods (Ricardo); 2) Competition as the equalizer of profits earned on capitals of the same value (Smith); 3) Competition as the equalizer of wages (Marx); or 4) Competition as survival of the fittest (Darwin and Spencer, but adapted by business enterprises). Certain characteristics of a market economy explain its dynamic nature: 1) changes in relative prices in the exchange of goods and services, 2) competition as a determinant of individual and institutional behavior, and 3) the effect of efficiency in determining the survivability of economic actors. The market's profound consequences for economic, social and political life flow from these characteristics.¹²⁶

a. survival and zero-sum games

The laws that govern state actions in economics, as in politics, can be broken at will, and when they are not constitutes a conscious decision—though not permanent—of independent states. The threat of survival meanwhile is a matter of degree and time rather than whether. For if there is only a limited amount of food, clothing and shelter, and if I take more than you need to live am I not threatening your survival? In business, if one firm takes another's market share it does threaten its survival. Indeed, in business the firm engages in this activity for the purpose of terminating, not simply threatening, a rival's existence. The entire premise of a good economic system relies on competition where those lacking in capabilities fall by the wayside. There is no altruism in economics as there is no altruism in state politics thus there is no reason to assume there is or should be altruism in inter-state economic relations. The equation of economics as an area conducive to international cooperation is thus artificial.

¹²⁶ As cited in Gilpin 2003, 56.

Moreover, survival is far from an alien concept in economics. For example, Nelson and Greene (2003, 8-9) discuss survival in economic life through signaling for the purpose of belonging to a social group that will improve chances of survival. “The most important assumption of economics is that of self-interest: an individual is interested in maximizing his own well-being and his family’s...Survival provides the rationale of all of the underlying assumptions of microeconomics.”¹²⁷

Politics is sometimes a zero-sum game. In elections, for example, there can only be one winner, necessarily at the expense of the loser. In international politics, however, such situations are rare. Thomas Schelling (1960, 4-5) pointed out long ago that such a situation “would arise in a war of complete extermination, [but] otherwise not even in war”. The important thing in war, says Clausewitz (1976), is to accomplish one’s political goals, not necessarily to destroy the enemy. But in business the real goal frequently is to destroy the enemy. The purpose of predatory pricing and dumping is to drive out as much of the competition as possible, in order to secure the largest gains possible. The maximum goal is market domination (or monopoly power), the minimum goal is survival where each player is better off with the complete elimination of another player. Thus very unlike politics, *economics is a war of annihilation* wherever possible at the firm level. The prime moving force in capitalism is the profit motive harnessed to the powerful impulses of self-interest. While each firm can maximize its own profits, the maximum

¹²⁷ They go on to associate the fundamental principles of basic supply and demand with the concept of survival. The critical behavioral assumptions economists make in deriving the downward sloping demand curve, they argue make sense in terms of survival: 1) at the margin more is better than less, or abundance is better than scarcity (survival increased with higher levels of total consumption); 2) an individual consumes two or more goods (again increases chances of survival); and 3) price is not an argument in the utility function (survival depends on quantity not prices).

profits all combined can earn is finite. There is only so much the consumer wants, needs and is capable of buying at any point in time. Thus maximizing profits must be relative.

Cohen (2004, 75) argues that monetary affairs is not a zero-sum game in absolute terms but specifically recognizes it as a zero-sum game in relative terms. Gains by the euro or the yen, he says, “need not necessarily mean losses for the United States in absolute terms...but success for either would almost certainly cost the greenback in relative terms.” If global money supply remains constant then the share of global finance necessarily becomes a zero-sum game. However, relative gains and losses are also visible in a world of ever greater monetary expansion. Consider the following example. If the dollar has \$4 trillion of a \$10 trillion market today and \$4 trillion of a \$12 trillion market tomorrow it has not lost anything in absolute terms calculated at face value, but it has lost significantly in market share. If the dollar had been expected to grow by 25 percent to reach an absolute market value of \$5 trillion but did not as a result of euro and yen competition then it has lost both in terms of market share and in terms of expected absolute terms. The converse is true for the euro. If the euro holds \$3 trillion of market share today and \$4 trillion of market share tomorrow then it has gained in both absolute terms and relative terms. While neither the euro nor the dollar vanish, their relative position changes significantly, with possible dethroning of the top currency by its competitor. But if the competition is for the top currency position then it is most definitely a zero-sum game with only one winner.

b. maximizing resources

The possibility of zero-sum outcomes in economics makes actors far less conducive to sharing contrary to what is normally assumed. In a perfect world, if resources increase (say, through a gold discovery) all would get a little more. But in the real world each actor with demand and resources wants as much as possible for itself irrespective of others, even to the exclusivity of all others. If resources for survival are limited you would expect hoarding, first to preserve the self and then to hurt the enemy if there is one. Where resources are limited, even temporarily, each household's gain is relative to another household's relative loss. Trade is frequently depicted as a positive sum game where the pie increases with more and freer trade for all. However this is a long-run result. Economics is by nature a zero-sum game in the short run and for some markets in the long run as well. In the short-run the pie is finite and even trade produces winners and losers with states, firms and industries competing for their piece of the pie.¹²⁸

Such is the case in international finance and investment. Not all states at all times can attract more capital, either in foreign direct investment or in portfolio investment. Some will get more than others. Some will see net losses or outflows as financial market actors move money from one state to another overnight. States are in direct competition for the capital goods of financial markets in a daily zero-sum game. In fact, one of the fiercest competition among states is for foreign investment. Where capital is needed for growth, this is a quest for survival that produces maximization strategies.

¹²⁸ Nowhere is this more evident in 2005 than in the international textile trade. With the elimination of the Multi-Fiber Agreement that regulated the textile and apparel trade for over thirty years, virtually all states feared the loss of global manufacturing share to China (and India) with dramatic effects expected on their economies as a result. Nearly 60 states unsuccessfully petitioned the WTO to maintain the quota system in order to maintain their piece of the textile pie.

Economics is about *selfishness* not selflessness. Enlightened self-interest is at best a goal, but not a reality for most. “Capitalism has always been characterized by a competitive struggle among capitalists to secure larger shares of the social surplus. In this endless struggle, the power of any given capitalist depends on the amount of capital that he or she controls. If a capitalist’s competitors acquire capital—and hence size and economic strength—more rapidly than he or she does, then it becomes highly likely that he or she will face extinction. So continued existence as a capitalist depends on the ability to accumulate capital at least as rapidly as competitors.”¹²⁹ That is, in order to ensure his *survival* the capitalist keeps a watchful eye on his *relative resources and capabilities* vis-à-vis other capitalists. Moreover, the environment was, and in many ways remains anarchical in nature. “The intense competitive struggle for profits was experienced by individual capitalists as an impersonal, social force over which they had little or no personal control; the forces of market competition were seen as natural, immutable laws, similar in every way to the laws of nature.”¹³⁰ This is the situation Waltz describes with states. Marx too refers to competition in predicting the concentration of wealth. Competition among capitalists, he said, created a situation in which the strong either crushed or absorbed the weak. “Here competition rages in direct proportion to the number and in inverse proportion to the magnitudes, of the antagonistic capitals. It always ends in the ruin of many small capitalists, whose capitals partly pass into the hands of their conquerors, partly vanish.”¹³¹

¹²⁹ Hunt 2002, 7.

¹³⁰ Hunt 2002, 126.

¹³¹ Karl Marx, *Capital* vol.1, pp.626 as cited in Hunt, pp.237.

The notion of absolute gains as paramount in economic relations derives partially from the definition of a firm in economics as a unit that maximizes its profits. The firm however does so in competition with other firms and at the expense of other firms. One does not maximize anything in a vacuum. The pervasiveness of competition becomes clear when we stop looking at economics solely as a relationship between buyer and seller but also between seller and seller or buyer and buyer. Competition does not need to be a fight to the death, however. Some firms, as some individuals and some states, may be content in their portion of wealth if it is secure enough and may allow others to grow faster and larger so long as that does not threaten their own survival (think of a mid-sized business, a tenured professor, a Switzerland). Competition is most fierce however when survival is in question. In business, as in personal relations, the extent of competition can be tempered by an overriding authority in government where laws limit the extent to which another can harm. In state relations there is no such authority. It would then follow that competition among states would always be tenuous.

3. Self-help and Allies

Bandwagoning and balancing are conceptually as relevant to economics as they are to politics. This is seen in the actions of states in the economic sphere but also in the actions of corporate market actors. The idea of explaining phenomena in international political economy utilizing alliances, survival, anarchy and self-help should consider a business enterprise operating under monopolistic competition. There is ample appreciation and analysis in business literature of the value of mergers, acquisitions and

strategic alliances.¹³² Their purpose is to produce bigger entities so as to control a bigger piece of the market, be less vulnerable to adverse market conditions and shocks, be less vulnerable to predatory competitors and perhaps even displace the competition if it is in a better market position. Companies that agree to mergers often do so because these are results they could not achieve on their own. The threat of not merging is often the risk of falling by the wayside, basically bankruptcy and extinction and is as total for a business as it is for a country in war. Indeed executives do not cease to liken business with anarchical jungles and wars. Sometimes each party in a merger has an equal footing, and sometimes one side dictates the terms. This is an alliance for survival in the market.

There is also a relation of the concept of no permanent friends nor permanent enemies in economic activity as it exists in politics. While the profit motive is capitalism's greatest economic strength it is also its greatest moral weakness. The argument is elementary: an economic system that is driven by the seller's desire to maximize profits generates great pressures on that seller to deceive his fellow citizens when it is advantageous to do so as a means of increasing those profits.¹³³ He may also deceive other market actors such as creditors and suppliers, government tax and customs

¹³² Newbold (1970) discovered through a survey of British firms that the so-called 'textbook' reasons for mergers (technological, economic, synergistic, financial and industrial reorganization), accounted for only 18% of the motivating factors managers gave for acquisitions. Rather 'market dominance' (27%) and 'defensive strategies' (21%) were found to be primary motivating factors. See Newbold 1970 as cited in Peel 1990. Rhoads (1983,ix) for example writes: "My research during the past ten to fifteen years has convinced me that the desire for power—to build an empire—is the primary motivator of business executives and that mergers are the primary means of attaining power." Lynch (1993,2) found "Executives face a choice of seizing the strategic advantage or being squeezed by aggressive competitors seeking to capture more market share. A corporation's future will require tighter and closer relationships formed by joining forces with an ally, foreign or domestic, to ensure continued growth." Lynch (1993,5) further comments "Better to fight the competitive battle alongside an ally than to face this same competitor in open combat."

¹³³ Blumberg 1989, 5, 97. Blumberg is restating an old argument put forth by many including religious writings, Cicero and Thomas Aquinas. See Thomas Aquinas, "On Fraud Committed in Buying and Selling," from *Summa Theologica* See also John W. Baldwin 1959 and Heilbroner 1985.

authorities, and certainly his competitors. Once it takes hold the desire for gain, like the desire for power, is insatiable. Certainly the realist axiom of no permanent friends nor permanent enemies would be sensible to any profit-maximizing market actor. The lack of absolute trust in an anarchical environment where it was unclear who was deceptive or not likewise would be acceptable. The phrase ‘business is business’, often reluctantly expressed, captures the constraints that economic necessity and scarcity impose on sentiment and morality, and the unfortunate fact that the latter qualities must bow before the former. “Some firms are particularly susceptible to periodic scarcities or shortages, and these impair the firm’s ability to do business,”¹³⁴ that is, to survive. It is curious then that international political economy which studies not only state interactions but also state-business relationships and multinational corporations cannot apply thinking developed within international relations and practiced in the modern economy.

V. Theory Testing and Progress in International Relations

The problem with current treatments of power in international economic relations, is that they become too specific to a particular issue area. Only one theory can combine all the key aspects prevalent in economic relations among market actors as well as economic relations among state actors—structural realism. Structural realism argues that state relations are characteristically in a never-ending competition for scarce resources in order to survive in an anarchical world order where there are neither permanent friends nor permanent enemies, but continuously forming alliances, again for the purpose of survival. If we substitute the word ‘firm’ for the word ‘state’ we see that Waltz could just

¹³⁴ Blumberg 1989, 97.

as easily have been describing any commercial market. Moreover, with the understanding that for market actors, economics is primarily about survival we can re-interpret many theories in political economy.

This application of structural theory to the economic realm contributes to an evaluation of the theory in two ways. First, the application to a new area requires a close scrutiny of its concepts, and may expose ambiguities that have gone unnoticed in repeated applications to the military realm. New insights into the conceptual and logical coherence of the theory are thus made possible. Second, the application of the theory to the economic realm provides new empirical observations that can be used to judge the usefulness of the theory.¹³⁵

In the international relations literature all main schools of thought purport to explain all levels of international relations. Thus constructivism, liberalism, institutionalism and realism alike aspire to be the defining theory for all inter-state relations, not just some. Thus if each cannot apply equally to both politics and economics, each is flawed. We should then speak about theories of international military relations, international trade relations, international financial relations, international cultural relations, and so on. Otherwise we must redefine the realm we are analyzing by segmenting the arenas of state interaction. The latter is an impossible task for we are looking at actions of a state not its ministries and the state must interact with others on all levels as a unit. For any theory then to call itself a theory of international or interstate relations it must be capable of applying to all areas of state-to-state interactions.

¹³⁵ A similar argument is made by Martin (1997, 14), who applies neorealism to 19th century American economic relations.

In Elman's (2003) edited volume on *Progress in International Relations*, Schweller (2003, 435) dismisses the possibility of any new theoretical derivations from Waltzian neorealism. "Even Waltz's neorealist theory, though extraordinarily important to the development of the field, may not qualify as a research program. This is because Waltz brilliantly said everything that can be usefully said about neorealism; there is no way to improve or amend Waltz's theory without violating its structural-systemic nature and, in so doing, confounding the theory's highly deductive and internally consistent logic. For this reason, neorealism has never been, as is commonly assumed, a fertile research program. There cannot be any theoretical reformulations of neorealism, only extended application of its logic to historical cases... There is nothing left for neorealists to do that Waltz has not already done."

This is not correct. There has been no systematic application of neorealism to economics. The hypotheses stated in chapter one and restated with more detail above have not been tested in either trade or finance. The entire field is wide open, and because of this neorealism remains a progressive theory. It is assumed that Waltz's structural neorealism is strictly a theory of international politics and so cannot be a theory of international economics. To this I ask, why not? As already discussed, political science has borrowed from economics to no end. Waltz himself borrows heavily from economics with repeated use of analogies to the firm and the market. Moreover, economics is highly political at the state level, as well as at the firm level. So it is not irrelevant for a theory of international politics to be reinterpreted for economic interactions among states. Such an application would represent significant progress. Moreover, as we saw in Bartlett (1989),

economics has yet to develop a social theory of power, allowing for progress in that field as well.

A theory is progressive if it provides cumulative knowledge about hitherto unexplained phenomena. Waltzian economics is progressive in that respect because it provides a systemic theory of international economic relations that explains a broad category of phenomena, applied here to currency unions. Realism fails in IPE because it is seeking a connection with arms. What it should be seeking is a pattern of alliances with or without military implications. Following the military connection the most that has been demonstrated empirically is the modest correlation between security alliances and trade, or that 'trade follows the flag'.¹³⁶

"If the nature of the international system constrains states to balance, they should do so in both the military and economic realms," argues Martin (1997, 1-3) who goes on to consider whether imbalances of relative economic strength are an underlying cause of international conflict. Martin argues that the constraints imposed by the international system should operate in both the military and economic realms. Because of this, and because one of the effects of anarchy is to make relative power important, she expects states to balance in the economic realm. She qualifies her argument with the caveat that military threats will dominate economic threats when they occur simultaneously. "This suggests that to the extent that the military threats faced by states today have declined or disappeared, economic threats will increase in importance and the likelihood of international economic conflict will increase." If this is true, then we will need a theory capable of predicting outcomes in the new world order. I believe we already have this in structural realism, all that remains is for it to be applied.

¹³⁶ See for example Gowa 1989, and Mansfield 1993.

Chapter Four
Anarchy, Cooperation, and the Absence of Government
in International Financial and Monetary Relations

Neorealism posits that anarchy produces alliances in the international system as states seek self-help for protection from this system. “Balance of power politics”, says Waltz (1979, 121), “prevail wherever two and only two requirements are met: that the order be anarchic and that it be populated by units wishing to survive.” Thus states need not intend to conquer or to prevent hegemony. The necessary conditions are anarchy and survival. In removing intent from the equation, Waltz allows balance of power the flexibility to apply to many fields, including economics. Intentions are unknowable and regardless of intentions system effects produce outcomes never intended or contemplated.¹³⁷ We discuss the first necessary condition—anarchy—in this chapter, and survival in chapter five.

This chapter looks at anarchy, represented by a lack of governance and recurring crises in the international monetary system as one element of structural theory that predicts alliances given more than two units. The central premise of this chapter is to show that the international monetary system most closely resembles an anarchical system that can be addressed by member states through self-help by forming monetary alliances in the form of currency unions. This anarchy is now and has been in the past, characterized by 1) a lack of an effective and representative international governing body and 2) recurrent systemic crises. These two factors combined act to produce a tendency towards monetary alliance in the international monetary system.

¹³⁷ See Jervis 2000.

I. Anarchy in Economics and Politics

Anarchy in international politics consists in the absence of an overarching governmental structure to ensure the security of all states. Anarchy in international relations refers to a state's relation to the system as a whole and to systemic forces that are not controlled by one specific actor but a set of pressures stemming from the absence of an effective government. This uncertain situation compels states to fend for their own security and survival by seeking an increase in their capabilities. As Waltz (1979, 107) put it "the international imperative simply is "take care of yourself".¹³⁸ Waltz excludes violence from a definition of anarchy and includes only the ordering of the system, thus allowing an opening to economics as well as politics.¹³⁹

Some political scientists have questioned the level of anarchy in the international system. For example, Brian Barry (1981, 30) argues that, "international affairs are not a pure anarchy in which nobody has any reason for expecting reciprocal relations to hold up."¹⁴⁰ Wendt (1992) has argued that the absence of centralized political authority does not necessarily generate self-regarding actors. Instead self-help is sometimes produced through state interaction, thus "anarchy is what states make of it." But as no one has

¹³⁸ Waltz 1979, 107.

¹³⁹ Waltz 1979, 102-104. Political science dictionaries and encyclopedias typically exclude violence from definitions as well, thus Waltz's exclusion is not unusual.

¹⁴⁰ Barry goes on to say, "In economic matters, particularly, there is a good deal of room for stable expectations." He is of course only partially correct. There is room for stable expectations in economics, but as will be shown in this chapter, there is also a lot of room for instability and unknown outcomes severely compromising expectations. Moreover, in economic relations among states, what stable expectations exist are the result of self-help in line with Waltz's predictions.

proposed that international politics is ordered by hierarchy with complete certainty, thus we may assume agreement on the state of anarchy, and disagreement on degree.

Anarchy in economics also consists of the absence of centralized authority and the strong element of uncertainty. On the domestic level, anarchy in economics, as in politics, is very limited due to national regulatory agencies. On the international level market actors must contend with individual national regulatory agencies and the World Trade Organization. States must contend with IMF monitoring if they are a debtor nations. But, as discussed in this chapter, few economists question the anarchical nature of international monetary relations.

1. Anarchy, uncertainty and risk

Where political scientists talk about anarchy, economists talk about risk and uncertainty. The goal in both is to predict outcomes as closely as possible and attempt to know the future in order to protect what one has in the present, at a maximum gain as much as possible, and at a minimum lose as little as possible. Consider the following definitions from economics texts. Risk is the chance of an event occurring in accordance with a known probability, making it possible to insure against the occurrence of such an event. Systematic risk is risk that results from forces outside a firm's control, also called non-diversifiable and non-controllable risk. Risk also implies the possibility of loss and is commonly used in economics to describe the possibility of loss from some particular hazard such as fire, war, credit, etc.¹⁴¹ Risk has also been defined as the possibility of an untoward outcome because of lack of perfect certainty in the real world while uncertainty is described as a situation in which the statistical probabilities of outcomes cannot be

¹⁴¹ Zurcher and Sloan 1971.

predicted and therefore cannot be insured against. Speculation is a form of gambling on the future course of prices based on this uncertainty, which may have positive and negative consequences.¹⁴² Uncertainty is the state in which a decision-maker does not have information about the outcomes of an action. It differs from risk in that no estimate can be made about the probabilities associated with the alternatives. The likelihood of an event occurring is not known at all. That is, no probability distribution can be attached to the outcomes.¹⁴³ Uncertainty imposes many costs, for example the holding of higher inventories to safeguard against an irregular supply of raw materials and components (or high international reserves, high military equipment stockpiles, etc.). The forms of uncertainty are as various as its determinants—competition, technological change, the business cycle, and change of government or governmental policies. Risk, then, is the possibility of gain or loss, the calculated probability of different events happening; usually contrasted with uncertainty or the possibility that any number of things could happen. In other words, the future is not known. We can only estimate some possible outcomes, sometimes. This factor is common to both economics and politics, and the institutions developed in both areas attempt as much as possible to alleviate uncertainty and minimize the probability of an adverse outcome, (ie. risk). Where institutions falter in this function the actors are left to fend for themselves.

¹⁴² Knopf 1991. Frequently seen in a negative light, speculation can have positive economic effects. The positive benefits of speculation are considered to be its effects on smoothing the prices of commodities.

¹⁴³ Eatwell, Milgate and Newman, eds. 1987.

II. Lack of Government

One defining aspect of anarchy in international politics is the absence of dispute resolution mechanisms and crisis prevention bodies. Certainly the international monetary system abounds with advisory groups and cooperative agreements and of course there is the financial “boogie-man”, the IMF. Yet the system lacks government that can enforce rules of conduct, allow an equal voice and secure stability for all members. In this it is not unlike the international security system that maintains institutionalized alliances such as NATO, dialogue venues such as the Council for Security and Cooperation in Europe, leadership summits, and the United Nations. In some respect the security sphere is perhaps better equipped. A body of international law provides a code of conduct for all members, and according to some scholars, increasingly important norms against aggression deter many forms of military action, while the United Nations allows for a nominally democratic (i.e. one member one vote) venue for judging the actions of any of its members. The big defense remains however the big stick, and the bigger the stick the greater the security and the freedom of action. In the monetary sphere no such democratic body exists, no international law governs state actions, the norms are in favor of anarchy to the extent that they exalt free market competition and condemn government intervention, no approval is sought for any action (unless one is in the unfortunate position of being a debtor to the IMF). But here too, the big defense remains the big stick, and the big stick remains the strong currency, the stronger the currency the greater the security and the freedom of action. In both spheres, states are left to fend for themselves based on their own capabilities, since there is no overarching government. Moreover, this

lack of governance has always existed and is likely to exist in the foreseeable future, so long as states maintain at least nominal sovereignty.

It is in finance that the concept of anarchy is most prevalent. If we were to observe alliance formation as predicted by Waltz, these should be visible in an anarchical environment. If international finance is such an anarchical environment then we should observe alliance formation. And indeed we do; yet where scholars see the problem they do not see the attempts at solution made by states. It is common in international relations literature for scholars to lament the loss of the monetary sovereignty of states by highlighting the expansion and unforgiving nature of market forces, particularly international financial markets.¹⁴⁴ The conventional view labeled by David Andrews (1994) ‘the capital mobility hypothesis’, is that the growing worldwide integration of financial markets—financial globalization—has effectively cost states their traditional monetary autonomy. Most dramatic in this debate has been work by Susan Strange (1996). Waltz (2000) and others disagree over the extent to which national action has been compromised under globalization. However Waltz (2000) also agrees that finance may be the only economic sector that is truly global where financial capital moves freely about most states.¹⁴⁵

A common argument in IPE literature is that the erosion of state authority in a globalized market economy has left no one in charge in international economic relations. “Some of the fundamental responsibilities of the state in a market economy”, argues

¹⁴⁴ There are those who make a counter-argument. That is, they dispute that globalization has led to erosion of national sovereignty and point out that states still maintain the monopoly over issuing money. See for example Dodd 1994, 1999.

¹⁴⁵ The debate over the extent of national autonomy under globalization is well argued in the articles in Berger and Dore, eds. 1996. See also Weiss 1998.

Strange (1996, 14), “are not now being adequately discharged by anyone. At the heart of the international political economy, there is a vacuum ... What some have lost others have not gained. The diffusion of authority away from national governments has left a yawning hole of non-authority, ungovernance it might be called”. It might also be called *anarchy or an anarchical international environment*. This anarchy is prevalent in international finance. Typical descriptions of the international monetary and financial system are “unexpected volatility”, “wide swings”, “wild fluctuations”, “speculation”, “uncontrollable”, “crisis-prone”, “producing economic disruption”, “non-system”, etc. Along these lines, Waltz (1979, 113) could have easily been referring to finance rather than politics when he said, “the national realm is variously described as being hierarchic, vertical, centralized, heterogeneous, directed and contrived; the international realm as being anarchic, horizontal, decentralized, homogeneous, undirected, and mutually adaptive.”

In important recent work, Benjamin Cohen (1998, 2003) describes how states no longer control the demand for the currency they issue and must compete with other states for the allegiance of financial market agents, a competition increasingly relentless since the removal of capital controls in most countries and the growth of offshore markets. The resulting growth in the authority of the markets, he argues, may help to check arbitrary state action but it also raises serious questions about equity and legitimacy of governance in this new world of ‘deterritorialization’. Tsoukalis (1985, 283) wrote that the international financial and monetary system represents “ a conscious or unconscious, negation of the idea of a collectively managed system with a tight control over markets.” As Andrews (1994, 193, 204) summarizes the general proposition: “The degree of

international capital mobility systematically constrains state behavior by rewarding some actions and punishing others... Consequently, the nature of the choice set available to states...becomes more constricted". According to Susan Strange (1996, 13-14) the effect is universal, as "the authority of governments of all states, large and small, strong and weak, has been weakened as a result of technological and financial change and of the accelerated integration of national economies into one single global market economy". Thomas Friedman (1999) famously refers to financial market actors as 'the electronic herd' that decides which countries to reward with its capital flows and which to punish.¹⁴⁶ That there is no dispute resolution mechanism, no negotiating forum, no shared principles of organization, means that finance more closely resembles anarchy than any realm of international relations.

A condition of anarchy, however, does not presuppose a lack of state action. Indeed in security relations, a condition of anarchy is assumed to produce and compel state action. Similarly, that a state of anarchy exists in international finance simply means that states are compelled to act in self-help for their own interests, just as they do in international politics. The decision to enter a currency union or any form of financial or monetary arrangement remains a policy decision and so a state action.

International political economy scholars appears to have discovered what international security scholars have known all the time, that there is no sovereign government at the global level to enforce law and order, and that systemic forces both constrain and shape state action. Here it is important to note a special distinction between trade and finance. In international trade, states within this anarchical system have forged a significant amount of legal order through what has become the World Trade

¹⁴⁶ Many others have written about the anarchical environment of globalization, see Ohmae 1990.

Organization. In the WTO states may dispute the offending practices of other states where they apply to policy, industry or even a single company. Rich and poor are held to the same standards. Noncompliance with a WTO ruling is an aberration rather than the rule in the international trade system where even the United States submits to the legal authority of the WTO's arbitration. Yet there is no international legal system enabling states to seek retribution in matters of international finance. Even in the European Union with its dizzying network of common institutions and a burgeoning body of trade cases brought to the European Court of Justice there was never a court having jurisdiction over monetary affairs. Members complained about problematic policies of other members that affected the European Monetary System and may have attempted negotiation but ultimately the system had to restructure to comply with the offending state rather than the state with the system.¹⁴⁷ The response to market anarchy and instability was to maintain a form of capital controls—an individual state decision-- rather than take matters to the European Court of Justice. Meanwhile international speculators have never been legally charged in any forum despite recognition that their market actions, though technically legal, are often predatory and detrimental to the overall economic welfare of nations or regions of nations.¹⁴⁸

In direct contrast then with trade, no such international court exists in finance.

Crises are allowed to happen while bailouts are at the mercy and strict terms of the

¹⁴⁷ For example profligate Italy repeatedly realigned the lira to allow devaluations within the EMS in the 1980s, while Germany refused to restrain its Bundesbank from raising interest rates when it was hurting EC growth in the 1990s.

¹⁴⁸ The International Center for Settlement of Investment Disputes was established under the World Bank in the 1960's period of decolonization to facilitate arbitration on investment issues between states and firms by mutually agreed upon arbitral tribunals or conciliation commissions. In practice it has been used to assist arbitration of corporate investment or income loss charges against nationalizing governments.

lenders.¹⁴⁹ The harm is almost entirely borne by the victim while benefits accrue to the predator market agents and post-crisis lender in the form of profits and interest. What does exist today is a plethora of formal and informal bodies. In addition to the IMF, there is the G7, G10 and G20, the Paris Club of creditors, the London Club of creditors, the Financial Stability Forum, the HIPC Initiative, and the Bank for International Settlements in Basle.¹⁵⁰ Yet none provides effective crisis protection or any dispute resolution mechanism, and membership is typically restricted to the “systematically important countries”, leaving most countries of the world out. And these are, in any case, forums for discussion, not enforcement. Moreover it appears that what cooperation efforts do exist within these forums is ineffectual. As Padoa-Schioppa and Portes note in a 2004 report for the International Center for Monetary and Banking Studies, “all the analysis, communication between academics and officials, and negotiations among the latter have not yet brought substantial changes...ad hoc responses of recent years seem relatively ineffective.”¹⁵¹ Kenen et. al (2004, xxii) go on to lament the prospects for international cooperation in this area: “That it is hard to identify better examples of G7 cooperation [than the Bonn Summit of 1978 and the Louvre Agreement of 1987 to stem dollar drops and rises respectively] should serve as a sobering reminder of the limits of international cooperation.” Kenen (2004, 18) further argues that “the weight of concern has oscillated between immediate problems and systemic reforms, but with the idea of a grand rebuilding of the system commanding the energies of officials only once since Bretton

¹⁴⁹ And often at the mercy of the United States, as Waltz (2000) points out.

¹⁵⁰ For a description of each ‘Group’ and ‘Club’ mentioned see Appendix III.

¹⁵¹ Padoa-Schioppa and Portes *Forward* (pg xv) in Kenen, Shafer, Wicks and Wyplosz. 2004. It is interesting to note that in this volume China is for the first time discussed as a monetary power, possibly as a result of an international policy debate in 2004 where industrialized countries, mainly the United States, were calling for taming China’s monetary policy and revaluing the yuan.

Woods. Gradualism has been the rule, with change driven by immediate problems rather than a comprehensive shared vision of a better world.” As Waltz said of international politics, so too for international finance, “adjustments are made internationally, but they are made without a formal or authoritative adjuster. Adjustment and accommodation proceed by mutual adaptation. Action and reaction, and reaction to the reaction, proceed by a piecemeal process.”¹⁵²

1. What about the IMF?

The International Monetary Fund is authorized by its nearly universal membership to monitor the international monetary system to ensure that no state is engaging in adverse activities that may destabilize the system (that is, no beggar-thy-neighbor policies). But because its only enforcement mechanism is its financing ability, its advisory reports need only be heeded by the indebted seeking fresh funds. And sometimes not even they heed them, witness Argentina’s three-year refusal to pay any lender including the IMF.¹⁵³ Moreover, the advisory policies typically address one state at a time, and not disputes among two or more states, the latter falling entirely into the self-help category, such as the American attempts to cajole China into revaluing its currency during much of 2005. Finally, the IMF has no authority over the markets or individual

¹⁵² Waltz 1979, 113. In making this observation Waltz cites Barnard 1948, 148-52; and Polanyi 1941, 428-56. As Waltz observes a few pages later, “Hierarchic elements within international structures limit and restrain the exercise of sovereignty but only in ways strongly conditioned by the anarchy of the larger system. The anarchy of that order strongly affects the likelihood of cooperation, the extent of arms agreements, and the jurisdictions of international organizations” (115-116), and as the economists cited above might argue, the extent of international monetary and financial cooperation.

¹⁵³ In December 2001 Argentina defaulted on \$81 billion worth of bonds in 152 varieties of paper denominated in six currencies and held by approximately 500,000 aggrieved creditors. Much of this debt was restructured in February 2005, with old bonds exchanged for new bonds worth 35 cents on the dollar. See *The Economist* 3 March 2005.

market actors, and has never issued an advisory report on say, George Soros or JP Morgan Chase. Although it is an international institution created to guard the international monetary system, it acts much more like a bank than a court or arbitrator. Many have even gone to the extreme of laying blame for international monetary troubles on the IMF.¹⁵⁴ At present, countries have to negotiate conditionality with the IMF. The news that such assistance is being sought aggravates loss of confidence, increases risk and usually leads to various amounts of funds leaving the country before a stabilization program is even considered. By the time the IMF assistance package is in final shape, there has already been too much damage, and restoration of confidence takes a very long time.¹⁵⁵

If a financial institution decides to exit a particular country's market it may do so immediately, selling the large amounts of financial assets at its disposal causing a depletion of a country's foreign reserves and a sharp depreciation of its currency which hurts that nation's importers and local currency asset holders. The offended country has no recourse. You cannot bring any jurisdiction to bear on the actors or their home country for the economic distress such an action may bring on the target nation or the financial crisis it may trigger as other market players follow suit. Moreover, in international finance, adverse actions affect the entire economy rather than one industry, are much faster in their negative results and can be very long lasting in effect. Not only does the offended state have no legal recourse, the response of the IMF is almost always to blame

¹⁵⁴ See Stiglitz 2003.

¹⁵⁵ Chapter five discusses the detrimental economic effects of financial crises and compares these to the largely positive growth economic effects of war.

the target! Because states are facing such a hostile environment in an anarchical financial system where the movement of capital is not internationally regulated, they might benefit by banding together and pooling their financial strength as a measure of protection. This is precisely what a currency union does. Those international monetary institutions now present offer little by way of enforcement, no dispute resolution, and frequent aggravation of problems they are meant to solve. What better scenario for self-help?

III. Recurring Crises

Politics has wars; finance has crises. Both recur, both are children of anarchy to some extent, both are nationally damaging (although, as we shall see in chapter five, financial crises may actually be more damaging to economic growth and political stability in the long run than war). The history of financial crises is eloquently presented in Kindleberger's seminal work *Manias, Panics and Crashes* first published in 1978 where Kindleberger outlines the mechanisms through which a recurrence of bubbles and crashes repeat themselves in economic history. He argued for the need of a 'lender of last resort' to step in during a crisis—although cautioning against moral hazard present with certain bailouts. Yet he did not argue that such an institution could prevent a crisis. Thus Kindleberger adds to our theory in two ways: 1) by describing the recurrent nature of financial crises in an anarchical international monetary system, and 2) by presenting the lender of last resort only as a possible doctor but not as a possible cure for financial crises.

1. *How do you know a financial crisis when you see one?*

While some economists emphasize the chronic problem of financial crises in history (Kindleberger 1978, Caprio and Klingebiel 1999) others emphasize that crises have become much more frequent. Bordo, Echengreen, Klingebiel and Martinez-Peria (2000) for example found that crisis frequency since 1973 has doubled compared to the Bretton Woods and classical gold standard periods and is rivaled only by the chaotic 1920's and 1930's. They point, for example, to the EMS crisis of 1992-3, the Tequila crisis (Mexico) of 1994-5, the Asian crisis of 1997-8, the Brazilian crisis of 1998-9, and the Russia-Long Term Capital Management affair.¹⁵⁶ One recent study of the period 1880-1913 counts 22 separate financial crises in 15 emerging markets. However, relative to the pre-1914 era, crises are twice as prevalent today¹⁵⁷ In the quarter century following World War II, financial and currency crises were rare, reflecting capital controls and tight financial regulation. They returned with a vengeance in the 1970s with the liberalization of financial markets and the resumption of international lending. Economists find that there is no single explanation for the incidence of financial crises, whether before 1913 or today. The precipitating event could be a sharp change in asset prices (and so interest rates) in the creditor countries, a non-financial disturbance, such as a harvest failure or a sharp change in commodity prices, it could involve graft and mismanagement (the favorite explanation of investors). In this respect it may be said that financial crises are much more difficult to predict and manage than security crises, thus demanding more

¹⁵⁶ See also International Monetary Fund (1998) *World Economic Outlook*.

¹⁵⁷ Bordo et al 2001, 51-82. The high point of capital transfer historically is 1880-1913 when British capital exports averaged 5 percent of GDP at the beginning of the period and nearly 10 percent of GDP towards the end. Germany and France showed capital export levels at about half the rate of Britain. By 1914 as much as 90 percent of the assets of British investment trusts were overseas holdings. See for example Helten and Cassis eds. 1990.

attention from policymakers, not less. The unpredictability, immediacy, and frequency of financial crises as compared to military confrontations would then seem to heighten realist expectations, not soften them. Further, far from a new constraint on the state as a result of globalization, this is an old constraint with which the state system has much experience.¹⁵⁸

2. Are financial crises more frequent than military crises?

More importantly it appears that financial crises may be a more frequent threat than war, showing the anarchical international monetary system to possibly have a higher degree of disruption than the anarchical security system. A complete tabulation of financial crises does not currently exist in either the economics or the international political economy literature. However, a number of recent economic studies have counted currency crises in the postwar era with alternative definitions and found very

¹⁵⁸ Exchange rate crises are not all alike. Earlier crises, like those in Mexico (1976 and 1982) and Argentina (1975 and 1981) seemed to be due to ongoing expansion of domestic credit. Krugman (1979) provided a useful analogy of a foreign exchange crisis to the collapse of a government price support system for an exhaustible resource. Domestic credit growth depletes foreign exchange resources until near exhaustion. A final speculative attack exhausts the supply of reserves, reducing real money demand to its post-collapse equilibrium, with higher interest rates due to higher monetary growth. This model focused attention on inconsistent government policies as the reason exchange rate regimes fail. Inconsistent fundamentals imply an inevitable collapse. The exchange rate crises in the ERM in 1992-1993 and in Mexico in 1994 did not seem to fit this pattern. In these crises, governments had not been pursuing steady domestic credit creation to finance deficits. To explain these crises, a second generation of exchange rate crisis model was developed. Early papers include Obstfeld 1986a, 1994; Eichengreen and Wyploz 1992; and Sachs, Tornell and Velasco 1996. This approach focuses on the optimizing decision of government to maintain or abandon the fixed exchange rate, when private sector behavior affects the net benefits of pegging. Exchange rate crises can be caused by anything that shocks an argument in the policy-maker's loss function, including a change in expectations or a speculative attack itself. The Asian crisis of 1997-98 led to the development of additional models which emphasize the role of financial fragility in generating exchange rate crises. Radelet and Sachs (1998) characterize these crises as a bank run on the central bank's reserves. Corsetti, Pesenti, and Roubini (1998) and Krugman (1997) attribute the crises to a combination of moral hazard and a change in expectations about the willingness of governments to stand behind bank loans. Most of the theoretical literature focuses on the role of monetary policy in maintaining a fixed exchange rate. A good review can be found in Daniel (2000).

high numbers.¹⁵⁹ Frankel and Rose (1996) identify currency crises as large nominal depreciations of a country's currency over a short period. However severe speculative pressure does not always lead to large depreciations when the authorities can successfully defend the currency by intervening in the foreign exchange market. Eichengreen, Rose and Wyplosz (1995) and Kaminsky and Reinhart (1999) use an alternative indicator of currency pressure by combining depreciation rates with additional variables such as foreign reserve losses and domestic interest rates. Then a currency crisis is considered to have occurred if the composite indicator increased above a threshold in terms of the country-specific movements. Barro (2001) and Park and Lee (2002) defined currency crisis as a circumstance in which the nominal depreciation of the currency was at least 25 percent during any quarter of the year and exceeded by at least 10 percentage points the depreciation of the currency in the previous quarter. Barro and Lee (2003) combine the two approaches to define a currency crisis as an episode identified by either the former or the latter approach and conclude that a currency crisis is an instance where the change in the indicator of currency pressure for any month of a year exceeded three standard deviations above the mean, provided either the monthly nominal depreciation rate or the percentage change of reserve loss exceeds 10 percent. Applying this procedure, they identify 260 independent currency crises for 130 countries over the period 1970 to 1999. This number appears even larger when compared with the total wars for the system during the same time—68 wars from 1970 to the present (including civil wars) affecting 56 countries.¹⁶⁰ A cross-reference with major wars listed in the Correlates of War project

¹⁵⁹ A good tally of financial crises from the end of the 19th century to the end of the twentieth century has recently been produced by Bordo. Prior to Bordo the best list was found in Kindleberger 1984.

showed 961 militarized disputes from 1970 to 2001 with as few as zero fatalities, 12 interstate wars defined by 1,000 fatalities and involving 21 states, 3 extra state wars involving 5 states, and 78 intra-state wars including civil wars, insurgencies and terrorist organizations with fatalities ranging from 1 to 999. If the intra-state conflict is qualified by fatalities approximating 1,000 then the number of interstate wars drops to 8. Thus a Correlates of War list of wars in the period 1970-2001 with approximately 1,000 fatalities gives a total of 20 wars (extra-state, inter-state and intra-state combined) affecting 34 states, a far smaller number than originally calculated based on a typical encyclopedia listing of wars. The more basic estimation gives a conservative estimate of more than triple the amount of currency crises than wars for more than double the amount of countries; the more precise estimation using COW data gives a larger difference of thirteen times more currency crises than wars affecting nearly four times as many states. Which is the more frequent threat?

Waltz (1979, 109) observes, “a strong sense of peril and doom may lead to a clear definition of ends that must be achieved.” By and large, initiatives of monetary union or currency union are born out of periods of significant financial and monetary instability or crisis; that is, a clear sense of peril and doom. A crisis is not a sufficient cause of monetary union, but it is a necessary condition. Just as in politics insecurity within anarchy is more likely to lead to military alliances, so too in economics uncertainty in finance is more likely to lead to monetary alliances in the form of a monetary union or currency union.

¹⁶⁰ The estimation of wars is my own compiled by counting wars and their participants from various lists and links provided online by <http://www.wikipedia.com>, a free online encyclopedia, cross-referenced with other encyclopedic sources for accuracy.

3. What about Bretton Woods?

The Bretton Woods era of global fixed exchange rates was neither free from currency crises, nor free from each member pursuing its interests. In the second half of the 1960s, while systemic discussions remained focused on the provision of international liquidity, immediate pressures arose against European currencies, and especially the UK pound. In 1964, highlighting the ad hoc and reactionary nature of the organizations attempting to govern the international monetary system, an impromptu international credit package of \$3 billion was arranged for the United Kingdom and the IMF's General Agreement to Borrow was activated for the first time in conjunction with a \$1 billion drawing from the Fund. Crises erupted again in 1965 and 1966-7 culminating in a large sterling devaluation. The French franc came under attack in 1968. In August 1969, despite having agreed several months earlier at a G10 meeting not to change parities, France devalued the franc 11.1 percent without consultation, and Germany revalued the mark 9.3 percent two months later also without consultation, both following national elections.¹⁶¹

Underlining the state of anarchical forces, Nixon blamed speculators for the demise of the Bretton Woods system and the forced exit of the United States two years later on August 15, 1971.¹⁶² Following Nixon's closing of the gold window numerous attempts at re-establishing some order were negotiated among a handful of rich states. Indicative of the lopsided nature of governance of the international monetary system, during G10 deliberations, the developing countries attempted to find a voice through UNCTAD

¹⁶¹ Kenen, Shafer, Wicks and Wyplosz, eds. 2004, 5.

¹⁶² Most subsequent writers blame President Johnson's simultaneous pursuit of the 'Great Society' and the Vietnam War for the monetary turbulence that followed; essentially America's benign neglect became a position of predatory hegemony which created the threat to survival of the system and the welfare of its members as is discussed in chapter five.

Secretary General Perez-Guerrero who expressed concern that poor countries would lose out from a higher gold price since their gold holdings were small. Developing countries also opposed greater exchange rate flexibility and the taking of such decisions that affected the entire state-system within the G10 format rather than a broader representational body. Nevertheless, the U.S. and France agreed to a \$3 increase in the dollar price of gold in December 1971, from \$35 an ounce to \$38 an ounce, which was confirmed within days along with wider fluctuation bands and a realignment of currencies at the G10 meeting at the Smithsonian Institution in Washington, producing the Smithsonian Agreement as a *fait accompli* to the world. Thus even Bretton Woods showed elements of a lack of government and recurrent crises, characteristic of anarchy.

IV. How a monetary alliance addresses anarchy

“The only remedies for strong structural effects are structural changes,” says Waltz (1979, 109-111). Currency crises are strong structural effects while currency unions are strong structural changes--they change a structure from anarchic to hierarchical, at least within the membership. An alliance creates a pillar of stability within an anarchical environment so that some behavior can become predictable. In other words, it turns uncertainty into risk, and creates a probability distribution of outcomes which were previously unknowable. In so doing, it increases the degree of governance and decreases the degree of crisis. The higher the degree of institutionalization of the alliance, the lower the risk of crisis within the sub-system. World stability need not be the goal, only

stability within an economic area of prime importance to the participants, as argued by optimum currency areas theory.

A currency union, like a customs union, is the highest degree of institutionalization of a monetary alliance. It will thus have the lowest risk of crisis within the membership. A significant difference between a currency union and other forms of monetary integration, is that a currency union alone assures complete elimination of anarchy within the group that adopts it and insulation from speculation among the members.¹⁶³ Recall from chapter four that, a single currency by definition eliminates a number of problems and shortcomings inherent in the use of several currencies. These are:

- i. elimination of imperfections in the sustainability of currencies;
- ii. elimination of any possibility, even if remote, of changes in par values, or of '*defecting*' from the union. A single currency ensures that no state is in danger of a *sucker's payoff*;
- iii. elimination of destabilizing speculative capital flows within the currency union;
- iv. elimination of the need for intra-union international reserves to make the commitment credible and offset speculation;
- v. elimination of free-rider problems;
- vi. increase to international monetary influence and enable the currency union to reap the benefits of seignorage;
- vii. elimination of currency *competition* within the currency union and competition between monetary policies that result in either the breakdown of the union or the hegemonic dominance of one member.¹⁶⁴

¹⁶³ In a recent book on Asia's exchange rates McKinnon (2005, 215) made this same claim: "unless these diverse economic units are securely connected by a common money, exchange rate uncertainty (currency risk) will inhibit the international sharing of default risks".

¹⁶⁴ Adapted from the New Palgrave Dictionary of Economics 2001 edition.

Mundell (1973b) showed that when there are different currencies the threat of devaluation [*defection*] introduces an additional element of uncertainty [*threat*] into the system. The common currency [*institution, alliance or agreement*] assures an automatic and equal sharing of the risk of the fluctuations.¹⁶⁵ The gains from a common currency system arise from the opportunity it allows a country to redistribute through time the burden of random fluctuations. Mundell (1973b) showed how having a common currency across countries can mitigate asymmetric shocks by better reserve pooling and portfolio diversification, as noted in chapters one and two. Under a common currency, a country suffering an adverse shock can better share the loss with a trading partner because both countries hold claims on each other's output. This sounds very much like burden-sharing in an alliance and is not dissimilar to the reasons for and manner in which states strive to achieve cooperation under anarchy (Oye 1985). Certainly, a single currency adds two additional costs to a monetary union: 1) costs for the transformation of the system of payments including the costs of changing existing monetary values into the new currency; and 2) the psychological cost to the public of introducing the new currency and their getting used to it, through social consensus and market acceptance.¹⁶⁶ But any military alliance also comes with both structural and psychological costs (not to mention budgetary costs), thus currency unions are not unique in this. Moreover, as Waltz acknowledges, security and freedom are inversely proportional. For finance we may say that stability and sovereignty are inversely proportional. "States, like people, are insecure

¹⁶⁵ The notion is analogous to the basic insurance principle of 'risk pooling' defined as the adding together of the risks of many persons to reduce the cost of risk.

¹⁶⁶ See Alesina and Barro 2000 for a recent model of currency union formation. See also Cassella 1992 and DeGrauwe 1992.

in proportion to the extent of their freedom. If freedom is wanted, insecurity must be accepted. Organizations that establish relations of authority and control may increase security as they decrease freedom.”¹⁶⁷ As with international politics, so too with international finance. The currency union debates of recent years are a prime example of this as states debated the merits of national monetary autonomy over monetary stability.

V. Case Study Evidence

The purpose of the preceding sections was to discuss two fundamental components of anarchy—lack of government and recurring crises—and to show their applicability to international finance. The purpose of the next section is to examine the extent to which these were present in the selected cases, whether a monetary alliance would address the elements of anarchy as expected above, and whether it would do so in different geographical regions and historical periods. Where anarchy is visible, but a monetary alliance is not selected, the theory may be falsified.

A. *American monetary union*

In his 1791 *Report on the Subject of a Mint*, Alexander Hamilton argued against the monetary status quo prevailing in the United States at the time—the multiple currencies issued by each individual state—and in favor of a national money in order to correct the monetary chaos. “The immense disorder which actually reigns in so delicate and important a concern and the still greater disorder which is every moment possible, call loudly for reform,” said Hamilton. It may seem odd to think of the United States as

¹⁶⁷ Waltz 1979, 112.

having had to create a monetary union, it did not have one during its formative years. Each colony or state had the power to--and many did--issue their own paper currencies.¹⁶⁸ During its formative years, the United States experienced currency problems that the framers of the Constitution attempted to overcome. One such problem was the proliferation of fiat monies accompanied by a great deal of exchange rate variability. This system had been in place in some form since 1690, and made for significant uncertainty with no systemic governance at all and constant turbulence. It was within such an environment that the U.S. Constitution gave Congress exclusive power to coin money, and it was this turbulence and uncertainty that Hamilton sought to correct with a mint.

Massachusetts made the first colonial emission of irredeemable paper money in 1690, to pay her soldiers just returned from an expedition to Canada when tax revenue was insufficient. The issue quickly depreciated to 14s to the pound and was called in; a pattern that would characterize colonial money. Massachusetts went beyond all other colonies in the amount of issues, perhaps because she surpassed all others in the volume of business.¹⁶⁹ Eventually all the original thirteen colonies made use of paper money issues, called by somewhat differing names, but all possessing the same general characteristics. All were the direct promise to pay of the colony. This currency was usually made legal tender, and severe penalties were imposed for refusal to sell goods and receive payment in this paper money at par and the penalty for counterfeiting in many instances was death.¹⁷⁰ The sums were substantial, making for a large and diverse

¹⁶⁸ These currencies were fiat monies, that is monies which are irredeemable and intrinsically useless, and circulated against specie and each other at market determined exchange rates.

¹⁶⁹ Phillips 1865-1866, vol.1, 108.

¹⁷⁰ Hepburn 1924, 6.

money supply in America. For example, Douglas (1866) estimates that in 1748 the following amounts of paper money emissions were in circulation in the New England colonies:

| | |
|---------------|---|
| Massachusetts | L2,466,612 |
| Connecticut | L 281,000 |
| Rhode Island | L 550,000 |
| New Hampshire | L 450,000 |
| New Jersey | L 347,500 (*1769 figure) ¹⁷¹ |

During the Revolutionary War years, there was an even greater variety of fiat monies than there was during the colonial period. According to Nevins (1927) “the specie value of the currency issued by the states during the Revolution was estimated by Jefferson in 1786 at \$36,000,000 or just as much specie value of the Continental (federal) currency.” The volume of money in the whole thirteen colonies at the beginning of the Revolutionary War was estimated by contemporary writer Peletiah Webster at ‘L12,000,000 or perhaps not more than L10,000,000’ hard dollars in value, at least two-fifths of which was specie.¹⁷²

Not only were individual colonial (and then state) fiat currencies in abundance, they circulated under a volatile floating exchange rate system. According to McCusker (1978) the fiat monies of different colonies circulated against specie, and against each other at market determined rates. For instance, despite having the same unit of account,

¹⁷¹ As cited in Hepburn 1924, 6. See also Phillips 1866,108.

¹⁷² Hepburn 1924, 12.

Pennsylvania and Delaware currencies exchanged against each other at a variable rate, with Delaware currency at a discount that regularly ranged between 5% and 10 percent. Similarly, Virginia and Massachusetts currency prices varied. For example, in 1761 Virginia currency appreciated 14.4% against Massachusetts currency and then depreciated 6.4% and 9.7% in 1762 and 1763, respectively. In general, the data imply variable exchange rates among all the colonial currencies.¹⁷³

The monetary picture was influenced also by the fact that the reciprocal relations of the American colonies were practically those of independent states. Although the colonists reckoned in terms of sterling, shillings and dollars, the official rates of the silver dollar and other circulating coins varied with the rules and customs of the different colonies. Nettels (1934, 248) gives the following figures for the period after 1708, with 100 indicating the sterling value of the dollar:

| | |
|---------------------------|------------------------|
| New England and New York: | 155:100 |
| Pennsylvania | 178:100 |
| Maryland | 133:100 |
| Virginia | 120:100 |
| South Carolina | 161:100 ¹⁷⁴ |

The greatest problems caused by depreciation of the colonial paper currencies were found in Massachusetts, Rhode Island, and the Carolinas. Illustrating intercontinental currency troubles, the governor of Massachusetts in February 1744 said,

¹⁷³ McCusker 1978.

¹⁷⁴ Nettels 1934, 248 as cited in Nussbaum. 1957, 23, 28-29.

“Rhode Island bills, now in circulation and amounting to L 440,000, L350,000 are passing in Massachusetts, and also L50,000 in Connecticut. On these sums the people here have lost, by the fall of them, L25,000 in the last nine months. This and other such losses equal L180,000. Not only this, but their bills reduce the value of those issued by Massachusetts.”¹⁷⁵

During the revolutionary war years colonial currency and the ‘Continental’ flooded the market and swelled the money supply. The Continental Congress issued over \$226,000,000 of Continentals between June 1775 and the end of 1779, after which it ceased all issues.¹⁷⁶ By 1778 the volume of Continental currency was \$55,000,000 and had depreciated to six for one. More issues and more depreciation followed and in 1779 the Continental currency totaled \$130,052,080. The depreciation of the Continentals was severe. In January 1777, \$1.25 continental was required to purchase \$100 of specie. By January 1781, \$100 Continental was required to obtain \$1.00 in specie. But the depreciating Continentals were not the only source of currency trouble. In 1781 North Carolina exchanged \$200 of paper currency to \$1 specie, a year later in 1782 this exchange rate was revised to \$800 to \$1 specie.

Some other state currencies held their value much better, but still could not maintain stability. Pennsylvania, for example, exchanged its currency at anywhere from 1.25 to 1 to 5 to 1 in terms of specie between 1780 and 1783, but continued to print money. By early 1785 it was estimated that Pennsylvania had more than L160,000 in

¹⁷⁵ Felt 1893, 115 as quoted in Hepburn 1924, 11. See also Bullock 1900 and Dewey 1903.

¹⁷⁶ The figure is from Ferguson 1961 cited in Rolnick, Smith and Weber 1994, 328. Hepburn gives the lesser figures. Authors note slight discrepancies in the figures, given the high growth rate of the issues however some of the discrepancy may be accounted for by looking at numbers at different months.

circulation.¹⁷⁷ Bezanson (1951) noted, the ratio of Pennsylvania state currency values to specie fluctuated between 1.05 and 1.12 in 1786, between 1.10 and 1.75 in 1787, between 1.43 and 1.56 in 1788, and between 1.13 and 1.43 in 1789. Thus while Pennsylvania currency held its value relatively well by the standards of time, holders of its currency were subject to considerable exchange risk.¹⁷⁸ New Jersey currency fluctuated more widely. Within its own borders and in ‘nonspeculative ventures’ New Jersey currency went at a discount against specie of 7 to 15 percent. As early as May 1787 it was at a 12-18% discount in New York, however, and at an 11-20% discount in Philadelphia. A year later in 1788 New Jersey currency was discounted by only 7% in New York, but by 33% in Philadelphia. By 1789, the discount was 33% in both New York and Philadelphia.¹⁷⁹

South Carolina may have had the most stable currency during this period. South Carolina had exchanged its own state debt for federal debt held by its own citizens, so that during Confederation virtually all debt held in South Carolina was state debt. The interest on this debt was paid by state issues of ‘special indents’. Ferguson (1961) estimates that ‘the actual emission of indents varied from \$273,000 to \$535,000 annually’¹⁸⁰. These certificates were redeemed out of tax revenue. In addition, L100,000 was issued through a loan office emission in 1786. “The paper held its value. Such was

¹⁷⁷ Note that the term ‘pound’ did not mean the same thing in every state. Here it refers to the Pennsylvania currency.

¹⁷⁸ Rolnick, Smith and Weber 1994, 331.

¹⁷⁹ Rolnick, Smith and Weber 1994, 331; see also Kaminski 1972, 124-125.

¹⁸⁰ Ferguson 1961, 233 as cited in Rolnick, Smith and Weber 1994, 323; see also Higgins. 1969. Nevins (1927, 526-527) notes however, that South Carolina currency held its value during this period to such an extent that Charleston residents preferred it to specie dollars. Thus not all state currencies were volatile.

its success that in 1789, when specie dollars came pouring into Charlestown it was preferred as being more convenient to use.”¹⁸¹

Colonial currencies were denominated in pounds, shillings and pence but there was no parity of value. A pound in one state was not worth a pound in another state. The fiat monies of Pennsylvania, New Jersey, New York, and South Carolina fluctuated in value relative to specie, and hence fluctuated in value relative to each other, and were exchanged relative to their value in British pound sterling while international as well as intercontinental trade was denominated in British sterling. In the cases of New York and South Carolina in particular these fluctuations relative to specie were relatively small; that is, relative to the large fluctuations among other colonial currencies, such as Rhode Island and North Carolina. Rhode Island’s currency depreciated rapidly. It circulated at one tenth of its face value by 1788, and at one twelfth of its face value by 1789. Finally, in the autumn of 1789, the Legislature repealed the law making the bills legal tender at par, and fixed the value at which it should be received by creditors at one-fifteenth of the value of specie.¹⁸² Beginning just a few years earlier in 1783, North Carolina currency showed similar problems, depreciating to an average of about 25% of specie in the purchase of commodities and then stabilized at about 12.5% to 15% off nominal value when exchanged for hard money. From 1783 to 1785 the paper’s value remained fairly stable but then slipped again from about 25% off nominal value to about 35% off par to about 25% off nominal value. By 1786, the paper was about 33% below specie and went to 40% below by 1787. In 1789, it reached 50 percent of nominal value, and finally

¹⁸¹ Nevins 1927, 526-527

¹⁸² Ferguson 1961, 243 as cited in Rolnick, Smith and Weber, 323; Nevins 1927, 540-41.

stabilized into the next decade.¹⁸³ The only other state that issued fiat money was Georgia. There L30,000 was issued in 1786. According to Kaminski (1972), this went at a one-third discount by 1789. The other states remained 'hard money states', despite substantial agitation for fiat money in some cases, but issued their own currencies nevertheless. In addition to colonial (and then state) currency, the Continentals, the British pounds sterling and the Spanish dollar, a variety of gold and silver coins circulated in the new United States including the French louis d'or, the Austrian thaler, and the Dutch rijksdaalder.¹⁸⁴

Early American economic history shows a lack of governance in monetary affairs and individual mismanagement creating constant uncertainty and high levels of risk. It thus approximates an anarchical environment. Further, it was the financial chaos of the state-issued notes and the 'continentals' during the revolution and immediately after, and Shay's Rebellion just two months prior to the Constitutional Convention, that formed the backdrop for the creation monetary clauses of the U.S. Constitution.

B. European monetary unions

Prior to the classical gold standard hey-day period of 1880-1914, Europe showed the signs of anarchy expected prior to the initiatives for formation of the Scandinavian and Latin Monetary Unions. Kindleberger (1978) shows a total of 21 major financial crises in Europe (the Continent and Britain inclusive) in the 130 years from 1760 to 1890; of these 16 were in the 19th century. The coexistence of gold and silver and double standards prevented any of those systems from working efficiently if the others were not

¹⁸³ Morrill 1969, 70-75, 87-92.

¹⁸⁴ Garson 2001, 23

also working efficiently. An excessive supply of silver or gold would be transmitted to every country, regardless of the standard it followed.¹⁸⁵ Mid-nineteenth century Europe showed a large extent of monetary division and fragmentation. Various metallic standards existed for coins (gold, silver or both); coins were supplemented by paper money or bank notes. Every nation had different monetary units, often not decimal. Their international value was subject to more or less pronounced fluctuations, depending on the metallic standard followed and the confidence inspired by its paper currency. The 1860's did not reflect a unanimous preference for gold, but a quest for stability.¹⁸⁶ As Gallarotti (1993, 37) notes, "Monetary experts of the period described the late 1860s and early 1870s as a period of 'alarm and apprehensions' even 'panic' over developments in the market for metals that could have grave consequences for national monetary systems" leading to what Gallarotti calls a "monetary chain-gang" to gold.¹⁸⁷

Moreover, Britain, the most economically powerful country in Europe, also showed signs of financial weakness and so could not be counted on to support others in trouble, and may have added to regional monetary uncertainty. For example, interest rates in Britain fluctuated significantly from 1855 to 1866, rising to 9% and dropping to 3% in 1858, rising to 8% again in 1861 and then dropping to 2% in 1862 before rising again to 10% in 1864, dropping to 3% in 1865 and spiking at over 10% in 1866. As Einaudi (2001, 26) notes, "The high volatility of the interest rate of the Bank of England, forced

¹⁸⁵ Einaudi 2001, 22-23.

¹⁸⁶ Scholars today also question the stabilizing effects of the classical gold standard 1880-1914. See Bayoumi, Eichengreen and Taylor 1996, 11. See also Bloomfield, and De Cecco 1984.

¹⁸⁷ See testimonies of William Sumner and Joseph Ropes, US Monetary Commission 1876, vol.2, 312, 355. Gallarotti further argues that it was this structural change (unstable metals markets and thus money markets) that was a catalyst for 19th century monetary outcomes including the Latin and Scandinavian monetary unions as nations sought to protect their monetary systems against disturbances in the metals markets.

to defend its gold reserves, was frequently opposed to the placid stability of the rates of the Bank of France. Between 1844 and 1873 the Bank of England changed its rates 212 times, its French and Prussian homologues 83 and 68 times.”¹⁸⁸ Neither was Britain immune to financial crises. The financial crisis of 1866 led to the bankruptcy of Britain’s largest discount house and seven banks leading to signs of financial panic. The government had to suspend the Bank Act for the third time in less than twenty years (1847, 1857, 1866), authorizing the Bank of England to issue additional paper money to supply liquidity to the financial system. Making matters worse, Britain “the so-called monetary hegemon of the period, not only avoided any unilateral initiatives at creating international institutions, but was exceedingly uncooperative at supporting any initiatives in the [monetary] Conferences of 1867 and 1878.”¹⁸⁹

Contemporary French economist and advisor to Napoleon III, Michel Chevalier tellingly advocated monetary alliances as a protective measure for assistance in dealing with financial crises. “One of the most desirable and the simplest [strategies]”, he argued, “is an entente with a great bank of a country and with other countries, such as has been the case on occasion between the Bank of France and the Bank of England. The bank of that country hurt by a crisis would receive aid from the principal banks of the country where affairs go better. Good relations, exchange of assistance between the great banks of different countries would have more happy effects. In states where there are not dominant banks, they could be replaced by groups of banks...”¹⁹⁰ French Finance

¹⁸⁸ Einaudi cites Seyd 1874, 100.

¹⁸⁹ Russell 1898 cited in Gallarotti 1993, 16.

¹⁹⁰ Ministère des Finances 1867, vol.6, 184 quoted in Kindleberger 1984, 277.

Minister Fould echoed the need for a monetary alliance to secure monetary order in a report to the French Foreign Minister Drouyn de Lhuys dated January 19, 1865: “It is evident that there would be undeniable advantages in creating in Europe a large monetary circulation, attached to a single system and identical in its real and nominal value. Such circulation would assimilate those of other countries before long, and we could foresee the time in which, under the influence of a common monetary regime, payments in cash would be protected from the variable conditions of exchange rates.”¹⁹¹ One Belgian delegate to the 1865 monetary conference had similar observations: “One of the most expensive and disturbing obstacles [within international relations] is the effect of monetary diversity which multiplies the variations of the exchange rate. The idea of a monetary systems unification therefore progresses ever day.”¹⁹²

In the 20th century, frustration with the anarchical order and disappointment among Europeans with efforts to establish a more stable global monetary system was one very important driver of European monetary integration. While the exchange rate mechanism of the European Monetary System was successful in providing the member states with the needed exchange rate stability and lower inflation, it was not a complete solution as the 1992 EMS crisis showed. On September 16, 1992, after a week-long battle and a futile day of trying to halt the slide of the pound-sterling, (going as far as raising interest rates a record five percentage points to 15% within 24-hours), Britain dropped out of the European Monetary System in a terrible political humiliation. The British move came at the end of a day in which speculators sold huge amounts of Europe's weaker currencies like the pound, the lira and the peseta, and plowed funds into the

¹⁹¹ Quoted in Einaudi 2001, 41.

¹⁹² Einaudi 2001, 42 cites Ministère des Affaires Etrangères 1865, 351.

deutschemark, traditionally the strongest currency in Europe. At the end of the harrowing week of currency trading finance officials from the twelve member states in Brussels attempted to restore some order to the chaotic currency markets by devaluating the peseta by 5% and allowing the lira to float freely. But the 'ERM nightmare' did not end there; it was only beginning. By late November speculators were again on the offensive forcing yet another devaluation of the peseta, along with the Portuguese escudo, and putting heavy pressure on the seemingly solid Danish krone, Irish punt, and French franc. The turmoil spread beyond EC borders, pulling in nations that at the time had only applied to join the Community. Sweden raised marginal rates to a staggering 500% to protect the krona. Finland cut the markka's link with the Ecu, and Norway was plunged into its deepest financial crisis since World War II. The punt came under heavy pressure in early January 1993 forcing Irish authorities to raise overnight lending rates from 14% to 50%, but to no avail. On January 30th Ireland was forced to devalue by 10% against the other ERM currencies--the biggest devaluation of an ERM member since the European Monetary System was set up in 1979. Not even the French franc was spared whose link to the deutschemark is the backbone of the exchange rate mechanism. France escaped devaluation only through the cooperation of the Bundesbank and the Banque of France in defending the franc. The Banque of France was nevertheless also forced to raise its overnight lending rate by 2% points to 12% and temporarily suspend its five to ten day repurchase rate (then 10%), to make it more expensive for speculators to borrow francs short-term. As a result of the speculation, the six month period between September and February will probably go down as one of the most volatile times of currency trading since the Bretton Woods system of fixed exchange rates collapsed in the early 1970's. Of

the ten currencies that were members of the ERM in September 1992, (Greece was not a member and the Luxembourg franc is set at par with the Belgian franc), only a few remained unscathed. The crisis spared only the strongest currencies--the deustchemark, the Dutch guilder and the Belgian franc-- with the total collapse of the system being averted only by massive, unprecedented support for the beleaguered French franc.

In both the 19th centuries and 20th centuries in Europe, significant currency instability and financial crisis preceded serious actions towards monetary outcomes. While some thought or discussion to the possibilities of currency union may have taken place prior to the crisi period, the outcome did not follow until the anarchical environment became all too evident.

C. Dollarization in Latin America

During the last 30 years, Latin America has been plagued by financial instability partly blamed on inflationary and unstable currencies. The crises have periodically seen severe crashes such as the peso collapse in Mexico in late 1994¹⁹³ and the Argentine crisis in 2000, while across the continent central banks have consistently failed at their job of stabilizing the local currency, setting off massive inflation. Yet only on a few occasions do we see Latin American states attempting a currency union as a solution to this state of affairs. Following the financial and economic crises across the region from 1998-2000, some political leaders, mostly of the right, saw the dollar as a way of bringing order to the chaos by forcing even soft-money radicals to obey the hard-money discipline of America's Federal Reserve. Proponents were willing to dollarize even if it meant swallowing their national pride and entrusting monetary policy to the U.S. "It is like

¹⁹³ Inter Press Service October 6, 2000.

castration,” says Edwards (2001) “You can teach abstinence to kids, or you can castrate them. Castration seems like a drastic last resort. Yet dollarization is being embraced with a religious fervor.”¹⁹⁴ The crises sparked a fierce dollarization debate which has since subsided in the relative financial calm, but there are some lasting effects.

Dollarization is now a tried option. Ecuador, a small, underdeveloped and trade dependent economy in Latin America, found the only way to deal with crises beyond its control was to ally with the strongest monetary power in the region, the United States. The former president of Ecuador Gustavo Noboa Bejarano¹⁹⁵, announced on March 9, 2000 that he had signed the Fundamental Law for the Economic Transformation of Ecuador, a bill that, among its provisions, made the U.S. dollar the official currency of Ecuador, replacing the national currency the sucre. In signing the legislation President Noboa implemented a plan first proposed by his predecessor Jamil Mahuad two months earlier. The first proposal resulted in nationwide protest led by members of the powerful Confederation of Indigenous Nationalities of Ecuador (CONAIE), who feared that dollarization would erode their wages and impoverish them further. Mahuad was overthrown in a civilian-military coup on January 21, 2000. Military leaders then handed power to Noboa, Mahuad’s vice president, the following day. Unyielding, Noboa quickly took up the dollarization policy. Ecuador’s legislature, The Chamber of Representatives, passed the legislation February 29, 2000. Noboa remained president. The measure was part of a bundle of economic and legal reforms that was intended to ease inflation and

¹⁹⁴ *Financial Times* 26 February 2001. See also *Businessweek* 11 December 2000, and *The Times* (London) 12 October 2000. Sebastian Edwards is an economist at the University of California, Los Angeles, and the former chief Latin American economist at the World Bank.

¹⁹⁵ Noboa was replaced by Rodrigo Borja during the October 2002 presidential elections.

economic stagnation, restart economic growth and attract foreign investment. As with the Maastricht Treaty of European Union, the most attention-grabbing measure was the abandonment of the national currency. The country's central bank no longer prints sucre notes or issues debt denominated in the currency, (but coins are still minted locally).

In direct contrast with the EU members, however, Ecuador adopted the dollar not as a carefully negotiated option to strengthen a common market with the United States¹⁹⁶ but as a desperate measure to stabilize its economy following heavy international pressures on its currency, and eliminate malfunctioning domestic monetary institutions.¹⁹⁷ Since early 1998, Ecuador had been undergoing a severe macroeconomic crisis, caused by a combination of external and climatic shocks, made worse by inadequate and, in some instances, inappropriate policy responses. The country faced erratic oil prices, accelerating capital flight, multiple bank failures, international loan defaults, and dramatic depreciation of the national currency, the sucre, resulting in skyrocketing prices. By all accounts, Ecuador was in the grip of its worst economic crisis in seventy years. In 1999, the nation's gross domestic product had shrunk by 7%, and inflation in the 12-month period ending February 1999 had exceeded 90%, the highest in Latin America. In September 1999, the Ecuadorean government had defaulted on more

¹⁹⁶ The United States is Ecuador's largest trading partner taking in about 30% of the country's exports and supplying 25% of the country's imports, but the two do not have a free trade agreement.

¹⁹⁷ That the decision to dollarize was taken in haste and desperation is obvious, what is not obvious is the argument put forth by many, including respected IMF economists, that Ecuador had no other choice but to dollarize. This is not only unclear it is untrue. Full dollarization has never in economic history, past or present, ever been presented as a policy option. Moreover between floating exchange rates and no national currency there are at least ten exchange rate arrangements to choose from. The credibility and stability Ecuador sought could have for example been achieved by a currency board, a new national currency or an IMF intervention, all of which have been implemented in Latin America in times of crisis. Ecuador specifically chose a currency union with the United States.

than \$6 billion in foreign debt. Dollarization, although advocated for some time by industry leaders, was seen at the time as a last resort measure to stabilize the economy.

Ecuador is a member of the Andean Community, a regional organization of five Latin American countries bordering the Andes mountains (Ecuador, Colombia, Peru, Bolivia, Venezuela). The Andean Community was formed in 1969 as a form of regional trade integration (initially implementing the import substitution model). Since then it has expanded its institutional and consultative framework to include a parliament, presidential council, council of ministers, commission, secretariat, tribunal, free trade area, joint investment programs, university, and a Latin American Reserve Fund (FLAR) created in 1976.¹⁹⁸ The objectives of the stated objectives of the FLAR are “to support the balance of payments of member countries by granting loans of guaranteeing loans from other lenders; to contribute to the harmonization of exchange, monetary and financial policies of member countries; [and] to improve the conditions of reserves.”¹⁹⁹ The FLAR, however, has been unable to stem financial crises in its member countries and was not able to alleviate the economic chaos in Ecuador caused by the free-fall in the exchange rate at the time period preceding dollarization.

It is important to note that neither Mexico nor Brazil dollarized despite having experienced significant currency crises in the late 20th century. In fact, Brazil went through a crisis at the same time as Ecuador yet dollarization was not seriously considered as an option. Argentina meanwhile dropped its ten-year dollar-peg currency

¹⁹⁸ Costa Rica is also a member of the Latin American Reserve Fund, but not a member of the Andean Community.

¹⁹⁹ See <http://www.flar.net> for more information on this organization.

board with the United States dollar, abandoning its monetary ties with the U.S. also at the same time as Ecuador and El Salvador were dollarizing. If crisis and lack of governance are meant to lead to alliance, then these cases pose a puzzle to the theory as applied to international finance. There are significant differences however in the relative capabilities of the dollarizing states as compared with the non-dollarizing states. Brazil is the largest economy in Latin America accounting for nearly half of the continent's GDP. Mexico, with strong ties to the U.S., is similarly a large and comparatively diversified economy. Argentina, despite the economic crisis, is similarly a relatively developed economy, with the highest GDP per capita in the region. The internal resources these nations could muster is much larger in comparison to their dollarizing neighbors. Ecuador and El Salvador are small and poor nations heavily dependent on commodity exports and immigrant remittances. The internal resources of these states is relatively weak, thus ties to a stronger monetary power become more attractive. This difference in relative capabilities may be a factor influencing which states enter a monetary alliance and which maintain full monetary sovereignty. More on relative capabilities and relative gains will be said in chapters five and six.

D. The Asian Monetary Union Debate

In Asia, the first discussions of a currency union were the result of severe currency crises caused by speculation and international capital movements. The Asian financial crisis began in Thailand, then quickly spread to Korea, Taiwan, Singapore, Indonesia, Malaysia, and the Philippines, Russia and Brazil in 1997-98. Domestic currencies that depreciated sharply caused major shocks to capital markets and financial

systems in those countries.²⁰⁰ The immediate impact of the financial crisis was to put severe downward pressure on currencies of many countries in Southeast Asia, while stock markets fell sharply. Weak prudential controls in several countries enabled an excessive amount of capital to flow into speculative activities, including real estate sectors. Actual or threatened financial market failures led to a collapse in investor confidence once exchange rate corrections occurred. Most affected states shared common structural and institutional weakness in the financial sector, which contributed to the problem of excessive, poor-quality investment. Underdeveloped banking supervision and credit assessment mechanisms contributed to the inefficiencies of the lending process. Financial sector weaknesses permitted a misallocation of investment in the economy and a buildup of non-performing loans. The problem of the financial sector scenario however is that the bank failures followed the capital outflow which both triggered and exacerbated the currency crises. The currency crisis came first, the financial crisis followed in panic. Moreover, it was not the opaque lending or poor banking regulation that caused the loss of confidence—this is the way these institutions had operated for many years. It was the loss of confidence that triggered the banking crisis as capital outflows revealed bad debt.

Once the crisis hit Thailand, it quickly spread to neighboring countries in the Southeast Asian region. The 20% devaluation of the baht made Thai exports cheaper, pressuring other currencies to follow suit. In particular, Indonesia's rupiah came under vicious attack and had to be devalued by about 90% over the period of just a few months. In the process, again, interest rates were rising sharply, as capital flight from Indonesia

²⁰⁰ See IMF reports October 1998 and December 1998.

was accelerating. The subsequent turmoil in the financial markets and the economy as a whole in Indonesia was even more severe than that in Thailand, due to a complete collapse in the financial as well as the political system in that country. In the following round, the currency and financial crisis in Southeast Asia brought down South Korea. The South Korean economy was hard hit because it invested heavily in the Southeast Asian countries in general and in Indonesia in particular. In this so-called "Asian contagion" process, South Korea, just like Indonesia and Thailand, almost went bankrupt as a nation and needed billions in financial assistance from the IMF and others.

The Asian financial systems showed current account deterioration, a build-up of speculative short-term loans, or non-performing loans. But they were the problems behind the crisis. The immediate momentum that triggers currency crisis is always the outflow of capital. The Thai baht came under speculative attack in February and May 1997. Initially official foreign reserves were sold to defend the currency. In the process these reserves fell from about \$39 billion in January 1997 to \$32 billion in June 1997. In addition the Bank of Thailand sold over \$23 billion of the reserves on the forward market. This rapid depletion of reserves forced the Bank of Thailand to announce a float of the baht on July 2, 1997. As confidence in the financial system waned, borrowers faced increasing difficulties in rolling over short-term debt, outflows from finance companies as well as commercial banks intensified and selling pressure on the stock exchange increased. Developments in the stock market and the currency market fed upon each other. There seem to be several factors causing and worsening the crisis in Asia. By the end of 1996 all of the Southeast Asian currencies were overvalued. In particular, the Thai baht which was first hit by speculation in the current crisis had been almost

completely pegged to the dollar for more than 10 years. Other factors cited are insufficient regulation on financial institutions, short-term capital flows, speculative attack, economic overheating with high inflation, large trade deficits, inflated stock and real estate values and heavy external borrowing, and rigid political structures leading to inflexibility in adjusting growth targets leading to a loss of market confidence.

Many concluded that in order to avoid the detrimental effects of exchange rate crises due to unstable capital flows, East Asian countries must protect themselves. Liquidity is the key to self-protection (Feldstein 1999). A country that has substantial international liquidity is less likely to be the object of a currency attack, and can defend itself better and make more orderly adjustments when it is attacked. However, no matter how much liquidity a country holds, this amount is dwarfed by the magnitude of international capital flows and one country alone cannot protect itself against the attack of international capital. When East Asian countries were temporarily short of liquidity, they could not depend on the IMF or other international organizations as lenders of last resort.²⁰¹ In the wake of the crisis, with anarchy painfully evident, Asian countries put forward numerous self-help proposals.

The idea of an Asian Monetary Fund (AMF) arose in August 1997 to support the crisis-hit Thailand. The Japanese government, which took the initiative in leading the creditor country meetings at that time, thought it necessary to create a \$100 billion dollar fund to prevent the recurrence of crisis. Soon after, Japan unofficially proposed this idea in a series of finance ministers' meetings of G-7 and ASEAN countries held in September

²⁰¹ Rather, there was the perception that the events of 1997-98 had been compounded by the large positions of highly-leveraged institutions in New York and the less than generous assistance and conditionality of multilateral financial institutions in Washington D.C.; See Eichengreen 2001.

1997. This proposal was rejected by the United States and the IMF (and then retracted by Japan), on the grounds that such an organization would overlap the IMF's tasks in this region, and could cause "moral hazard" of profligacy in individual governments since regional bailouts would be more easily available through the AMF. Shinohara (1999a, 1999b) provides the proposal whose essential function would be to provide emergency financial support to would-be crisis-hit countries, to promote policy dialogue, and to prevent possible future crises.²⁰²

Although the AMF proposal was retracted, calls for such an Asian monetary facility continued. An agreement on the framework for strengthening Asian regional cooperation for financial and currency stabilization (the Manila Framework) was reached in November 1997. The Manila Framework stressed the need for implementation of regional surveillance to complement global surveillance, for cooperative financing arrangements by member countries to complement the financial support of the IMF, and for economic and technical cooperation to strengthen the financial systems and regulatory capacities. Three years later, the Chiang Mai initiative was agreed on May 2000 between the 10 ASEAN countries plus Korea, China and Japan (the so-called ASEAN+3) in order to 1) strengthen the policy dialogue and facilitate regional surveillance, and 2) reach bilateral swap agreements (between the U.S. dollar and regional currencies) and thereby to provide a short term lending support mechanism. Finally, a framework for regional monetary stabilization (FRMS) was proposed by the Institute for International Monetary

²⁰² The mobilization of funds could be realized by borrowing from member countries (member countries should earmark a significant amount of their foreign exchange reserves as a contribution to the AMF), borrowing from capital markets (member countries should offer another proportion of foreign exchange reserves to the AMF as a last pledge), and extending guarantees to member countries.

Affairs in July 2000. This framework is far more concrete in its content, but basically similar to the proposal of the AMF.²⁰³

V. Concluding Remarks

The discussion in this chapter first showed how international finance was at least as anarchical if not more so than international politics if anarchy were defined as a lack of government and recurrent crises. In Table 5 at the end of this chapter, I present a comparative chart of financial crises and wars from 1880 to 2000. The data is tabulated from the financial crises dataset compiled by Bordo and the Correlates of War dataset. From Bordo I count all three of his categories (banking crisis, currency crisis and twin crisis of both banking and currency crises). It is noteworthy that the largest category of financial crises by far in the past 120 years is the currency crisis by itself. From the Correlates of War database I count only those militarized disputes that showed at least 1,000 battle-deaths, following the traditional definition of war in the security literature. The reader will note that not only are financial crises more frequent than wars since the post World War II era but they are more frequent than wars even since the 19th century. Furthermore, with the exceptions of World War I and World War II, financial crises also have affected more states in the international system for the past 120 years than any wars at any one time. Therefore international financial system is now and has been for some time characterized by a high frequency of crises and lack of government, and may

²⁰³ See Hiramatsu 2000; Miura 2000. See also Eichengreen 2001.

appropriately be labeled anarchical. Thus the first necessary condition of balance of power structure as established by Waltz, anarchy, is fulfilled.

Then I examined cases of currency union and a proposed currency union in different geographic regions and centuries, and determined that each was characterized by anarchical structure. The frequency of financial crises within a region was a factor in spurring at least a discussion of a currency union, and in several instances action.

However the severity of crises also played a big role. The financial crises facing states that entered into a currency union were not multiple and small, but multiple and very large in impact. Thus anarchy is a necessary condition but may not be sufficient. The environment might need to be substantially threatening for states to seek to create order and governance. The severity of crises and their consequences is the subject of the next chapter.

A special note was made of the cases of Argentina, Brazil and Mexico, which did not adopt full official dollarization despite experiencing significant currency crises. This presents a problem for the theory, however as noted some explanation may be provided by a discussion of relative gains and relative capabilities in chapter seven. In the next chapter we examine the second necessary condition for a balance of power structure, survival, and the threat posed by currency crises.

Table 5. Financial Crises and Wars

| Year | Countries facing Financial Crisis | Year | countries at War |
|---|---|------------------------------|---|
| 1882 | France | 1882 | Egypt |
| 1884 | USA | 1883-1885 | China, France |
| 1885 | Denmark, Greece | * | * |
| 1887 | Chile | * | * |
| 1888 | France | * | * |
| 1889 | Brazil, Chile, France | * | * |
| 1890-91 | Argentina, Brazil, Canada, Italy, Portugal, United Kingdom | * | * |
| 1891-1893 | USA | * | * |
| 1893 | Australia, Canada, Germany, Italy | * | * |
| 1894 | Italy | 1894-1895 | China, Japan |
| 1897 | Brazil, Denmark, Netherlands, Sweden | 1896-1897 | Turkey |
| 1898-1901 | Brazil, Chile | 1898 | USA, Spain |
| 1900 | Finland, Japan | 1900 | China |
| 1901 | Germany, Japan | * | * |
| 1904 | Japan | 1903-1905 | Japan, Russia |
| 1907 | Chile, Denmark, France, Germany, Italy, Japan, Sweden, USA | * | * |
| 1908 | Argentina, Canada, Italy, Japan | 1909-1910 | Morocco, Spain |
| | | 1911-1913 | Turkey, Italy, Bulgaria, Greece, Yugoslavia, Romania |
| 1914-1915 | Argentina, Australia, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, USA | 1914—1919 First World War | Austria-Hungary, Belgium, Bulgaria, France, Germany, Greece, Italy, Portugal, Romania, Russia (USSR), Turkey, United Kingdom, USA, Yugoslavia |
| 1917 | Japan | 1919-1920 | USSR, Poland, Hungary, Romania, Czechoslovakia, |
| 1920 | Portugal, Spain | 1919-1922 | Greece, Turkey, France |
| 1921 | Canada, Denmark, Finland, Italy, Japan, Netherlands, Norway | * | * |
| 1922 | Denmark, Netherlands, Norway | * | * |
| 1923 | Brazil, Canada, France, Netherlands, Norway, Portugal | * | * |
| 1924-1926 | Belgium, Chile, Spain | * | * |
| 1926 | France | * | * |
| 1927 | Japan | * | * |
| 1929 | Canada | 1929 | China |
| 1929-1932 Great Depression (1929-1933) | Argentina France, Japan, USA | * | * |
| 1930-1931 Great Depression | Brazil, Italy | 1930-1931 | China, Japan |
| 1931 | Belgium, Canada, Chile, Denmark, | 1931-1935 | Bolivia, Paraguay |

| | | | |
|------------------------------|--|--------------------|--|
| Great Depression (1929-1933) | Finland, Germany, Greece, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom | | |
| 1932 | Denmark, Greece, Portugal, Sweden | 1933-1934 | Saudi Arabia, YAR |
| 1932-1933 | Australia | 1934-1936 | Ethiopia, Italy |
| 1933 | Switzerland, USA | 1936-1939 | Italy, Portugal |
| 1934 | Argentina, Brazil, Germany | 1937-1941 | China, Japan |
| 1934-1935 | Belgium, Italy, Netherlands, | 1938 | USSR, Japan |
| 1936-1937 | France, Italy, Switzerland | * | * |
| 1938-1939 | Belgium | 1939-1944 WW II | Australia, Belgium, Brazil, Bulgaria, Canada, China, Finland, Ethiopia, France, Germany, Greece, Hungary, Italy, Japan, MON, Netherlands, Norway, Poland, Romania, South Africa, United Kingdom, USSR, USA, Yugoslavia |
| 1939 | Finland, Netherlands, Switzerland | * | * |
| 1947 | United Kingdom | 1947-1949 | Pakistan, India, Egypt, Israel, Jordan, Syria |
| 1948 | France | * | * |
| 1949 | Australia, Belgium, Finland, Germany, Netherlands, Norway, Sweden, United Kingdom | * | * |
| 1950 | Argentina, Canada, Greece | 1950-1953 | China, North Korea, South Korea, USA |
| 1953 | Chile | | |
| 1957 | France | 1955-1956 | Egypt, Israel, Hungary, USSR |
| 1958 | Spain | * | * |
| 1959 | Argentina, Brazil | * | * |
| 1960 | USA | 1961-1962 | India |
| 1961 | United Kingdom | 1964-1973 | USA, North Vietnam, South Vietnam, South Korea |
| 1962 | Argentina, Brazil, Canada, Chile | 1964-1975 | North Vietnam, South Vietnam |
| 1963 | Brazil | 1965 | India, Pakistan |
| 1964 | Italy | 1966-1973 | Philippines |
| 1964-1967 | United Kingdom | 1966-1967 | Syria, Israel |
| 1965 | Brazil | 1967-1973 | THI |
| 1967 | Argentina, Spain | 1967 | Egypt, Israel, Jordan |
| 1968 | Chile, France | 1969 | Honduras |
| 1970 | Argentina | 1970-1975 | Cambodia |
| 1971 | Australia, Belgium, Denmark, Finland, Greece, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, USA | 1971 | Pakistan, India |
| USA closes gold window | | | |
| 1974-1976 | United Kingdom | 1971-1973 | Israel, Egypt, Syria |
| 1975 | Argentina, Bangladesh, Chile, Egypt, Indonesia, Malaysia, New Zealand, Peru, South Africa, Uruguay, Zimbabwe | 1974 | Turkey, Cyprus |

| | | | |
|-----------|---|-----------|--|
| 1976 | Australia, Chile, Denmark, Ireland, Italy, Jamaica, Mexico, Portugal, Spain, Sweden | 1975-1979 | Democratic Republic of Vietnam, Cambodia |
| 1977 | Chile, Peru, South Africa, Sri-Lanka, Switzerland, Turkey | 1977-1978 | Cuba, Somalia, Ethiopia, Tanzania |
| 1978 | South Africa | 1978-1979 | Tanzania, Uganda, China, Vietnam |
| 1977-1983 | Israel | * | * |
| 1977-1985 | Spain | * | * |
| 1978 | Indonesia, Jamaica, New Zealand, Portugal, | * | * |
| 1978-1986 | Venezuela | * | * |
| 1979 | Egypt, Japan, Pakistan, Turkey, Uruguay, | * | * |
| 1980 | Korea, New Zealand, | 1980-1988 | Iran, Iraq |
| 1981 | Egypt, Jamaica, Mexico, Nigeria, South Africa, Zimbabwe | * | * |
| 1981-1986 | Uruguay | * | * |
| 1980-82 | Argentina, Bangladesh, Belgium, Canada, Chile, China, Costa Rica, Ecuador, Mexico | * | * |
| 1982 | Singapore, South Africa | * | * |
| 1982-1989 | Ghana | * | * |
| 1982-1985 | Turkey | * | * |
| 1982-1987 | Colombia, Philippines | * | * |
| 1983 | Canada, Chile, Greece, Indonesia, Jamaica, Mexico, Peru, Portugal | * | * |
| 1983-1987 | Thailand | * | * |
| 1983-1990 | Peru | * | * |
| 1984 | Argentina, Canada, Chile, Ecuador, New Zealand, Paraguay, South Africa, Zimbabwe | * | * |
| 1985 | Australia, Canada, Greece | * | * |
| 1985-1988 | Malaysia | * | * |
| 1986 | Canada, China, Finland, Indonesia, Ireland, Nigeria, Norway, Paraguay, South Africa, Zimbabwe | * | * |
| 1986-1993 | Norway | * | * |
| 1987 | Argentina, Brazil, Costa Rica, | * | * |
| 1987-1992 | Denmark | * | * |
| 1987-1990 | New Zealand | * | * |
| 1987-1996 | Bangladesh | * | * |
| 1988 | Ecuador, Jamaica, Nigeria, Pakistan, Senegal, South Africa, Zimbabwe | * | * |
| 1989 | Egypt, Paraguay, Senegal | | |
| 1989-1993 | Sri-Lanka | * | * |
| 1990 | Mexico, Pakistan, Senegal, Zimbabwe | 1990-1991 | Iraq, USA |
| 1990-1995 | Italy | 1992-1995 | Armenia, Azerbaijan |
| 1988-1991 | Ivory Coast, | * | * |
| 1991 | Ecuador, India, Jamaica, Senegal, | * | * |

| | | | |
|-----------------------------------|--|-----------|------------------|
| | Sweden, Turkey | | |
| 1992 EMS Crisis | France, Finland, Ireland, Italy, Spain, Sweden, United Kingdom | * | * |
| 1992 | South Africa, Zimbabwe | * | * |
| 1989-1992 | Argentina, Australia, Brazil, China, | * | * |
| 1991-1994 | Finland | * | * |
| 1991-1995 | Egypt, Greece, Nigeria | * | * |
| 1992-1997 | Japan | * | * |
| 1993 | Denmark, Jamaica, Pakistan, Sweden | * | * |
| 1993-1996 | India | * | * |
| 1994 | Indonesia, Senegal, Sweden, Turkey, Venezuela | * | * |
| 1994-1995 | France | * | * |
| | | | |
| 1994-1996 | Argentina, Brazil, Costa Rica, Jamaica, Mexico | * | * |
| 1995 | Pakistan, South Africa, Spain, Venezuela, Zimbabwe | * | * |
| 1996 | Ecuador, Venezuela, Zimbabwe | * | * |
| 1997 Asian Financial Crisis | Indonesia, Korea, Malaysia, Pakistan, Thailand | * | * |
| 1997 | Costa Rica, Ghana, Jamaica, Mexico, Nigeria, Paraguay, Venezuela, Zimbabwe | * | * |
| | * | 1998-2000 | Etiopía, Eritrea |
| | * | 2001 | Afganistán, USA |
| | | | |

Source: Financial crisis data from Bordo (scholar's homepage); War data from the Correlates of War dataset.

Chapter Five

Threat and Survival, and Allies

The first necessary condition given by Waltz for a balance of power structure—*anarchy*--was addressed in chapter four. This chapter examines the second necessary condition given by Waltz for a balance of power structure—the primary concern for survival. In this chapter, I examine the theoretical framework of threat and survival in international relations, the interpretation of threat in economic (specifically monetary and financial) relations, and its relation to neorealism. Using Waltz's analysis of structural theory, the goal is to show how systemic pressures present threats to survival in both international politics and international finance, and argue that under such pressures states are likely to seek allies. From international politics we have the following general hypothesis about outcomes: threats to survival will give rise to alliances.²⁰⁴ From this we derive a corresponding hypothesis that financial threats to survival as we know it will give rise to monetary alliances, and the more so as crisis severity increases.

I. Defining threat, survival and allies in international finance

Waltz (1979, 91-92) observes, states may have many goals other than survival, but survival is the prerequisite to attaining them.²⁰⁵ In international politics, the basic goal of each state is to survive—to preserve its sovereignty and autonomy. Sovereignty and

²⁰⁴ Balance of threat theory developed by Walt (1987) differs from Waltz (1979) in that the former relates to foreign policy while the latter relates to outcomes in international politics.

²⁰⁵ Gilpin (1968) also notes that unless it first assures its security and survival, a state will not be able to pursue other goals it values.

autonomy, in turn, are defined as the ability of a state to act independently, which itself depends on relative capabilities. It then follows that to the extent that independent action is compromised, sovereignty and autonomy are also compromised and so survival is threatened. Thus states seek to survive in form and without a decline in status.

International politics takes place under the shadow of war, because, with no overarching governing body, each state must be prepared to use military force to defend itself and ensure its political survival. International finance takes place under the shadow of crisis, with a similar lack of an overarching governing body, where each state must be prepared to use its own economic resources to defend itself and ensure its economic survival.

Neorealism posits that states form alliances because of a (perceived or real) threat to their survival. The central premise of this chapter is to determine the existence and extent of an identifiable threat to the survival of state actors in international finance. To the extent that no threat is identified, or states fail to seek allies in the face of an identified threat, the theory is falsified. In international finance the primary threat is financial crisis, where currency stability figure prominently. As Mundell (2000) has noted, “exchange rate volatility is a major threat to prosperity in the world today.”²⁰⁶ This threat must not only be present but also significantly damaging to warrant an expected self-help action.

1. What is survival?

Survival in political relations refers to both physical and diplomatic existence of a state, and its autonomy as an independent actor. Survival in state economic relations

²⁰⁶ Wall Street Journal 3 March 2000, pp.A30; see also <http://www.robertmundell.net>

refers to a state's economic welfare, and its autonomy as an independent actor. Survival is not just a physical condition. Conquered states do not disappear from the world map. They are simply governed by someone else. To be considered an actor in the international state system, one must be capable of acting. Liberty and freedom of action, independence in decision-making, peace and prosperity for the citizens, all together define the survival of a state. Without these, national symbols and geographical demarcations have little meaning.²⁰⁷ Speaking on African decolonization, Ghana's Dr. Kwame Nkrumah put the matter this way: "Our political independence will be worthless unless we use it to obtain economic and financial self-government."²⁰⁸

The effect of economic threats in compromising the survival of a state, so defined, can be underestimated by IR theorists, although some scholars have made note of it. For example, Martin (1997, 31 fn.6) argues that "the survival of the United States [in the 19th century] was perceived to be threatened in the sense that economic stagnation and severe distress were thought to undermine the legitimacy and viability of American political

²⁰⁷ I am not referring here to a failed state but one restricted or, at the extreme, marginalized in its capacity to act as an independent state actor. A failed state refers to a weak state in which the central government has little effective judicial control over much of its territory, has lost the monopoly on the use of force (militias, terrorist organizations, warlords, etc. are prevalent within its territory), and is characterized by high crime rates, corruption, informal market, impenetrable bureaucracy and military interference in politics. Note that while war may adversely contribute to the capacity of a state to maintain order (especially if it loses), economic failure is also a factor in such a degeneration as a result of its effect on political stability, radicalization, government capacity for side-payments and democratic reversal. Thus a marginalized state can degenerate further into a failed state, a significant threat to state survival as we know it. Failed states, however, are an extreme outcome and will not be addressed further here. Suffice to say that this situation in the international state system is one of great concern. So much so that the 2002 U.S. National Security Strategy concluded that "America is now threatened less by conquering states than we are by failing ones." In 2005 the Foreign Policy Association and the Fund for Peace began developing an annual Failed States Index to rank countries in terms of danger of collapse, listing both economic decline and security apparatus as indicators of instability. See <http://www.foreignpolicy.com>. To the extent that financial crises contribute to economic decline and so the possibility of a state 'failing' they are a cause for close monitoring for the threat they pose to political survival of both the suffering state and the stable ones.

²⁰⁸ Nkrumah autobiography 1961, 111 as cited in Davies 1994, 609.

institutions.”²⁰⁹ Martin cites, among others, Senator Stewart (R-NV) who argued to President Harrison that “financial independence is almost as essential to the prosperity of this country as political independence.”²¹⁰ More recently, Japanese economist Kanzawa (2001) stressed that the power of capital must be balanced because it infringes on state autonomy. “The structural power of capital,” he notes, “is an ability to change the range of choices open to others, without apparently putting pressure directly on them to take one decision or to make one choice rather than others.”²¹¹

2. *What is a threat?*

The threat to a state in international politics is the possibility of military attack and physical destruction. The threat in international finance is speculative attack and economic destruction. In political relations a threat may be to a state’s territorial integrity, population, diplomatic standing, or independent action. In economic relations a threat may be to a state’s market access, capital access, diplomatic standing, and independent action. In the military case people die and buildings may fall. In the financial case people go hungry and buildings may decay. In the modern world, it might be relevant to compare how many die with how many go hungry, as the latter may be a far larger number than the former. And if it is people’s lives that are at stake it may well be that today, financial crisis is the larger threat. Effectively, however, we are dealing

²⁰⁹ Martin (1997) examines economic policy, primarily trade, with evidence from political party platforms in presidential campaigns. She concludes that the United States balanced economically in the period from 1870-1896.

²¹⁰ Quoted in Williams 1969, 325 and cited in Martin 1997, 79. For a similar argument from the Representative from Kansas see Williams 1969, 200.

²¹¹ Kanzawa 2001.

with a threat, in both cases, of destruction and misery, albeit of different character or degree but similar outcome—the state that falters under any attack is subsequently worse off. And this is not a threat necessarily confined to the financially weak developing world. During much of 2005 the United States and China were involved in a dispute over the exchange rate of the renminbi (or yuan), the Chinese currency, with the United States claiming that China's fixed exchange rate policy that pegged its currency to the dollar was predatory—artificially undervaluing the Chinese currency and hurting US exports to China. The increasingly hostile public exchanges caused the *Financial Times* to call the dispute the 'balance of financial terror'.²¹²

3. *What allies?*

To guard against a situation that makes it worse off, a state must make itself stronger and thus better able to withstand a threat to its autonomy and attack on its institutions. States do this by either building up internal resources, or seeking allies with whom, together, they are stronger. Dealing with threat may also mean amassing enough economic power to move out from under the shadow of a hegemon. The outcome is similar: in the face of military threat, states seek military allies that can make them stronger; in the face of financial threat, states seek financial allies that can make them stronger.

An anarchical environment laden with threats to survival, Waltz predicts, will give rise to self-help alliances that generally (though not always) balance against preponderant

²¹² *Financial Times* 22 July and 27 July 2005. In July 2005 United States complaints about Chinese currency policy appeared to finally have produced results. China announced on July 22, 2005 that it would revalue the yuan and allow it to float within a small band around a basket of currencies, ending its nearly ten year fixed peg with the U.S. dollar. See also *The Wall Street Journal* 25 July and 22 July.

power. For states to engage in a balancing or bandwagoning alliance, the source of the threat must be an identified actor that is at least partially responsible (or perceived to be responsible) for the (perceived or real) threat to survival. The most prominent target in an economic alliance, as with a political alliance, is a hegemonic state. Given the existence of a threat and a target, a state may be expected to seek allies following balance of power theory predictions as stated by Waltz (1979) and what Morrow (1991) has called 'the capability aggregation model'.²¹³

What types of allies might a state seek in international monetary affairs? Those that will expand its relative capabilities, so it might better protect itself from threats to its survival as a functioning independent actor without a loss in status. Relative capabilities are especially important in economics, perhaps more so than in politics. In international politics, states without proximate threats could perhaps choose allies based on ideological and domestic factors, that is, on 'like-mindedness'. In economics augmenting one's relative capabilities is the only concern and the only cause for action. A trade pact with a state that adds nothing to your exports and national income is meaningless. A monetary union with a financially weak neighbor is foolhardy. Few statesmen would be expected to seriously propose such plans—it would not make good business sense. Hence Waltz's

²¹³ See Morrow 1991. Morrow argues that alliance choices are better predicted by trade-offs between autonomy and security rather than capability aggregation. My own view is that there is little contradiction between the trade-off model and the capability aggregation model. Both are compatible with and derived from Waltz's structural theory. The trade-off between autonomy and security is represented in the arguments for monetary sovereignty in regards to currency unions. However the argument is often tempered by cost-benefit analysis that shows a preponderant concern with relative gains and relative capabilities before and after the currency union. Because of the prominence of this type of calculation in economics I focus on capability aggregation in this chapter and the next. Morgenthau 1948, Waltz 1979 and Walt 1987 each discuss capability aggregation in alliances. See also Kaplan 1957.

emphasis on relative capabilities is especially relevant to international economic relations. States, like firms, are socialized into focusing on the bottom line.²¹⁴

II. Currency crises and threats to state survival as we know it

Three distinct threats to state survival as we know it that arise from monetary crises are: 1) the threat to national income and thus national power, 2) the threat to political stability, and 3) the threat of monetary mercantilism. There are two specific threats to a state's survival as an independent actor that are stronger in finance than in politics. One is the effect on growth and national income; the other is the effect on political stability. Two indicators of threat to survival are examined, the comparative economic costs of war and crisis and the comparative political costs of war and crisis. Mercantilism is a distinctly economic threat, absent from international politics, and is considered separately.

1. Comparing economic recovery after wars and crises

Eichengreen (2003) writes of capital flows and crises: "It is hard to think of another issue over which there is more dispute or where the stakes for policy are higher... Flows can turn on a dime, and when they do, they can bring the entire financial infrastructure crashing down. The task for policy is therefore to insulate economies from this risk."²¹⁵ One trend that has been overlooked in the current literature is the potentially more destructive nature of financial crises as compared to wars. In direct contrast with

²¹⁴ More is said about socialization, competition and relative capabilities in chapter six.

²¹⁵ Eichengreen 2003, 13.

financial crises, several scholars have found that war has a positive effect on economic growth through what Organski and Kugler (1977, 1980) called the 'Phoenix' factor (i.e. rapid recovery rate). In particular, post-war economic performance is positively related to the severity and duration of war. These growth effects vary negatively with a country's level of economic development (i.e. the rich gain less, the poor gain more) and are present not only in global, highly destructive wars but also in smaller interstate conflicts.²¹⁶ Koubi (2005) argues that the neoclassical economics exogenous growth model of Solow (1956) links wars to growth through three channels: a) through destruction of resources, b) through an increase in the savings rate, and c) through invention/adoption of new technologies with potential for commercial applications.²¹⁷ In addition to its direct economic effects, war may also affect growth through a variety of indirect channels, such as its impact on political structures, demographics, national cohesion, the distribution of income and so on.

In contrast to war, financial crises have no positive growth effects but have depressing effects on growth and investment for at least five years and possibly permanent effects. These negative outcomes generally affect both rich and poor states, although the size of the downturn is inversely proportional to national wealth (i.e. the poor suffer more, the rich less) as might be expected from an analysis of states' relative capabilities. From structural theory we might expect that the larger internal capabilities of a richer state means war destroys comparatively less than it would in a poorer state. The

²¹⁶ See for example Barro and Lee 1994; Collier 1999; Dulles 1942; Kugler and Arbetman 1989; Olson 1982; Organski and Kugler 1977, 1980; Rasler and Thompson 1985; Van Raemdonck and Diehl 1989; Wheeler 1980 in Singer, ed. For an example of a study that draws the opposite conclusion see Thorp 1941.

²¹⁷ See Koubi 2005, and Solow 1956.

same conceptual argument may be possible for financial crises, that is, they are less destructive for rich states because the relatively larger internal resources of a rich state allow it to bounce back faster and affect its overall growth less. Economic analysis shows that.

Calvo and Reinhart (2000) estimate that growth typically falls by 2.0 percentage points between the year preceding a currency crisis and the year following the crisis in emerging markets, but only by 0.2 percentage points in developed countries.²¹⁸

Eichengreen (2000) estimates that GDP falls by 3 percentage points between the years preceding a crisis and following a crisis in the typical emerging market but not at all in the typical OECD country. More recent studies have been more pessimistic. Barro and Lee (2003) found indications for permanently depressed economic prospects in Asia following the 1997 Asian financial crisis as a result of sharp reductions in investment ratios, which have recovered only slightly, and lowered stock-market prices. Investment ratios showed dramatic declines in affected countries (especially Indonesia, Korea, Malaysia and Thailand) and remained low and stagnant five years following the crisis. Stock market valuations similarly dropped sharply and did not recover to previous levels even five years later. They note “recoveries were strong in some cases but it is unclear whether pre-crisis growth rates will be re-attained.”²¹⁹

Looking at the longer-term effects of financial crises, Barro (2001) found that a combined currency and banking crisis typically reduced output growth by 2 percent a year, (compared with 3 percent a year for the Asian financial crisis) and the effects

²¹⁸ Calvo (2006) recently argued that in fact emerging market economies exhibit a “Phoenix Miracle” of growth after a sudden-stop, where capital inflows suddenly reverse. GDP growth, says Calvo, recovers within two years although domestic credit, foreign credit, investment and real wages do not recover.

²¹⁹ Barro and Lee 2003.

persisted for a five-year period.²²⁰ Following the five year negative effects on growth, GDP growth rates tend to rebound by only about 0.6 percent per year in the subsequent five year period,²²¹ meaning it would take a decade or two simply to return to the pre-crisis level of economic output, with a more protracted negative period if a currency crisis were accompanied by a banking crisis. Hutchinson and Noy (2002, 2004) found that currency crises reduce economic output by 2-3 percent; if the currency crisis was accompanied by a balance of payments crisis, the double effect (called or twin crisis) produced an additional 6-8 percent decline in output in the year of the crisis, with a cumulative loss of 13-15 percent over a three year period following the crisis.²²² Thus in contrast to war, the economic repercussions of a currency crisis are long-term retarded or negative growth, as opposed to the 'phoenix factor' of war.

The negative effect of financial crises on economies has a larger meaning for states in the international system; declines in output translate into declines in power since national income feeds directly into the power equation, as discussed in chapter three. States concerned about their power capabilities might note that financial crises make them immediately weaker, by a significant amount, with at least a five year lag time before any recovery begins, a ten year lag time to return to the pre-crisis level and the possibility of never returning to that level at all. On the other hand, at least one study shows that output losses from financial crises have not increased when examined on a

²²⁰ See also Park and Lee 2001.

²²¹ See Barro and Lee 2003.

²²² For an updated version of this paper see Hutchison and Noy (Neuberger) 2004 available at <http://ideas.repec.org/p/cdl/ucscec/1009.html>

historical basis—they were always large.²²³ Waltz's discussion of relative capabilities is especially important given these losses. Since wealthier states with a stronger economic infrastructure are better equipped to weather crises. It might then be expected that states would seek to expand their capabilities in economics for the same purpose that Waltz argues they would seek to expand capabilities in politics, to better protect themselves in times of crisis (or war).

2. *Comparing political costs of war and financial crisis.*

A second way economic threats affect the survival of a state as we know it is through their ability to generate political unrest,²²⁴ electoral losses and democratic reversals. Political crises can cause both wars and financial crises. However where war can, arguably, be a useful tool of political elites by diverting attention from political problems and drumming up popular support for the state, financial crises cannot be used in this way, and in fact have the opposite effect—drawing attention to the failures of government in protecting the economy and society. Two factors present in war but absent in financial crisis may even make the political costs of war lower than the political costs of financial crisis—the diversionary theory of war and the rally 'round the flag effect.

The central argument supporting analyses on diversionary wars is drawn from the sociological literature on group dynamics, which contends that cohesion within a group can be increased through conflict with an external group.²²⁵ Often heard in the popular

²²³ See for example Delargy and Goodhart 1999.

²²⁴ Martin 1997, 177.

²²⁵ For the sociological foundations see Simmel 1898 and Coser 1956. For more recent game-theoretic principle-agent models of this theory see Richards, Wilson, Schwebach, and Young 1993; Downs and Locke 1995. For a good review of the literature on diversionary wars see Stohl 1980.

media and frequently cited in case study explanations of specific wars, the general argument draws support from evidence that foreign conflict increases support for state leaders, at least in the short term.²²⁶ For example, Wright (1965, 140) in his classic study of war, stated that “foreign war as a remedy for internal tension, revolution, or insurrections has been an accepted principle of government.” Levy (1989) in reviewing the literature on diversionary wars, states that every war in the past two centuries has been attributed by some scholar to state leaders’ desire to improve their domestic standing. Lebow (1981) found that the domestic vulnerability of state leadership contributed significantly both to the initiation of such crises and their escalation to war.²²⁷

A substantial literature on the “rally ‘round the flag’” effect has established that the head of state enjoys a boost in popularity following the use of force internationally.²²⁸ Studies have indicated that recent American presidents may have taken advantage of the patriotic rallying effect in cynical attempts to strengthen their chances for re-election.²²⁹ For example, at least one study showed that the level of public support for the British government, as with support for American governments, is in fact associated with British

²²⁶ See for example Mueller 1970, 1973; Brody and Page 1975 in Wildavsky, ed. *Perspectives on the Presidency*; and Stoll 1987. Note that many recent large-N studies find conditional support for the diversionary support thesis, however much evidence also disconfirms. See for example Stohl 1980; Levy 1989; and Rummel 1963. Similar conclusions were found by Tanter 1966, Zinnes and Wilkenfield 1971 and Wilkenfield 1972, 1975. Because of the discrepancy the case remains open. For our purposes here, the existence of such a scholarly debate suffices, since no ‘diversionary economic crises’ argument exists in the economic literature. The point being that a politician seeking to maintain power, *may consider utilizing war, but never financial crisis*, at least as far as we know from existing academic studies.

²²⁷ See also Lebow in Jervis, Lebow and Stein, eds. 1985. For similar patterns in a different part of the world, see Stein’s (1985) analysis of the October War between Egypt and Israel.

²²⁸ See Mueller 1970; Blechman and Kaplan 1978; Russett 1990a. For a dissenting view see Lian and O’Neal 1993.

²²⁹ See Ostrom and Job 1986; James and O’Neal 1991.

force abroad (actual or threatened).²³⁰ Gelpi (1997) examines 180 international military crises between 1948 and 1982 and finds strong support for the hypothesis that democracies will engage in diversionary wars while authoritarian states will instead repress domestic unrest. In related research, Snyder and Mansfield (1995) suggested that democratizing states are more likely to use force for diversionary reasons than states that have not undergone a regime change. Other scholars have suggested that authoritarian states rather than democratic states may have stronger incentives to externalize domestic problems. Snyder (1993) for example, argued that ‘cartelized’ authoritarian states will be more likely to engage in overly expansionist foreign policies than democracies because of their needs to divert attention away from domestic discontent and pressures for political reform. Similarly, in their analysis of the Falklands War, Levy and Vakili (1992) argued that authoritarian states may have stronger incentives than democracies to engage in the diversionary use of force because they lack the domestic legitimacy that democratic regimes enjoy. By contrast, Domke (1988) suggested that democratic states may be more likely to use force internationally for diversionary reasons because of the stronger link between public opinion and leaders’ hold on power. Russett (1990a, 1990b) demonstrated that economic downturns in the United States lead to involvement in international conflict—especially when such downturns coincide with the approach of elections.

Rarely however are policymakers ever accused of inciting a domestic financial crisis in order to unite the country embattled in a political crisis. Indeed the opposite effect is true, financial crises exacerbate existing political crises or cause political unrest where they occur, threatening both electoral outcomes, regime stability, and at the extreme, state survival as we know it. During the 1980s economic crisis provoked

²³⁰ See Morgan and Anderson 1999.

electoral instability and turnover in Latin America. The magnitude of electoral change was directly related to the depth of the crisis experienced in the pre-electoral period, with variations in exchange rates, GDP, and inflation highly correlated with various indicators of electoral outcomes. In an analysis of 21 competitive elections in Latin America from 1982 to 1990, Remmer (1991) indicates that economic crisis conditions undermined support for incumbents and provoked high levels of electoral volatility. Remmer (1991, 784) notes that short-term variations in GDP, inflation and exchange rates, combined with party structure, accounts for 60 percent of the variation in incumbent vote loss in Latin America, 74 percent of the variance in the total incumbent vote, and 67 percent of the variance in overall electoral discontinuity, and noted that the magnitude of the incumbent vote hinges on a combination of party structure and exchange rate depreciation.

Extensive literature on European and American politics discusses the existence of a 'political business cycle' and the relative strength of economic and non-economic voting.²³¹ Research on the Third World has repeatedly linked economic reversals with democratic collapse. Diamond and Linz (1989, 17) for example, argue that "economic crisis represents one of the most common threats to democratic stability." Haggard and Kaufman (1997), while questioning the simple relationship between economic crisis and regime change, show that economic crises undermine the bargaining power of authoritarian incumbents with key sociopolitical constituents, increase the strength of opposition, expose rulers to defection from within the business sector and protest 'from

²³¹ See for example Lewis-Beck 1988; Bellucci 1984; Tufte 1978; Whitely 1986; Eulau and Lewis-Beck eds 1985; Przeworski and Limongi 1991.

below', and reduce the ability of the government to deliver material benefits.²³² The financial crises in Argentina forced President Fernando de la Rúa to resign in 2001 following middle-class riots arising from the financial crisis and led the country to change six presidents from December 1999 to May 2003. In Ecuador the government fell in the midst of an economic collapse. In Asia the 1997-1998 financial crisis caused political unrest and led to the demise of the dictatorial Suharto regime in Indonesia. Thus for regime survival or self-preservation in office, states and statesmen have at least as much of an incentive to seek allies to avert crises in an anarchical economic arena as in an anarchical security arena.

To the extent that financial crises retard economic development they may also retard democratic development as well. A number of studies have shown the causal link between economic development, creation of a middle class, and even a threshold income level per capita and the emergence and solidification of democratic regimes.²³³ Lipset (1959) argued that economic crisis is not directly linked to political stability but is mediated through two fundamental components of the political culture: effectiveness and legitimacy, with illegitimate regimes more likely to collapse under the pressure of economic crisis. But there was no guarantee that even a system with a high degree of legitimacy could not eventually lose it, as long-term crises of effectiveness erode legitimacy.²³⁴ In the interests of survival as a democracy then, a state has an incentive to seek allies that may help to avert the most severe economic crises.

²³² See also Haggard and Kaufman 1995.

²³³ See for example the seminal work by Barrington Moore 1966. See also important research in this area by Rueschemeyer, Stephens and Stephens 1992, and Przeworski 1991.

Thus on a number of political fronts, financial crises pose a greater threat to the survival of a state's political order than does war. A statesman who wants to keep his position, just like a state that wants to keep growing, if he were inclined to use crisis to advantage would be more likely to seek military crises and avoid financial crises. Similarly a state seeking political development would be most threatened by economic crisis and would be expected to seek to avoid this at least as much as if not more so than war.

But, one might say, there is a substantial difference between a state and a regime. That which threatens a regime may not necessarily threaten the state, and what international politics is concerned with is the state, not the regime--what you are describing here is inside the black box not the box itself. I might agree if security were defined simply as physical existence. I might also agree if statesmen fought wars only to preserve the state in any condition, and not to preserve the state as they know it (including themselves in power). Indeed, all wars are fought for this reason because even if one were to be governed by someone else that would not somehow erase, say, the land of France, the city of Paris or the population of Frenchmen. It would simply eliminate the state as we know it—an independent functioning actor with specific governing principles. The internal makeup of a state comprises its being and threats to that makeup threaten its existence as we know it and its status in the international community. When threats to the physical existence of states are not imminently present, that does not mean that statesmen are not concerned with the protection of their nation. They are. The nature of the threat simply shifts, the presence of a threat does not. And because threat to

²³⁴ Lipset's conclusions are based primarily on his observation of the impact of the Great Depression on Europe. Similar claims have been made by others, see for example, Easton 1965; Miller 1974; Linz and Stepan 1978.

survival exists we could expect self-help for protection and allies that might aid in this quest, which is what I am arguing here.

3. *Monetary mercantilism or economic security dilemma?*

Threat and survival in international politics presume the existence of an adversary, another actor with similar characteristics but greater relative capabilities that has first and foremost the capability and secondly the effect of harming the target state.²³⁵ This has perhaps made the translation of neorealist theory to economics the most problematic since states have presumably given up beggar-thy-neighbor policies. This is a big presumption. It is akin to states giving up armed conflict. We assume the end of mercantilism in academia but it is not at all clear that policymakers in any country have accepted this. In fact, recent work by Kirshner (1995) describes monetary mercantilism and the 'exchange rate weapon' in great detail in the modern world.

One prominent recent example already noted above is China's monetary policy, deemed mercantilist by American officials. Recent charges of Chinese manipulation of the exchange rate to favor access to the U.S. market is seen as extremely adversarial to US economic interests. The United States believes that China is today engaged in such beggar-thy-neighbor monetary policies by not allowing the yuan to stabilize at market value. Many industry leaders claim that both the effect of Chinese policy, but also the intent of the Chinese government is to use monetary policy as a tool to drive Americans

²³⁵ Note that I do not argue 'the intention of harming the home state'. Intention is rarely known for sure in any aspect of international relations; even when intentions are explicitly stated by one state they can and often are reinterpreted or doubted by the other state. Moreover, intention may not matter as much as the perception of intention to harm. As Jervis (1976) notes, what policymakers *perceive* matters. In economic relations, neither the perception or intention of harm matters as much as the effect; harm may be neither intended nor attempted nor perceived as such but the necessary by-product of one state seeking its own national interests.

out of business in order to take over whole industries. This threatens American economic welfare, and some may say, the very existence of the U.S. as a superpower (or its survival as we know it). After a long bilateral debate with the United States, China agreed in July 2005 to revalue the yuan and to establish a managed peg against a basket of currencies. The revaluation however was a meager 2 percent and not nearly sufficient based on economic estimates of the true dollar value of the Chinese currency. The new peg system has been vaguely disclosed and the composition of the new basket unknown. The token revaluation and lack of clarity have caused American policymakers to continue their complaints of unfair monetary practices by China at U.S. expense—essentially beggar-thy-neighbor or mercantilist.

Beggar-thy-neighbor economic policies and military conflict have some common traits. Both hurt the home state as well as the target; both are extreme measures utilized as a last resort; both are implemented to protect the home state from greater evils; both are proclaimed in the national interest; both have a specific state or set of states as a target. The target state meanwhile, may or may not have the intention of harming the home state, but its policies, whether or not adopted simply for the good of the domestic interest, have the effect of producing or threatening harm to the home state. An analogy might also be made between beggar-thy-neighbor policies, “benign neglect” and the security dilemma.²³⁶ In international politics, the individual efforts of states to ensure their own survival give rise to a security dilemma: under anarchy, even if self-defense is the motive for building up its military forces, a state’s upgrading of its capabilities may

²³⁶ I have only encountered a single article where reference is made to an ‘economic security dilemma’, see Tsygankov 2002. Recently, however, IPE scholars have begun to re-examine the concept of structural power. See Kirshner et al 2003.

be regarded by others as a threat to their security.²³⁷ In an anarchic self-help system, a state's defensive search for security can have the perverse effect of leading to greater insecurity by triggering an open-ended cycle of moves and countermoves. This action-reaction dynamic has traditionally been framed exclusively in military terms but it can involve anything. The Great Depression has been interpreted to have been caused by a downward spiral of such action-reaction beggar-thy-neighbor economic policies that came from each state's desire to protect its own economy in a severe downturn forcing a reaction by others who sought the same result; ultimately all were made worse off in the ensuing global economic crisis. The actions of a hegemon, because of its preponderance of capabilities and so its capacity to produce great waves of effects in international finance even from a small ripple of its own action, can have the same result. The U.S. policy of "benign neglect" of the dollar produced such a reactive chain by Europeans.

One of the major fault lines of realism has been between those who believe that the dominance of a single power (a hegemon) leads to peace and stability in the international system, and those who believe that multipolar systems in which the material capabilities of states are evenly distributed among several great powers are more peaceful and stable, with two (or bipolarity) being the optimum number. Neorealism claims that because states seek to preserve their sovereignty and autonomy, power balances will form to prevent a single state from attaining hegemony. Rather than aligning with the most powerful state in the system (bandwagoning), other states will 'balance' against it by increasing their own capabilities. On the other hand, both offensive realists and proponent's of power transition theory argue that hegemonic systems are peaceful and

²³⁷ The security dilemma was first presented by John Herz 1951 and Herbert Butterfield 1951, and later restated by Jervis 1978.

stable. They argue that when power is evenly distributed wars are more likely because states will calculate that they have good chances of winning; wars are unlikely in hegemonic systems because the power disparity in the hegemon's favor deters others from challenging it.²³⁸ In a similar fashion, hegemonic stability theory in international political economy argues that a hegemonic system provides growth and stability because the power disparity provides for a clear leadership while a multi-polar international political economy degenerates into chaos because of a lack of leadership.²³⁹ Thus less is more, (the fewer the great powers the more stable the system) in both politics (where two is best) and economics (where one is best—but only if it's a “good one”). Realism however also predicts that states will not simply acquiesce to such a status quo. They will seek to challenge the hegemon either because of fear or greed or both. Why do we assume that states will not do the same in the economic sphere, where greed is the name of the game? There is no reason to assume that the forces of socialization do not work in the same direction in international economic relations as they do in international political relations, particularly when the decisions within the state are made by the same individuals (ie. heads of state). At least one scholar, Susan Strange, has noted that the position as “top currency country” is one that is coveted.

It might be argued that if the threat in international finance is currency and financial crisis, then the target of a monetary alliance must be the speculators, bankers and traders that are instrumental in causing, spreading or exacerbating such crises, not a hegemonic

²³⁸ For a discussion of offensive realism see Mearsheimer 2001; Zakaria 1998; Labs 1997; Layne 2002/3. On power transition theory see Organski 1968; Organski and Kugler 1980; Kugler and Lemke eds. 1996.

²³⁹ The classic hegemonic stability theory argument is put forward initially by Kindleberger in his explanation of the Great Depression as a lack of systemic leadership, and later by Gilpin in discussing the formation of the Bretton Woods system.

state. However, some careful thought shows how the two might be related by a state in crisis. If the benefit of a hegemon is supposed to be stability, as HST argues, then when stability is lacking but hegemony persists one might fault the action or inaction of the hegemon and seek allies that will protect a vulnerable state from crises while countering the relative capability of the hegemon where possible. This was very clearly part of the argument European leaders used to support monetary union for over thirty years, as will be discussed later in this chapter. If the source of a threat is in the private sector and that private sector is in turn regulated by a state, the tendency would then be to balance against the state from which the offending private sector originates. In the spirit of Albert Hirschman it might then be relevant to ask whether allowing firms to engage in actions which may destabilize a foreign country's currency is an aggressive act?

Hirschman provides perhaps the most notable study on the use of economic policy as a weapon against adversaries and potential adversaries in order to secure maximum independence of action for the self and maximum dependence of the other. In his discussion, Hirschman focuses mostly on the effects of trade, however finance and monetary policy are not entirely out of his equation. He refers to economic aggression "as a substitute for and complement to military aggression," defined by "clearings, differential exchange rates, overvaluation, export subsidies, exchange dumping, and monopolization of the trade of small countries." But "by no means certain that these various devices exhaust the arsenal of economic aggression."²⁴⁰ Hirschman believed that states dependent on trade partners' markets were vulnerable and the stronger state

²⁴⁰ Hirschman 1945, 72. Note that Hirschman refers to differential exchange rates as those varying according to the type of transaction and the country involved, reflecting monetary arrangements at the time. Kirshner (1995) remains the only other significant study to examine economic policy—in this case monetary policy—as a weapon.

encouraged such dependence in order to exert power.²⁴¹ The solution to such a situation is diversification. Hirschman does not address monetary affairs. However, we can see an analogy. A state dependent on another for financing is vulnerable. The more powerful creditor state has tremendous influence. Indeed Kirshner (1995) points to the (largely American) exploitation of precisely such a situation in international monetary affairs.

III. Balancing and Bandwagoning in International Politics and Economics

Is it appropriate to use the term “allies” to describe states in a currency union, or the term “alliance” to describe a currency union or other monetary arrangement? Isn’t the more appropriate term “regime”, or “institution”, and the more relevant topic one of “interdependence”? Not necessarily. Definitions of alliances allow for application to several fields other than military affairs, while economic literature is ripe with discussions of “allies” and “alliances” among economic actors.

1. Alliances in politics and economics

In international politics, alliances are formed for defensive purposes to enhance the national security of members by the simple expedient of combining resources. Alliances may also form to pursue aggression collectively.²⁴² Wight (1946) suggested that the perfect alliance would show equality of interest and commitment between the two parties,

²⁴¹ Interestingly, Hirschman citing Emil Schalk (1905), presented an early European fear of the United States which now seems comparable to current American perceptions of China (and past perceptions of Japan): “America wants not only to sell bread to Europe, but also everything else by the sale of which Europe could buy bread for herself. America wants to sell not only to Europe, but also to all other countries buying now from Europe so that eventually Europe will have nothing left with which to pay for the bread. Such a state of affairs is of course bound to lead one day to a big catastrophe.”

²⁴² See Nolan 2002.

with reciprocity of advantage, a condition he thinks appears in wartime alliances, but that characterize any number of alliances, military, economic, social, or otherwise.²⁴³ Booth (1987, 267) for example, although he suggests that there are four other possible reasons for forming alliances (based on coalition bandwagoning, national attributes, affiliation theories and domestic politics), concludes that, "...alliances arise out of communities of interests between states."²⁴⁴ Each of these allows for an interpretation of international economic relations using alliance structure. Utilitarian communities of interest certainly define relations among economic actors as much if not more so than political actors—which in international relations is one and the same (that is, states).

Microeconomics has an extensive literature on alliances as a form of strategic management where there is much debate as to whether organizational capabilities or market competition are more important in shaping firms' expectations and actions.²⁴⁵ Here alliances are a form of enhancing a firm's position in the market so it may withstand downturns, corporate attacks from competitors, crises, market failures or changes in expectations and/or grow in size and market power. A firm, like a state, chooses allies based on their contributions to the firm's relative capability to enable it either to withstand crises or to expand wealth and power, or both. Macroeconomic studies show that states can increase wealth through regional groupings, and recommend that states

²⁴³ Wight 1946, 123; see also Bull 1977, 10.

²⁴⁴ For surveys of work on alliances see for example Bueno de Mesquita and Singer 1973; Holsti, Hopman and Sullivan 1973; Ward 1982.

²⁴⁵ What is called the 'resource-based view' of the firm emphasizes the importance of firm-specific capabilities and is related to the notion of economies of scale. See for example Lippman and Rumelt 1982; Wernerfelt 1984; Barney 1991; Conner 1991; Amit and Schoemaker 1993; Peteraf 1993. In his famous studies on corporate and national competitiveness, Michael Porter (1979, 194, 340) also discusses the benefits (as well as drawbacks) of alliances in augmenting relative position (capabilities). See also Porter 1980, 1985, 1990. Porter (1979, 194) notes "The best alliances are highly selective: They focus on particular activities and on obtaining a particular competitive benefit..."

deal with impending economic crises through domestic economic policies that build a stronger economy or regional cooperation that provides similar benefits through the pooling of resources. In the area of international finance and monetary affairs, economists see benefits for a small open economy to join a currency union, with other states of similar circumstances and interests, because it does not command enough economic weight to sway markets or insulate itself from financial crises alone (that is, for defensive purposes).²⁴⁶

Finally, two main characteristics of a currency union lend themselves more to definition as an alliance than a regime. First there is the exclusivity of the club. An optimum currency area is by definition exclusive of some economic regions. Regimes and institutions typically are not exclusive. A regime can be and often strives to be universal (consider for example the World Bank, the World Trade Organization, nuclear non-proliferation regime, United Nations, international telecommunications regime, etc.) although some may be regional in character. An alliance is exclusive to its members and typically with a clear external (non-member) threat. Both alliances and regimes produce a change in expectations for participants and non-participants. But a regime implies a shift in beliefs about how an area *should* be governed whereas an alliance, while it may encompass such a shift, implies more of a calculation that benefits derived will improve the capabilities of the group vis-à-vis some other. Krasner (1982) provides the most accepted definition of regimes as “principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area.” By this definition a currency union is not a regime but a structural transformation of the monetary order for the countries involved. It does not encompass rules, norms or expectations.

²⁴⁶ See Eichengreen 2003; and McKinnon 2005; Mundell 1973b.

The prevalence of currency unions as a form of monetary organization can be termed a regime as expectations converge around the existence or possibility of such structures in international monetary relations. But each individual currency union is not.

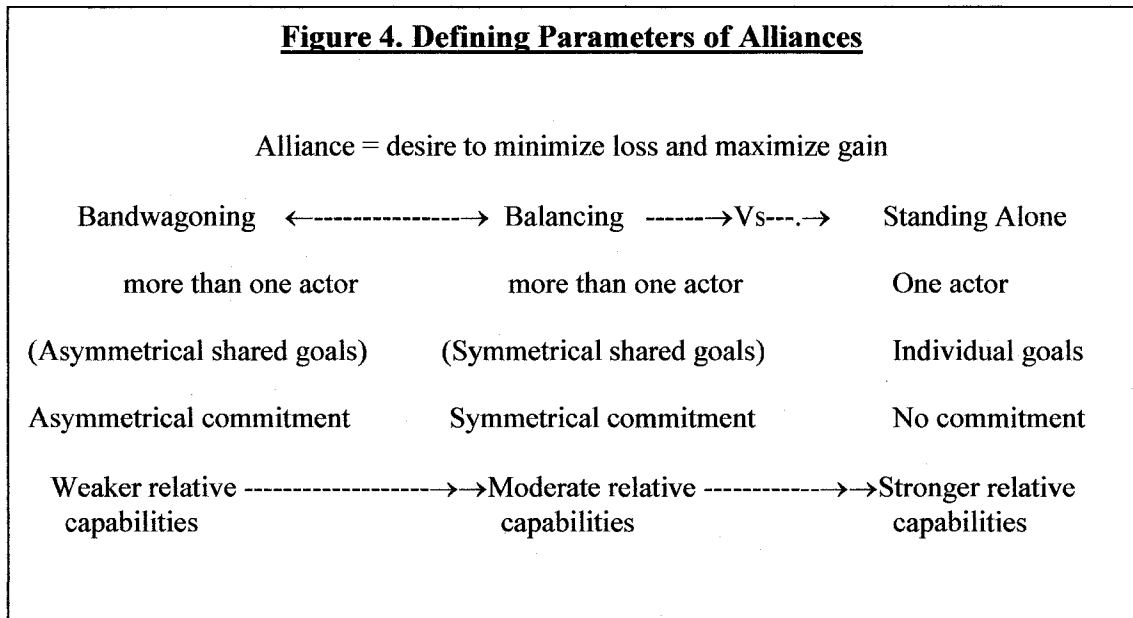
2. Bandwagoning, balancing and standing alone

Bandwagoning and balancing are not polar opposites, but two extremes of the same category, namely alliances for survival. The polar opposite to an alliance with another actor would be to stand alone. Both balancing and bandwagoning provide solutions to states facing a threat to their survival by providing strength in numbers. The aim of balancing is self-preservation and the protection of values already possessed, while the goal of bandwagoning is usually self-extension to obtain values coveted, and often involves unequal exchange where the vulnerable state makes asymmetrical concessions to the dominant power and accepts a subordinate role. Simply put, balancing is driven by the desire to avoid losses; bandwagoning by the opportunity for gain.²⁴⁷ Both however involve joining forces with another actor in order to reach one's goals of better capabilities and avert an external threat. This could be accomplished by enhancing power in one of two ways: joining with others or by harnessing additional domestic resources.

In retrospect, internal balancing appears as an odd term. One either stands with others or stands alone. If he stands with others, then he is their ally in some shape or form. In this way, both balancing and bandwagoning would appear to be two sides of the same coin. What is perhaps significantly different is the symmetry of shared goals (with the exclusion of survival which is the goal of all). The goals of a balancing alliance

²⁴⁷ Balancing and bandwagoning are discussed in detail by Schweller (1994,1998) and Walt (1985, 1987).

typically focus on a specific target where all seek to limit the target's power and influence (on them), whereas those of a bandwagoning alliance can be different for the hegemon (dominance) than for the bandwagoners (stability, spoils—derived from the hegemon's maintaining power hence the shared goal of winning).



Whether a state chooses to balance, bandwagon or stand alone is directly related to its own relative capabilities and those of its prospective allies. In military terms, relative capability refers to military equipment and armed forces. In monetary terms, relative capability may refer to credit and capital so a state may seek to deepen domestic financial markets to secure access to credit and stave off speculation, or join forces with other states to produce a deeper and more stable regional financial market. In order to enter into an alliance first there must be available allies able and willing to accept a given actor into a coalition of some form. This depends on a number of factors including political ideology, geographic proximity, domestic politics and the like. However the alliance partner must also show that its relative capabilities, combined with your own, can

actually have an impact on the threat.²⁴⁸ The combined relative capabilities of the allies must be sufficient to protect the group, reduce the threat and positively contribute to survival in form and without a decline in status. Where this occurs then one might expect a state to balance, where relative capabilities are not sufficiently augmented (that is the relative capabilities of the group still is far from those of the target) one might expect weak states to bandwagon since any available alliance would do little to protect them. Where states are relatively large and capable of expanding their own capabilities alone if domestic resources are better organized so as to withstand a threat, stave off a target, and secure survival, they might be expected to stand alone. Businessmen might understand that you join forces when your partners add value, with those partners that add value, and you stand alone when you can. It might make little sense for a weak state to join an alliance if it did not contribute enough power to make balancing effective. As Walt (1987, 29) describes it, “in general, the weaker the state the more likely it is to bandwagon rather than balance.” The concept is easily transferable to microeconomics. Corporations threatened with hostile takeover or bankruptcy or competition may seek a merger or an alliance. And they will seek a strong ally since a merger with a weak ally will only make them worse off and more vulnerable. Some trade ministers might see this too, witness the plethora of states knocking on the doors of the EU rather than say, the CIS. The arguments in favor of official dollarization in Latin America, similarly propose that the weaker Latin economies join their monetary fate to the stronger United States in

²⁴⁸ Similarly Brawley (2004, 82) argued that “bandwagoning by small powers makes sense. By definition, their size makes it unlikely that their weight in a coalition would be capable of tilting the balance of power one way or another... If a major power lacks available allies, then external balancing is not an option. Similarly, if great power allies are available, but are unlikely to do more than deter the dominant power from exercising its preponderant capabilities, then perhaps even a great power may decide to bandwagon rather than balance.”

order to improve their chances for long-term stability and prosperity²⁴⁹ (thus ensuring survival as we know it without a decline in status and possibly with an improvement in status through prosperity). In both international politics and international economics, to survive, actors must make themselves stronger, not weaker.

IV. Case study evidence

“States do not willingly place themselves in situations of increased dependence,” says Waltz (1979, 107). “In a self-help system, considerations of security subordinate economic gain to political interest.” It appears from the preceding discussion that avoiding financial crises is clearly in the political interest of states on a number of fronts. Thus in this self-help system economic gain and political interest coincide providing a double impetus to alliance. In this section we examine the four cases selected for the existence of threats in the form of damaging effects of financial crises, and possible threats of monetary mercantilism.

A. American monetary union

The American colonies and early American states experienced high inflation, worsening economic conditions, and unrest as a result of currency crises. Various indicators show sharp inflation accompanying continually depreciating currencies. For

²⁴⁹ There are two other options great powers have pursued: buck-passing and appeasement. In modern monetary affairs the United Kingdom, which refuses membership in the euro-zone, may be buck-passing. As Brawley (2004, 84) notes: “The economic equivalent of appeasement would be to redirect trade and investment to benefit the aspiring hegemonic power in such a way that it became satisfied.” Semi-official dollarization, where the home government officially permits transactions in foreign currency as legal tender without relinquishing its own national currency may be an example of appeasement. While dollarization in Latin America is the only case considered here, this same concept could apply to euroization of Eastern Europe and North Africa for example, or any area where a foreign currency is accepted as legal tender.

example, in 1707, the price of an ounce of silver in Boston was 8 shillings, by 1747 it had risen to 56.8 shillings. Using 1707 prices as the base, the index of a market basket of necessary provisions to supply a family for a week more than doubled in ten years and rose more than eight-fold over a generation: 1707, 100; 1717, 245; and 1747, 881. The price index of the butter alone was: 1707, 100; 1717, 167; 1733, 450; 1739, 500; and 1747, 1042.²⁵⁰ Prices rose faster than wages. The laborers on the Boston Townhouse in 1712 received 5s. a day. By 1739, wages had risen to 12s. a day.²⁵¹ Using 1712 as the base, the 1739 index of wages is 240. The 1739 index of the price of butter, however, was 500. Thus the price of food was rising twice as fast as the price of wages.

In Massachusetts, the wheat price ratio rose from 3.15 in 1720 to 16.53 in 1747, or 5.42 times.²⁵² The rise in the indices of wholesale prices was modest by comparison. In New York the commodity price index using 1765-1766 as the base stood at 77.3 in 1754; by 1762 it had risen to 106.0, a rise of 37 percent. In Pennsylvania the index (1741-1745 = 100) stood at 95.0 in 1754; by 1762 it had risen to 140.1, a rise of 47 percent. Prices responded much more to the increase in the currency circulation than supply and demand of goods. As Benjamin Franklin wrote after his return to Pennsylvania in November, 1762, after a six-year sojourn in England:

²⁵⁰ Brock (1992) explained that eleven commodities were common to both lists: butter, cheese, candles, eggs, beef, mutton, pork, corn, rye, milk, and, beer. Brock cites *Boston Evening Post*, 13 June 1747; *Boston Gazette*, 8 December 1747.

²⁵¹ Brock 1992, 594 cites Douglass, "Discourse," *Colonial Currency Reprints*, 3: 328-9.

²⁵² Brock 1992, 595. The Massachusetts sterling wheat price ratio is calculated by dividing the price of a bushel of wheat Old Tenor in Massachusetts by the Pennsylvania sterling price. The effect of such calculation is to smooth out the annual fluctuations in the price of wheat that derive from the changes in the supply and demand for wheat during any one year. Massachusetts was a wheat importing colony and Pennsylvania was a wheat exporting colony. Brock also provides the price of silver index.

“The Expence of Living is greatly advanc'd in my Absence; it is more than double in most Articles; and in some 'tis treble. This is by some ascrib'd to the scarcity of Labourers and thence the Dearness of Labour; but I think the [Dearness] of Labour, as well as of other Things the Labour of which was long since perform'd, or in which Labour is not concern'd; such as Rent of old Houses, and Value of Lands, which are trebled in the last Six Years, is in great measure owing to the enormous Plenty of Money among us . . . [There is now] such an over Proportion of Money to the Demand for a Medium of Trade in these Countries, that it seems from Plenty to have lost much of its Value.”²⁵³

Monetary mercantilism was rampant among the colonies and early states. Between 1710 and 1744 the New England money supply grew at an average rate of almost 8% a year. Over the same period the supply of Rhode Island bills grew at an average of almost 14.5% a year. Most of this increase went into circulation in other colonies, “permitted [Rhode Island] to levy tribute on her neighbors.”²⁵⁴ By 1744, 43 percent of the New England money supply had been issued by Rhode Island, which had only about 10 percent of New England’s population. Merchants in Connecticut noted the same effect, “that the colony of Rhode Island by the present large unequal proportion of outstanding bills are enabled annually to buy off a great part of the product of this colony the labor of an industrious people, to the no small detriment of the inhabitants of this colony.”²⁵⁵ The problem recurred during the Confederation period in both New England and the South. The neighboring states retaliated by imposing legal restrictions that prohibited the use of the foreign money within their borders, fiat money emission depreciated rapidly while each state made it impossible for creditors to its citizens to insist on payment in any other form. For example “when Georgia sold confiscated property, the Legislature ordered that

²⁵³ Benjamin Franklin to Richard Jackson, 8 March 1763, *Franklin Papers*, vol.10, 209.

²⁵⁴ Brock 1975, 39, 41.

²⁵⁵ Quoted in Brock 1975, 314.

no currency of other states be accepted.”²⁵⁶ North Carolina was so eager to force circulation of its currency by making it legal tender for private debts “that judges would not allow the nominal value of currency to be altered even with the consent of the debtor and creditor involved in the case...” Similarly, “with Virginia merchants particularly in mind, legislators at the 1786 Assembly introduced a bill that would have made it a misdemeanor to demand specie payment for merchandise, to refuse to accept paper money in payment, or to accept paper money at less than nominal value.”²⁵⁷ To the extent they were successful, this redistributed resources to their own citizens and also enhanced their ability to levy inflationary taxation on other states. The individual states were not alone in these ‘beggar-thy-neighbor’ policies. When the Revolutionary War began, the federal government had no power to tax. The federal government had to rely mostly on irredeemable paper money (the so-called ‘continentals’) and other forms of closely related debt to finance its expenditures. From 1775-1779, money creation accounted for 82% of the federal government’s income.²⁵⁸

Monetary chaos gave rise to social unrest in the early 1780’s. Public meetings in several cities such as Philadelphia and Boston, as well as meetings of militias, violently denounced the constantly soaring prices and depreciating currencies. In 1786 the Rhode Island currency collapsed, and problems associated with paper money led to an insurrection in Massachusetts known as Shay’s Rebellion. The rebellion was settled without much bloodshed, but its very occurrence coupled with a general social outcry surrounding the state of monetary affairs made for a disturbing situation. Schweitzer

²⁵⁶ Nevins 1927, 570. See also Rolnick, Smith and Weber 1994, 341.

²⁵⁷ Morrill 1969, 86, 89.

²⁵⁸ Ferguson 1953, vol.10, 153-80 cited in Rolnick, Smith and Weber 1994, 328.

(1989) notes that the inter-state conflicts over currency issues even raised fears of foreign invasion. Vermont threatened alliance with Canada. The western counties of Pennsylvania, Virginia, and North Carolina each threatened secession over the issue of paper money and taxes. The intransigence of both Rhode Island and New Jersey over the value of their paper money adversely affected the economies of neighboring states and their inter-state relations. As Hepburn (1924, 19) notes, “Sad experience wrought rapid revolution in public sentiment, and the new constitution which was adopted and went into effect in 1789 forbade any state to coin money, emit bills of credit or make anything but gold and silver coin legal tender.” Hamilton’s 1791 *Report on the Subject of a Mint* noted the continuing problems caused by the depreciating currencies still in circulation: “The unequal values in different parts of the Union to coins of the same intrinsic worth; the defective species among them, which embarrasses the circulation of some of the states; and the dissimilarity in the several monies of account, are inconveniences, which, if not to be ascribed to the want of a national coinage, will at least be most effectually remedied by the establishment of one; a measure which will at the same time give additional security against impositions, by counterfeit as well as by base currencies.” He also cautioned on setting the value of the new currency, recognizing the social unrest that can be caused by monetary mismanagement. “A general revolution in prices [due to “the diminution of the intrinsic value of the coins”], though only nominally, and in appearance,” he noted, “could not fail to distract the ideas of the community, and would be apt to breed discontents, as well as among all those who live on the income of their money, as among the poorer class of people, to whom the necessaries of life would seem to have become dearer.”²⁵⁹

²⁵⁹ Alexander Hamilton, *Report on the Subject of a Mint*, 1791, 6.

Even before Shay's Rebellion, however, in addition to appeasing the public and ordering the national economy (or rather, for those purposes), the new United States was in dire need of credit, and unlikely to get it in the form of universal taxation from the states. As Hamilton noted to Morris in a letter on April 30, 1781: "No paper credit can be substantial or durable which has not funds and which does not unite immediately the interest and influence of the monied men in its establishment and preservation. A credit begun on this basis will in the process greatly exceed its funds but this requires time and a well settled opinion in its favor... 'Tis by introducing order into our finances—by restoring the public credit—not by gaining battles, that we are finally to gain our object."²⁶⁰ In 1782, Gouverneur Morris pleaded with John Jay, American minister to Spain, to extract loans from Spain: "For Heaven's Sake, convince them of the Necessity of giving us Money... With Money we can do every Thing. But if it is obtained, give no Notice to Congress, for we must plead Poverty to the States if we were rich as Croesus."²⁶¹ Robert Morris put the matter of credit to Rhode Island Governor Willaim Greene as follows:

"I am compelled on this occasion to observe that the want of Credit is now materially felt. Other free Nations find infinite Relief from the oppressive weight of taxation, by anticipating the public revenue; but we, with every advantage from nature to prevent it, are obliged to bear now those burthens, which ought in reason to be divided with succeeding Generations. To obtain credit we must provide funds, amply sufficient, not only to pay the interest of all former debts, both foreign and domestic, but also sufficient to liquidate those which we may find it necessary in future to Contract. Those

²⁶⁰ Alexander Hamilton to Robert Morris 30 April 1781 in Ferguson 1971, vol.1, 95.

²⁶¹ Funds were needed both for the war effort as well as running the federal government. Gouverneur Morris to John Jay 20 January 1782, *Papers of Robert Morris* vol.4, 81-82. To consider a loan to the United States, the Spanish court requested "an exact Detail of the different revolutions of American finance, since the revolution, and of the means taken to put them on the respectable footing they are now." See letter of Robert Morris to Rendon march 5, 1782, *Papers of Robert Morris*, vol.1, 352.

funds must be permanent, clear, sufficient, and at the disposition of Congress. Nothing short of that will answer the purpose.”²⁶²

Hamilton was keenly aware of the need for credit. But he was also sought greater monetary insularity and was concerned with being financial overshadowed by Britain if the United States did not form a monetary union with a stable currency. “Nor can it require argument to prove,” he said “that a nation ought not to suffer the value of the property of its citizens to fluctuate with the fluctuations of a foreign mint, and to change with the changes in the regulations of a foreign sovereign. This, nevertheless, is the condition of one, which having no coins of its own, adopts with implicit confidence those of other countries... The pound, though of various value, is the unit of account of all states.”²⁶³ Credit was important to Hamilton not simply to build a stable American economy, but also to expand its relative economic capabilities to those of the great commercial nations, and, maintain independence from Britain. “Most commercial nations have found it necessary to institute banks” to advance trade, he argued to Morris. “Venice, Genoa, Hamburgh, Holland, and England are examples of their utility. They owe their riches, commerce and the figure they have made at different periods in great degree to this source. Great Britain is indebted for the immense efforts she has been able to make in so many illustrious and successful wars essentially to that vast fabric of credit raised on this foundation. ‘Tis by this alone she now menaces our independence.”²⁶⁴

Hamilton understood that the United States needed to break free not just from British political control but financial control as well. America’s relative financial

²⁶² Morris letter to Greene 14 January 1782, *Papers of Robert Morris* vol.4, 20.

²⁶³ Alexander Hamilton, *Report on the Subject of a Mint* 1791, 1

²⁶⁴ Alexander Hamilton letter to Robert Morris 30 April 1781, *Papers of Robert Morris*, vol.1 38.

position with Britain had been for much of the colonial period as well. The balance of trade with England was always adverse; gold and silver coins flowed from New England to the mother country each year to buy British commodities, and in the colonies circulated only among merchants, its increasing scarcity bidding up the price continuously.²⁶⁵ Domestic trade became almost wholly barter while people who had specie could get an exorbitant premium, and provincial governments could not collect taxes.

Yet England insisted upon receiving American customs duties and other taxes in the hard money so difficult to obtain. In 1764 Britain passed the Currency Act that prevented the colonies from making paper money legal tender.²⁶⁶ In October 1764, the Pennsylvania House of Representatives declared, “under the present restraints we shall, in a few years, be without a necessary medium of trade”.²⁶⁷ North Carolina, South Carolina, Pennsylvania and New York all expressed outrage at the Currency Act and petitioned its repeal. The lower house of the New York legislature stressed in September 1764 that treasury notes had long served as the ‘sinews of war’.²⁶⁸ Franklin, as colonial agent in England, fought the enactment of the Currency Act and told the House of Commons that restrictions on paper money were among the leading reasons why the

²⁶⁵ Ernst provides an excellent discussion of the currency problems faced by colonists. See also Ferguson 1953 and J. Wright 1761. The Massachusetts exchange rates are to be found in McCusker 1978, 140-141.

²⁶⁶ Ernst 1973, 106.

²⁶⁷ Ernst 1973, 95. See also Hoban ed., 1935, 5680.

²⁶⁸ Ernst, 1973, 92.

American provinces had become alienated from England. In 1774 the First Continental Congress cited the Currency Act among the violations of colonial rights.²⁶⁹

The financial hegemonic threat from Britain continued to be an issue in the next century. Great Britain's financial strength was seen as giving it influence over other nations, and the U.S. was no exception. In 1875 economist Henry Clay argues that "Gold monometallism tied the United States so closely to Great Britain...that America was being recolonized...high tariffs and a nationalistic money policy were the keys to 'Financial Independence'"²⁷⁰ As Representative Moses A. McCoid (R-IA) argued in 1884, "Our true national policy is to determine that the day shall come when the price of our products shall not be fixed at Liverpool, when we shall consume our own and dictate the price of that which we choose to sell abroad."²⁷¹ Adoniram J. Warner, the president of the American Bimetallic League, "believed that the American people resented England's position 'as the great creditor of the world' which allowed Britain 'to dominate other countries more by the power this gives her than by the power of her own navy'"²⁷² And in 1896 Senator William Stewart (R-NV) stated that "The people of the United States are opposed to remaining a financial colony of Great Britain, and any reference to London is regarded as a badge of humiliation...Our object is to abolish financial slavery."²⁷³

²⁶⁹ Ernst 1973, 80-95. In 1758 the Virginia assembly resolved that public dues payable in tobacco should thenceforth be paid in money at a rate of 2d. for the pound of tobacco. The King vetoed the bill. In 1762 several clergymen brought a suit (the 'Parson's Cause') for the tobacco amounts originally accorded to them. Patrick Henry who called the 1758 bill a salutary law, by disallowing it, represented the defendants, the King had "degenerated into a tyrant" and "forfeited all rights of obedience". See Nussbaum, 33-34.

²⁷⁰ Williamson 1969, 198 as cited in Martin 1997, 32-33.

²⁷¹ Quoted in Williams 1969, 234 and cited in Martin 1997, 42.

²⁷² Quoted in Crapol 1973, 210 and cited in Martin 1997, 45.

²⁷³ Quoted in Crapol 1973, 191 and cited in Martin 1973, 46.

Secretary of State Evarts gave two pieces of evidence for the United States' dependence on Great Britain: the fact that the majority of "American debts abroad were paid in sterling exchange," and the fact that "the interest on American bonds went through the London exchange."²⁷⁴ The silverites in the late 19th century argued for the free coinage of silver in the U.S. partly seeing it as a way to eliminate the United States from its dependence on Great Britain. The 1896 Democratic Party platform argued that "gold monometallism is a British policy, and its adoption has brought other nations into financial servitude to London. It is not only un-American but anti-American."²⁷⁵ The People's Platform of 1896 demanded "the establishment of an economic and financial system which shall make us masters of our own affairs and independent of European control."²⁷⁶

B. European monetary unions

In part the Latin Monetary Union was a defensive move by France and Belgium against the flooding of their countries with depreciated Swiss and Italian silver coins.²⁷⁷ There were compelling structural changes in the market for precious metals in the late 19th century that created and compounded nervousness over future trends in the value of silver forcing nations to protect their monetary systems against disturbances.²⁷⁸ By the late 1860s, with the movement of the market to a bimetallic ratio at a level that overvalued silver and undervalued gold at mints, it became profitable to speculate in

²⁷⁴ Quoted in Crapol 1973, 49-50; see also Smith 1896, 153-164.

²⁷⁵ Quoted in Johnson and Porter 1973, 98 and cited in Martin 1997, 71.

²⁷⁶ Quoted in Porter and Johnson 1973, 70 as cited in Martin 1997, 93.

²⁷⁷ Reddish 1993; see also Gallarotti 1993, 15-67.

²⁷⁸ Gallarotti 1993, 31.

silver and gold coins. This practice was leading to monetary systems dominated by depreciated silver leading to a depletion of reserves, and inflation. The stable money officials of the period were quite hostile to any such possibilities. Chevalier (1859, 201) noted that it was destabilizing for nations to shift (either de jure or de facto) to a standard “at the very moment when it impaired in value and launched in a movement of depreciation.”²⁷⁹ Britain itself was not immune to monetary instability in this period. The high volatility of the interest rate of the Bank of England forced to defend its gold reserves, was frequently opposed to the placid stability of the rates of the Bank of France. Between 1844 and 1873 the Bank of England changed rates 212 times. France changed rates 83 times and Prussia 68 times in the same period.²⁸⁰ Monetary experts of the period described the late 1860s and early 1870s as a time of ‘alarm and apprehension’ and even ‘panic’ over developments in the metals markets that could have grave consequences for the monetary systems. Any compelling signs that market conditions were turning against silver that signaled an impending decline created a sense of urgency to pre-empt others in demonetizing silver, or to follow closely behind the demonetization initiatives of other nations, in what amounted to a series of competitive devaluations.

Similar issues surrounded the *Munzverein*. The first German monetary union was enacted by legislation in 1871 and 1873, which clarified coinage and value of the new currency. A single common currency provided symbolic glue to the North German Confederation established 1867, but it also acted as a safeguard against French monetary hegemony that was almost assured given the comparative weakness and thus

²⁷⁹ Chevalier cited in Gallarotti 1993, 32.

²⁸⁰ Einaudi 2001, 26.

unattractiveness of the individual German currencies vis-à-vis the currency of financially powerful France. As Walter Bagehot commented in 1869, “Germany has a currency to choose: none of her many currencies which have descended from her divided states are fit to be her exclusive currency now that she is one. If things remain as now, she is sure to adopt the French currency; already there is a proposal in the Federal Parliament that she should take it.”²⁸¹ Bismarck’s banker and financial advisor Blechroder noted the prevalence of a desire in certain elite circles “to tailor our [monetary policy] to the British pattern.”²⁸² The gold mark became a symbol of the German challenge to the hegemony of the British as “the [gold] mark could take its place besides the pound as the mainstay of stability of the West.”²⁸³ Similar patterns of systemic threats to economic welfare were visible over 100 years later as Europe made further moves toward monetary union.²⁸⁴

While the countries of Europe had experienced financial crisis with some frequency even during the Bretton Woods period and since the closing of the gold window. Recurring instability and systemic non-governance (or anarchy) was the major reason for the formation of the EMS. However, the 1992 ERM crisis was particularly severe in its macroeconomic effects on multiple nations of the European Union. Deficit to GDP ratios increased by 70% to 100% for 12 of the 15 EU member states from 1992 to 1993, compared to the previous 1-2 year period when they were stable or declining. For

²⁸¹ Quoted in Russell 1898, 90-91; see also James 1997.

²⁸² Stern 1977, 180 as cited in Gallarotti 1993, 21.

²⁸³ Hamerow 1958, 245 as cited in Gallarotti 1993, 21. Gallarotti (1993, 37) refers to the scramble for gold as a ‘monetary chain-gang’ among the nations of Europe—“the movement of any one or a few nations to gold in this period of nervousness would assure that the others would follow suit. The chain gang structure of monetary policy emanated from two types of interdependence” speculation and trade.

²⁸⁴ Buiter, Corsetti, and Pesenti 1998; See also Cobham 1996; Cobham, ed. 1994; Grilli 1990.

example, Finland from 5.8% to 7.9%, France from 4.0% to 6.1%, Portugal from 3.3% to 7.1%, Spain from 4.2% to 7.5%, Sweden from 7.5% to 13.4%.²⁸⁵ Unemployment soared in nearly all countries, despite a consistent declining path up until the 1992 crisis. For example Germany from 6% in 1991 to 9% in 1993, Sweden from 2% to 9%, Belgium from 9% to 14%, Finland from 5% to 20%, United Kingdom from 6% to 11%, France from 9% to 12%, Ireland from 13% to 15%, Portugal from 4% to 7%, and Spain from 16% to 25% in the same 2 year period.²⁸⁶

The immediate cost to foreign exchange reserves was massive. The Bank of Italy found its resources on the verge of exhaustion during heavy trading in September 1992, and devalued the lira by 7%. The French central bank spent \$32 billion on the franc's defense in the week ending September 23rd. Sweden abandoned its Ecu peg on November 19th following reserve losses of \$26 billion (more than 10 percent of Swedish GNP) in the preceding 6 days. Massive market sales of francs prompted equally massive purchases by the Bank of France which expended another \$32 billion of reserves in the last week of July 1993—80% of this on July 29th alone. To defend the franc the Bundesbank intervened heavily buying francs and increasing reserves by DM 40 billion (or 33 percent) foreshadowing a sharp increase in the money supply and threatening its anti-inflationary objectives.²⁸⁷

Total domestic demand in the first year after the 1992-93 crisis fell by 5.5% in Italy, 6.4% in Finland, 5.6% in Sweden, 0.9% in Portugal, 4.2% in Spain (but rose by

²⁸⁵ European Commission and OECD statistical reports as cited in Buiter et al 1998.

²⁸⁶ European Commission and OECD statistical reports as cited in Buiter et al 1998. Where there had been eleven realignments between the birth of the EMS and January 1987, there were none from that point to the crisis in 1992. See also Eichengreen 2000.

²⁸⁷ Bank for International Settlements 1993 63rd Annual Report.

2.1% in the UK; and remained low for the next two years rising an average of 1.5% in the second year after the crisis (falling an additional 6.4% in Finland and rising 3.3% in the UK); and rising an average of 2.5% in the third and fourth years following the crisis (3.3% in the UK in the third year and 5.8% in Finland in the fourth year). Capital formation suffering harder blows falling 13.1% in Italy, 16.9% in Finland, 17.6% in Sweden, 4.8% in Portugal and 10.6% in Spain (while rising only slightly in the UK by 0.6%) in the first year following the 1992-93 crisis, and recovering slowly with additional losses for Italy (-0.1%), Sweden (-0.4%), and Finland (-18.6%), low growth for Spain (1.4%) and moderate recovery for the UK (3.7%) and Portugal (3.5%) in the second year following the crisis.²⁸⁸ The macroeconomic effects of financial crises were not the only monetary threats faced by the European Union member states. Significant concern was prevalent for some time before the crisis over the monetary power of the regional monetary hegemon, Germany, and the global monetary hegemon, the United States, and the resulting infringement on the in capacity of followers for independent action.

There was a widespread consensus among European policymakers that the European Monetary System, in contrast to the intentions of its founders, had developed into an asymmetric system with Germany as the center country---what Giavazzi and Giovannini (1989) have called the “German dominance hypothesis”. As early as 1988, French Finance Minister Edouard Balladur had circulated a letter to his counterparts proposing a monetary

²⁸⁸ Eichengreen 2000, 291-291. Eichengreen (2000) estimates that GDP growth falls by 3% between the years preceding and following a crisis in the typical emerging market, but not all in the typical OECD country. For the six EU countries he studies (Finland, Italy, Portugal, Spain, UK and Sweden) in 1991-92, the comparable figure is 1.6%. The cumulative percentage of output (an indicator of recovery) between 1992 and 1995 for the same six European countries was 3.3%. Eichengreen notes that the comparable figure for Mexico was 10.5%, thus while Mexico’s recession was deeper with GDP falling by 6% during the 1994 crisis, its recovery was faster.

union as a way to avoid having one country set the economic and monetary policies for all members. This concern was practically universal among the EC member states with even the Netherlands, (most tightly linked to German monetary policy), reportedly concerned about Germany's inflexibility.²⁸⁹ The problem was underscored during the 1992-1993 EMS crisis, which some believed was rooted in the deflationary German economic policy and Bundesbank intransigence to EC requests to lower interest rates (at 8-8%, at the time the highest since the Great Depression) despite the unexpectedly high costs of German unification and diverging economic policies. The German monetary policy acted to draw in capital necessary to finance unification, an example of monetary mercantilism. And the miniscule concessions offered by the Bundesbank in its refusal to bow to international pressure to lower interest rates, (a tiny 1/4% cut in German rates), was not enough to ward off a run on the pound and other weaker currencies in the financial markets, leaving all of Germany's neighbors anxious about the heavy-handed way that the Germans were using their economic strength. Consequently, while they appeared to be abolishing monetary sovereignty and creating a 'European Bundesbank' with EMU, most EU leaders found this much more favorable to the earlier system. The Germans were equally disenchanted by EMS realignments that persistently meant deutschemark appreciation vis-à-vis other member state currencies, giving those realigned members distinctive advantages in cheaper exports. And Germany stood with France in disdain over the monetary power of the United States over all of them.

At least in the postwar period, Europeans have officially blamed the United States for the monetary threats to their stability and economic independence, essentially accusing

²⁸⁹Sandholtz 1989, 29.

the United States of monetary mercantilism.²⁹⁰ Postwar European economic institutions, such as the Common Market, depended on exchange rate stability for their survival, which in turn depended on moderate U.S. inflation since extremities would either flood Europe with capital (if U.S. inflation were too high), or drain its capital (if U.S. inflation were much lower), creating a pressure for either revaluation or devaluation. The situation became increasingly unstable with the huge U.S. monetary and fiscal expansions of the 1960's and 1970's to finance the Vietnam War and domestic social programs dramatically increasing the growth rate of the world money supply and creating serious inflationary pressures. So great was the explosion in the world supply of money since 1969 that "world reserves increased by more than three times as much over the period 1969-1980 than in all preceding years and centuries since Adam and Eve [combined]!" famously exclaimed economist Robert Triffin²⁹¹

Because of the imbalance of adjustment falling heavily on the rest of the world, and American 'benign neglect' of the international monetary system and the dollar, many Europeans regarded the Bretton Woods system as 'intolerable arrogance' and considered it humiliating that the American dollar should continue to serve as the European unit of account while the United States collected all of the benefits but carried little of the

²⁹⁰Gowa 1989, 23, 116, 131. Gowa shows a deeply embedded consensus within the United States, (both in the administration and the public), on the primacy of national autonomy over regime maintenance. That perspective essentially relegated the survival of the international monetary system to a distant third in the priorities of the United States, lagging far behind the goals of domestic economic prosperity and fighting the Cold War. Not only that the U.S. did not feel obligated to act 'responsibly' and limit the growth of the world's monetary reserves, but that it also saw no need to intervene to support the dollar, (and thus the existing exchange rate parities). What American policymakers euphemistically called 'benign neglect'. A period of international cooperation followed in the late 1970's and 1980's notably in the Louvre and Plaza Accords. However the tide appears to have turned again. Describing US monetary policy in the 1990's, Charles Kindleberger (2000, 56) observed, "Benign neglect rides again".

²⁹¹World money supply growth rates jumped from 5.1% in 1957 to 9.4% annually in 1964 to 13.9% annually from 1969-1972, see Triffin 1979, 269-286. See also Triffin and Massera 1984. On attempts at monetary cooperation to stabilize the dollar see Funabashi 1989, 113-119.

burden.²⁹² France took the lead in voicing these complaints, contending that the special position of the dollar allowed the United States to dictate to the Atlantic Alliance.

Caustically, French Prime Minister Giscard d'Estaing compared reliance on the dollar to setting a watch "by a clock that is out of order."²⁹³

Initially, France favored the substitution of an international monetary reserve asset for dollars, but after 1966 sought a transition back toward a system solidly anchored in gold. "The reason that we look to gold", argued d'Estaing, "is not that we have gold mines...Rather, it is because we desire to have an objective monetary representation of our own. Since we do not find it either in the dollar or the pound-sterling, we Europeans compensate by looking for it in gold...the reason for which Europeans are looking to gold is the same as that which could lead them to try to find a common monetary expression."²⁹⁴ When it became obvious that a return to the gold standard was impossible, and that a sweeping reform of the international monetary system was improbable, France and the EC instead began to favor of a common European currency.²⁹⁵

Bundesbank President Otmar Emminger protested against the American refusal to cooperate charging that the United States was "unjustifiably and unwarrantedly" hampering the operation of the system leaving the burden solely upon its Atlantic partners, which bred resentment even within Germany. "We do not see", said Emminger, "that it is always three

²⁹² Wiseley 1977, 273; see also Thomas 1973.

²⁹³ Wiseley 1977, 277.

²⁹⁴ Wiseley 1977, 292.

²⁹⁵ Zis and Parkin, 1985, 19. See also Zis and Sumner 1985. As the Wall Street Journal editorial commented in 1970: "Chalk up one possible benefit from this country's [US] chronic balance of payments deficits: They seem to be propelling the Common Market countries faster along the road to monetary integration, including a common currency." *The Wall Street Journal* 29 July 1970, pp.10.

or four countries that have to do something to keep the Fund going, and the United States just stands aloof and does nothing.”²⁹⁶ Though most vocal, France and Germany were not alone in their distaste for American monetary policy. “The United States is acting drastically to protect its own position”, exclaimed British Prime Minister Edward Heath expressing the sentiments felt throughout Europe, “the countries of Western Europe must secure their own prosperity.”²⁹⁷ In this context, within the one and a half year period from February 1969 to May 1970 no fewer than four plans for serious monetary coordination among the member states of the European Community were put forth, culminating in the Werner Report on Economic and Monetary Union which formed the basis for the first attempt at EMU. The monetary turbulence following the closing of the gold window in 1971 stalled EC plans for monetary integration. But the era of flexible exchange rates did not alleviate systemic pressures flowing from the monetary hegemon; if anything these became exaggerated.

In the 1970's American deficits continued to swell to tremendous proportions, creating an explosion of world monetary reserve assets that increased from \$79 billion in 1969 to \$188 billion in 1972 and \$844 billion in 1979.²⁹⁸ This was accompanied by sharp and large changes in the value of the dollar and unpredictable shifts in American interest rates. Short-term money market rates in the United States dropped from 8.9% in 1970 to a low of 3.29% in 1972, rising again to 12.9% in 1974 and falling again to 4.61% in 1977 before climbing to a peak of 19.0% in 1981. Recurrent intervening fluctuations cut them at times by nearly 2/3, quadrupling them at others--reaching 3.06% upwards and 6.63%

²⁹⁶Wiseley 1977, 303.

²⁹⁷Wiseley 1977, 279.

²⁹⁸Triffin 1979, 28.

downwards in a single month.²⁹⁹ This acted as a powerful brake on growth and employment in the trade dependent economies of Europe. “The dollar ruins our economies”, wailed Munich's popular newspaper, *Abendzeitung*.³⁰⁰ “The European Community is financing the United States”,³⁰¹ complained West German Chancellor Helmut Schmidt as he replaced Giscard d'Estaing as the most vocal critic of the United States.

“There is a fundamental asymmetry,” said EC Commission President Roy Jenkins, “about the United States having withdrawn from the responsibilities of Bretton Woods while dollars, like legions without a central command, continue to dominate the currency transactions of the world.”³⁰² Jenkins sought to resurrect the idea of monetary union in the European Community. “It is not suitable for us merely to complain about such affairs”, argued Jenkins in a memo to EC leaders in 1978, “that will breed more recrimination than result...The EC's collective weight is far greater than its monetary influence...[a consolidation of this weight in a monetary union] would give the Community greater weight in contributing to the necessary dialogue, in particular with the United States, on the international monetary system.”³⁰³ “Does not the vain character of some of our complaints derive from the weakness of our determination and our visible lack of unity?” lamented Commission Vice President Xavier Ortoli in 1984. “European monetary identity could serve to give the international monetary system a different balance and restore greater

²⁹⁹Triffin 1979, 28-29.

³⁰⁰Wiseley 1977, 324.

³⁰¹*The Wall Street Journal* 7 December 1977.

³⁰²*Europe Documents* 10 October 1978.

³⁰³*Europe Documents* 12 April 1978. The EMS was early on viewed as a step towards monetary union. “The creation of the EMS”, explained Jenkins, “will not of course be the same as a European economic and monetary union, but it will be a giant step towards it.” *Europe Documents* 10 October 1978.

autonomy to us.”³⁰⁴ Clearly the Commission say the pooling of monetary policy as a way for the group of EC states to gain more independence from external influence than they had individually standing alone.

Besides facing common pressures from a crisis-prone international monetary system, and both regional and global monetary hegemons, European states also had potential allies in each other with significant (if not hegemonic) monetary capabilities. London, Frankfurt, Paris and Amsterdam are all world-class financial centers; the EC member states are all relatively wealthy, stable, and strong economies with responsible fiscal management, deep regional capital markets, and global currencies in the German mark, French franc and British pound. Thus the member states of the EC, aside from any institutional factors associated with the internal market treaties, provided a pool of states with good relative capabilities for middling powers seeking allies making the prospects for a monetary alliance all the more favorable.

C. Dollarization in Latin America

The modern economic history of Latin America is rife with financial crises, some more severe than others. And while there are few instances of attempts at monetary alliances within the region despite a high frequency of crises, within this history there are examples of states turning to the U.S. dollar in response to severe crises conditions. As the 1980s drew to a close, the average per capita product of Latin America was 8 percent lower than at the beginning of the decade, average inflation had surged to the unprecedented level of nearly 1,000 percent, living standards and investment capacity

³⁰⁴ *Europe Documents* 18 April 1986.

plummeted and the net transfer of resources abroad was continuing at an annual rate of \$25 billion, in what has been called “the lost decade” of Latin American development.³⁰⁵

Argentina originally created its dollar-pegged currency board (often referred to as dollarization, but different from full official dollarization in that the U.S. dollar does not circulate as legal tender) under crisis conditions. Over the course of the 1982-89 period, per capita income declined at an average annual rate of 2.2% --- among the worst in the hemisphere. By 1989 the annual rate of inflation was approaching 4,000%, the highest in the region.³⁰⁶ It was under these circumstances, and because of these circumstances, that Argentina adopted the currency board peg with the dollar in 1990. In 2000 amidst an equally severe economic downturn fuelled by the currency collapse, an estimated 25,000 businesses reportedly folded in Argentina within a month in early 2002, unemployment soared to nearly 22% affecting all ages and social strata.³⁰⁷ Amidst this environment former President Carlos Menem repeatedly called for full official dollarization to stabilize the economy and protect it from future speculation and mismanagement.³⁰⁸

It was also under severe crisis conditions that we see the first case of official dollarization in the 21st century. In the immediate period prior to official dollarization, Ecuador was in the grip of its worst economic crisis in 70 years. In 1999 gross domestic

³⁰⁵ Economic Commission for Latin America and the Caribbean (ECLA) 1989.

³⁰⁶ ECLA 1989; see also Smith 1990.

³⁰⁷ *Boston Globe* February 10, 2002, pp.A8.

³⁰⁸ The United States was not always considered a good monetary ally. Galarotti (1993, 20) notes that 19th century European states did not want an a monetary union to include the financially weak United States: “At the International Monetary Conference of 1878 the Dutch representative, Mees, expressed his pessimism about the possibility of a bimetallic alliance forming among the United States and European states, but added that the U.S. might look for monetary “allies” in the less-developed world (Central and South America, Asia, and the Dutch and English Indies).” Galarotti cites International Monetary Conference 1879, 53-54, 91.

product shrank by 7%, the country defaulted on more than \$6 billion of debt, and inflation exceeded 90% -- the highest in Latin America. President Mahuad was overthrown in a civilian-military coup on January 21, 2000. Military leaders then handed power to Noboa, Mahuad's vice president, the following day and passed the dollarization legislation February 29, 2000. Noboa remained president. Protecting the economic viability of the state was very much on the minds of Ecuadorean leaders in instituting dollarization. As Dr. Carlos Emanuel, the finance minister of Ecuador, put it to a 2002 meeting of the Andean Community: "Devaluation does not create wealth. It destroys it... The history of economic development provides support for the assertion that no society can progress without a healthy monetary system... Since 1982, exchange rate instability had complicated financial planning, discouraged investment and production, generated inflationary pressure, and haphazardly redistributed wealth and income... Dollarization was appropriately chosen as the alternative to introduce a strong currency into our economy."³⁰⁹ Ecuador, however, was not the only state in Latin America to face a strong financial crisis at the end of the 20th century. Two middle-income states, Colombia and Venezuela, in addition to Argentina, regional economic powerhouse, Brazil, and Mexico also faced financial crises but did not dollarize.

Colombia suddenly devalued the peso in September 1998, less than two days before the opening of a meeting between Latin American finance ministers and the International Monetary Fund and just a few months after the government of President Andres Pastrana took office in the spring, lowering the trading band for the peso by 9%, allowing an immediate devaluation of the currency by that amount and an eventual

³⁰⁹ Emanuel 2002, paper presented to the Andean Community Council of Ministers <http://www.comunidadandina.org>.

decline of 26.6% for the balance of the year. In August 1998 the government raised interest rates to 30 percent in an effort to retain fleeing foreign capital and spent \$1.5 billion in 1998 trying to prop up the currency, depleting currency reserves to \$8.7 billion, but it was unable to stop a 7% decline in the peso. On August 31, Standard & Poor's downgraded the country's financial prospects, citing resistance to "essential market-oriented reforms".

Venezuela was already in economic free fall as a result of the decline in the world price of oil, its principal export and foreign exchange earner, from \$22 a barrel in 1997 to \$13 a barrel in 1998. The currency crisis put the economy under more pressure at a time it could least afford it. Interest rates in Venezuela were pushed up to 70% in an effort to stop the decline of the Venezuelan currency, the bolivar. Shares on the Caracas stock exchange fell by 70% in 1998 --a crash surpassed only by the Moscow market. The country's foreign exchange reserves fell to only \$13 billion. Amid widespread concerns that the country will soon default on some or all of its overseas debts, the interest rate on some Venezuelan government bonds has reached 40 percent. Two months later Hugo Chavez won the November 1998 election with a vote of 56% just six years after failing to seize power in a failed bloody coup. The election was a stunning blow to the Venezuela economic and political elite that held power for 40 years.

In the same period Mexico suffered an abrupt economic reversal in the space of six weeks. From mid-July to September 1998, stock prices on the Mexico City exchange fell 40 percent and the value of the Mexican peso dropped 13% against the dollar. The Russian default triggered a virtual collapse of lending in Mexico, with interest rates in some markets jumping from 18% to 40% overnight affecting consumers immediately.

Auto dealerships in Mexico City, for example, stopped making car loans because credit was simply unavailable. The region's largest economy, Brazil, faced the combination of financial convulsions and a presidential election. When the crisis first threatened Brazil in 1997, the government raised real interest rates sharply to more than 30 percent. That successfully spared Brazil the financial collapse that occurred in Southeast Asia, but at a high cost to the economy in terms of sharply slower growth. Pressure continued in 1998. The Sao Paulo exchange lost 40% of its value in August and \$12 billion in private capital fled the country, amid fears of a return to the 1994 hyperinflation when rates exceeded 1000 percent. President Fernando Henrique Cardoso sought to avoid a further sharp increase in interest rates before the presidential vote, scheduled for October 4, 1998. Cardoso won the 1998 presidential election, but socialist candidate Lula da Silva emerged as a serious rival for the first time with 31.7% of the presidential vote, while leftist parties garnered 46% of the vote in the legislative election. In 1999 Brazil sharply devalued the real. Lula da Silva won the presidency in 2002.

A second state that did dollarize shortly after Ecuador, El Salvador, did not do so in response to a financial crisis. El Salvador adopted the dollar in a moment of economic strength. Inflation had been in single digits for six years prior while foreign reserves were stable and growing since 1992 topping \$1.8 billion in 2000. Public sector debt was just 22% of GDP at \$3.1 billion with annual debt service just 5% of exports (compared to Argentina's 80%) and the country boasted an investment grade foreign currency rating of BB+ from Standard & Poor's credit rating agency. In 2001 El Salvador became the third officially dollarized country in Latin America.

The crises in Latin America raise the question as to why only two states dollarized in this period—Ecuador amidst crisis and El Salvador after the regional crisis had passed it over. If threat alone were a sufficient cause of a monetary alliance then we would have expected more alliances during and after the Latin American crises of the late 1990s than we saw. Why didn't Mexico, Brazil, Venezuela or Colombia dollarize? Why did Argentina abandon its dollar peg currency board rather than adopt the U.S. currency?

Based on the threats of financial instability faced by Central America, a policy proposal presented by U.S. Senator Bob Kasten proposed a form of currency union based either on an alliance with the US or regional neighbors as early as 1989: "Ultimately, the Central American countries will have to either adopt the U.S. dollar as the unit of account and exchange, or revitalize the peso centroamericano, a unit of exchange similar to the European Economic Community's ECU money -basket currency. The peso centroamericano has not been used effectively in the past because of the disarray of the CACM, but it remains clear that whichever currency is finally settled on must be backed by more than the promises of four or five central banks."³¹⁰ Bandwagoning with the United States secures immediate and long-term benefits by superimposing American monetary institutions thus increasing a dollarizing states relative economic capabilities. Inflation stabilizes at near U.S. levels. Interest rates drop as currency risk disappears. Exchange rate fluctuations and risks are eliminated. In addition official dollarization stabilizes business expectations, facilitates long-term planning, and promotes trade and investment all of which should improve macroeconomic performance. For many in Latin America this seems reason enough to adopt the U.S. dollar as their official currency. For

³¹⁰ Kasten Plan for Central America (U.S. Senate, 20 July 1989). Eichengreen (2000, 262) allows only for dollarization as a likely monetary option for a Latin American monetary union.

example, in 1999 Mexican Bankers Association Chairman Carlos Gomes called for dollarization because “by adopting monetary union [with the United States], the country could have a strong currency, which would help lower inflation and ensure a smooth political and economic transition for the year 2000” (an election year). The Center for Private Sector Economic Studies (or Ceesp) of the Business Coordinating Council, the umbrella organization for Mexico’s chambers of commerce, has been among the strongest advocates of a currency board arrangement in order to finally guarantee price and interest rate stability. “That’s something we haven’t had in thirty years,” says Ceesp economist Mario Rodarte. “We are integrated commercially with North America. We should also have a common currency.”³¹¹ In Ecuador, dollarization first eliminated the threat to further speculative attacks, then acted to expand the nation’s relative capability in securing credit by ensuring much needed new multilateral lending.

El Salvador's decision was based on careful consideration, and a reality that predominates in many Latin American countries. The dollar already dominated the country. Some 65% of exports go to the United States. The exchange rate has been fixed for most of the past decade and the government saw monetary union with the United States as a way to discipline theirs and future administrations. Barraza argued that El Salvador’s fate is so closely tied to the United States that it merely faced the inevitable by dollarizing. “We are a small country with an open economy in a globalized economy”, he said, “It is better to join with some bullet-proof mechanism. Monetary integration [with the U.S.] was our bullet-proofing for joining the globalized market and taking advantage of it.” Within about 18 months since dollarization interest rates dropped from 20% to

³¹¹ *Wall Street Journal* February 3, 1999, pp. B7C.

11.5%, and El Salvador became for a time the Central American nation with the largest foreign reserves.

A regional currency union based on one of the three existing common markets (the Central American Common Market, the Andean Community and Mercosur) might be a reasonable alternative. These organizations were formed in the 1960s and have deepened through fits and starts of integration and stalling over the years. They provide extensive institutional frameworks and some forums for regional financial cooperation. However most who consider currency union in Latin America still do so with the United States, rather than each other. Regional economic initiatives have proven insufficient to address organizational and developmental needs of most states, despite great strides in increasing integration. Latin American currencies are generally weak with none having the status of a world currency or even the ability to exchange its currency outside the region (and often the country itself). No country can boast a world financial center among its cities, and the most developed state, Argentina, is also the world's largest debtor and defaulter. The financial history of Latin America is generally one of mismanagement and crises—the very things dollarized countries seek to be rid of by bandwagoning with the United States. States will bandwagon when they are incapable of standing alone, and balancing alliances are unavailable or offer little. States will seek only allies that can add to their relative capabilities, generally not states as weak or weaker than themselves. Latin America finds itself in this situation. With regional alliances offering little, and bandwagoning with the financial hegemon unacceptable to many states no option is left but to stand alone—which is what most Latin American states are doing.

D. The Asian Monetary Union Debate

Asia has arguably experienced far fewer financial crises in the 20th century than Latin America. With frequency of crises low, the lack of government in international monetary affairs was perhaps less of a pressing issue for Asian states. However the degree of systemic pressures changed quickly and dramatically at the end of the 20th century with the Asian financial crisis. In a speech at the University of Sydney Australia October 22, 1998, ASEAN Secretary General Rodolfo Severino remarked: "...the economic disaster that has engulfed Southeast Asia, together with much of the rest of East Asia, has wiped out many of the gains of the region's tiger economies, with no quick end in sight...The frustration and bewilderment over the sudden reversal of fortunes of the region have led many, including some in Southeast Asia itself, to raise questions about ASEAN's effectiveness and utility and about the validity of the very idea of ASEAN."³¹² Severino said there would be only two alternatives if regionalism in South-East Asia broke down. One would be 'domination by more powerful states and mighty corporations'; the other would be the rise of 'narrow nationalism' in a fragmented region.

The severity of the Asian financial crisis hit the relatively financially weak Asian countries hard in both macroeconomic effects and political effects. According to estimates by the Institute of International Finance³¹³, the five affected Asian countries suffered net private outflows of \$12 billion in 1997 (and a further drop of \$24.6 billion in 1998) compared with net inflows of \$97 billion in 1996. This sharp reversal by \$109 billion was about 11% of their combined GDP, perhaps the largest such reversal in recent

³¹² Rodolfo C. Severino, Jr., ASEAN Secretariat 1998, 90-1.

³¹³ The Institute of International Finance is an international trade association based in Washington D.C. and comprised of 320 members of mostly banking institutions from 60 countries, over half from Europe.

economic history. The sharpest decline occurred in the case of lending from commercial banks, followed by portfolio equity investments. As investor confidence was shattered towards the middle of 1997 maturing short-term debts were not rolled over. The level of international reserves fell sharply in these countries despite official assistance and narrowing of their current account deficit as imports declined sharply.³¹⁴ Barro and Lee (2003) estimate that the five crisis countries grew during 1995-2000 at about 2.3 percentage points per year below the rate that would otherwise have been predicted. Indonesia's economy, the largest in ASEAN, shrank by 14% in 1998 while the nation's GDP per capita fell from \$1200 to \$400 within a year.

Banks became insolvent or just stopped lending, and the people of the region were plunged almost overnight from an atmosphere of plenty to instant depression in Indonesia, South Korea and Thailand, and severe recession everywhere else. Manila spent hundreds of millions of dollars defending its peso before finally allowing it to float. The Malaysian central bank raised interest rates to 50% and spent billions of dollars before allow the ringgit to float which promptly fell to its all-time low against the dollar. In Indonesia the falling currency brought economic activity to a total standstill. McKinnon (famous for OCA theory contributions in the 1960's) recently noted that the only viable monetary option for Southeast Asia in the face of financial crisis threats may be a currency union. "Without a common East Asian money," says McKinnon (2005, 227), "the problems associated with actual and potential exchange rate fluctuations become more acute as the integration of trade in goods and services proceeds."

³¹⁴ *Capital Flows to Emerging Market Economies* Institute of International Finance (1998). See also Asian Development Bank and World Bank 1998 (joint report) *Managing Global Financial Integration in Asia: Emerging Lessons and Prospective Challenges* (Manila).

The political effects were also quite significant, with several regime changes throughout the region often following or in conjunction with social unrest. The crisis first triggered a loss of confidence in the leadership of Thai Prime Minister, Chaovalit Yongchaiudh, forcing him to resign. In South Korea the autocratic government of Kim Young Sam was replaced by the regime of Kim Dae Jung. In Malaysia, the already growing difference between Prime Minister Mohammad and his deputy Anwar Ibrahim deepened prompting a wave of reforms. The political effects, however, were most dramatic in Indonesia. Skyrocketing prices and a stalled economy produced shortages of food and other essentials, massive inflation (over 70%) and unemployment that provoked social unrest and major riots especially against the Chinese minority, and ethnic and religious conflicts in many parts of the country. Eventually, President Suharto, Indonesia's 'strong man' of 32 years, had to resign as a first step towards the restoration of market confidence in the Indonesian government.

Seemingly echoing similar remarks by his European counterparts thirty years earlier, Thailand's foreign minister, Dr. Surin Pitsuwan put the situation to his Asian counterparts at the Asia Pacific Roundtable in June 1998 as follows:

"The so-called contagion effect has demonstrated that no nation can consider itself immune from the perverse influence of the global economy. Therefore, it would be wise for countries to join together at an early stage of an economic outbreak in order to contain the malaise before it spreads to other countries and weakens the system as a whole. Also of great strategic significance is the currency turmoil's potential impact on ASEAN. Some political observers have already expressed concern about the implications which the crisis might have on the future strength and standing of ASEAN as a regional grouping as well as ASEAN's ability to play a leading role in the international arena... From playing a leading role at the forefront of the region's foreign policy initiatives, ASEAN, it is feared, might be relegated to a position 'in the backwoods' of regional diplomatic undertakings. We cannot afford to let that happen to us as a group... Hence, for ASEAN to overcome this latest threat to its viability as an organization, it is imperative for ASEAN to step up to the challenge, rally

together, and reach within itself for the strength and resilience [and] determine what factors might serve to undermine our united voice and cause us to lose our diplomatic weight...Indeed, what factors might serve to undermine our very existence and erode our standing as an anchor of stability in the region?"³¹⁵

Asian economists see one policy implication derived from the crisis to be the formation of an Asian common currency. In direct contrast to Western scholars who emphasize internal Asian factors affecting the prospect of an Asian monetary union, several Asian scholars take a distinctly balance of power position.³¹⁶ The purpose of an Asian currency would be 1) promote intra-regional trade and investment and 2) promote the bargaining power of Asia against external pressures especially coming from the United States. The launch of the euro also stimulates Asian interest in pursuing regional monetary integration as a defensive reaction. Some Asian scholars fear that with the introduction of the euro, the exchange rates of Asian currencies may be more unstable because, if the ECB becomes inward looking and adopts the same type of "benign neglect" exchange rate policy as the United States, Yam (1997, 9) pointed out that "It is the greater volatility of G-3 currencies that ultimately contributed to, if not caused, the volatility in smaller regional currencies." "This," he says, "motivates East Asian countries to create a zone of monetary and financial stability insulated from these extraneous influences."³¹⁷ Goto and Hamada (1995), writing before the crisis, agree. "Incentives also emerge for East Asian countries to form a countervailing monetary bloc to protect their interest against the polarization of the international monetary order after

³¹⁵ Remarks by His Excellency Dr. Surin Pitsuwan Minister of Foreign Affairs of Thailand, "Currency Turmoil in Asia: the strategic impact" at the Asia Pacific Roundtable, Kuala Lumpur 1 June 1998.

³¹⁶ See for example, Kanzawa 2001.

³¹⁷ Other Asian scholars have emphasized similar problems. See Moon 1999, in Korean as cited in Y. Rhee 2002; and Rhee and Moon 1999.

the EMU. The formation of the EMU and the expansion of the dollar bloc may have damaging effects on East Asian countries, and a countervailing Asian monetary union may be needed to compensate for the loss of welfare.”³¹⁸ Moreover, they argue it is unclear if the discussion of reforming international financial institutions and arrangements will move towards what East Asian countries desire, because the discussion is mainly led by the U.S. and the EU. “In order to reflect their interest in the new international financial architecture, East Asian countries need regional monetary cooperation through which they can have their voice heard in international monetary affairs.”

The de facto obstacles against the establishment of an AMF or an Asian currency, lie in identifying appropriate monetary allies that would add to the relative monetary capabilities of the members, particularly in determining the leading country in this organization. The United States has been the hegemon for a long time in Asia, and has tended to oppose Asia-only initiatives. To counter Asian regional movements, the U.S. has tried to strengthen and institutionalize APEC, through elevation to a summit level. When the AMF was proposed, the U.S. countered that proposal by an APMF (Asia Pacific Monetary Fund) to include the United States and several other countries along with East Asian countries.³¹⁹

³¹⁸ Goto and Hamada (1995) show the damaging effect of regional economic integration on outsider countries in a trade model with increasing returns to scale and product differentiation.

³¹⁹ Bergsten (1998) pointed out three reasons why such a regional scheme as the APMF is necessary: 1) no Asian countries could effectively lead the effort, because the rest of the region will reject any hint of Japanese domination while China is not yet ready for such a role, 2) an Asia-only grouping would risk dividing rather than uniting the two sides of the Pacific, 3) the US could play a decisive role in making the APMF work. Asians believe that the US has shown an inconsistent and ambiguous interest in Asia-Pacific cooperation, concerned more with Latin America.

One alternative to the dollar is to use the yen as the anchor or key currency for Asia, given the deepening economic links between East Asia and Japan.³²⁰ Suggestions to build a Yen Bloc were first proposed in the early 1990s, in light of trade shifts away from the West and toward Asia and especially Japan. Most of the existing proposals of East Asian monetary cooperation have come from Japanese studies, ranging from a surveillance mechanism, an emergency financing scheme and a currency basket, to a common currency. Japanese officials have made no secret of the fact that their aspirations now extend well beyond mere informal currency leadership. With the expansion of economic power, Japan has made efforts for the yen to play a more important role in the international monetary arena. Promoting the yen's market competitiveness is regarded as an imperative, and some observers believe Tokyo seems intent on doing what it can to build a formal yen bloc, displacing the dollar in Asia.³²¹

The Asian currency crisis of 1997, Japan proposed an Asian Monetary Fund,³²² which met with strong opposition from the IMF and the US, who feared that an AMF could undermine existing arrangements. In October 1998, Japanese finance minister Miyazawa made a variant of the proposal again at the annual joint meeting of the IMF and the World Bank. His proposal is known as 'the New Initiative to Overcome the Asian Currency Crisis'. In that proposal, he emphasized the risk of a deflationary spiral of the world economy and criticized the IMF programs on the grounds that the economic

³²⁰ East Asian economies benefited as the yen has appreciated against the dollar, but deteriorated as the yen depreciated against the dollar.

³²¹ In 1996, for example, Japan signed a series of swap agreements with nine Asian governments to lend their central banks yen if needed to help stabilize exchange rates; see Cohen 2004, 96-97. This contrasts with Japan's policy until the 1990's to avoid the yen becoming an international currency that might hurt the Japanese current account surplus; see Thurow 1992.

³²² For more detailed explanation of the proposal, see Shinohara 1999.

turmoil in East Asia was in large part due to the abrupt flows of short-term capital, not to changes in the fundamentals. To overcome the Asian currency crisis, he proposed to set up a financial assistance scheme totaling \$30 billion. Pointing out that “over-dependence on the U.S. dollar was obviously one of the causes of the currency crisis.”³²³ He insisted that the increasing use of the yen, together with the dollar and the euro, would contribute to the stability of the international monetary system. However, the proposal consisted of providing a finite amount of US dollars as emergency loans, an indication that Japan is not fully committed to assuming a responsible role as the lender of last resort in the region.³²⁴

Moreover, the option of the yen-anchor does not seem very feasible given the strong opposition not only from China and the US but also from other East Asian countries fearing the hegemony of Japan in the region.³²⁵ The biggest obstacle against a yen bloc lies in the fear of Japan's possible hegemony in the economies of Asian. While Kwan (2000) suggest that the local currencies of Asian first peg to a basket of currencies in which the Japanese yen takes a substantial weight, which would pave the way for a Yen Bloc.³²⁶ The survey results reported in chapter eight of this dissertation appear to

³²³ Miyazawa speech at the annual meeting of the IMF and World Bank 6 October 1998.

³²⁴ Japan's post-crisis proposals for regional monetary cooperation, such as the AMF, Miyazawa plan and Obuchi plan were regarded more as self-serving by many Asians for the following reasons: 1) Japan wanted to keep its hegemonic position in the region by diluting criticism that it triggered and extended the Asian currency crisis; 2) Japan wanted to stem its increasing isolation and the yen's decline as an international currency in a monetary system increasingly polarized into dollar and euro blocs.

³²⁵ It implies that the desire to maintain stable exchange rates is very strong in the region and the re-appearance of a loose dollar peg is a natural response to the lack of a better alternative. See Tanaka 1998, 208.

³²⁶ Others have argued against the economic merits of a yen bloc. The fluctuations of most Asian currencies against the Japanese yen also pose difficulties in forming a yen bloc. Through an analysis of symmetry of shocks in the region, Gary et al (2000) argue that the yen bloc is not appropriate at present.

cast serious doubt on the possibility of a 'yen bloc' developing as 'yenization' is universally the last monetary outcome preferred among respondents and by a very wide margin.

East Asians retain historical suspicions of Japanese motivations and interests. As one analyst (Castellano 2000: 8) suggests: "Much of East Asia remains wary of any form of Japanese leadership. China is deeply suspicious of Japan and would never allow it to establish a de facto economic hegemony. South Korea harbors similar sentiments and likely would resist any plan to adopt the yen as a regional currency."³²⁷ But neither do they trust the United States. As Bergsten (2000) notes "when the US opted out of initial support package for Thailand, thereby weakening its credibility and enhancing the prospect of subsequent contagion" East Asian countries' suspicion of America's commitment to Asia-Pacific cooperation was validated.³²⁸ Finally a consensus emerged by the early 1980s, (particularly among the members of ASEAN) that leadership for a regional community should not be assumed by an industrial power. Given that Pacific proposals emanated from the industrialized countries of the region (Japan, Australia, US) there was also concern that they might cloak a renewed neocolonial economic domination to replace the colonial ties so recently overturned.³²⁹

Another possible leader is China. As China's economic status in the world economy is increasing, the Asian share of its trade and investment is rising, and the exchange rate of the yuan is expected to appreciate in the long term, China is beginning

³²⁷ Castellano 2000, 1-9. See also Castellano 1999, 1-10; Chang and Rajan 2001, 103-18.

³²⁸ Asian scholars note different US attitudes towards the 1995 Mexican crisis and the 1997 Asian crisis.

³²⁹ Pre-WWII economic regionalization in Asia was rooted in specific currency regimes established under imperial orders: the British pound in India, Australia and New Zealand, the French franc in Indochina, the Dutch guilder in Indonesia, the U.S. dollar in the Philippines and the Japanese yen in East Asia.

to show serious interest in Asian monetary cooperation, particularly with respect to the regional exchange rate stability.³³⁰ However there are serious constraints to China's leadership role in regional monetary integration. China is not yet developed enough to anchor a stable monetary order, and it is still a highly authoritarian communist regime. Many East Asians question whether the Chinese economic system would provide policies that would lead to mutual benefits. China's avoidance of the Asian crisis is often attributed to capital controls, which some argue could imperil regional economic integration rather than promote it.³³¹ Third, although China has taken pains to allay fears of the China military threat, suspicions of China's intension are growing as it steadily expands its economic and military strength.

The other alternative is to resort to parities against a currency basket based on regional currencies with an Asian Currency Unit (ACU), managed through a regional monetary organization.³³² Many scholars would be skeptical that such a regional solution could work in the absence of a financially strong state capable of exercising the role of monetary leader and significantly strengthening the alliance. Nevertheless, the demand for a regional currency is strong in Asia, particularly ASEAN (as the survey results presented in chapter eight demonstrate) and a new regional monetary development cannot be ruled out if states are faced with similar threats of financial crisis again.

³³⁰ See for example, Yu 2001; and He 2002. For example, China supported Asian economic initiatives in the past, and in the early 21rst century was supportive of the AMF idea, which it rejected in 1997.

³³¹ See Yu 2001, and He 2002. China's capital controls only tell part of the story; since the 1990s, a large share of capital inflow to China has been foreign direct investment, and to a secondary degree bank loans, both of which are not as mobile as hot money prevalent in crisis-stricken countries including Korea.

³³² The EMS was not accompanied by a new institution; instead operation was handled by the Commission. See Wyplosz 2001, 24.

V. Concluding Remarks

In this chapter I showed that structural theory can apply to financial relations in with respect to threat to survival as it does to politics. Several threats were identified and observed in the four regions and time periods examined under the case studies. Also there was a clear connection between the severity of financial crises and the incidence of movements toward currency union with two exceptions—the European Community in the early 1970s, and middle income countries in Latin America in the late 1990s.

Since the Latin American debt crisis of the early 1980s the frequency of financial crises around the world has tended to increase (about 7 to 9 per year) and the costs of such crises have also increased. However the existence of threats alone has proven insufficient to prompt all states into a monetary alliance in Latin America and Asia, while in America and Europe the threat was as much from internal sources as from systemic pressures yet both regions adopted currency unions, in Europe repeatedly. It appears that threat to survival from crisis severity is a necessary but not sufficient cause of monetary alliance. Still, there is enough of a trend within the cases selected to warrant further study. An additional factor that is needed for a monetary alliance to materialize is the availability of allies that not only share circumstances but can add to a state's relative capabilities. Without good potential allies we cannot have an alliance, or any sort.

One further characteristic of all cases was the desire to gain independence from the preponderant power and influence of the financial hegemon. States in international politics and international finance seek allies as self-help against a threat originating from a specific target state. In international finance states similarly may enter into an alliance

for self-help protection against a specific target. The character of the alliance will vary depending on availability of allies and their relative capabilities. As was predicted by structural theory, states in the selected cases were threatened by the preponderant power of the financial hegemon and sought allies in order to counter the threat. In each case, states were distinctly aware of the power of the financial hegemons and this factored into their decisions regarding monetary relations. This was especially true in the European case of 20th century monetary union.

Not all monetary alliances need to be targeted at the hegemon, however. If history has taught us one realist lesson it is that to challenge a ruler one must be rich in capabilities. Challenges were not made for the weak. Strong challengers are called courageous while weak challengers are called fools. Strong challengers who win are considered worthy; weak challengers who win are lucky. As in all cases, there are exceptions, but they are historically few. It must then be true that economic balancing, as military balancing, must be among those with relatively equivalent capabilities, while weaker states wait to grow fat before challenging. And the best way to grow fat may well be at the side of the rich and powerful. Those states that opt for monetary bandwagoning through dollarization certainly are hoping for such an outcome.

The purpose of this chapter was to show that neorealist preoccupation with threat for survival and the seeking of allies for self-help is quite applicable to international monetary affairs. On closer examination, this aspect of structural theory may even be more applicable to finance in the 21st century than to military security. It has been argued that military threats are more time urgent than economic threats, or that the stakes are higher in military than in economic arenas. Thus the high politics of military security

dominates the low politics of economic and social affairs.³³³ However, one could also argue the opposite. If ‘time-urgency’ is the determinant of high and low politics, then the hierarchy should be reversed. Currency crises challenge the ‘time-urgency’ differential between military and economic threats because of their rapid development and immediate effects. If as Posen (2003, 41) argued, “on the whole states worry more about proximate threats than they do about distant ones,” then we might assume they would worry more about financial crises than wars since the former are quicker to hit, less predictable, and speculators can attack from any location usually a great distance away. A state with relatively peaceful neighbors but a vulnerable financial structure might feel military attack is a very distant threat, while speculative attack a very proximate one; thus the incentive to worry about the latter rather than the former. If lasting effects are the determinant of the hierarchy then economic threats are at least on a par with military threats, as economic analyses show that it can take years for national wealth and per capita welfare to resume following a currency crisis, as it takes years for a nation to recover from war. Indeed, financial crises are a greater threat to national wealth and welfare (and therefore to power) than war because of the distinctive absence of a ‘Phoenix effect’. If policy constraint in alliance formation is the determinant of the hierarchy, again the roles should be reversed. States within a military alliance still maintain command over their own armies. States within a currency union give up all command of their monetary policy, as if they were giving up their soldiers. In both cases, what sovereignty is consciously limited is done so because the state gains in stability and protection from crises (certain military crises or certain economic crises).

³³³ Keohane and Nye 1977, 23-24.

While military threats may trump economic threats, where both exist at the same time, military threats are not the only threats a state must respond to. Economic threats are far more common. Financial crises can hinder a state's ability to respond to military threats when and if they arise, but that is not their only threat to the state's capabilities. *The threat to the good functioning of the state in its daily capacity is enough to spur a self-help response and quest for allies, and no military threat need be present. While military balancing normally takes place in times of war or anticipated war, economic balancing can take place at all times, including times of peace.* But as military alliances are more likely in the prospect or aftermath of war, so too in economics the hotter the crisis the more likely the economic alliance. Although the boundaries of threat and survival are different in the political and economic realms, it is its existence not its defining parameters which affects state action. Where states perceive a threat to their survival they will act for self-preservation, whatever that threat may be and however it affects them.

The damage of financial crises can be devastating, the more so for the relatively weak, and present quite a dramatic contrast to the growth effects of war. The difference in the threat to survival is akin to the difference between gradual starvation and immediate annihilation, a slow painful death versus a quick and decisive one, the difference between terminal cancer and a bullet to the head. Some would prefer the more violent latter version of death to the prolonged pain and suffering of the former version. Still, the former death allows for hope, the latter does not. But hope is not a variable in international relations theory. From the perspective of national income, states may have more of an incentive to seek allies to prevent financial crises than to prevent wars.

Chapter Six

Competition and Socialization

This chapter examines the third necessary condition of neorealist structural theory, the competition for resources and the resulting socialization of states into behavior patterns. States emulate those most successful in this competition, or fall by the wayside. This means they decline in status, get fewer of the coveted resources, but not necessarily disappear. The concept lends itself especially to discussions of economics. Waltz argues that competition for resources leads to socialization in action and concern over relative capabilities. Mundell, among others, has emphasized that scarcity of resources leads to competition. In essence these two statements are the same. If resources were unlimited in international economics and international politics, there would be no need for competition and it would be unlikely that it would arise. If resources were unlimited we would be living in Thomas More's Utopia where all the resources of the world were bountiful for all. Greed (for power and money) may still lead some to hoard resources even in Utopia, and this may distinguish actors in both economics and politics—firms strive for maximum market share, states strive for maximum influence, even if survival is not in question. But scarcity makes a certain amount of greed a necessity.

Waltz is describing a system familiar to Adam Smith, where each actor does first what is best for itself. "Whether or not by force, each state plots the course it thinks will best serve its interests."³³⁴ This is an imperative in a self-help system characterized by anarchy and lack of government, producing an emulation of the fittest. "A self-help

³³⁴ Waltz 1979, 113.

system is one in which those who do not help themselves, or who do so less effectively than others, will fail to prosper, will lay themselves open to dangers, will suffer. Fear of such unwanted consequences stimulates states to behave in ways that tend toward the creation of balances of power.”³³⁵ I have already noted in chapters four and five that the anarchical international monetary system leaves states open to the dangers of currency crises. This chapter examines socialization and competition. Systemic pressure from a number of selectors socializes state action, and competition for resources and relative capabilities drives socialization.

I discuss the instruments of competition and its rewards in the international monetary system (i.e. what states might be competing for), to what extent states are socialized and some prominent selectors in this process, and then present some evidence of both competition and socialization in the selected cases of currency union in America, Europe, Latin America and the prospects of currency union in Asia. Broadly, states compete for financial resources (with maximum resources securing the coveted position of financial primacy) and are socialized into policy choices that reduce transactions costs to improve commerce, investment, and credit, increase income and expand capabilities. In this socialization process, states face pressures from several sources either directly or indirectly. Those examined here are international financial institutions (notably, IMF), international financial capital, domestic and foreign industry, and other states. The socializing agents, or “selectors” as Waltz calls them, operate within the anarchical system pushing states like billiard balls into action. “Notice that the theory requires no assumptions of rationality or constancy of will on the part of all of the actors. The theory

³³⁵ Waltz 1979, 113.

says simply that if some do relatively well, others will emulate them or fall by the wayside.”³³⁶

I. Systemic pressures

Because of threats to survival as we know it in anarchy, states are socialized into taking certain actions proven (at least at the time) to reward participants with independence and additional resources. Socialization implies the limiting of choices as states are led to believe (or forced to do so) that only certain options, that have proven successful, are available as good policy choices, given systemic circumstances or pressures. “Competition spurs actors to accommodate their ways to the socially most acceptable and successful practices. Socialization and competition are two aspects of a process by which the variety of behaviors and of outcomes is reduced.”³³⁷ The outcome is a certain degree of sameness. Recent scholarship in economics points to precisely such a socialization and narrowing of choices in international monetary policy. Notably, Eichengreen (1999) presents the *hollowing-out hypothesis*, which holds that in a world of high capital mobility, the only sustainable exchange rate regimes are purely flexible rates and hard rates (monetary unions, currency boards, dollarization). In this view, arrangements that fall in the middle, fixed and adjustable exchange rates with constant or crawling pegs, are ultimately open to lethal speculative attacks. This is an implication of the Mundell-Fleming model, or what Cohen (1977) and Andrews (1994) have called the Unholy Trinity, that shows the incompatibility between capital mobility, monetary policy

³³⁶ Waltz 1979, 118.

³³⁷ Waltz 1979, 77.

independence and a fixed exchange rate.³³⁸ One of the three must give. In this trinity, limiting capital mobility has for several decades been rooted out as an option. “Full capital mobility is axiomatically taken as the world’s destiny,” says Wyplosz (2001). Good monetary governance calls for full capital account convertibility, and is often demanded by the IMF.³³⁹ In earlier times scholars thought that what should ‘give’, was fixed exchange rates and so advocated a free float—and states rushed to allow their currencies to float freely. Removing both capital controls and monetary fixing leads to greater anarchy within the international monetary system as elements of national regulation are removed. In Waltzian terms, without consideration of the economics literature yet, we might expect that as crises increase, states will be socialized into seeking allies with more urgency. Indeed, given the threats posed by speculative attacks and financial crises in an anarchical international monetary system (as discussed in chapters four and five), some scholars, policymakers and market actors seem to believe that what should ‘give’ now is monetary independence for all but the greatest financial powers. Thus where states were earlier socialized into free floating, today they are being socialized into some form of monetary integration, what Cohen (2004) has called a “monetary alliance”. In this respect the outcome of currency unions is a direct result of socialization under current systemic pressures, with those resisting the process risking a loss in competitiveness.

³³⁸ See Cohen 1977; Andrews 1994. See also Cohen 1993, 133-58.

³³⁹ Some economists, notably Bhagwati, have argued in favor of capital controls and have attributed India and China’s ability to emerge unscathed from the Asian financial crisis of 1997-98 to the existence of capital controls in those countries. Bhagwati notes that currency market mayhem often produces a protectionist backlash, and always interferes with trade.

II. Competition for resources.

“Competitive systems are regulated, so to speak, by the ‘rationality’ of the more successful competitors. What does rationality mean? It means only that some do better than others—whether through intelligence, skill, hard work, or dumb luck...Either competitors emulate them or they fall by the wayside.”³⁴⁰ But what do states compete for in the international monetary system? Relative gains in international politics refers to an increase in state capabilities, typically assumed to mean military capabilities but not necessarily. Relative gains in international economic relations refers to an increase in state capabilities, typically assumed to mean income but not necessarily. As discussed in chapter three, income and arms are both state capabilities that feed into national power. States frequently compete in arms races. But they also compete for the resources that increase relative income, and market share. In various studies in political science and economics, scholars have repeatedly identified coveted goods in international finance, with varying degrees of emphasis. Specifically, states compete for capital investment, financial market share, seignorage and primacy. Of these, the competition for investment is perhaps the one arena where nearly all states are rivals, yet this is the one least examined in the literature.

1. Competition for capital investment

In international politics, states compete militarily for the most arms at any point in time. In international economics states compete for the most money at any point in time.

³⁴⁰ Waltz 1979, 76-77.

And they are ranked in an order relative to each other constantly by various organizations so that investors can choose to place their money. States that move up the ranks relative to their peers stand to receive more of the money floating around the world at any point in time than those states that move down the ranks relative to their peers. Absolute gains do not help much in such a situation. Even where the world GDP, and the GDP of each nation grows in any period there will always be some growing faster than others. Even in a world where the credit ratings of all states improve, there will always be some that improve more than others. Even in a world where economic freedom and global competitiveness improves for all, there will always be some ahead of others. That is the whole point of rankings. And those ahead naturally will receive a relatively larger chunk of the investment pie, at any point in time. Cooperation within large groups, such as the World Trade Organization, may increase the pie for all, but it does not address this problem. Moreover, and in direct contrast with international trade, there is no international negotiating forum to increase the financial pie for all or regulate international capital in such a way that there are absolute gains that can be calculated for all in the short-term or the long-term. This makes the competition for capital all the more intense.

Waltz notes that foreign “competition for American firms has quickened” and the urge to limit the intrusion of, or to exclude, American firms has given way to intense courting of them.”³⁴¹ States also compete for foreign capital, either direct investment or financial flows. In the age of globalization this competition so visible in the 1970s has quickened even more. Virtually every nation has an investment promotion agency whose

³⁴¹ Waltz 1979, 150.

sole function is to attract foreign investment by courting industrial and financial firms and money managers, and making the country look attractive to both liquid and fixed capital. The World Association of Investment Promotion Agencies (WAIPA) lists 199 members from 151 countries and several autonomous territories. States are generally represented by the ministry of commerce and industry or the national investment promotion agency, and sometimes an additional regional investment body representing a geographic area within the state. Several states have more than one investment promotion agency. For example, the WAIPA membership lists Australia, Belgium, Gabon, Jordan and the Netherlands with two each, China, Korea, Mexico and the United Arab Emirates with three each, Brazil, Malaysia, and Spain with four each, and South Africa with seven. The United States, while a member of WAIPA, is the only industrialized country not to have an official investment promotion agency, as this is an area reserved for each state. Several US states have investment promotion offices, with at least a dozen states maintaining overseas offices that are frequently located within the U.S. commercial centers and assisted in their mission by the U.S. Commercial Service of the Department of Commerce. Thus, indirectly, the United States also positions itself in the global competition for investment.

In this global competition states may be vying for investment from the private sector, but they are competing for it with each other. Russia and Nigeria are not rivals with ExxonMobil or British Petroleum, or the various emerging market mutual funds. Indeed, they are competing with each other *for* ExxonMobil and BP, and the fund managers. In this global competition of states for capital, government policy (including monetary policy) matters enormously. To court global capital and snag a big deal away

from a competitor, states, through their investment promotion agency present the most attractive picture possible, relative to each other. Among the features each state offers to create a favorable investment climate are tax incentives, commercial codes, capital repatriation, and various incentives with industrial zones. A stable financial environment with low inflation, low interest rates, and a stable currency are a part of the macroeconomic picture that makes a country attractive to outside investors, and domestic investors alike. The competition for financial capital can be even more dramatic in its effects, changing the system itself. Helleiner (1994) makes special note of the competition for financial capital as a key factor in contributing to the liberalization of financial markets in the postwar era. “When one state began to deregulate and liberalize its financial markets,” he says “other states were forced to follow its lead if they hoped to remain competitive in attracting footloose funds and financial business.”³⁴²

2. Competition for financial market share

Cohen (2004, 25) notes, “[i]n a world of increasingly interpenetrated currency systems, all governments find themselves driven to join the competitive fray, to preserve or promote market share for their product.” The product being the currency itself, and the competitive game for market share on a global scale is really limited to the highest ranked, to the great monetary powers, as it is in international politics. However, compared to the competition for investment, only a small subset of states, can realistically compete for global financial market share. If a state is relatively better off financially, that is its financial markets are deeper and larger than those of other states in

³⁴² Helleiner 1994, 167.

a specific region or on a global level, then it may compete for a larger share of financial investments than other states with similar capabilities, at any point in time. This would mean that a larger percentage of currency trading, regional or global banking, commercial loans, or stock market listings, would be transacted within its borders and by its financial intermediaries rather than those of other states. This activity generates national income, makes for a more advanced services industry, employs more people at higher paying jobs, and ultimately adds to the government's budget through tax revenues which can then be used for any purpose the state chooses (including military expenditures, but not necessarily). Note that the contenders here need not be only the great industrial powers. The top players are the top financial centers of the world, New York, London and Tokyo, in that order. But several other important financial centers also vie for a bigger piece of the pie both with each other and the big three—one can think of Hong Kong, Geneva, Frankfurt, Paris, and Singapore. Regional financial centers include Dubai, Panama City, and Kuala Lumpur, which, although relatively far behind the leaders, are still in the running for the regional pie, with relative financial capabilities ahead of their neighbors.

Competition for market share is a competition for relative gains. Market share is traditionally defined as a percentage of sales covered by a firm or group of firms, but the analogy may apply to any type of actor in a specified market, including state actors in the market for foreign capital. As a percentage, market share always sums up to 100 percent. Market size may grow (as more people are born or develop preferences for a particular product or service, or as global money supply grows) but share cannot change unless it is at the expense of a competitor. In finance then, by definition, the share of any other world currency in international reserves cannot increase if the dollar share in international

reserves does not decrease. The share of financial services transacted in Tokyo or London or Hong Kong or Frankfurt cannot increase unless the percentage of those transacted in New York decrease. Presently one third of all the world's international transactions are conducted through New York. If the other two thirds were conducted in Tokyo and London, hypothetically, it is difficult to see how one could increase their 'third' without decreasing another's. As wealth increases and money supply increases, absolute numbers may increase in one area without affecting the absolute numbers in another area but in relative terms share changes. And the size of the share matters. All gains are ultimately relative and must be competed for.

3. Competition for seignorage

The benefits of international seignorage are by and large ignored by both economists (who cite measurement difficulties) and political scientists (with the notable exception of Strange who places high importance on seignorage) despite numerous studies showing high degrees of currency substitution, or as Cohen might say currency 'deterritorialization'. But there is no indication that states and statesmen do the same.

Cohen (2004, 8-9) briefly considers the matter as follows:

“Currencies, if attractive enough may be employed outside their country of origin for either of two purposes: for transactions either between nations or within foreign states. The former is conveniently referred to as international currency use or currency internationalization; the latter is described as currency substitution. . . Currency internationalization alters monetary geography by accentuating the hierarchical relationship among currencies, expanding the domains of a few popular monies well beyond the jurisdictions of the countries that issue them. Currency substitution is significant because it represents a direct invasion of traditional territorial domains, diminishing the use of many of the less popular currencies.”

Both, says Cohen, are a product of Darwinian natural selection driven by market demand. This competition, argues Cohen, is rising again. He goes on to divide the global currency hierarchy, what he calls the Currency Pyramid, into seven categories: Top Currency, Patrician Currency, Elite Currency, Plebian Currency, Permeated Currency, Quasi-Currency, and Pseudo-Currency. This echoes Strange's (1971) own currency pyramid. Obviously only one can be the top currency, although a few can aspire to patrician status while none would prefer to be on the bottom. To the extent that the international monetary system is hierarchical, currency rankings are necessarily relative and higher positions are gained through competition. Of course, currencies cannot 'compete' as they have no unique sovereignty that is not bestowed by states. A currency is a tool of the state without a life of its own. To the extent that the issuance and regulation of currency falls within the exclusive jurisdiction of the state (or group of states in the case of a regional currency), whether or not it is successful in its management, it is the state that competes for the status that the relative position of its currency bestows.

For much of the twentieth century, the top spot and maximum seignorage was the exclusive domain of the United States, and its dollar. The monetary benefits of this position are not negligible. Blinder (1996) for example, estimated that unofficial dollarization translates conservatively into an interest saving for the US government, a form of seignorage earnings, of at least \$15 billion a year. This not a huge profit but large enough to persuade EMU's authorities to plan on offering a potentially attractive alternative with the minting of large-denomination euro-bills. As Rogoff (1998, 264) has written: "Given the apparently overwhelming preference of foreign and underground

users for large-denomination bills, the [ECB's] decision to issue large notes constitutes an aggressive step toward grabbing a large share of developing country demand for safe foreign currencies," and the seignorage gains that come with it. Europeans who favor more widespread use of the euro have openly applauded the plan. Writes one: "The United States is able to obtain goods and services by simply giving foreigners pieces of green paper that cost pennies to print... There is no reason why the United States should monopolize these benefits."³⁴³

Japan also has given every indication that it, too, intends to stay in the financial race, competing actively to preserve as much as possible of the yen's international role. In this, Japan has been frank in declaring its aspirations, making reversal of the yen's slide an official policy objective in 1998.³⁴⁴ In 1999 a widely publicized report of the Ministry of Finance advisory group, the Council on Foreign Exchange and Other Transactions, declared that "[i]nternationalization has not necessarily kept pace with what is warranted by the scale of the Japanese economy... Recent economic and financial environments affecting Japan point to the need for the greater internationalization of the yen... The question of what Japan must do to heighten the international role of the yen has re-emerged as a vital issue."³⁴⁵

4. Competition for primacy.

For the few states with the highest relative financial capabilities, a competition for primacy is both within reach, and a coveted position in the international monetary

³⁴³ Quoted in Cohen 2004, 76-77 who cites Hufner 2000, 25.

³⁴⁴ Kwan 1999, 12; see also Hughes 2000, 249. On the possibility of a yen bloc see also Kwan 1998.

³⁴⁵ Cohen (2004, 77) who cites the Council Report (1999, 1-2).

system, as it is in international politics. And for similar reason: the highest financial position adds to state power. Helleiner (1994) takes note of the unique competition for primacy among the leading financial powers, a competition that did not exist in the trade sector. “The unique “hegemonic” interests of the United States, Britain, and more recently, Japan in the financial sector” prompted these three states to enthusiastically promote a liberal financial order. “A key reason for their different approach to the two sectors was that each had “hegemonic” interests in finance that they did not have with respect to trade.”³⁴⁶ The winner take all stakes in finance means that primacy matters much more for the contenders, than it would in trade. In trade, several states can be equally self-sufficient, equally insulated from market threats, equally diversified. In finance, only one state can reap the benefits of global seignorage as the numeraire of the international monetary system. And, as in international politics, those powers in a position to challenge the hegemon for primacy position themselves to do so.

In the mid 1980s Japan became “strongly committed to a program of liberalization as a means of transforming itself into an “international state” suitable for “global leadership.”³⁴⁷ The European Commission also made it clear that one of the objectives of European financial reform was to augment European financial power within the world economy. As Delors put it, the creation of a single European financial market would give “our financial centres the opportunity to be among the most important in the world,” and “it is this that gives us our say in the world with the Americans and Japanese on debt, on financial flows.”³⁴⁸ In a similar vein, it was also hoped that financial

³⁴⁶ Helleiner (1994, 19, 21).

³⁴⁷ Helleiner 1994, 154; cites Pyle 1987, 256-7.

liberalization and deregulation would increase the international attractiveness of European currencies in relation to the dollar, particularly when they could be held in a unified European money market that the European Commission argued would be “the largest in the world.”³⁴⁹

5. *Survival in a Darwinian struggle*

States do not simply compete for the rewards in the international monetary system, they also compete for their currency’s survival in what Cohen (2004) has called a Darwinian struggle or what might more appropriately be called a Waltzian struggle, since we are dealing with state actors and not biological organisms. Nevertheless, the survival of the fittest refers to relative capabilities, adaptation or falling by the wayside, so we consider Cohen’s analogy. “What determines which currencies will prevail in the Darwinian struggle?” asks Cohen (2004, 10). The answer lies in the relative capabilities of the issuing state and the confidence those capabilities bestow upon the currency. These capabilities, according to Cohen, include “political stability in the country of origin”, “a proven track record of relatively low inflation and inflation variability” since “[n]o currency is apt to be willingly adopted for cross-border purposes if its purchasing power cannot be forecast with some degree of assurance”, “exchange convenience”, low transactions costs and “capital certainty” with “reasonable predictability of asset value” within “well-developed financial markets. Finally, and most important of all, a money must promise a broad transactional network, since nothing enhances a currency’s

³⁴⁸ Helliener (1994) cites quotation from Buchan and Owen, “Undimmed Ambitions for Unity in Europe,” *Financial Times* 14 March 1989.

³⁴⁹ Helleiner 1994, 161 cites Underhill 1991, 205-6.

acceptability more than the prospect of acceptability by others.”³⁵⁰ Historically, these features have usually implied a large economy well integrated into world commercial and financial markets creating economies of scale. “The greater the volume of transactions conducted in or with a country, the greater are the potential network externalities to be derived from the use of its money.”³⁵¹ Anthony Solomon at the Treasury Department, for example, argued that “for other currencies to become meaningful reserve currencies, they have to open their capital markets the way the United States has, and they have been reluctant to do that to the degree we have. There is no way of having a really important reserve function for a currency unless it has large capital markets to which the rest of the world can have access, can borrow.”³⁵²

6. How might a currency union provide a competitive advantage?

The competition in the international monetary system may appear to be a never-ending contest of all against all, with little incentive to cooperate with a partner who may end up ranked higher than you in investment and whose currency may become more international than yours, unless the cooperation produced a better position for all members of the group. A relatively stronger single currency (relative to the individual monies left behind) for a group of states may produce higher rankings for the group, and may produce an internationalization of the collective currency. While devaluation has been largely discredited as a competitive policy. As one Ecuadorean economist put it in discussing his country’s dollarization, “[I]f currency depreciation created lasting

³⁵⁰ Cohen 2004, 10-11.

³⁵¹ Cohen 2004, 10-11.

³⁵² Helleiner 1994, 134-135 cites Ludlow 1982, 119, 192.

competitiveness, Brazil would be the most competitive country in the Americas and the United States would be the least competitive. By the standards of those encouraging competitive devaluation, Ecuador's greatest period of recent competitiveness was 1999 and coincided with the greatest misery for the average Ecuadoran."³⁵³

To produce relative gains, the group must have a certain amount of exclusivity. Optimum Currency Areas (or OCA) theory by definition is exclusive. It only makes sense for certain states to share a currency—those that share common economic shocks and trade a lot together. States in an OCA will experience relatively fewer monetary disturbances and so relatively more commerce, than they did previously. Assuming that those outside the OCA show the same economic activity as before (i.e. no change in their relative position), the OCA will have made its members 'relatively' better off vis-à-vis the outsiders. Because an optimum currency area is exclusive it makes the group economically stronger than some others outside. This allows the group to compete more effectively with other groups or non-members. Because not all states are involved it may be reasonable to assume that those within the OCA are relatively better off than many of those outside the OCA. Or at the very least, it will put the OCA members in a relatively better position vis-a-vis outsiders than they were before as individual states. If the outsiders are weak states, the OCA members may become relatively better off and absolutely wealthier than the outsiders; if the outsiders are powerful states, the OCA members still improve their comparative position and are collectively a little (or a lot) less weak than their powerful neighbor. Either way, the members of the OCA then will experience relative gains. The euro-zone is a case in point, as discussed later in this

³⁵³ Quoted in Schuler for *The Wall Street Journal* 18 October 2002. Schuler is a senior economist at the U.S. Treasury Department and formerly senior economist for the Joint Economic Committee of the U.S. Congress, and a keen supporter of dollarization.

chapter. A political decision to enter into an OCA is rational for a state because it increases economic power while decreasing economic vulnerability. In this interpretation OCA and neorealism become congruent theories. In this way monetary integration is not an aberration of neorealism but fully consistent with it.

In addition, for those states with relatively weaker financial capabilities (relative to the hegemon), a single regional currency provides some if not all of the attributes that Cohen lists above for competitive survival. It creates a larger economy with a more ample constituency for the currency, with fewer intra-regional transactions costs, eliminates exchange risk, lower inflation and higher monetary stability within the region, and, depending on its relative size, between the region and the rest of the world, all of which enhance exchange convenience and capital certainty. Further, as discussed in the section below, a currency union can foster financial market development, which in turn adds to economic development in general.

There is of course the problem of competition as impeding cooperation in an OCA or any monetary alliance. In a condition of anarchy relative gain is more important than absolute gain. So why would states cooperate if they knew that all involved would gain in absolute terms? This, it is argued, is the ultimate challenge to realism. However, that states cooperate for the long-term absolute gain of all, that is, in making the pie bigger, neglects the fact that at any point in time the size of the pie is finite, and in the short-term states compete for the largest slice for themselves. To take a simple example, if a group of undergraduate students has one pizza pie in front of them, they may decide to pool their money to purchase more pies. Until the additional pies arrive, however, the largest slice comes at the expense of the other slices. Additional pies may be on the way,

but that does not change how the current pie is divided. All but the fullest students will want the bigger piece. The hungriest cannot wait, and the greediest won't. And that necessarily means that, right now, some will get more and others less. States certainly have longer time horizons than college sophomores, but as with the hungry student, the neediest and greediest, or those with the smaller relative economic capabilities, necessarily have relatively shorter time horizons than the rest—they need results faster. Resources in international politics and international economics are similarly finite at any point in time, however much they may grow in the future, and states similarly want the most they can get at any point in time with limited capacity for waiting; for this they must compete.

Besides the competitive nature of global economics, there is the issue of relative gains from team dynamics. What if the participants anticipate relative gains as compared to an outside rival or as compared to some states outside the cooperating group? If the members of the group expect to gain relative to some other, the issue of relative gains holds and realism is not challenged. In order to agree to a form of cooperation that would limit state action for the greater good of the group states must expect to improve their relative position while inside the group. For example, I will play well with my team because if we win I will be in a better relative position than every member of the losing team. I will work well with my coworkers because if we do well I too will get a larger salary than a comparable employee in the unit we surpass (in attendance, production, sales, etc.). I will save money with my spouse because together we will have a bigger house than the Jones's (or bigger than my rival sibling). In real life we join groups not only to make ourselves better off than before but also to make us relatively better off than

some other people. Waltz makes particular note of how competition among many can become competition among groups in the international state system. “Everyone wants someone to win; the members of a party want a leader established even while they disagree on who it should be. In a competition for the position of leader, bandwagoning is sensible behavior where gains are possible even for the losers and where losing does not place their security in jeopardy. Externally, states work harder to increase their own strength, or they combine with others, if they are falling behind.”³⁵⁴ In this way, competition for scarce resources actually promotes cooperation if it means the group’s pie increases and members get a bigger piece than non-members. In this the euro provides the most ample evidence.

III. Socialization.

For Waltz, socialization of states based on the pressures of the international system is what leads to similar behavior in alliance formation. Structure, says Waltz (1979, 73) provides some part of the explanation of behaviors and outcomes by 1) designating “a compensating device that works to produce a uniformity of outcomes despite the variety of inputs”, and 2) by designating “ a set of constraining conditions.” Thus a system rewards certain types of behavior and constrains choices and actions of the actors. “Such a structure acts as a selector.” “Structure affects behavior within the system but does so indirectly. The effects are provided in two ways: through socialization of the

³⁵⁴ Waltz 1979, 126. Stephen Van Evera suggested using ‘bandwagoning’ to serve as the opposite of ‘balancing’. I suggest in chapter five that balancing and bandwagoning are part of an alliance choice path based largely on relative capabilities.

actors and through competition among them.”³⁵⁵ “Socialization encourages similarities of attributes and of behavior. So does competition. Competition generates an order, the units of which adjust their relations through their autonomous decisions and acts.”³⁵⁶ “In spontaneous and informal ways, societies establish norms of behavior.”³⁵⁷ “A group’s opinion controls its members. Heroes and leaders emerge and are emulated. Praise for behavior that conforms to group norms reinforces them. Socialization brings members of a group into conformity with its norms... Socialization reduces variety.”³⁵⁸

States are socialized into monetary policy adaptation for the same reasons they are socialized into security policy adaptation, they must adapt or fall by the wayside. Socialization is an important force in societal relations at all levels. In both political and economic interactions states learn and adapt to the most acceptable behavior. In international politics, it may be argued that states are presently socialized into democratization. In international economics, it has been argued that states are socialized into a homogenization of economic policies across countries. This may be an extreme view. However, the socialization factor is perhaps stronger (if not completely homogenizing) in the economic realm because of the added factor of ‘the herd’ that rewards stability and rapid growth rates with confidence and investment.³⁵⁹

³⁵⁵ Waltz 1979, 74.

³⁵⁶ Waltz 1979, 76.

³⁵⁷ Waltz 1979, 75.

³⁵⁸ Waltz 1979, 75-76.

³⁵⁹ The ‘herd instinct’ is defined as a mentality characterized by a lack of individuality, causing people to think and act like the general population. In finance, this term is used to refer to the forces that cause unsubstantiated rallies or sell-offs. Financial market actors are thus often referred to as ‘the herd’ for their tendency to act in this way, often as a result of lack of perfect information. As Bhagwatti (2004, 202) notes, “[T]he reason why capital inflows are tricky is simply because when confidence is shaken, the fact that the

1. What are selectors and what do they do?

Freely formed economic markets and international political structures are selectors. International political economy straddles both these selectors because by definition the actors (states) must make decisions about market-affecting action while constrained by both market reaction and political reaction at the same time. Frequently market actors are also political players (in the form of industrial lobby groups, for example) producing an exponential selector effect. Foreign direct investment, trade and capital flows are indicators of reward and punishment. “[S]tructures limit and mold agents and agencies and point them in ways that tend toward a common quality of outcomes even though the efforts and aims of agents vary.” (Waltz 1979,74)

Forces of socialization are also recognized as highly influential in other human and political relations. As Baldwin (1995, 15) points out, Kenneth Boulding (1963; 1978; 1989) for example, suggests that the same three social mechanisms that produce order in families are also responsible for order at the level of the nation-state and the international political system. He identifies them as exchange relations, threat systems, and image integration. The first emphasizes rewards, the second punishments, and the third harmonization of perceptions and interests. Boulding postulates that all social systems rely on some combination of these processes to achieve and maintain social order. In international finance there is little disagreement that the system clearly rewards conservatism, punishes real or expected instability, and has harmonized ideas about how monetary policy should be governed. McNamara (1998) has argued that it was precisely

situation is inherently one of imperfect information implies that the actions of a few can initiate herd action by others.”

such a socialization that led to a new ‘currency of ideas’ converging around fixed exchange rates as a direct result of systemic pressures imposed by capital markets.³⁶⁰

2. *Financial sector selectors: “the confidence game” and “the herd”*

In international economic relations, rational expectations have come to play an important role in this socialization process. In macroeconomics this has meant that policies must be assessed for their credibility. States try to sustain demand for their assets in the midst of financial crisis and attract investment in stable times by developing a reputation for a public commitment to credible policies of “sound” monetary management—what Paul Krugman (1998) has called “the confidence game”.³⁶¹ Kenen (1960) pointed out that “[w]e must remember that an enormous flight of capital can be touched off by... a threat of decline or a rumor of devaluation.”³⁶² Kirshner (1995, 274) notes “[c]urrency reputation is probably the single most important factor in determining the reaction of market forces to the observation of pressure on a given currency. The market will tend to balance with currencies that have good reputations and bandwagon against those with poor reputations. Reputation matters in currency affairs. A “good”

³⁶⁰ McNamara (1998) investigates the monetary policy cooperation in postwar Europe from Bretton Woods system to European Monetary Union, mainly focusing on economic policy convergence beginning in mid-1970’s. Her emphasis is on the interaction between change of international economy (especially, increasing capital mobility) and domestic policy making (the idea shared among political elite, a neoliberal consensus). McNamara argued that key to understand EMS success is a shared consensus among political elites about a neoliberal policy, which means the pursuit of low inflation and monetary stability over growth or employment.

³⁶¹ Krugman (1998) refers to the “confidence game” especially in regard to maintaining investors in the face of financial crisis.

³⁶² Kenen 1960, 16.

reputation comes from a number of sources, such as the historical willingness to do what is necessary to defend the currency,” or central bank independence.³⁶³

The necessity of a good reputation has roots at least into the classical gold standard era, where most IPE studies of the international monetary system begin. The 19th century saw the rise of information-gathering and dissemination mechanisms including financial publications such as *The Investor’s Monthly Manual*, *Burdett’s Stock Exchange Official Intelligence*, *Poor’s Manual of Railroads*, and *Herapath’s Railway Journal*, rating agencies such as R.G. Dun & Company and the research and rating department of Credit Lyonnais (the largest bank in the second largest creditor country).³⁶⁴ The rise of ratings agencies added a whole new layer of market selectors in the international financial system as sovereign credit ratings play an important part in determining countries' access to international capital markets and the terms of that access.³⁶⁵ The major credit ratings agencies today are in the United States, as are many other important financial institutions. Foremost among these is the IMF, whose country reports are influential on the financial “herd” on Wall Street and other markets.

Today, invariably the pressures of socialization come from America. Not only are the top credit ratings agencies American entities, but American financial institutions are globally dominant reflecting its central role in the international system (encompassing

³⁶³ In a footnote to this passage Kirshner further notes the particular importance of reputation in monetary affairs: “It is interesting to contemplate why reputation is more important with regard to currency affairs than with other state attributes. There are a number of possible explanations. Currencies have long trading histories, which involve repeated trials over time on essentially the same issue, which is rarely the case with political confrontations. Currencies are also constantly being probed in contemporary international markets, so the current extent of government support is also continuously tested. Therefore, unlike most deterrence situations, the system engages in repeated and specific tests of a well-defined reputation.”

³⁶⁴ Flandreau (1998).

³⁶⁵ For a good discussion on the effects of credit ratings see Reinhart 2002; Kaminsky and Schmukler 2002. See also Lee 1993; Cantor and Packer 1996.

finance, trade, and politics). “One has to ask,” says Waltz (1979, 151) “where most of the [economic] threads come together, and the answer is not Brussels, or Paris, but rather New York City and Washington.” This is what Bhagwatti (1998) has called the ‘Wall Street-Treasury Complex’ and its power elite, what Wade (1998) has called the “Wall Street-Treasury-IMF Complex” or what Eichengreen (1999) has simply called the “Wall Street Complex”.³⁶⁶ It is not surprising therefore that at least some participants and observers of current regional monetary unions target the United States, as past monetary union participants targeted the United Kingdom.

The herding action of financial market actors also means that deviant states are vulnerable to financial isolation. Hirschman (1945, 29) had noted a type of balancing which can occur in trade relations: “A country menaced with an interruption of trade with a given country has the alternative of diverting its trade to a third country; by so doing it evades more or less completely the damaging consequences of the stoppage of its trade with one particular country. The stoppage or the threat of it would thus lose all its force.” Not so in international finance. If loans from one country cease, chances are all financial markets will be closed to you. The pressures to conform, or yield to demands, are that much greater, and so is the influence that can be wielded. Kirshner (1995, 33-34) argues that because of this herding effect, states are also more vulnerable to state predators as “market forces focus and magnify an initial attempt at currency manipulation. At times, then, the market will be a powerful ally of the agent of monetary power.” Thus a government would not need to coerce market players to act in its preferred direction. The

³⁶⁶ See Bhagwatti 1998; Wade 1998; Eichengreen 1999. Geoffrey Ingham (1984) has made a similar reference with regard to British financial policy to the “Bank of England-Treasury-City nexus” in British politics.

“herd” mentality that operates in financial markets simply follows the signal to avoid losses.³⁶⁷

The socializing pressures from the financial powers take the form of policy demands, deemed beneficial to economic governance, tied to international lending. For example, in 1999 the Council on Foreign Relations appointed a task force chaired by former USTR Carla Hills to study the future of financial stability. The task force report highlighted the socialization of states into specific monetary policies with the following recommendations: “Recommendation 1. Greater Rewards for Joining the ‘Good Housekeeping Club.’ Emerging market economies have a key responsibility to keep their houses in order, and the international community can encourage them to do so by enlarging the rewards for good housekeeping.” “*Good housekeeping*” covers a range of economic policies and institutional reforms, including sound macroeconomic policies, smaller budget deficits, balanced liquid liabilities against assets, smaller current account deficits, strong banking regulation, compliance with international standards for good public disclosure of economic and financial data, proper functioning of securities markets, limiting short-term borrowing, arranging for contingent credit lines and holding enough international reserves to cushion against crises. The task force further recommended that “[h]enceforth, the IMF should lend on more favorable terms to countries that take effective steps to reduce their vulnerability to crises.”³⁶⁸

³⁶⁷ Kirshner (1995, 38-39) further notes: “Thus two important considerations, the strength of the manipulation and the reputation of the target, will determine the likelihood of whether the market will act as a force inhibitor or a force multiplier, and more generally when currency manipulation will have a greater chance of success.” “There are good reasons to expect market forces to bandwagon against the newly isolated currency. (That is, monetary diplomacy would unleash complementary, as opposed to countervailing, market forces.) The greater the expectations of this bandwagoning, the stronger the position of the core in dealing with members.”

³⁶⁸ Hills and Peterson 1999, 6-7.

Because all states need to borrow, none can be neutral or autarkic, in contrast to military or trade affairs. All states are socialized into taking action to positively affect perceptions of international lenders, providing the information market agents expect in order to form the most favorable rational expectations for that state. That is, one tries as much as possible, to present information that will lead market agents to have positive expectations if one cares about maintaining market confidence and maintaining and/or attracting trade and capital (which in turn accumulates wealth and increases power). There is no state that does not care about this. States that repeatedly fail to heed international pressures will “fail to prosper, will lay themselves open to dangers, will suffer.”³⁶⁹ Financial markets and especially currency markets are perhaps the most information sensitive.

3. Commercial sector selectors: trade and transactions costs

Commercial actors are also important selectors in shaping state interests and outcomes. To expand economic growth, states, especially small ones, must trade. Exchange rate stability is increasingly found to enhance trade. As noted in chapter two, recent research shows that those states involved in a currency union will grow much faster than those outside because of the positive trade effects. This implies that policy adaptation is pointing towards closer monetary integration to keep up with the growth leaders. To take a simple example, Wyplosz (2001) showed how members of the EMS had much more stable exchange rates than other countries, shown by a standard deviation of exchange rate fluctuations around their trends of less than half of that observed of industrialized countries with floating exchange rates (the ‘others’ group). Thus if a policy

³⁶⁹ Waltz 1979, 71.

goal were to increase trade, the group to emulate would be the Europeans and, and in so doing satisfy the 'herd' favored outcome of rapid growth and stability. Selecting monetary outcomes based on the relative gains from trade is not a new phenomenon. Eichengreen (1996, 15) has argued that reducing transactions costs to trade was one important reason states adopted the gold standard in the nineteenth century:

“There were advantages to maintaining the same international monetary arrangements that other countries had. Doing so simplified trade. This was apparent in the behavior of Sweden, a silver-standard country that established a parallel gold-based system for clearing transactions with Britain. A common monetary standard facilitated foreign borrowing: this was evident in the behavior of Argentina, a debtor country that cleared international payments with gold even though domestic transactions used inconvertible payments with gold even though domestic transactions used inconvertible paper. And a common standard minimized confusion caused by the internal circulation of coins minted in neighboring countries.”

From chapter two we recall that Rose (2000, 2001) uses the gravity model (with weighted national income or economic 'mass') and evidence from existing currency unions in the world economy to estimate the effects of a common currency on trade and finds that a currency union expands bilateral trade between two average member countries by 200% to 235%. Recent findings by Frankel and Rose (2002) also show a positive and significant correlation between currency unions and an increase in income as a direct result of trade effects.³⁷⁰ Even if Rose's estimates are correct, the dollar magnitude of the measured currency union effects is very small—but still tens of millions of dollars. This would be more meaningful for smaller states than larger ones, implying

³⁷⁰ There is research that argues that income gains are too small to matter. Frankel and Wei (1993) who use a smaller data set and focus on European exchange rate stabilization find that exchange rate uncertainty has only a faint effect on international trade. Similar weak findings are reported in Eichengreen and Irwin (1995) who analyze the interwar period. Persson (2001) testing for the same effect as Rose (2000) using the same U.N. data set but with different estimators finds an expansion of trade by just 13% with one estimate and a maximum of 66% using another. These figures suggest a much more modest expansion of trade: the point estimates are positive, but the prediction that a common currency increases trade is qualified by substantial uncertainty. Yet no study to date shows there are no income effects at all.

stronger socialization pressures for the former than the latter, in line with expectations from Waltz based on relative capabilities.

Moreover, the trade enhancing benefits of monetary stability is also not a new phenomenon. Helleiner (2003) takes note of the historically important need to limit exchange costs to facilitate commerce. In several parts throughout the book Helleiner (2003) refers to confusion and transactions costs as a primary concern common to each case of national monetary union. This was true in Germany, the United States, and Japan among others. This same problem is also presented as a justification for Scandinavian and Latin Monetary Unions and of course for the European Monetary Union of the twenty-first century. The connection in cause among varied monetary unions through time and region however is not drawn or analyzed. Certainly he is correct in pointing out the existence in transactions costs whenever there are too many (or even more than one) currency in any geographic trading region whether within or among countries. He neglects however to take the case a step further, applying this to transnational currency unions as well. Transactions costs reduction is a common feature of all currency unions. It is a primary reason they occur since they indicate first a trading relationship that can be expanded to increase relative economic capabilities for the parties (both states, and their firms who lobby for them for profit).

4. State selectors—the monetary hegemons

In the international monetary system, the relative size of the U.S. economy, the continuing prominence of the dollar and U.S. financial institutions, and the attractiveness

of U.S. financial markets all gave the United States indirect power via market pressure to, as Strange (1988, 31) put it, “change the range of choices open to others.”

Echoing Strange’s (1988) argument of American structural power, Helleiner (1994, 12) concludes that one important reason for the structural transformation of the international monetary system in the post-Bretton Woods era and the emergence of a liberal financial order is the role of the “hegemonic” states of Britain, USA, and Japan:

“When [the United States and Britain] supported growth of the Euromarket in the 1960s and then liberalized and deregulated their financial markets in the 1970s and 1980s, foreign financial centers increasingly witnessed their business and capital migrating to these more attractive markets. To compete effectively for this mobile financial business and capital, they were forced to follow the lead of Britain and the United States by liberalizing and deregulating their own financial systems. This “competitive deregulating” in finance was a central reason for the flurry of liberalization activity throughout the advanced industrial world in the 1980s.”³⁷¹

In the previous century, the same type of power was exercised by the United Kingdom as the monetary hegemon during the classical gold standard. As Eichengreen (1996, 33) notes, “[t]he Bank of England, the most influential central bank of its day, signaled the need to act, its discount rate providing a focal point for the harmonization of policies. The Bank “called the tune.” In a famous passage, Keynes dubbed the Bank of England “the conductor of the international orchestra.”³⁷² During both periods, other states had to match the actions of the leader, or lose financial capital, becoming irrelevant in international financial transactions (or, in other words, “fall by the wayside”).

³⁷¹ Other scholars have also pointed to the competitive deregulation dynamic in finance, such as Goodman and Pauly 1990; Cerny 1989; Hawley 1987, 142-143; Moran 1991; Plender 1986, 41; Strange 1988, 108; Walter 1991, 207, 232; Hamilton 1986; Dale 1984, 40; Kapstein 1989, 324; and Bryant 1987, 139.

³⁷² Eichengreen (1996, 33) quotes Keynes (1930, 306-307).

Socialization and competition are closely interconnected, and more often than not socialization occurs in large part because of competition. Consider the experience of Britain in the 1980s. London's business and financial leaders pushed for the abolition of exchange controls as soon as American markets were deregulated so as not to lose business or incur more transactions costs than were necessary. British financial intermediaries wanted the opportunity to expand their international activities as well as to diversify their portfolios in the new floating exchange rate system, while the Bank of England saw the abolition of exchange controls as a way of attracting more financial business to London. Because London's emergence as an offshore Euromarket center in the 1960s had depended in part on American capital controls at the time, the U.S. decision to abolish these controls in 1974 threatened London's competitiveness as an international financial center, reducing its market share. Unless it abolished its exchange controls, London would lose its reputation as the most liberal and deregulated of such centers, which was key to maintaining and attracting global financial business. The potential effect was immediately visible. The abolition of exchange controls had prompted British investors to shift their trading activity to New York securities markets, which had been deregulated in 1975. Unless it could match New York's conditions, the London Stock Exchange would increasingly risk being used as a center for the trading only of low-grade British securities. As Bank of England governor Robin Leigh-Pemberton put it in 1984, "Change in the United States has already gone further, leading and requiring change here."³⁷³

The experience was similar on continental Europe. As early as the 1960s, the Euromarket had posed a competitive threat to continental European financial

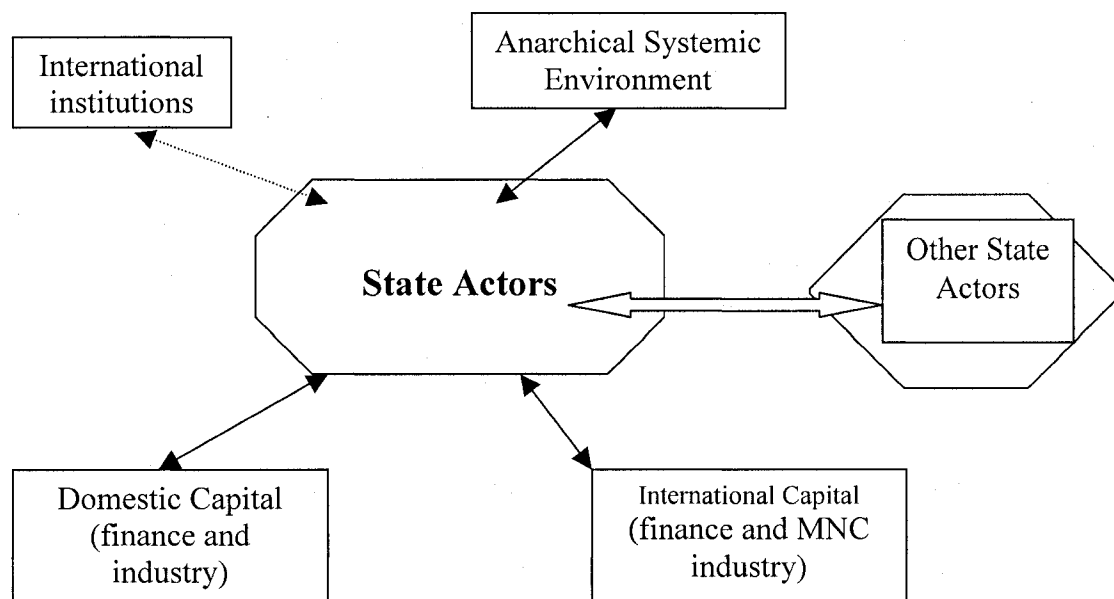
³⁷³ Helleiner 1994 notes that Leigh-Pemberton quoted in Enkyo 1989, 198.

intermediaries as European citizens and multinational corporations shifted their financial activities to the more attractive market offshore. Faced with this challenge, European financial authorities worried not only about losing financial business but about whether domestic industrial firms without access to international financial markets would be disadvantaged in international competition by relatively inefficient domestic financial markets. For example, “the German government was informed by its central bank that unless it relaxed restrictions on capital market business in Germany, its big banks would migrate to London.”³⁷⁴ The scenario states faced was clearly, follow the global leader, or risk marginalization in global finance with repercussions on industry as well as financial market share.

From the preceding discussion we see that in the international monetary system, socializing pressures on states come from at least four different directions—international institutions, domestic and international capital, industry and other states, in addition to pressures emanating from an anarchical environment prone to crises. In international politics socializing pressures come from two one major sources—the anarchical environment and other states within this environment. It might then be said that the pressure to conform is greater in international finance than international politics. Thus international finance has a greater probability of producing a certain degree of “sameness” in outcomes than international security affairs. It might be useful here to restate the graphical representation of socialization presented in chapter three.

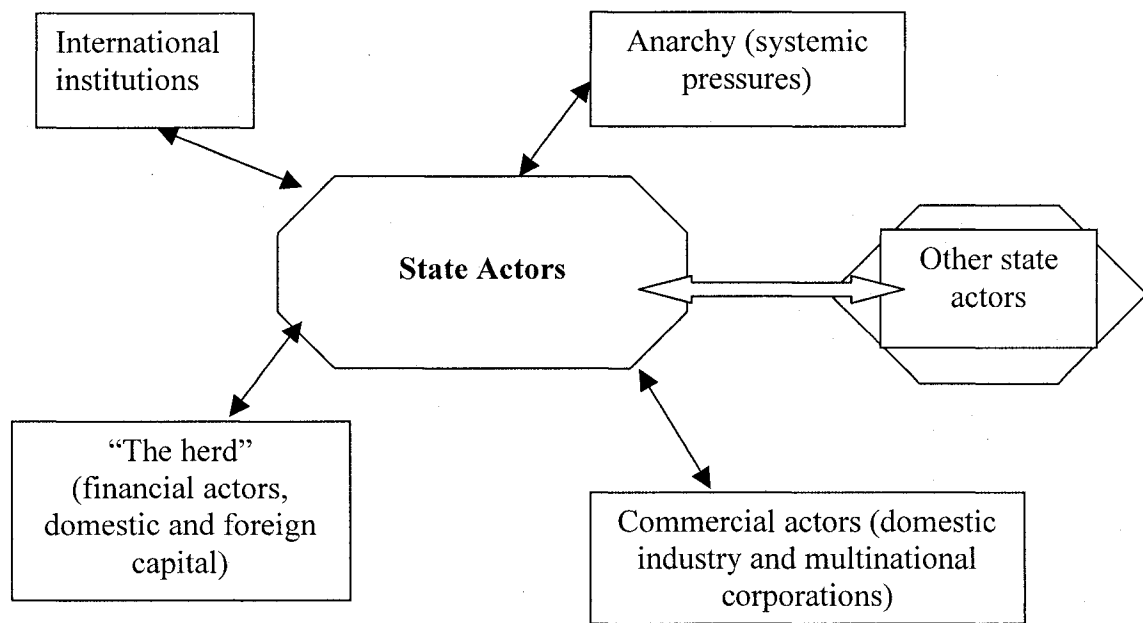
³⁷⁴ Helleiner 1994, 159-161 cites Pringle 1989, 27. See also Goodman and Pauly 1990. On the importance of competitive pressures from Britain and the United States in prompting French financial reform see Cerny 1989, and Plender 1986.

Figure C1. Socializing Pressures on States in the International Monetary System



Following the above discussion, it may be useful to reognize the graphical representation of socialization. Financial actors may exhibit a similar “herding” behavior regardless of country of origin, despite some home country bias in investment in the industrial world. Notably, capital flight is much more the common result and problem in the developing world, making “herding” action of local financial actors all the more acute in the absence of capital controls. Similarly, the economics literature on the trade enhancing effects of common currencies does not distinguish between domestic commercial actors and foreign commercial actors (i.e. non-financial corporate entities), that is, all firms may benefit. An alternative representation of socializing pressures and selectors is offered below. The reader will note that the number of selectors remains the same as does the effect on the state.

Figure C2. Socializing Pressures on States in the International Monetary System



5. the long run: finance and banking in economic development

There is a final element in the socialization of states in the competition for financial resources, and that is the effect of financial markets on the economic development of the state. Up until now, we have discussed the effects on short run relative capabilities. There is also a long run positive effect on economic capabilities that comes from a consistent and stable access to capital. Two of the earliest writers in the field were Hoselitz (1956) and Gerschenkron (1962) who emphasized especially the role of the Credit Mobilier of France founded in 1852, in stimulating rapid industrial expansion in France. The positive role of banking in economic development was also emphasized by Kindleberger (1978, 69-70, 1993) who especially noted the role of banking in the *Financial History of Western Europe* and wrote on the positive role of banking in economic development. Much of this historical literature, however, focused

on banking as an agent of growth through stimulation and demand. By contrast, the analytical contributions of Goldsmith (1969), McKinnon (1973) and Shaw (1973) emphasize the role of banking in mobilizing and allocating liquid resources. These studies note that significant contributions to economic development. For example, financing trade and production at a relatively low interest rate equal to the return on real assets is big boost to development. Also, integration of capital markets eliminates local and sectoral monopoly and monopsony, but especially stimulates the formation of savings and its pooling.

Economists and historians have emphasized the potential depressive effects of currency risk through its effects on interest rates and international capital flows during the 1890s. Freidman and Schwartz (1963, 1982) and Garber (1986) argue that silver risk increased ex-post costs of borrowing, because anticipated possible increases in the price level (reflected in high nominal interest rates ex ante) were not realized (that is, the United States stayed on the gold standard). Conversely, other research has stressed how the credibility of the maintenance of, or likely return to, the gold standard at other times has been beneficial in lowering the costs of private and public finance.³⁷⁵

The role of financial development in promoting economic growth has been debated since at least the time of Schumpeter (1911). There is a strong empirical association between financial development and economic development established by Goldsmith (1969) who analyzed data on 35 countries 1860-1963 and found positive correlation but not causation.³⁷⁶ King and Levine (1993) used an econometric method on data from 1960-1989 that showed a strong positive correlation between financial

³⁷⁵ See Bordo and Kyland 1989; and Calomiris 1988a, 1988b, 1991.

³⁷⁶ See Isaard 2005, 218-220.

development and three growth indicators: real per capita growth, capital accumulation and productivity growth.³⁷⁷ Extensive anecdotal evidence suggests that opportunities to innovate can be substantially enhanced through access to finance. Consistently, formal econometric research has provided fairly convincing evidence of the importance of financial sector development in promoting economic growth. Thus, institutions that are conducive to the development of well-functioning financial markets have a particularly important role to play in the process of economic growth.³⁷⁸

It is now widely recognized that the ability of market economies to sustain growth depends on the strength of various types of institutions: institutions that create markets by establishing property rights and enforcing contracts; institutions and mechanisms for regulating markets and correcting market failures; institutions for stabilizing markets through the application of monetary and fiscal policies and prudential regulation and supervision; and institutions that legitimize market outcomes by providing political voice and social protection and insurance. Such institutions take time to build and strengthen, and in the interim, uncontrolled financial markets appear to be a major source of instability. Thus it might be rational for a state actor to seek to bandwagon with or borrow the monetary institutions of a larger, more efficient, stronger state through a currency union to alleviate some of the systemic pressures.

³⁷⁷ See also Beck and Levine 2003; Levine 1997; Rajan and Zingales 2001.

³⁷⁸ Isaard 2005, 238.

IV. Case study evidence.

In the discussion below I examine the forces of competition and socialization as sources of pressure pushing actors toward a monetary alliance in each of the selected cases. In each instance the actors show a desire for similar things: to reduce transactions costs to promote commerce and expand income, to attract capital, and to compete for financial primacy or at least a greater market share as a group. In each case the actors are socialized by one or more of the systemic pressures depicted in both Figure C1 and Figure C2, into a monetary alliance as a currency union. As in previous chapters, I begin with the earliest case to trace the historical trend of socialization as a factor in the currency union.

A. *American monetary union.*

One typically thinks of the need to inspire confidence in global lenders as a 20th century phenomenon. But it was very much a concern of America's "financial" founding fathers. Early signs of the 'confidence game' played by the young United States are visible in the report on American finances Gouverneur Morris prepared for Spanish minister Rendón in order to for the American minister to Spain, John Jay, to obtain a hearing for a loan request from the Spanish court. Rendon requested, and received, a detailed account of America's finances, including the currency situation.³⁷⁹ In his 1789

³⁷⁹ See letter of Gouverneur Morris to Francisco Rendón March 5, 1782, *Papers of Robert Morris*, vol.4, 350-358. Jay gives much attention to explaining the depreciating Continentals: "As taxes were not laid to find the paper money, it soon depreciated, from that circumstance, and the excessive quantity which was issued to answer the exigencies of the service. But it is worthy of notice that this depreciation was very little accelerated or retarded by good or evil fortune [in battle]... Without examining further into the causes, we know the fact to be that the new bills depreciated much more rapidly than the old had done... Some of the states had deluged themselves with emissions of their own... [but] In the course of two years she will be

First Report on Public Credit, Hamilton emphasized the need for confidence to obtain favorable credit, thus highlighting the socializing effects of creditors even two hundred years ago. “For when the credit of a country is in any degree questionable,” he argued “it never fails to give an extravagant premium, in one shape or another, upon all the loans it has occasion to make. Nor does the evil end here; the same disadvantage must be sustained upon whatever is to be bought on terms of future payment. From this constant necessity of borrowing and buying dear, it is easy to conceive how immensely the expenses of a nation, in a course of time, will be augmented by an unsound state of the public credit.” Sound credit by contrast would benefit the new nation by lowering interest payments, facilitating lower cost capital investments in manufacturing and agriculture, and by promoting trade. All of these benefits could be accrued to a certain extent with a currency union, particularly trade which was hampered by the existing multiple state currencies.

As can be expected, currency variability and volatility had negative effects on interstate commerce thus limiting the fruition of a single American market. Merchants required access to complex conversion tables and handbooks for converting one state currency into another. An example from one widely used handbook, Nathan Daboll’s *The Schoolmaster’s Assistant*, illustrates the problem. To convert South Carolina and Georgia currency into New Jersey, Pennsylvania, Delaware and Maryland currency Daboll one needed to “multiply the given sum by 45, and divide the product by 28”; to convert New York to North Carolina currency “multiply the given sum by 12 and divide

well able to support herself, and by active exertions to repay any favors which may now be conferred on her.”

the product by 7.”³⁸⁰ During the Revolution, and continuing into the period of Confederation, interstate commerce was of growing importance, suggesting the desirability of a medium of exchange to be used in interstate transactions. Reflecting the high transactions costs of commercial interests, Thomas McKean, in the ratification debates of the Constitution in Pennsylvania, argued for a single American currency in order to allow Americans “to know the extent and operation of our contracts, in what manner we are to pay, or to be paid...and the traveler will not be embarrassed with the different estimates of the same coin in different districts through which he passes.”³⁸¹ Hamilton also noted that differences and fluctuations in the value of money adversely affected “the essential interests of trade and industry [and] the value of all property.”³⁸² Thomas Jefferson made similar arguments in his 1790 plan for a single coinage under decimalization.³⁸³

Consider the problems with Pennsylvania’s currency, a currency that maintained its value far better than that of some other states. Bezanson (1951, 362) notes for example, that, ‘in the spring of 1789 James Cox explained ‘the very fluctuating state that our paper money has always been in, makes it difficult to ascertain the value of it in different periods.’” So difficult in fact that the Pennsylvania assembly refused to be paid

³⁸⁰ Quoted in Garson 2001, 28.

³⁸¹ Quoted in Garson 2001, 32. Garson cites *Documentary History of the Ratification of the Constitution: II, Pennsylvania*, 415.

³⁸² Alexander Hamilton, *Report on the Subject of a Mint* 1791, 7.

³⁸³ Thomas Jefferson 1790, *Plan for Establishing Uniformity in the Coinage, Weights, and Measures of the United States*: “The facility which would introduce into the vulgar arithmetic would, unquestionably, be soon and sensibly felt by the whole mass of the people, who would thereby be enabled to compute for themselves whatever they should have occasion to buy, sell, or to measure, which the present complicated and difficult ratios place beyond their computation for the most part.” In Peterson ed. 1984, 398.

in Pennsylvania currency, which was legal tender for public, but not private, debts.³⁸⁴

Chartered in 1781, the Bank of North America refused to accept Pennsylvania currency at any discount in transactions in an effort to dissuade the state from issuing fiat money.

Pennsylvania retaliated by revoking the Bank's charter. In an effort to regain its charter,

the bank offered to receive state currency on deposit, "provided these transactions were

kept 'entirely distinct and separate' from the specie accounts".³⁸⁵ This meant a

considerable extra expense for the bank, but it was a cost it was willing to absorb in order to avoid exchange rate risk.

New Jersey faced a similar problem with its currency. Nevins (1927, 569-570)

makes the point that four systems of legal valuation of specie were in place among the

different states and argues, "[t]hese difficulties were accentuated by the total unreliability

of the paper currencies. It was hard for even well-informed citizens to understand what

value to attach to a handful of bills, and the tables of exchange between states would have

filled a fat volume...A man could not be sure that what was sound money in one country

would pass when he crossed an imaginary line, nor that if his bills did pass, he would not

be charged a ruinous discount." Some of the costs that exchange rate uncertainty

imposed are illustrated by the problems New Jersey Governor Livingston had with out of

state transactions. "The Governor who naturally did much business in New York city,

found it so impossible to use Jersey money 'at the unconscionable discount which your

³⁸⁴ Kaminski 1972, 70.

³⁸⁵ Kaminski 1972, .64.

brokers and merchants exact' that he collected what New York money was due him and saved it to employ across the Hudson."³⁸⁶

Even in South Carolina, whose currency had a fairly stable value, exchange rate fluctuations between different kinds of circulating liabilities imposed costs. As Higgins (1969) argues, "All financial transactions [in South Carolina] were difficult and unstable when there was little specie and the value of the various monetary substitutes was either unknown or unpredictable." Thus, though it may at times have taken different forms and degrees, the American Union was in this sense similar to the European Union in its need to control exchange rate variability to facilitate commercial transactions within its region. For Hamilton especially, a single currency was a means of consolidating the credit of the United States and assuring merchants with a money of easy circulation and confidence.

In the eighteenth century, the young United States could not aspire to primacy, so its competitive concerns centered on trade and transactions costs, with particular attention to the difficulties of commercial sector selectors. One hundred years later, the monetary concerns of the United States changed dramatically. As it debated the gold standard, its competitive concerns centered on rivaling the United Kingdom for financial primacy and securing its access to credit. In 1876 former Secretary of the Treasury George Boutwell argued that "London is the financial center of the world," and if the United States were to remonetize silver on its own, it would be in a "less favorable condition to compete with Great Britain for commercial and financial supremacy."³⁸⁷ As Williams (1969) explains, Blaine argued that "American prosperity depended on agricultural exports, and those, because of England's power and policy, were 'inevitably and peremptorily subjected to

³⁸⁶ Nevins 1927, 569.

³⁸⁷ Quoted in Williams 1969, 214 as cited in Martin 1997, 75.

the gold standard when sold'. Hence the only satisfactory policy was specie based on gold...Give us the same basis of currency that our great competitors of the British Empire enjoy...and we will, within the life-time of those now living, float a larger tonnage [of exports] under the American flag.”³⁸⁸ Gold bugs also argued that the United States was dependent upon foreign investment, and that the maintenance of the gold standard was necessary to maintain its international credit. For example, President Cleveland argued that, as shown by the experience of the 1893 panic, a move to silver would lead to a withdrawal of necessary European investment and that the gold standard was necessary to safeguard the high credit rating needed for international trade.³⁸⁹ Cleveland argued that as a result the country was approaching silver monometallism and that if it reached that basis the United States would lose its place “among nations of the first class”.³⁹⁰ In the twentieth century, having secured primacy as the global financial hegemon and numeraire of the international monetary system and the key state selector in the system, the United States would compete, from a position of power, to maintain this position. As Helleiner (1994) argues “the United States had a strong interest in promoting a liberal financial order in this period in part because administration policymakers hoped to take advantage of U.S. dominance in international financial markets to encourage foreign governments and private investors to underwrite U.S. policy autonomy.”³⁹¹

³⁸⁸ Quoted in Williams 1969, 1999 as cited in Martin 1997, 75.

³⁸⁹ LaFeber 1963, 154-55.

³⁹⁰ Rhodes 1919, 402.

³⁹¹ Helleiner 1994, 121.

B. European monetary unions.

Various European free-trade zones had been created in the 19th century and were progressively united creating a large European market. The two most important agreements were the German Customs Union (Zollverein) established between a large number of German states in 1834 and the Cobden-Chevalier Treaty of 1860 between France and Great Britain, and extended to most other European countries in the following years of implementation. This network of free trade treaties proved a compelling argument for monetary unification.³⁹² The intraregional trade of the LMU area was around 30% of the total trade of those countries.³⁹³ The first and most popular argument advanced in favor of monetary unification under the Latin Monetary Union was that it would eliminate or reduce transactions costs and stabilize the currency market. The unhappy fate of travelers and businessmen who would be defrauded of a large part of the value of their money by money-changers was often recalled, even in private correspondence. The French economist Michel Chevalier introduced an argument that proved its enduring popularity. Chevalier wrote in 1868 that: “Already during the ancien regime, the diversity of money was disturbing for travelers, a continuous vexation; each time a frontier was passed, there was a loss on the exchange, so much so that whoever had entered Germany or the old Italy, with a certain amount of money and had changed it at every new frontier, would have arrived at the other end with nothing left, even if we suppose he had not spent anything for transportation and personal needs.”³⁹⁴ “Private

³⁹² Einaudi 2001, 18.

³⁹³ Einaudi 2001, 43.

³⁹⁴ Chevalier 1868, 351 cited in Einaudi 2001, 64. This same argument was frequently employed by the EC Commissioner for Monetary Affairs Yves Thibault de Silguy in his speeches favoring the euro. For a modern French discussion of benefits of a single currency similar to the Chevalier arguments see for

relations would be freed from any excessive tax paid to intermediaries,” wrote the French lawyer Parieu.³⁹⁵ The English economist W.S. Jevons insisted that “the saving of trouble and loss to travelers [is not] a matter of indifference. As international communication increases, the number of travelers will increase, and we ought to break down, as far as possible, factitious difficulties.”³⁹⁶ The Italian lawyer Sacerdoti, presented the Italian monetary unification as an example to argue that fast transition “certainly did not produce confusion in the business world, no complaints for damages to the rights of those perceiving yearly fixed incomes. The Italian example is of a nature to encourage other countries to embark decisively on radical reforms of money, especially for those countries which are lucky enough to be accustomed on a much larger scale than us, to international trade and therefore to evaluate in several monies.”³⁹⁷ The French parliamentarian, Louvet, in introducing LMU to the French Parliament declared that “monetary unification is the consequence of free trade and the irresistible movement

example G. Milesi 1998. The U.S. Senate report on the International Monetary Conference of 1878 makes a similar reference to a universal money as assisting travelers and facilitating foreign trade.

³⁹⁵ Parieu 1867, 340 cited in Einaudi 2001, 65. Felix Esquirou Parieu (1815-93) was part of the Finance Ministry delegation to the 1865 monetary conference. Parieu displayed a large and unexpected activity in favor of monetary unification, publishing more than 30 long articles on the subject over twenty years, and carrying on a large correspondence helped by the Ministry of Foreign Affairs. See also Parieu 1866, 1868, 1869a, 1869b, 1871, 1872, 1875.

³⁹⁶ Jevons 1875, 168 as cited in Einaudi 2001, 65.

³⁹⁷ Sacerdoti 1869, 8-9 as cited in Einaudi 2001, 65. Sacerdoti was a prominent Italian lawyer from Padua who wrote on the subject and testified before one of the French commissions at Parieu’s invitation. Kindleberger (1984, 32) notes the interests of European merchants led them to advocate for monetary stability since the Middle Ages: “In France, Aragon and Catalonia between approximately 1000 and 1125, businessmen were so disturbed by debasement of the coinage that they entered into contracts with its ruling authorities to maintain the currency in exchange for voluntary payments. Kings and lords were not urged to “conserve” the coinage; they were paid to do so.”

which pushes nations to associate with each other through the strongest solidarity of all, the solidarity of industry and trade, or wealth and well-being.”³⁹⁸

In addition to lowering transaction costs, monetary union would expand access to credit for its members. By the mid-1860s the Parisian market offered a lower and less unstable rate than London, reversing the British advantage of the 1840s. In 1861-65 the Parisian market had lent to governments almost as much as the London market. When LMU was planned and the report was prepared, the governments of Italy, Belgium and Spain, were preparing to float a total of 635 million francs of public debt on the capital market. The common currency would offer more guarantees of repayment to the lender and grant the borrower easier access to the capital market and better conditions, particularly for smaller states with weaker relative capabilities.³⁹⁹ As Einaudi (2000, 288) put it, “[b]y attempting to join the union, states with poor public finances wanted to facilitate their international trade, improve the standard of their internal currency, acquire monetary credibility, and gain access to international financial markets.” Meanwhile “Britain”, notes Einaudi (2000, 289), “had no need to improve its monetary system following the French example, and no need to acquire credibility or to increase access to financial markets” and so could stand alone, as it did.⁴⁰⁰ As for Germany, “national monetary unification was a viable alternative to international unification, because a

³⁹⁸ Einaudi 2001, 69. Einaudi cites Report of M. Louvet to the Corps Législatif on the monetary convention of 1865, *Annales du Sénat et du Corps Législatif*, VIII 3 June 1866.

³⁹⁹ Einaudi 2001, 44.

⁴⁰⁰ Einaudi (2000, 296) notes, however, that the majority of the witnesses who testified in front of a Royal Commission appointed by Disraeli in 1868—businessmen, representatives of chambers of commerce, and economists—favoured British participation in a broader “Latin” monetary union. However, despite substantial domestic interests in favor of an international monetary union, the Commission instead advised that, “with a view to the general interest of the commerce of the world, the English sovereign and pound might form a convenient basis for an international currency.”

unified Germany would not need to import credibility or negotiate its place on international commodity and capital markets, thanks to its size and economic strength.”⁴⁰¹

The international monetary conference of 1867 also showed the socializing effect of state selectors, as several of the states present were only engaged in the project as a result of monetary policies of their dominant trading partners. For example, the Norwegian delegate, Broch, “made it clear that given Norway and Sweden’s dependence on their trade with Northern German states (especially Hamburg) any decision these nations reached on a monetary standard must be conditional upon Germany’s selection of the same standard.”⁴⁰² The Swiss delegate, Kern, similarly noted “that Switzerland itself preferred union based on a gold standard, but that its ultimate decision would be dictated by the preference of France.”⁴⁰³

Finally, competition for financial primacy was a key goal for the LMU regional system leader, France. “The French Finance Ministry was ambivalent about a larger European monetary unification but certainly supported an extended franc zone that could challenge the role of London as the main financial center of the world. The French desire to elevate Paris to that position has been a recurrent dream of the last two centuries,” notes Einaudi (2001, 43-44). A memorandum written by the Finance Ministry in May 1865 for the French Chief Minister Roucher during the negotiations to form the LMU clearly illustrates this desire: “The financial centre of London has held for a long time the

⁴⁰¹ Einaudi 2000, 290. The German chambers of commerce (like the British chambers of commerce), notes Einaudi, were very much in favor of an international monetary union. “When the project of enforcing the law to introduce the mark in a united Germany was discussed, the chambers of commerce of Frankfurt, Wurttemberg, Baden, and Bavaria petitioned the Reichstaag for the adoption of the international 25 franc coin.” While economist Mortiz Mohl “defined the mark as ‘a great step backward.’” Einaudi 2000, 303.

⁴⁰² Gallarotti 1993, 39. Gallarotti cites International Monetary Conference 1867, 35.

⁴⁰³ Gallarotti 1993, 39. Gallarotti cites International Monetary Conference 1867, 45.

monopoly over foreign loans. But when England was lending...it was pushed to do so by more considerable advantages than the high interests offered to its capital. On the one side it secured for itself an enormous annual tribute...at the same time it created its worldwide commercial dominance. The nations it financed became clients of its industry and some, such as Portugal, passed entirely under its commercial sovereignty.”⁴⁰⁴

Broadly speaking, the costs and benefits of LMU parallel the discussion of EMU in the European Union in the areas of competition and socialization. In the postwar period, it was argued that monetary policy was ineffective, that exchange rate uncertainties hindered trade and investment, imposed costly hedging instruments in addition to impeding market transparency, and that only a single currency would allow investment in the poorer countries of the EU. A single currency was considered a good business promotion policy, providing efficiency and transparency. Equally important were other considerations.

In an interview in January 1992, for example, in which he was asked whether Maastricht meant that France “will give up some of its monetary sovereignty,” Bank of France president de Larosiere responded by saying that “It is not a matter of giving up our monetary sovereignty, but of sharing it in order to exercise it better in the interest of France and the Community.” He suggested further that “[t]he fact that France is at the heart of the European Central Bank’s decision making process offers the best guarantee from the standpoint of exercising French sovereignty.”⁴⁰⁵ In the same vein, de Larosiere

⁴⁰⁴ Einaudi 2001, 44 citing official documents from the private archives of Eugene Roucher. ‘Des emprunts d’état’ 19 May 1865 from the Direction du Mouvement Général des Fonds au Ministère a Son Excellence M. Roucher Ministre d’État, Archives Nationales de France (AN), Archives privées Roucher, 45AP, cart on 20, dossier finances et impost, 2. Eugene Roucher was chief minister of Napoleon III.

⁴⁰⁵ *Le Figaro (Le Figaro Eco Supplement)*, 14 January 1992.

argued in February 1992 that EMU “[I]s increasingly seen to be the natural and necessary extension of the 1992 single market and the EMS, as the surest means to eliminate possible conflicts liable to upset the system, to regulate a fully-unified market efficiently, and to enable all member countries to regain genuine monetary sovereignty.”⁴⁰⁶

Similarly, when President Francois Mitterand was asked in April 1992 whether EMU would end with a loss of French independence, Mitterand replied in part by asking, “[w]hen one asks if we are going to lose our monetary independence, do you really think that we have it now, with 12 separate currencies?” and “Don’t you think that we do in fact have to take into account the interest rates of such and such country, Germany in particular?”⁴⁰⁷ Finally, when in May 1992, some French conservatives criticized the Maastricht accord, suggesting that it would lead to French subservience to the Bundesbank, then-prime minister Pierre Bérégovoy, according to the Financial Times, “reminded his compatriots that the Maastricht path represents a path in which France, far from losing independence, can regain a degree of control over monetary affairs at present largely ceded to the Bundesbank.”⁴⁰⁸

As in the 19th century, so in the 20th century, a relatively better position in the international monetary system was a principal reason behind early attempts at European monetary integration. “There is a fundamental asymmetry”, said EC Commission President Roy Jenkins in 1978, “about the United States having withdrawn from the

⁴⁰⁶ Speech of the governor of the Bank of France to the Economic and Social Council, Paris, 27 February 1992, in *BIS Review*, no. 55, 18 March 1992, pp.13.

⁴⁰⁷ See “Mitterand Discusses European Union, Other Issues,” translation of interview on Paris Antenne-2 Television, 12 April 1992, in Foreign Broadcast Information Services, *Daily Report: West Europe*, 14 April 1992, pg.22.

⁴⁰⁸ *Financial Times* 13 May 1992, pp.16. On monetary sovereignty and EMU see Goodman 1992; for further discussions of monetary sovereignty in France see Loriaux 1991.

responsibilities of Bretton Woods while dollars, like legions without a central command, continue to dominate the currency transactions of the world.”⁴⁰⁹ With even the dollar/gold conversion opportunity gone, Europeans were left with nothing but harsh words with which to attempt to tame a negligent United States. “It is not suitable for us merely to complain about such affairs”, argued Jenkins in a memo to EC leaders in 1978, “that will breed more recrimination than result... The EC’s collective weight is far greater than its monetary influence... [a consolidation of this weight in a monetary union] would give the Community greater weight in contributing to the necessary dialogue, in particular with the United States, on the international monetary system.”⁴¹⁰ “The creation of the EMS”, explained Jenkins, “will not of course be the same as a European economic and monetary union, but it will be a giant step towards it.”⁴¹¹ “Does not the vain character of some of our complaints derive from the weakness of our determination and our visible lack of unity?” lamented Commission Vice President Ortoli in 1984. “European monetary identity could serve to give the international monetary system a different balance and restore greater autonomy to us. Dialogue cannot suffice to settle a problem, one of the sources of which is a dominant reserve currency which at the same time is the currency of the largest state.”⁴¹² The predominance of the dollar makes domestic U.S. policy have important implications for the rest of the world in terms of

⁴⁰⁹ Wiseley 1977, 279.

⁴¹⁰ *Europe Documents*, “Memorandum for the European Council in Copenhagen”, 12 April 1978.

⁴¹¹ *Europe Documents*, “Prospects for the European Community”: a speech by Commission President Roy Jenkins 10 October 1978.

⁴¹² *Europe Documents*, “The European Monetary System and the Outlook for the International Monetary System”: an address by Karl Otto Pohl President of the German Bundesbank 30 April 1986.

exchange rates, interest rates and international liquidity,” stated a 1984 Commission reference document on monetary relations. “On the other hand, the U.S. authorities have had difficulty in incorporating an appropriate international dimension into their domestic policies. In the long-term, therefore, a broader based international monetary system with less dependence on the U.S. dollar and a greater sharing of the international currency role would be desirable.”⁴¹³

C. Dollarization in Latin America

Latin American scholars emphasize gains in trade, investment and growth from reducing transactions costs and uncertainty in recommending regional currency union. In discussing Latin American economic integration, Khoudour-Casteras (1999) says exchange stability introduces elements of uncertainty in economic calculations and can constitute a brake on international commercial transactions and act as a disincentive to commercial activity. The existence of various currencies translates into financial transactions costs proportional to the size of exchange that hurts small and medium sized enterprises more than multinational corporations who have hedging systems in place. “On the contrary, with only one currency the firms can simplify their accounting systems and hereby augment their incomes...At the same time, access to a deeper and more competitive financial market reduces costs of borrowing and in this way contributes to stimulating private investment.”⁴¹⁴ A monetary union under a single currency, notes

⁴¹³ *Europe Documents*, European Commission Reference Document on Monetary and Financial Relations Between the EEC and Japan, 8 April 1986.

⁴¹⁴ Khoudour-Casteras 1999, 173-175. See Also Pastrana 1999. David Wessel, Craig Torres y José de Córdoba 1999. For a contrary opinion to dollarization see Ocampo 1999. José Antonio Ocampo was Executive Secretary of CEPAL, the United Nations agency on Latin America.

Khoudour-Casteras (1999, 176) results in a reduction in costs, an increase in global factor productivity, augments capital productivity, increases savings and investment rates, and accelerates the rate of capital accumulation for member states leading to higher growth levels. And regarding the competition for global investment, he notes that as of 2000, Panama received 80% of the \$5 billion of US investment in Central America, at least partly as a result of its dollarized economy and the resulting tradition of stable inflation. Moreover, it is an effective way to control inflation—one of Latin America's principal economic problems, which destroys part of its wealth—by eliminating inflationary expectations that come from a lack of confidence in the monetary authorities. Khoudour-Casteras proposes a Latin American Monetary System (to include the members of Mercosur and the Andean Community but not Mexico, Central America or the Caribbean) modeled on the European Monetary System to begin a process of cooperation and convergence in the region on the road to a monetary union.

For similar reasons, Fratianni (2002) argues in favor of a regional monetary union within Mercosur centering around the Brazilian real. Rather than dollarize, Argentina, argues Fratianni (2002, 9), should “adopt the Brazilian real as its currency and consummate an early monetary union with its most important trading partner. A ‘realization’ of the Argentine economy not only would deepen Mercosur, but would stabilize the purchasing power of money in Argentina relative to the alternative of a float in a regime of fiscal dominance.” Established in 1985, Mercosur remains an imperfect customs union. A regional monetary union would expand regional commerce, attract investment, and stabilize macroeconomic expectations.

An immediate benefit from eliminating the risk of devaluation is eliminating the currency risk premium and reducing the country risk premium on foreign borrowing and obtaining lower interest rates for the government and private investors. Lower interest rates and more stability in international capital movements cut the cost of servicing the public debt, and encourage higher investment and economic growth. The magnitude of this potential gain is hard to measure, but may also be the most significant benefit for a heavily indebted country. With dollarization, the interest premium owing to devaluation risk disappears, (even if the premium for sovereign risk would not). For example, Frankel (1999) suggested that when interest rates in the U.S. increased, Argentine interest rates increased by 2.7 basis points (during the currency board period) for every basis point increase in the U.S. on average. In fully dollarized Panama, by contrast, interest rates did not go up as much as in currency-board Argentina. In non-dollarized countries like Mexico and Brazil, interest rates go up by a lot more.⁴¹⁵

In Ecuador, the early financial results of dollarization indicated success in these areas: the financial crisis stabilized; economic activity picked up; unemployment fell; inflation declined; interest rates fell from a record 76% in December 1999 to 15.6% in August 2001 and 15% in 2002.⁴¹⁶ Prices for Ecuadoran bonds rose by 16% by October 2001, reflecting a reduction of country risk, the long-term bond yield dropped from 14% in 1999 to 8% in 2000, and money market rates dropped from 8% in 2000 to about 4.3% in 2003. And a historical growth of banking deposits from \$3 billion in 2000 to \$4.8 billion by the end of 2001 shows immediate growing confidence in the financial system, while central bank excess freely disposable net international reserves (FDNIR) increased

⁴¹⁵ Frankel, IMF Forum 24 June 1999.

⁴¹⁶ Interest rates in sucre obtained from the Central Bank of Ecuador, current dollar interest rates from IMF.

by to \$775 million in 2000 (surpassing a projected increase of \$469 million), and further to \$787 million by end-April 2001.⁴¹⁷ Similarly, within a year of dollarization, El Salvador saw results in interest rates that dropped dramatically from an average of 14% in 2000 to 9.6% by 2002 and 6.5% in 2003. The government attributed the rate reductions to dollarization. “We are very satisfied. Dollarization has brought us major benefits in its first year”, said Rafael Barraza then president of the Central Bank of El Salvador. “The balance is positive. The process is moving faster than we expected,” the then president of the Central Bank of El Salvador Rafael Barraza, said in San Jose, Costa Rica at a meeting with Central American business leaders in 2002. “We hope that with this new monetary policy, the costs of capital will drop, the country-risk rating will be downgraded, the cost of transactions with the rest of the world will diminish, and, in consequence, foreign investment in El Salvador will increase,” said Barraza.⁴¹⁸ Better access to credit was perhaps a key goal of Argentina’s dollar-peg currency board as well. As former Argentine Finance Minister and currency board architect, Domingo Cavallo remarked in 2003, “In the present world, capital cost is more determining a factor than labor cost when it comes to country competitiveness, because nearly all activities have become more capital-intensive. Besides, policies which aim at increased competitiveness through lower labor costs eventually restrict the domestic market and hinder the possibility of benefiting from low capital cost to develop infrastructure and services.”⁴¹⁹

⁴¹⁷ Berg and Borensztein 2000.

⁴¹⁸ Barraza has since resigned his post as central bank president.

⁴¹⁹ Domingo Cavallo, mimeo 14 April 2003.

Because many Latin American countries trade mostly with the United States, dollarization may contribute to greater economic integration than otherwise would be possible with America by facilitating commercial relations, reducing the costs of trading with the U.S. and other dollar-denominated trading (such as various commodities), and set clear expectations for foreign trade based on efficiency and productivity to reduce costs. As one optimistic Ecuadorean observer commented: "Before, we exported just misery. Now productivity will be exported instead". The dollarization process in El Salvador "is irreversible", according to Jose Napoleon Guerrero, the president of the Salvadoran Association of Industrialists.⁴²⁰ Frankel and Rose (2000) estimate that dollarization should have a sufficiently large effect on the overall trade undertaken by El Salvador and Ecuador, that it could raise their incomes by as much as 20% over a twenty year period. This is a powerful incentive for a poor country to give up its currency, especially when the population already uses U.S. dollars for many functions. The commercial gains were anticipated by the business community in Ecuador even prior to the economic studies. Interest in dollarization was especially strong in Guayaquil, the largest city, main port, and financial center. Indeed, dollarization began as a private sector idea in September 1998, sponsored by businesswoman Joyce de Ginatta, from the Chamber of Small Industry of the Guayas Province. Ms.de Ginatta put forward the proposal of dollarization as a measure to halt the spiraling inflation, stabilize business expectations, improve trade flows and prevent the continued pulverizing of workers' wages.

Equally important is the positive signaling the currency stability of official dollarization conveys to international lenders. The new law paved the way for Ecuador to receive a long-delayed aid package from a group of international lenders. In early March

⁴²⁰ *Latin America Finance* 26 Feb 2001, 34.

2000, following the passage of the key dollarizing legislation, the IMF, the World Bank, the InterAmerican Development Bank (IDB), and the Andean Development Corporation (Corporacion Andina de Fomento), agreed to financial credits of about \$2 billion over a three year period, with funds earmarked to support the replacement of the local currency with the U.S. dollar, as well to shore up the banking system and strengthen social welfare programs for the poor. And the Paris Club of private sector creditors on September 13-15, 2000 granted Ecuador a rescheduling/deferral of about \$800 million in arrears and maturities due in 2000. In August 2000, Brady bond and Eurobond debt totaling \$6.4 billion was successfully exchanged for \$3.9 billion of global bonds, and arrears to bond holders were cleared. About 97% of bondholders participated in the bond exchange. Within a year of dollarizing, Ecuador had turned from a traditional growth laggard into the region's leader for the first time in recent memory (growing at a rate of 5.4%, the fastest rate in Latin America). Local officials and observers hope that with dollarization Ecuador "will begin to copy the rules of the game of the first world to obtain the quality of life that they have."⁴²¹ The same sentiment is shared by El Salvador.

El Salvador in many respects is even more closely tied to the United States than Ecuador. Barraza argued that El Salvador's fate is so closely tied to the United States that it merely faced the inevitable by dollarizing. Some 65% of exports go to the U.S. "We are a small country with an open economy in a globalized economy", he said, "it is better to join with some bullet-proof mechanism. Monetary integration [with the U.S.] was our bullet-proofing for joining the globalized market and taking advantage of it."⁴²² In El

⁴²¹ Dr. Carlos J. Emanuel, Minister of Economy and Finance of Ecuador, remarks to the Andean Community Council of Ministers February 2002.

⁴²² *Latin America Finance*, 26 February 2001, 34.

Salvador capital inflows boomed as offshore creditors increased total lending to \$1.4 billion by August 2001 from \$1 billion in January 2001 seeing reduced lending risk. Meanwhile lower interest rates and the reduced risk of dollarization allowed some businesses to raise large sums on capital markets at very low rates. Banco Cuscatlan, the country's second largest bank, took advantage of lower interest rates offered from dollarization to issue commercial paper in the United States for the first time in July 2001 in an offering led by Citibank and topping \$155 million. "Dollarization helped us attract international interest", said Marisela Alverenga a bank spokeswoman. Financial conglomerate Grupo Silman raised \$2.29 million on the Salvadoran stock exchange in October 2001 in a groundbreaking transaction issuing five-year bonds at an interest rate of 6.86%, a rate almost as low as the United States.

History has shown that monetary integration is rewarded with economic development even in Latin America. Paolera and Taylor (2001) show that the golden age of Argentine economic development 1890-1913 was accompanied by a currency board. During this period due to the currency board, exchange rate variability was almost entirely absent despite rising price levels. In 1913 Argentina showed a per capita income of \$3,797 surpassing France (\$3,452), Germany (\$3,134), the Netherlands (\$3,533), Italy (\$2507) and Spain (\$2255), and eclipsed only by Australia (\$5505), the United States (\$5307) and the United Kingdom (\$5,032) in the industrialized world.⁴²³ "All things considered, and given the vagaries of historical data, some scholars have placed Argentina's 1913 income level clearly in the world's Top Ten, even the Top Five. Whatever its exact status in 1913, for all practical purposes Argentina was an advanced

⁴²³ Data from Maddison 1995 cited in Paolera and Taylor 2001, 8.

country.”⁴²⁴ The next great period of economic stability, development and expansion for Argentina occurred during 1990-2000 under its second currency board when the nation clearly broke away from the pack in Latin America and became a favorite of international capital markets. In the competition for global capital at any given time, Argentina was a clear winner and global leader only during periods of a currency board. In terms of being socialized into exchange stability, it is most evident in the attempt by Finance Minister Domingo Cavallo to resurrect the most economically rewarding monetary regime of the past. Tired of the high costs of the confidence game, former Argentine president Carlos Menem suggested formal adoption of the US dollar as a way of resolving doubts about his nation’s money. “The dollar is the global currency par excellence,” wrote one of his key advisers. Dollarization offers an opportunity “to gain comparative advantage in a global frame characterized by uncertainty and frequent financial turmoil.”⁴²⁵

While competition for primacy is absent from the Latin American monetary debates, there is nevertheless a distinct desire to break free from the financial influence of the United States and maybe even more up the ranks of the monetary hierarchy as members of a stronger collective. In some ways echoing (albeit in moderate tones) Formenta’s (2002) argument of monetary dependence, Khoudour-Casteras argues that the evolution of the international monetary system seems to be evolving into three key currency zones—the dollar, the euro, and the yen. Latin America will soon be faced with the choice of either forming a regional monetary union of its own or falling under the scope of influence of one of the key currencies. Given the level of currency substitution already

⁴²⁴ Paolera and Taylor 2001, 8.

⁴²⁵ Castro 1999, 7, 16 as cited in Cohen 2004, 40.

in place in Latin America, the argument might convey a sense of urgency. Khoudour-Casteras (1999, 179) also notes that a regional monetary union would be the only way to realize the region's potential on a global level and produce international recognition. Today, he argues, Latin America is nothing more than a subcontinent overshadowed by "the giant of the north" ('el gigante del norte'). As a unified commercial and monetary block, Latin American nations would strengthen not only as members of a union but individually. Spain, he says for example, has much more international recognition as part of the EU, just as Uruguay does as a member of Mercosur. Further, monetary integration could permit Latin America to jointly reinforce some of its sovereignty already lost to international organizations and financial markets.⁴²⁶

D. The Asian Monetary Union Debate

Even before the 1997 Asian financial crisis, ideas of regional monetary arrangement to promote regional trade and economic growth through stable exchange rates had appeared. For the past decades East Asia as a whole has experienced the 'East Asian miracle', headed by Japan and followed by the four tigers (Korea, Taiwan, Singapore, and Hong Kong), then by the four little dragons (Malaysia, Thailand, Indonesia, and the Philippines) and China. A very important factor behind rapid growth with increasing interdependence was stable exchange rates in the region. An important argument that has surfaced behind having a single currency in Asia is the familiar notion that it would reduce the transaction costs of exchanging currencies by tourists, businesses and governments, and reduce the risk associated with holding foreign currencies. As in the past, critics call these transactions costs 'trivial' for tourists given new technology and

⁴²⁶ See also Ortiz 1998.

easily hedged against by market sector participants using financial instruments such as derivatives.⁴²⁷

The more prominent issue in Asia, however, is attracting capital. It is often said that the Asian monetary problem originates in the poor infrastructure of financial markets in the region. East Asian economies have the highest savings rates in the world, and much of the savings are invested in assets of OECD countries, especially in U.S. Treasury securities. But at the same time, much of the capital needed for investment in the region is from OECD countries. Some Asian observers argue that Asia is financing much of the deficits of developed countries, particularly U.S., but has to try hard to attract money back into the region through foreign investments or international loans.⁴²⁸ Asian officials recognize that without well-functioning financial markets to channel Asian savings adequately and effectively into Asian investments in a manner more conducive to ensuring monetary and financial stability, East Asian countries will continuously be exposed to extraneous influences. Also, without effective financial infrastructure, the efforts of regional monetary integration, including Asian emergency loan facilities, are likely to be stalled. In order to develop regional financial markets and reduce exposure to outside influences, Asia needs to increase the use of regional currencies in international transactions. But this means convertibility of each regional currency should be guaranteed in both current account transactions and capital account transactions. For the relatively weak individual currencies of most of Asia, this is easier

⁴²⁷ One vocal critic has been economist Christopher Lingle at the Universidad Francisco Marroque in Guatemala. Lingle also makes the other familiar criticism of loss of monetary policy sovereignty and the inability of local officials to deal with external shocks. Instead, Lingle proposes parallel circulation of the U.S. dollar that denominates most of the region's international trade anyway. See *Taipei Times* 12 July 2004, pp.9.

⁴²⁸ Some goes as far as to say that the "Asian economies are providing the funding to hedge funds in non-Asian centers to play havoc with their currencies and financial market," says Yam 1997,10.

said than done, and may be easier with a regional currency. ADB president Haruhiko Kuroda, who strongly supports increased Asian financial cooperation and eventual monetary union, said in a speech at the Harvard Business School in February 2006 that the proposed Asian Currency Unit (ACU) could be a useful denominator for bond issues. “The ACU could also facilitate development of an Asian multi-currency bond market and a deepening of capital markets...”⁴²⁹ This deepening of Asian financial markets would allow the region to gain a larger market share of financial investment from its own citizens who currently invest abroad. “It is ironic,” he says of Asian finance, “that Asia’s massive needs for infrastructure investment goes unmet while excess savings find their way to the global capital markets. One reason for this is that Asian savings are not being efficiently intermediated by the region’s financial system.”⁴³⁰

Kuroda also argues that growing intraregional trade in Asia (from 35% in 1980 to 54% in 2005) is strengthening the case for a single currency. He notes that this is higher than the 46% of intraregional trade in the NAFTA “and is very much comparable to intraregional trade in the European Union before the 1992 Maastricht Treaty... Given this magnitude of intraregional trade, even small intraregional exchange rate misalignments can disturb trade and investment flows and could create trade frictions among the regional economies. This indicates the need for intraregional exchange stabilization in the years to come and, ultimately, a single currency,” argues Kuroda.⁴³¹

⁴²⁹ The ACU will be based on the 10 members of the ASEAN + 3 (ASEAN, China, Japan and Korea). See *Financial Times* Asia edition 27 March 2006, pp.2.

⁴³⁰ Clift 2006, 3-7.

⁴³¹ Clift 2006, 3-7.

Table 6. Percentage Trade Weights of East Asian countries (Jan.1981—Dec.1998)⁴³²

| | China | Indonesia | Korea | Malaysia | Philippines | Singapore | Thailand |
|---------------|-------|-----------|-------|----------|-------------|-----------|----------|
| USA | 12.38 | 15.00 | 25.07 | 16.84 | 27.26 | 17.53 | 15.39 |
| JAPAN | 20.41 | 31.66 | 20.12 | 20.51 | 18.87 | 14.41 | 22.17 |
| EU | 10.20 | 11.08 | 8.85 | 10.41 | 10.38 | 9.14 | 13.22 |
| East Asia | 7.31 | 19.42 | 9.07 | 28.16 | 13.51 | 25.78 | 18.18 |
| Rest of World | 49.70 | 22.84 | 36.90 | 24.08 | 29.98 | 33.15 | 31.04 |

Competition for financial primacy enters the Asian scenario as well, particularly from Japan. Japanese officials have yet to make any comments regarding overtaking the dollar or American capital markets publicly. But there is no denying that an Asian currency union with Japanese leadership would entice greater use of Tokyo's capital markets by Asian commercial interests and private savings, and possibly create a de jure yen-bloc that would necessarily rival the dollar. However, rather than seeking to unseat American financial primacy in Asia, Japan may be attempting a preventive strike against China challenging its own financial position. Some have observed Japan's sudden keen interest in regional monetary arrangements as a way to maintain its financial leadership position before being challenged by China. "Japan is in a hurry to cement its role as a pivot of these financial mechanisms before China becomes too dominant and perhaps before the yen is overshadowed by the yuan," says Michael Vatiokotis a research fellow

⁴³² Note that the EU is the third trading partner for China and Indonesia but the fourth trading partner, behind the US, Japan or East Asia for all others. Note also that China, Indonesia, Malaysia and Thailand trade more with Japan than the United States; Indonesia, Malaysia, Singapore and Thailand trade more within East Asia than with the United States; however the Philippines, Korea and Singapore trade more with the United States than Japan or the EU. Data developed in Wyplosz 2001, who adapted it from Kentaro Kawasaki and Eiji Ogawa 2006. Kawasaki and Ogawa 2006 cite the following source for the data: International Monetary Fund (2003) *Direction of trade statistics* (CD-ROM).

at the Institute of Southeast Asian Studies in Singapore and former editor of the Far Eastern Economic Review.⁴³³

As Joseph Yam Chief Executive of the Hong Kong Monetary Authority, argued, the euro can serve as a model for Asia: “All of these ‘special considerations’ point to the conclusion that Asia is not yet ready to implement monetary union...But that does not mean that we are not yet ready to talk about monetary union. After all, it took Europe about half a century to move from the idea of monetary union to the reality. Despite the general consensus that the obstacles to union in this region now are greater than they were for Europe 50 years ago, I have a feeling that Asia will not take quite so long...But one reason that makes me think Asia will not take so long is that we have a successful model to look to, which brings me to the main question: “can the euro be a benchmark for Asian monetary cooperation?” My answer to this question is a resounding “yes”. The creation of the euro has shown that effective monetary union can be achieved in a voluntary and cooperative way by countries with different economic, political, and cultural traditions. While, as I have suggested in the discussion about “special considerations”, there may be different ways of achieving a similar goal in Asia, the euro provides a precedent, a point of reference, a large realm of experience and expertise, and—I would certainly agree—a benchmark for any enterprise in monetary cooperation that we might wish to embark on in this region.”⁴³⁴

⁴³³ Clift 2006, 3-7.

⁴³⁴ Yam, “Can the euro be a benchmark for Asian monetary cooperation?”, keynote address before the Paris Europlace Forum: the euro markets in a global investment strategy, Hong Kong, 21 March 2005. Joseph Yam is Chief Executive of the Hong Kong Monetary Authority.

V. Concluding Remarks: the Effects on Power and Sovereignty

Before concluding this chapter I would like to make a few points regarding the effect of currency unions on power, monetary sovereignty and development, in light of the preceding arguments. First, it is important to consider that a gain in financial market share, currency position, investment and capital flows has a direct effect on national power, while socializing pressures indirectly build into national power by rewarding states with capital and investment, and punishing them by withholding it.

1. How socialization enters the power equation

If we return for a moment to the equation derived in chapter three, we can see that investment (foreign or domestic), trade, and government expenditures are a component of the power capabilities of states.

$$\mathbf{Power = Arms + Income}$$

$$\mathbf{Income = C + I + G + (X-M) \text{ where } I = \text{investment}}$$

$$\mathbf{Power = Arms + C + I + G + (X-M)}$$

Without taking into account the open economy structure presented by the Mundell-Fleming Model, we see that a increase or a decline in investment, trade or government expenditures translates into a direct increase or decline in power. The above discussion highlighted how monetary positioning can affect investment, especially financial investment, and trade, and how currency competition can produce seignorage gains for the leaders which enters the equation at the national treasury, in reserves or government expenditures. In the open economy of the Mundell-Fleming Model, the nominal

exchange rate becomes a critical determinant of the Investment variable both directly and indirectly through its effect on the interest rate. Recall that from the Mundell-Fleming Model we have:

$$Y = G + A(Y, r, e) \text{ and } D + R = L(L, r) \quad r = r^*$$

where A equals aggregate demand and depends on interest rates (negatively), exchange rates (positively) and national income (positively); D+R represents the money stock and equals domestic government bonds (D) and reserves (R) and L equals demand for money (based positively on national income and negatively on the interest rate). In an open economy, the exchange rate (e) is determined both national policy and outside actors, and is embedded in the national power equation with immediate consequences. Where exchange rate expectations are dynamic, interest rates will diverge and exchange rate expectations will play a crucial role in determining the size of the spread and so the cost of capital to domestic borrowers (private sector and government alike). The cost of capital in turn directly impacts the level of investment, and in an open economy, this is not entirely under the control of the state. Moreover, as noted in chapter three, the exchange rate also determines currency reserves, one of the two components of the money stock. To maximize Income, and secure higher Investment, states are socialized into stabilizing the exchange rate. For a state where maximizing Investment means attracting it from abroad (ie. from other states), this socializing force is especially acute.

Outsourcing efficiencies and lower transactions costs assume governments will opt for the more efficient policy. Although a part of the socializing pressures, efficiencies are not the only factor or even the determining factor in the currency union outcome. And in any event, are adequately described by socialization to be subsumed in

structural theory. Economies of scale and externalities benefit a state's national income and thus its relative capabilities.

Finally, that a currency has the capacity to affect national power has been noted by Cohen (2004, 21), specifically with regard to the benefits of international seignorage: "*But is state power correspondingly augmented for countries with more competitive monies? At first glance there seems no doubt.* [emphasis added] The broader a currency's functional domain, the easier it should be for its issuing government to exploit the fiscal benefits of seignorage. Not only is the domestic monetary monopoly protected, but now foreigners, too, can be turned into a source of revenue to the extent that they are willing to hold the money outside the country of origin. Expanded cross-border circulation generates the equivalent of a subsidized or interest-free loan from abroad—an implicit transfer that represents a real-resource gain for the economy as a whole. Economists refer to this as international seignorage, in order to distinguish it clearly from the more traditional domestic variety. International seignorage can be quite considerable in practice, as the historical experiences of both the pound sterling and the dollar have amply demonstrated. *But international seignorage can be exploited only so long as a currency retains its competitive superiority in the marketplace—an advantage that can never be permanently guaranteed.* [emphasis added]" And must be competed for.

2. Monetary sovereignty

Sovereignty is primary to states. It is the very bedrock of the quest for survival. Strange (1996) among others, has argued that international capital markets have either eroded or significantly challenge state monetary sovereignty. Certainly, as we saw in

chapter four, the international monetary system is one of anarchy and lack of government. What this anarchy does however, is produce socializing pressures that push states to redefine how they exercise sovereignty, and how they amass the relative capabilities necessary to survive. Arguments describing challenges to state sovereignty are describing such socializing pressures. The outcome, however, is not capitulation, but a restructuring that, depending on relative capabilities, produces an alliance or internal strengthening. For example, Banque de France President De Larosiere stated in 1991 in a letter accompanying a Bank report to Mitterrand that “Only collective management of a single currency, inside a well-balanced, independent institution, will allow France to participate fully in the European monetary decision-making process and *provide the best guarantee for the exercise of national monetary sovereignty*”⁴³⁵ [emphasis added]

This chapter has presented the case that states compete for scarce resources in international finance as they do in international politics, namely for investment, for capital and for primacy; and that socializing forces are not only present in international finance, but are greater in number than in international politics. Thus the third necessary condition of structural theory is satisfied. To the extent that a monetary alliance gives a state an advantage in the competition for financial resources then we might expect recurring alliances. The relative gains a state may make in a monetary alliance translate to greater economic capabilities and domestic economic welfare. To this extent it captures domestic policy goals and addresses domestic constituency needs; the black box is endogenous to the policy. The relative gain in capabilities reflects the internal strengthening of the economy that arises from a currency union with appropriate partners

⁴³⁵ Report by the Bank of France on the Year 1991 to the president of the Republic (Introductory Letter), reprinted in *BIS Review*, no.69, 7 April 1992, pp.8.

as presented by Mundell in the theory of optimum currency areas. Functionalism too is endogenous since like it or not economic gains necessarily affect power whether this was a state's initial goal or not (as is discussed empirically in greater detail in chapter seven). Also the relative gains of a monetary alliance can begin to materialize much faster than military power if we compare a one to two year effect on economic welfare as compared to the normal ten-year delay in design and deployment of major weapons systems. Moreover, to be small and weak in politics is to be small and weak in economics, one's size and status does not change simply because state interaction's change. Thus behavior that is conditioned by size will be so conditioned in all realms of state interaction and affect all actions in similar ways. Finally, it might be noted that the competition in international finance is entirely relative and each state's position is not only a matter of ranking, but the result of the actions of other states to a larger degree than the military sphere. A state can always build the next great weapons system regardless of its position in the global military rankings, and regardless of what other actors think of it, as nuclear proliferation to such states as North Korea, Iran, India and Pakistan has proven. In finance, to get a piece of the pie you have to take it from someone else—you cannot build it, and you cannot enter the game without gaining international approval.

Chapter 7

Empirical Tests for the Effect of Exchange Rates on Relative Power

Waltz cautions against statistical analyses that are unaccompanied by coherent theoretical analysis. “Numbers may describe what goes on in the world,” he says. “But no matter how securely we nail a description down with numbers, we still have not explained what we have described.”⁴³⁶ Many economists and econometricians share Waltz’s concern regarding statistical methods. In a scathing review article of the econometrics discipline for the 2006 edition of the Palgrave Handbook of Econometrics, Spanos (2006, 6-7, 10) argues:

“Indeed, one can make a case that, at the dawn of the twenty-first century, the applied econometric literature is filled with a disorderly assemblage of “study-specific”, “period-specific”, and largely unreliable evidence, which collectively provide a completely inadequate empirical foundation for economics...Using empirical evidence has been undermined as a way to test economic theories (see Summers 1991). The primary reason for this is that the current textbook approach to empirical modeling has given rise to mountains of unreliable evidence that amount to nothing more than heaps of statistically meaningless, “non-regularities” which unfortunately, are ascribed “theoretical meaning” (using unwarranted statistical inferences), under the guise of identification. Worse still, these “non-regularities” are often used as the basis of empirical support for theories, as well as for policy analysis and predictions....What is missing from economics, when compared to other more successful sciences, is a constructive dialog between theory and data, as a result of which learning can take place.”⁴³⁷

Over 30 years before Spanos, Leontief (1971, 1) changed his earlier optimism regarding econometrics to conclude that “in no other field of empirical inquiry has so massive and sophisticated a statistical machinery been used with such indifferent results.”

⁴³⁶ Waltz 1979, 29.

⁴³⁷ See Summers 1991 for a similar argument. For a more balanced discussion of the history of econometrics Spanos cites Stigler 1954, 1962; Christ 1985; Epstein 1987; Morgan 1990; Heckman 1992; Qin 1993; and Hendry and Morgan 1995.

Thus where noted economists are skeptical of the power of econometric methods, one cannot fault a political scientist for similar skepticism. However, as noted in chapter three, Waltz also suggests (Waltz 1979, 131) that capabilities of states can be ranked according to “how they score on the following items: size of population and territory, resource endowment, economic capability, military strength, political stability, and competence.” In this chapter, in addition to testing the power variable derived in chapter three, I also test whether the monetary variables of exchange rate and exchange regime, affect three of the ranking factors noted by Waltz—specifically a state’s rank in economic capability (measured by real GDP, investment, and government expenditures), military strength (measured by military expenditures) and political stability (measured by “democraticness”). It is my hope that the theoretical analysis developed in previous chapters is coherent enough to render useful the statistical analyses presented here.

Two empirical methods were used to test the applicability of structural theory to international monetary affairs: statistical regression using panel data of the exchange regimes and power indicators (macroeconomic indicators and military indicators) to test the correlation of exchange regime and exchange rate, relative capabilities and vulnerability to political instability; and 2) survey data of Latin American and Asian business persons active in the international markets to test the existence and levels of socialization pressures in the two regions where current and future currency unions are being debated. The survey results are presented in chapter eight. In this chapter I present the variables, data selection, modeling and results for empirical tests using regression analysis.

I. Modeling: Conceptual Framework

This dissertation examines the extent to which currency unions, as a recurrent outcome in international relations, can be explained by neorealist structural theory. If applicable, structural theory can then be used to develop an elegant theory of international monetary alliances, and be shown to be robust and fungible to state relations other than the security arena, where it has been traditionally and exclusively applied. To do this I first examine how monetary affairs might affect a state's relative capabilities, or, stated differently, how relative power is affected by the exchange rate and exchange regime. The three main tenets of Waltz's structural theory—*anarchy, threat and survival, and socialization*-- were examined in preceding chapters and applied to several different instances of currency union outcomes in different parts of the world and at different time periods in history. Empirically, however, these hypotheses have not been adequately tested. This poses some limitations for the present study. It also emphasizes the novelty of this study, and, if tests show empirical evidence then it will also highlight the progressiveness of Waltzian economics as a theory worth further exploration.

From chapter five we have the following: There are two specific threats to a state's survival as an independent actor that are stronger in finance than in politics. One is the effect on growth and national income; the other is the effect on political stability. The best tally of financial crises to date was recently compiled by Michael Bordo. To capture the effects of monetary instability in as many countries as possible I used the exchange rate and exchange regime dataset tabulated by Carmen Reinhart and Kenneth Rogoff which provide a much larger pool of observations to create a large dataset of 125 countries rather than focusing only on countries with recorded financial crises. This

proxy also allows a test on the simplified power equation derived in chapter three that incorporates the Mundell-Fleming model with the nominal exchange rate, and tests on investment.

Thus the statistical analysis was formulated to 1) examine any correlation between exchange regime and exchange rate and power, as developed in chapter three, and the individual components of power, especially military expenditures which have not yet been examined with respect to monetary variables in the IR literature; 2) to examine any correlation between exchange regime and exchange rate and degree of “democraticness” (as a proxy for threat to political stability) as a result of monetary turbulence or stability; and 3) to examine the degree of correlation of exchange regime and exchange rate and investment, given the argument that states compete for investment funds. The threat to economic variables has already been established by the economics literature, but nevertheless, a simple regression of certain macroeconomic indicators against exchange regime and the exchange rate is undertaken here as well to view any threat to the economy as advanced in chapter five.

1. Some relevant literature

There is no empirical literature measuring power beyond the studies conducted by Cline. There is however a literature on defense economics which has found significant effects of military expenditures on growth using the Feder-Ram model. However mainstream econometrics using Augmented Solow, and Barro growth models have not found military expenditure to be a significant determinant of growth.⁴³⁸ The different

⁴³⁸ For a discussion of the empirical relationship of military expenditures and economic growth see for example Aizenman and Glick 2003; Alexander 1995; Brumm 1997. The seminal work in defense

results are partially based on opposed theoretical approaches. Demand effects, such as the Keynesian multiplier effect, argue that an exogenous increase in military spending increases demand and capacity utilization and reduces unemployment.

Underconsumption theories argue that military expenditures have opportunity costs and may crowd out other forms of expenditure, such as investment. The government budget constraint then requires that an increase in military expenditure be financed by cuts in other public expenditure (such as social welfare programs), increased taxes, increased borrowing or expansion in the money supply. However, the last option, (expansion of the money supply), would only take a relatively small open economy so far. If weapons systems are produced domestically and paid for in local currency then an expansion in the money supply could increase military expenditures substantially. However, weapons systems purchased from the United States must be paid for in dollars. Weapons systems purchased on the open (or black) markets (regardless of country of origin) must be paid in hard currency, typically in dollars. For a state with limited domestic arms production, increasing the money supply would be counterproductive to increasing military expenditures—by causing a depreciation of the local currency it would make foreign arms purchases more expensive requiring even higher taxes and lower public works funding for the same weapons, or require fewer weapons. In a situation of a regional conflict or regional arms race, a currency crisis for one country could spell disaster for its national income and military readiness—country A whose currency loses value must now either cut economic programs or cut down on weapons purchases while its rival country B, with a stable money, can maintain its defense spending; country A is left relatively

economics is by Feder 1983, 1986, 1996, and Ram 1995. For earlier cross-country correlation analyses see Benoit 1973, 1978. For a prominent mainstream econometrics approach see Barro 1990.

worse off and could fall behind its rival in military spending, or end up significantly poorer or both.⁴³⁹

The effect of the exchange rate on military expenditures is frequently under-analyzed even in the defense economics literature, perhaps because so much scholarship comes from American scholars whose state benefits from a large defense industry but also the top currency position and can also increase the money supply to pay for any new weapons system, regardless of where it is made. Those few studies that have addressed the relationship between military expenditures and the exchange rate note the existence of a distinctive relationship. For example, Bergstrand (1992) showed how a large cut in U.S. military expenditures after the end of the Cold War would reduce the real exchange rate by a small amount. Grilli and Beltratti (1989) examined the connection between U.S. military expenditures and the dollar-deutchemark real exchange rate using quarterly data from 1951-1986 and found a significant relationship of cointegration between real military spending, real gross national product and the real exchange rate.

Much more analysis has been done on the varying regional effects of military expenditures and various economic indicators. For example, some statistical evidence for OECD countries indicates that military expenditure has a substantial negative effect on capital formation and thus growth rates when “spin-off” effects are allowed for (see for example Smith 1977, 1978, 1980). Other studies show that for less developed countries the statistical evidence seems to indicate the opposite, that military expenditures and growth rates are positively correlated (see for example Benoit 1973, 1978). Given the

⁴³⁹ Consider for example the case of Turkey, long involved in a regional arms race with historical rival, Greece, but also a victim of repeated monetary and financial crises which its rival has for the most part averted. Both countries purchase significant amounts of weapons from the United States. Neither can afford to fall behind.

regional disparities of the effect of arms on income, one might also expect there to be regional disparities between the effect of the exchange rate and arms as well. Because any military expenditures measure is likely to have a relationship with economic growth and national income, and national income in turn can be affected by the exchange rate and exchange regime as described by Rose and others, then it might be relevant to consider an empirical relationship between the exchange regime and exchange rates on military expenditures as well. Further, because military expenditures and national income (the two major components of power) may be affected by the exchange rate, that would imply an effect on relative power as well. Thus empirical testing on relative power and its components is relevant.

2. Power in an open economy

The main test I am looking at in this study is whether exchange regime and exchange rates affect relative capabilities, and so relative national power. To this end I give a statistical test to the algebraic equation derived in chapter three and presented again below. The following section provides regression results by dependent variable—relative power, and its components.

a. deriving a single power equation (review)

We can derive a simplified equation of national power as combining in aggregate form four important factors that most scholars who have considered the matter seem to agree are key: income, arms or military capacity, population, and political stability.

$$\mathbf{POWER = \{INCOME + ARMS + POPULATION + POLITICAL STABILITY\}}$$

Because population is already a factor in the size of national income and military expenditures (i.e. more guns for more soldiers), and because political stability, at least stable democracy, is directly related to a large middle class, itself a derivative of national income, we can further simplify as follows:

$$\mathbf{POWER = INCOME + ARMS}$$

From basic macroeconomics we know that economic strength as measured by national income is equal to the sum of consumption, investment and government spending.

$$\mathbf{INCOME = GNP = Y = C + I + G + (X - M)}$$

Combining two prominent equations, income from economics and power from politics we can see clearly how the two are directly related.

$$\Rightarrow \mathbf{POWER = \{C + I + G + (X - M)\} + ARMS}$$

If any component of national income increases this translates into an increase in power. To the extent that monetary variables affect any component of national income (and thus income itself) they should also affect power, according to this equation. From chapter two we know that currency unions can have a positive effect on national growth by expanding trade and that the effect is robust in the long-run simply by increasing (X-M) without considering the effects of increased trade on consumption, investment or government expenditures, and without considering the effects of an open economy on monetary indicators. From economic analysis in chapter five we also know that financial crises can lead to a slowdown of both trade and economic growth detrimental to national income and so national power. Omitting the effects of an open economy on national income also omits the effects of monetary indicators on national power. It is necessary, therefore, to adapt present conceptions of national power to incorporate open economy

monetary indicators, something the economics discipline did several decades ago with the Mundell-Fleming model.

The Mundell-Fleming Model by introducing foreign trade and capital movements demonstrated that the effects of a state's stabilization policy hinge on the international mobility of financial assets and depend crucially on the exchange rate regime.

In terms of international political economy, this draws some important conclusions:

- 4) A state's economic capabilities will depend in large part on its monetary relationship with other states, represented through the exchange regime. This will be more critical for states with relatively small and open economies.
- 5) A state's domestic economic policy cannot be created without taking into account the economic policies of other states as they may affect trade and capital flows.
- 6) Relative economic capabilities matter, and they are strongly affected by the exchange rate (which, in turn, is strongly affected by other states).

Because national economic policies are made by states (however they may be influenced), the international state system underlies the Mundell-Fleming Model. By Mundell-Fleming we know that the economic policy actions of other states can increase or decrease domestic trade, increase or decrease the domestic exchange rate, increase or decrease the domestic interest rate, and increase or decrease domestic capital inflows and outflows. And the effect may be large or small depending on the relative size of the resources mobilized by any state's economic policy actions. The relative size of resources mobilized, in turn depends on the relative economic size of the state taking action (say, the United States) and the relative economic size of the state affected by the action (say, France, or Korea) or the rest of the world.

Essentially, Mundell-Fleming highlights the importance of the exchange rate on national income. As an important intervening variable to national income, it then also becomes an important intervening variable to national power, both conceptually and through a simple algebraic derivation. From the discussions above, we can derive a simple equation representing national power capabilities in an open economy as follows:

$$\mathbf{Power = Income + Arms}$$

$$\mathbf{Y = C + I + G + (X - M)}$$

From Mundell-Fleming we add the important factor of the exchange rate as a determinant of aggregate demand and so national income: $\mathbf{Y = G + A(Y, r, e)}$ and $\mathbf{D + R = L(L, r)}$ $\mathbf{r = r^*}$

Combining all three we have:

$$\mathbf{Power = C + I + G + (X - M) + Arms}$$

$$\mathbf{Aggregate Demand = C + I + (X - M)}$$

$$\mathbf{Power = G + Aggregate Demand + Arms}$$

where, Aggregate Demand is affected by income, interest rates and the exchange rate, $A(Y, r, e)$, $D + R$ represents the money stock and equals domestic government bonds (D) and reserves (R) and L equals demand for money

Substituting $A(Y, r, e)$ for Aggregate Demand to take Mundell-Fleming into account we have the following:

$$\mathbf{Power = G + A(Y, r, e) + Arms}$$

In an open economy, e the exchange rate is not determined only by national policy but by outside actors, especially the state whose currency is the numeraire of the international monetary system. The exchange rate then becomes a variable embedded

within the national power equation allowing national power capabilities to be directly, and immediately, affected by other state actors.⁴⁴⁰

Given this argument, an empirical test was devised using regression analysis to attempt to examine the effects of integrating the Mundell-Fleming Model into a simplified power equation, where the open economy has erroneously been omitted in political science as it had been omitted in economics in the last century. In empirical terms, what we are primarily looking for is the following:

$$\mathbf{Power = milex2 + rgdp}$$

Where milex2 = real military expenditures (MILEX data from Correlates of War dataset multiplied by the deflator variable PPP from Penn World Tables); and where rgdp = real gdp (RGDPL real gdp laspeyeres data from Penn World Tables multiplied by TPOP the total population data in Correlates of War dataset). Relative power is simply the relative measure of the derived power variable (relative to the regional average).

The equation, $\mathbf{Power = G + A(Y,r,e) + Arms}$, also tells us to control for government expenditures and the exchange rate. Thus we have the following possible regression equation:

$$\mathbf{Power = Govt + milex + rgdp + exchange\ rate}$$

From chapter three we have determined that, as the exchange rate affects national income in an open economy, so it must affect power. To test this we formulate the following regression tests using the variables presented by the equation above. The variables power and relpower are then regressed against exchange rates, the rate of change of the exchange rate, and the categorical exchange regimes variable. In addition, the relative measures of the component variables of power, real military expenditures (the

⁴⁴⁰ For the full theoretical background see chapter three.

converted milex2) and real national income (rgdp) and government expenditures (gkon) are regressed against the same monetary indicators. Further tests are then conducted to determine any possible effects of exchange rates and exchange regime on relative investment (ikon) to test effects of socialization and “democraticness” (using the Polity2 variable) to test threats to political stability.

II. Data and variable selection

In this section I describe the datasets, variables and time periods selected for empirical testing and why. I also discuss the list of countries in the dataset and briefly describe variable manipulations.

1. Dataset selection

Four distinct publicly available datasets were utilized to collect panel data for this study: the Correlates of War dataset on military expenditures, the POLITY dataset on degrees of democracy, the Reinhart-Rogoff dataset on exchange regimes, and the Penn World Tables on economic indicators including nominal exchange rates. Based on data availability for each of the variables considered from each of the four distinct datasets, a total of 125 countries were selected. Based on data availability restrictions under the Penn World Tables spanning 1950-2000, the first year with balanced data is 1950 even though POLITY and COW datasets have data from prior to 1940 up to the year 2003 and the Reinhart-Rogoff dataset shows data from 1940 to 2001. Thus the panel data spans

from 1940 to 2001 but data is balanced only beginning 1950. From these datasets the following variables were selected for estimations, and transformed as needed.

Table 7. Variables

From Reinhart-Rogoff dataset:

| | |
|---------------------|---|
| Exchangeregimemcode | Exchange Regime (yearly averages) a categorical variable ranging from 1= currency union (no independent currency) to 15= freely falling |
| Mgcode | Monthly exchange regime averages |

From Polity dataset:

| | |
|---------|--|
| Polity2 | Polity2 (a measure of degree of democracy or “democraticness”) a categorical variable ranging from 1=least democratic to 10= most democratic |
|---------|--|

From the Correlates of War dataset:

| | |
|--------|---|
| Milex | total Military Expenditures in nominal US dollars |
| Milper | total Military Personnel |
| Irst | Iron & Steel Production |
| Energy | Energy |
| Tpop | Total Population |

From the Penn World Tables dataset:

| | |
|-------|--|
| Cgdp | current GDP per capita |
| Rgdpl | Real gdp per capita (Laspeyeres measure) |
| PPP | Purchasing Power Parity |
| Ikon | Investment (constant 1996 dollars) |
| Ckon | Consumption (constant 1996 dollars) |
| Gkon | Government expenditures (constant 1996 dollars) |
| Impk | Imports (constant 1996 dollars) |
| Expk | Exports (constant 1996 dollars) |
| Y | Relative GDP per capita (relative to the United States) |
| Xrat | nominal exchange rate in US dollars; local currency to \$1 |

2. Variable manipulation

The variable REGIONA (with 9 regions) was created based partially on the Correlates of War variable REGION (with 6 regions) that divides countries based on geographic classification. REGIONA is defined as follows:

- 1 = Latin America including Mexico, and the Caribbean
- 2 = Europe (non-communist)
- 3 = Sub-Saharan Africa
- 4 = Middle East
- 5 = ASEAN/East Asia/Asia including Japan, Korea and Pakistan
- 6 = South Pacific Asia including Australia, New Zealand
- 7 = USA and Canada (separated from the rest of the Western Hemisphere)
- 8 = former Communist bloc countries including all republics of the former Soviet Union
- 9 = China and India

Three new variables needed to be created from the existing variables available in the datasets: POWER, Real Military Expenditures, and Total Real GDP. In addition, new variables were created based on regional averages to determine effects on relative capabilities. The following new variables were created:

MILEX2 = real military expenditures (military expenditures by PPP)

RELMILEX2= relative real military expenditures

AVMILEX2 = the regional average of real military expenditures (a proxy for war or armed conflict)

RGDP = relative real GDP (Laspeyeres estimate by total population)

RELRGDP = relative real GDP

POWER = an aggregate measure of Power obtained by adding military expenditures (MILEX2) and national income (RGDP)

RELPOWER = relative power based on transformation of the aggregate power variable

RELKON = relative constant investment

AVIKON = regional average of investment (a proxy for herding of capital flows)

RELGKON = relative constant government expenditures

XRATRATE=the rate of change of the exchange rate

RXRAT=real exchange rate

Each dependent variable was examined using the transformed relative measure. This transformation takes the mean of the absolute measure and divides by the regional average. The process serves three purposes: 1) examining relative measures is in line with the Waltzian focus on relative capabilities rather than absolute capabilities thus making the empirical test consistent with the theory; 2) the relative measure normalizes the variable to an extent that first-differencing of the data is not required; and 3) taking group means can remove heteroskedasticity (see Wooldridge 2002).

The relative measures for military expenditures, national income, investment and government expenditures were developed because it is not sufficient to examine the effects of the exchange rate and exchange regime on the aggregate measure for RELPOWER. We must also see the effect it has on the component parts of RELPOWER, namely military expenditures and national income. I examine the effects on relative investment since investment is directly affected by the exchange rate to the extent that the later affects interest rates according to the Mundell-Fleming model. I examine the effects on relative government expenditures because government expenditure directly appears in the simple power equation in an open economy derived using the Mundell-Fleming model, but also because of the reportedly negative effect that currency crises have on depleting reserves, it is also the closest variable to a sitting statesman, meaning changes on military expenditures or national income or investment

can affect a state in the longer term, but effects on government expenditures are felt immediately and have an immediate effect in restricting state actions or expanding them.

3. Selection of years in time series

The years under study were further restricted by consideration for postwar political and economic developments that resulted in the disintegration of empires, formation of states under decolonization, and the imposition and then removal of currency inconvertibility and capital controls. Three distinct periods are studied. The first is the entire postwar period from 1940-2001 representing the full availability of the data. The second is the period from 1971-2001 representing the post-Bretton Woods era of flexible exchange rates following the closing of the gold window by the United States on August 15, 1971 under the Nixon Administration. The third is the period from 1990-2001, or the last decade of the twentieth century, representing the post-Cold War era and simultaneously a time most economists have characterized as especially prone to currency crises given increased volatility in financial markets.

Data is not available for all countries in all years with notable exceptions in each region. In general, macroeconomic data from the Penn World Tables was the most problematic of the four datasets used with the largest amount of missing data. However, the data available is especially strong in the second two periods, and is also sufficient for the entire postwar period to provide a pool for analysis.

4. Final country list

The final countries in the regression were selected based on data availability with some specific restrictive criteria. The first criterion was that the entity under study had to be a state according to COW definitions of a state. Thus all dependent territories and autonomous regions (such as Hong Kong were removed). The second criterion was that, at a minimum, each state on the list had to have Reinhart-Rogoff exchange regime data for at least ten years on average. This criterion was applied because one important purpose of the regression was to determine the effects of exchange regimes on national power capabilities; hence if no data were available for a particular country no determination could be made for that state and this could affect the final results. This eliminated many countries in the Middle East and Arabian/Persian Gulf which were missing entirely from the Reinhart-Rogoff dataset. Finally, each state selected had to have data for all other variables selected. Certain command economies were eliminated as a result due to the lack of meaningful (or any) macroeconomic data, even though Polity2, COW, and Reinhart-Rogoff datasets had observations for them (for example, Cuba, was eliminated under this criterion). The data was weakest in the Middle East and Persian Gulf where exchange regime data was unavailable and GNP data was not available or too weak (i.e. too many missing years) to provide any substantive estimation. Even with multiple eliminations and several revisions, a total of 125 states were deemed to have sufficient data for this study. The final country list appears in Appendix I. The data, dependent variables and time periods are summarized in Table 8.

Table 8: Data Summary

| | |
|--------------------------------|--|
| Total countries | 125 |
| Total observations | 7753 |
| Total variables | 30 |
| Total dependent variables | 7 |
| Dependent Variables | a. Relative power (derived); From COW dataset: b. Relative Real military expenditures (derived) From Penn World Tables: c. Relative Real GDP (derived) d. Relative Government Expenditures (constant dollars, derived) e. Relative Investment (constant dollars, derived) f. GDP per capita relative to the United States From POLITY2 dataset: g. "Democraticness" |
| Critical Independent Variables | a. Exchange regime b. Nominal exchange rate(local currency per \$1) c. Rate of change of nominal exchange rate (derived); d. Real exchange rate (derived) |
| Years in dataset | 1940-2001 |
| Time periods under observation | 1940-2001 1971-2001 (post Bretton Woods) 1990-2001 (post Cold War; financial crises era) |

III. Empirical Modeling

Each dependent variable is tested with all 125 countries in the dataset for the full time period of 1940-2001, for the sub-period 1971-2001, and for the sub-period 1990-2001. Then two outliers were removed from the dataset to test for effects on the rest of the world—the United States and the USSR which were involved for most of the period in a nuclear arms race with dramatically higher military expenditures than the rest of the world; the United States is also the largest and richest single economy in the world and so

also an outlier in national income—and all tests for each of the three time periods were run again. The directions of the relationships among the variables generally do not change when the superpowers are removed. Also, it is unclear whether removing the superpowers is necessary or even detrimental to the model. States consider their capabilities relative to neighbors and adversaries, and to the leaders. So China, France, and Brazil are looking at their rank vis-à-vis the United States as well as India, Germany and Argentina, for example. Removing the superpowers removes one important frame of reference, especially for the highest ranking middle powers. Moreover, since the relative power variable was created based on the regional average, the USA and USSR cannot affect the ranking of countries within Western Europe, Latin America, Asia or Africa.

Sorted regressions were also performed to determine variations by region. Three estimation models were used—Autoregressive Generalized Least Square (GLS AR(1)) with both fixed effects and random effects as appropriate (based on Hausman specification test), Cochrane-Orcutt iterative procedure, and the Arellano-Bond Generalized Method of Moments tests for dynamic panel data. Each of these models controls for autocorrelation, some better than others. The Arellano-Bond model is the most recently developed model based on early twenty-first century studies by Arellano and Bond, and adds a control for serial correlation using an automatically generated lag of the dependent variable in the regression equation. Because the primary goal is to determine the direction of the relationship, not the explanatory power of the model, several tests were used to see whether the sign of the main independent variables (those testing for exchange rate effects) changes depending on the estimation model, the

controls included, and the time period under examination. A secondary concern is the size of the relationship.

Although several variables are treated as dependent variables to examine independent effects on them by exchange regime and exchange rates, there is one main dependent variable, RELPOWER, which represents the primary test for this dissertation based on the theoretical application of neorealism to international monetary affairs.

The tests are formulated as follows:

Null Hypothesis (H0): Monetary variables (exchange regime/rate) have no effect on the dependent variable (alternatively, relative power, relative military expenditures, etc.)

Alternative Hypothesis HA: The exchange rate/regime has an effect on the dependent variable (alternatively relative power, relative military expenditures, etc.)

Critical level set at 95% confidence level, critical test $Z=1.65$ reject if $z \geq |0.4750|$

There are three critical independent variables that appear in each test: exchange regime, nominal exchange rate, rate of change of the exchange rate. The exchange regime (exchangeregimemcode, or Eregime as expressed below) is categorically coded running from most fixed or no independent currency (1) to least fixed or most floating (15) which represents a freely falling currency. This means that for relative capabilities to gain from a currency union, there would have to be a demonstrated *negative* effect of the exchange regime on the aggregate measure, POWER, and any of its components in an open economy. Also, the variable XRAT denotes the nominal exchange rate at local currency to U.S. dollars, thus as XRAT increases the local currency is depreciating or losing value relative to the dollar even though the variable XRAT is increasing. The nominal exchange rate is tested as that is what appears in the Mundell-Fleming model. Additional tests are also conducted using the real exchange rate. The variable XRAT is thus

included as an alternative (numerical) indicator of the effects of currency on relative power and is included in each regression estimation. For monetary affairs to have an effect on relative capabilities, a *negative* relationship between XRAT and the dependent variable would have to be observed. The rate of change of the nominal exchange rate XRATRATE is also included in each regression estimate to examine the effects of a rapidly rising or rapidly falling currency on relative power and its components.

1. Correlations

The basic correlations present some interesting findings that warrant special attention. There is a modest correlation between the variable for exchange regime and the various indicators of national capabilities indicating that there is an underlying relationship that can be further studied. For example, exchange regime is positively correlated with nominal military expenditures (0.1236) and with nominal GDP per capita (0.1650), but less so with real GDP per capita (0.0839). The positive correlation between national capabilities and increasing degrees of currency flexibility or floating is not the one we might have expected from the arguments in preceding chapters, however these values represent absolute and, in the case of military expenditures, nominal figures, not relative capabilities. The one variable that was included in the original datasets already in relative form, gdp per capita relative to the United States. There is a small negative correlation between increasing degrees of flexibility in exchange regime (i.e. more floating) and GDP per capita relative to the United States (-0.0141) implying that as states allow looser exchange regimes or a freely falling currency they get further from closing the per capita income gap with the United States even though the absolute gdp

per capita is positively correlated with more floating. Thus incomes may be rising in say, Brazil, as the real moved from a more fixed to a more floating regime, but Brazilians are falling behind relative to Americans. This might actually mean that increasing degrees of currency flexibility in the rest of the world is making the United States relatively richer. This may also be an indicator that the effects are different for absolute nominal measures and relative measures or various indicators. The three monetary indicators—exchange regime (exchangeregimemcode) exchange rate (xrat) and the rate of change of the exchange rate (xratrate), are not highly correlated with each other and thus may be included in all regression tests at the same time as planned without much risk of falsely affecting the data or the direction of the relationship.

Current aggregate demand variables (icur, gcur, ccur, expc, impc) are very closely correlated to constant aggregate demand variables (ikon, ckon, gkon, expk, ikon) so that only one set need be tested. I selected the constant aggregate demand variables. Although current GDP per capita is more closely correlated to the exchange regime (0.1650) and the exchange rate (0.0183), real GDP per capita shows a negative correlation (albeit very small) with the exchange rate (-0.0001) indicating a relationship that should be of interest given the hypotheses presented here. Moreover, as with the aggregate demand variables, current GDP and real GDP are very closely related so that tests need not be performed on both at this time.

Consumption, investment (ikon), exports (expk) and imports (impk) are all very highly correlated. Exports (expk), Imports (impk) and Consumption (ckon) are nearly perfectly correlated with each other. Because these variables are part of the macroeconomic identity for national income they cannot be dropped from the regression

equation on real GDP. However, consumption is dropped, and exports and imports are alternatively dropped from regressions on investment. Tests on government expenditures are performed controlling only for investment (ikon), imports (impk) real GDP and total population. This avoids building in multicollinearity present among the aggregate demand indicators and also is most relevant since government derives income from investment (i.e. capital inflows) and import taxes (customs duties). For the same reasons other macroeconomic indicators are removed on regressions for investment. Note that investment is also highly correlated with the exchange rate (0.6013) and moderately correlated with government expenditures (0.5816). However, as the exchange rate is a key independent variable it is not removed from any regression equation. Moreover, the highest correlation of the exchange regime variable is with currency GDP per capita (0.1650) and surprisingly with military expenditures (0.1236).

Correlations of transformed variables show some further unexpected results. The derived measure for POWER is very highly correlated with the exchange rate (.9970), as is real military expenditures (0.9965) but not real GDP (0.0156) or current GDP (0.0243). AVPOWER, a measure of power at the regional averages is moderately correlated with the exchange rate (.3509), and relative power (RELPOWER) shows a small but noteworthy correlation with the exchange regime (.1783) and the exchange rate (.1643) and a much smaller but negative correlation with the rate of change of the exchange rate. This tells us that there is likely some empirical value to the equation derived algebraically above. It also calls attention to an unexpected relationship between military expenditures and the exchange rate. Also noteworthy is the significant correlation of relative power with investment (.3237) and an even greater relationship with relative investment (.5004)

indicating that for relative power total investment is important but one's relative share of investment is more important. In fact, the correlations show that investment share is of nearly equal importance to relative power as relative military expenditures (.5397). Government expenditure is also important for POWER (.5720) but less so for relative power (.3353).

Finally, it is noteworthy that the variable for "democraticness", POLITY2, correlates strongly with AVPOLITY2 (0.6869), more than any other variable. Thus a state is more likely to be more democratic if in a more democratic region. POLITY2 is also strongly positively correlated with Y, the indicator of GDP per capita relative to the United States (0.5869). This effect is slightly stronger than the positive correlation of POLITY2 with absolute real gdp per capita (0.5803) This might imply that the closer a state gets to closing the income gap per capita with America the more democratic they get. However, if we take into consideration the negative correlation observed for Y with floating, it would seem that as floating increases, then the gdp per capita relative to the United States decreases. And as the relative GDP per capita to the United States decreases, then the further a country gets from democracy. Thus, indirectly, the exchange regime affects "democraticness". It might then be significant to examine the direct effect of the exchange regime on POLITY2.

IV Regression Results

In this section I explain certain encouraging findings in initial testing that validated further modeling. I also explain why I look at the relative measure of a variable rather than the total, and why I estimate the same equation using three different empirical models. Then I summarize the resulting effects of the monetary variables on each

dependent variable (beginning with relative power) and include the regression tables showing the coefficient and significance level for all three monetary variables for each of the set of tests on dependent variable in separate sections.

1. relative versus absolute testing results

Numerous models were tried and tested before settling on the ones whose results are summarized above. Most interesting was that while the relative measures of several variables showed a negative relationship with the exchange rate and monetary variables in general, their absolute values did not. For example, power showed a positive bivariate relationship with the exchange rate, as did military expenditures (for most estimation models). This is surprising. One might expect that if something is causing you to fall behind relative to others it should show up in absolute terms as well. The fact that the direction of the relationship differs points to something anyone involved in a competition understands—it does not only matter how well you do, it also matters a lot how well you do compared to others. Estimations sorting by region also showed significant variations among regions (with different directions of correlation as well as size of effect and significance in each region). Frequently, Latin America and Southeast Asia showed the most sensitivity to their relative capabilities from monetary variables, that is in these regions there was most often a negative and significant relationship between the dependent variable measuring relative capabilities (*relpower*, *relmilex2*, *relikon*, etc.) and either the exchange rate or the exchange regime or both.

Estimation on POLITY2 with only monetary variables in the equation resulted in a surprising significant but positive effect of increasing degrees of floating (0.111) with “democraticness” but negative with increasing change in the rate of change of the

exchange rate (-2), implying political instability as a result of monetary crises. The estimation model may have something to do with the results. When the two categorical variables of POLITY2 and Exchange regime were tested in a logit model regression, the effect of exchange regime on “democraticness” was negative and significant with a coefficient of $-.055865$ ($z = -2.66$). Thus the adverse effect of monetary instability on political stability cannot be ruled out empirically.

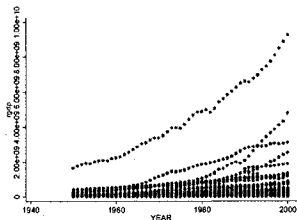
2. why multiple estimation models?

The availability of numerous estimation models, the high probability of multicollinearity with the observed high correlations of certain variables, and the high probability of autocorrelation (since income, arms and power today is built on income and power of previous periods) which could affect results of any one test, additional tests were necessary to at least verify the direction of the relationship between the exchange rate/regime variables and relative capabilities. For this reason three estimation models were used to test on each dependent variable for each time period. The results vary depending on the model used, thus not too much confidence can be placed on the definitive results of any one estimation technique. Rather, I prefer to examine trends across models. While the results for all three models are not always of the same type, the consistently negative relationship of the relative capabilities indicator being tested and at least one monetary variable is encouraging. It indicates there is a likely negative empirical effect of the exchange rate on relative capabilities. The question now is which monetary indicator is the correct one and how large is the effect. Because the exchange rate regime variable is a categorical variable developed by a subjective measure (even if a

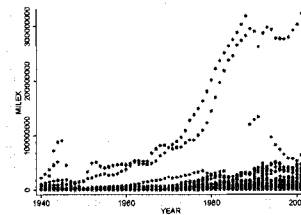
good one), a closer emphasis might be placed on the exchange rate variable which has an objective numerical value. The evidence of serial correlation in the data led to the selection of the autoregressive generalized least squares model, and the Cochrane Orcutt iterative model both of which control of serial correlation in estimating coefficients. The Arellano-Bond model was selected because it controls for serial correlation with an automatically generated lagged dependent variable in the estimation.

3. stationarity

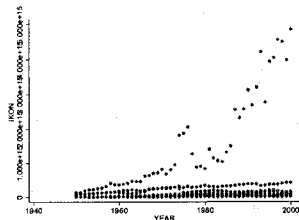
Graphical representation of the dependent variables show a distinct upward trend from either a single or a small series of outliers in each developing beginning in the late 1980's and increasing sharply in the 1990s. Successive attempts to remove possible outliers failed to remove the trend. The violation of the stationarity assumption beginning in the 1980s will likely bias the results for the 1990-2001 time period.



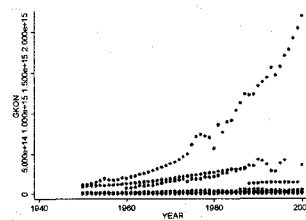
RGDP (real national income)



MILEX2 (real military expenditures)



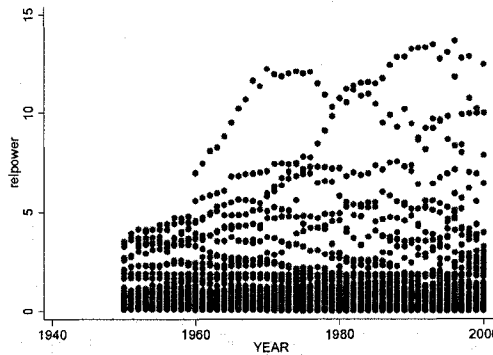
IKON (investment)



GKON (government expenditures)

A. Tests on Relative Power

Table 9 shows the dependent variable, RELPOWER (Relative Power) as affected by exchange regime, nominal exchange rate and rate of change of exchange rate in three time periods using three regression models, controlling for real military expenditures (milex2), real national income (rgdp), government expenditures (gkon) and total population (tpop). The same regression was conducted substituting the real exchange rate for the nominal exchange rate and these results appear in Table 9b. The Hausman specification test showed a fixed effects model was more appropriate using GLS estimation. A graphical representation of the relationship between relative power and the exchange rate is presented below.



Relative power by year

Table 9a: Relative Power (testing on nominal exchange rate)

$Relpower = f \{ eregime, xrat, xrtrate, milex2, rgdp, gkon, tpop \}$

| Model | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|--|---|--|
| 1940-2001 | <p>ERegime -0.0035385 (-1.48) (0.140)</p> <p>Xrat -0.0000566 (-8.14) (0.000)</p> <p>Xrtrate -2.17e-18 (-0.03) (0.973)</p> <p>F (7, 3453) = 16.95 R-sq. within = 0.0332 Between = 0.1235 Overall = 0.1223 Rho = .92829578 Bharagava DW = .29178547 Baltagi-Wu LBI = .57909286</p> | <p>ERegime -0.0033604 (-1.32) (0.186)</p> <p>Xrat -0.0000499 (-6.92) (-0.00)</p> <p>Xrtrate -3.36e-18 (-0.05) (0.959)</p> <p>F (7, 3153) = 13.43 R-sq. = 0.0290 Rho = .9948959 DW (original) = 0.035234 Baltagi-Wu LBI = 1.137502</p> | <p>Eregime -0.0043132 (-1.60) (0.109)</p> <p>Xrat -0.0000306 (-4.66) (0.000)</p> <p>Xrtrate -4.73e-19 (-0.01) (0.996)</p> <p>Wald chi-square (4, 3065) = 5940.55 Sargan chi-square (1224) = 2584.05 A-B test of AR(1) in residuals z = -28.95 of AR(2) = -0.18</p> |
| 1970-2001 | <p>Eregime -0.0027608 (-0.88) (.380)</p> <p>Xrat -0.0000549 (-6.89) (0.000)</p> <p>Xrtrate 7.75e-14 (1.63) (0.102)</p> <p>F (7, 2355) = 12.47 R-sq. within = 0.0358 R-sq. between = 0.1630 R-sq. overall = 0.1541 Rho = .89689134 Bhargava DW = .32445537 Baltagi-Wu LBI = .62175705</p> | <p>Eregime -0.0037074 (-1.17) (0.244)</p> <p>Xrat -0.0000472 (-5.91) (0.000)</p> <p>Xrtrate 6.85e-14 (1.62) (0.106)</p> <p>F (7, 2222) = 11.67 R.sq = 0.0355 Rho = .9852429 DW (original) = 0.043867 DW (transformed) = 1.164163</p> | <p>Eregime -0.0050533 (-1.58) (0.114)</p> <p>Xrat -0.0000299 (-4.11) (0.000)</p> <p>Xrtrate 1.03e-14 (0.32) (0.748)</p> <p>Wald chi-square (4, 2265) = 4235.22 Sargan chi-square (1034) = 1954.55 A-B test of AR(1) in residuals z = -26.33 of AR(2) z = -0.78</p> |
| 1990-2001 | <p>ERegime -0.0050475 (-0.63) (0.526)</p> <p>Xrat -0.0000673 (-5.23) (0.000)</p> <p>Xrtrate 1.15e-08 (0.01) (0.992)</p> <p>F (7, 797) = 4.25 R-sq. within = 0.0360 R-sq. between = 0.1521 R-sq. overall = 0.1323 Rho = .80189048 Bhargava DW = .66934225 Baltagi-Wu LBI = 1.0258744</p> | <p>ERegime -0.0053326 (-0.70) (0.487)</p> <p>Xrat -0.000039 (-3.24) (0.001)</p> <p>Xrtrate 1.13e-07 (0.10) (0.917)</p> <p>F (7, 823) = 3.28 R.sq = 0.0271 Rho = .9584552 DW (original) = 0.082435 DW (transformed) = 1.079107</p> | <p>ERegime -0.0066378 (-0.84) (0.401)</p> <p>Xrat -0.0000289 (-2.35) (0.019)</p> <p>Xrtrate 5.12e-08 (0.05) (0.962)</p> <p>Wald chi-square (6, 879) = 1116.06 Sargan chi-square (483) = 756.73 A-B test of AR(1) in residuals z = -18.54 of AR(2) = 0.22</p> |

*Results show the variable coefficient with the critical value below followed by p-value. Note in each Arellano-Bond regression using two-step procedure, both exchange regime and xrat are negative and significant in each time period for this model.

Table 9b: Relative Power (testing on real exchange rate)
Relpower = f {eregime, rxrat, xratrate, milex2, rgdp, gkon, tpop}

| Model | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|--|---|--|
| 1940-2001 | ERegime -0.0019052 (-0.80) (0.427) RXrat -1.45e-11 (-2.29) (0.022) Xratrate -1.75e-11 (-0.29) (0.771) F (7, 3454) = 9.08 R-sq. within = 0.0181 Between = 0.1230 Overall = 0.1272 Rho = .93630275 Bharagava DW = .2962691 Baltagi-Wu LBI = .61869035 | ERegime -0.001688 (-0.68) (0.495) RXrat -5.63e-12 (-0.85) (0.393) Xratrate -1.16e-16 (-0.18) (0.854) F (7, 3147) = 5.13 R-squared = 0.0113 Rho = .9902158 DW (original) = 0.032599 DW (transformed) = 1.560117 | Eregime .0028337 (1.19) (0.234) RXrat 1.39e-13 (0.02) (0.985) Xratrate 4.83e-16 (0.58) (0.564) Wald chi-square (3, 2976) = 6081.82 Sargan chi-square (1224) = 3277.05 A-B test of AR (1) in residuals z = -28.20 of AR(2) z = 3.10 |
| 1971-2001 | Eregime -0.000041 (-0.01) (0.990) RXrat -1.70e-11 (-2.28) (0.023) Xratrate 3.83e-15 (0.22) (0.824) F (7, 2350) = 7.63 R-sq. within = 0.0222 Between = 0.1504 Overall = 0.1540 Rho = .89121679 Bharagava DW = .31270636 Baltagi-Wu LBI = .62501556 | Eregime -0.0014436 (-0.44) (0.657) RXrat -5.92e-12 (-0.77) (0.439) Xratrate 6.23e-15 (0.38) (0.705) F (7, 2220) = 4.72 R.sq = 0.0147 Rho = .9792334 DW (original) = 0.059922 DW (transformed) = 1.567385 | Eregime .0029009 (0.97) (0.331) RXrat 1.43e-12 (0.17) (0.862) Xratrate -1.60e-14 (-0.88) (0.381) Wald chi-square (3, 2269) = 3981.78 Sargan chi-square (1033) = 2272.47 A-B test of AR(1) in residuals z = -36.49 of AR(2) z = 2.79 |
| 1990-2001 | ERegime -0.0014352 (-0.17) (0.865) RXrat -1.24e-11 (-1.04) (0.301) Xratrate 3.99e-07 (0.47) (0.638) F (7, 798) = 0.54 R-sq. within = 0.0047 Between = 0.2231 Overall = 0.1946 Rho = .77863887 Bharagava DW = .63579817 Baltagi-Wu LBI = 1.0165977 | Eregime -0.0014292 (-0.18) (0.858) RXrat -9.33e-12 (-0.79) (0.430) Xratrate 3.53e-07 (0.45) (0.655) F (7, 823) = 0.70 R.sq = 0.0059 Rho = .9508517 DW (original) = 0.077939 DW (transformed) = 1.634202 | Eregime .0097676 (1.19) (0.234) RXrat -2.70e-12 (-0.21) (0.831) Xratrate 2.70e-07 (0.35) (0.726) Wald chi-square (5, 883) = 1041.21 Sargan chi-square (483) = 863.1 A-B test of AR(1) in residuals z = -19.64 of AR(2) = 2.80 |

*Results show the variable coefficient with the critical value below followed by p-value.

a. Alternative tests on relative power

Because the variables RGDP and MILEX2 were used to create the variable POWER, I also used the same three regression models substituting proxy variables for national income (the aggregate demand components—investment, consumption, exports and imports) and military expenditures (military personnel, energy, iron and steel production). Thus produces the following alternative regression equation:

$$\text{(Relative) Power} = \text{Govt} + \text{ikon} + \text{ckon} + \text{exchange rate} + \text{milper} + \text{energy} + \text{irst}$$

As above, three different variables are included to try and capture the effect of exchange rates on relative power—the exchange regime, the exchange rate itself (local currency to dollars) and the rate of change of the exchange rate. An additional control was added for total pollution. The Hausman specification test again showed fixed effects as the appropriate estimation for GLS regression. The results with nominal exchange rates are provided in Table 10a below. As with the simple relative power equation above, a second test was conducted using an identical regression equation but substituting the real exchange rate for nominal exchange rates. The results with real exchange rates appear in Table 10b.

Table 10a. Relative Power, alternative equation (with nominal exchange rates)
Relpower = f(eregime, xrat, xrrate, milper, energy, irst, gkon, ikon, ckon tpop)

| Model: | GLS AR(1) fixed effects | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|--|---|--|
| 1940-2001 | Eregime -0.0033134 (-1.34) (0.174) Xrat -3.09e-06 (-2.91) (0.00) Xrrate -3.18e-19 (-0.00) (0.996) Wald chi-square F(10, 3432) = 6.42 R-sq. within = 0.0184 Between = .1107 Overall = .1201 Rho = .92368156 Bharagava DW = .35266279 Baltagi-Wu LBI = .66276161 | ERegime -0.0029127 (-1.19) (0.234) Xrat -1.55e-06 (-1.31) (0.189) Xrrate 2.58e-16 (0.82) (0.410) F(11, 3133) = 2.01 R.sq = 0.0070 Rho = .9944103 DW (original) = 0.039256 DW (transformed) = 1.690377 | Eregime -0.0047715 (-1.76) (0.078) Xrat -3.66e-06 (-6.29) (0.00) Xrrate 3.70e-18 (0.04) (0.969) Wald chi-square (7, 3046) = 5413.76 Sargan chi-square (1224) = 2535.63 A-B test of AR(1) in residuals z = -28.33 of AR(2) = -0.96 |
| 1971-2001 | Eregime -0.0023372 (-0.73) (0.465) Xrat -2.76e-06 (-2.29) (0.022) Xrrate 7.61e-14 (1.56) (0.118) F (10, 2346) = 5.16 R-sq. within = 0.0215 R-sq. between = 0.1496 R-sq. overall = 0.1536 Rho = .88817375 Bharagava DW = .37327995 Baltagi-Wu LBI = .68574062 | Eregime -0.0036456 (-1.14) (0.256) Xrat -3.97e-06 (-3.04) (0.002) Xrrate 7.15e-14 (1.67) (0.095) F (10, 2212) = 6.11 R.sq = 0.0269 Rho = .9828093 DW (original) = 0.059331 DW (transformed) = 1.181523 | Eregime -0.0005823 (-0.18) (0.855) Xrat -1.81e-06 (-2.14) (0.032) Xrrate 2.88e-15 (0.24) (0.813) Wald chi-square (8, 2247) = 3784.88 Sargan chi-square (1034) = 2171.81 A-B test of AR(1) in residuals z = -26.96 of AR(2) = 2.65 |
| 1990-2001 | ERegime -0.0041688 (-0.51) (0.611) Xrat -1.62e-06 (-0.70) (0.482) Xrrate 8.94e-09 (0.01) (0.994) F (10, 788) = 0.60 R-sq. within = 0.0076 R-sq. between = 0.0036 R-sq. overall = 0.0031 Rho = .78779287 Bharagava DW = .75305361 Baltagi-Wu LBI = 1.0574049 <i>Note: if superpowers removed Xrat significant & negative</i> | ERegime -0.0052183 (-0.67) (0.500) Xrat -4.45e-06 (-1.89) (0.059) Xrrate 1.11e-07 (0.10) (0.919) F (10, 813) = 2.25 R.sq = 0.0269 Rho = .9828093 DW (original) = 0.333768 DW (transformed) = 1.070049 | ERegime -0.0001526 (0.02) (.986) Xrat -1.54e-07 (-0.06) (0.953) Xrrate -2.82e-07 (-0.41) (0.681) Wald chi-square (9, 2206) = 1136.94 Sargan chi-square (482) = 802.3 A-B test of AR(1) in residuals z = -24.03 of AR(2) = 2.94 |

*Results show the variable coefficient with the critical value below followed by p-value.

Table 10b. Relative Power, alternative equation (with real exchange rates)
Relpower = f{eregime, rxrat, xratrate, milper, energy, irst, gkon, ikon, ckon, tpop}

| Model | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|--|--|
| 1940-2001 | ERegime -0.0019872 (-0.83) (0.409) RXrat -5.09e-12 (-2.52) (0.012) Xratrate -1.62e-16 (-0.27) (0.789) F (10, 3433) = 6.75 R-sq. within = 0.0193 Between = 0.1268 Overall = 0.1333 Rho = .9347022 Bharagava DW = .34445371 Baltagi-Wu LBI = .68822365 | ERegime -0.0016978 (-0.68) (0.494) RXrat -4.49e-12 (-1.78) (0.076) Xratrate -1.10e-16 (-0.17) (0.862) F (11, 3120) = 3.29 R-squared = 0.0115 Rho = .9904706 DW (original) = 0.045000 DW (transformed) = 1.562074 | Eregime .0011801 (0.49) (0.622) RXrat -4.76e-12 (-2.78) (0.005) Xratrate 2.72e-16 (0.32) (0.746) Wald chi-square (6, 3046) = 5345.71 Sargan chi-square (1224) = 3210.28 A-B test of AR (1) in residuals z = -28.60 of AR(2) z = 2.96 |
| 1971-2001 | Eregime -0.0001281 (-0.04) (0.969) RXrat -6.02e-12 (-2.19) (0.028) Xratrate 3.56e-15 (0.21) (0.837) F (10, 2341) = 6.07 R-sq. within = 0.0253 Between = 0.1375 Overall = 0.1438 Rho = .88685014 Bharagava DW = .36994139 Baltagi-Wu LBI = .68369053 | Eregime -0.0015728 (-0.48) (0.630) RXrat -5.20e-12 (-1.84) (0.066) Xratrate 6.45e-15 (0.39) (0.695) F (10, 2209) = 3.33 R.sq = 0.0149 Rho = .9797746 DW (original) = 0.076442 DW (transformed) = 1.570665 | Eregime .0007361 (0.24) (0.808) RXrat -5.13e-12 (-2.61) (0.009) Xratrate -2.19e-14 (-1.19) (0.234) Wald chi-square (7, 2250) = 3296.91 Sargan chi-square (1034) = 2303.14 A-B test of AR(1) in residuals z = -26.15 of AR(2) z = 2.18 |
| 1990-2001 | ERegime -0.0021355 (-0.25) (0.800) Xrat -5.63e-12 (-1.26) (0.208) Xratrate 4.05e-07 (0.48) (0.634) F (10, 789) = 1.00 R-sq. within = 0.0125 Between = 0.1706 Overall = 0.1518 Rho = .77946853 Bharagava DW = .81286156 Baltagi-Wu LBI = 1.1438937 | Eregime -0.0022115 (-0.28) (0.782) Xrat -1.23e-12 (-0.24) (0.808) Xratrate 3.62e-07 (0.46) (0.648) F (10, 812) = 1.15 R.sq = 0.0140 Rho = .9542864 DW (original) = 0.318896 DW (transformed) = 1.606501 | Eregime .0073903 (0.91) (0.363) Xrat -3.75e-12 (-0.86) (0.388) Xratrate 3.42e-07 (0.45) (0.652) Wald chi-square (7, 875) = 846.11 Sargan chi-square (483) = 845.92 A-B test of AR(1) in residuals z = -19.07 of AR(2) = 2.81 |

*Results show the variable coefficient with the critical value below followed by p-value.

B. Tests on (real) Relative Military Expenditures

One important indicator that the exchange regime and exchange rate affect a state's capabilities is its effect on the two main factors of power—arms and income. Economists have already tested the effects on income. To my knowledge, no tests, however, have been conducted on arms. The tests were repeated with the United States and the Soviet Union removed from the data due to their outlier status in the Cold War nuclear arms race (the United States is also by far the richest economy), however the sign, direction and significance of the monetary variables generally remained the same. Thus the final results represent the full country list including the US and USSR/Russia. As it appears in the COW dataset, MILEX, represents a measure of military expenditures on an annual basis, in nominal terms. The deflator PPP from the Penn World Tables was applied in order to obtain real values (MILEX2). As noted above, the military personnel variable is very highly correlated with total population, thus only one of the two variables is included in the regression model. The same applies for energy and iron and steel production. MILEX2 however is only slightly correlated with RELMILEX2 (.1570) thus I add the total measure of real military expenditures, MILEX2, to control for weapons systems. An additional derived indicator was added to control for living in a dangerous neighborhood so to speak, that is, war or regional conflict, when a state is more likely to spend more on arms. This measure is expressed as AVMILEX2 the level of military expenditures on a regional average is moderately correlated to MILEX2 (0.3524) and slightly to relmiley2 (0.0190).

Table 11a: Relative Military Expenditures (with nominal exchange rates)
($Relmlex2 = f \{ergeime, xrat, xrtrate, military\ personnel, weapons, energy, iron\ \&steel, real\ GDP, regional\ conflict\ or\ war\}$)

| Model: | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|--|---|
| 1940-2001 | ERegime -0.0080457 (-1.68) (0.093) Xrat -0.0000828 (-5.75) (0.000) Xrtrate 6.64e-18 (0.05) (0.958) F (8, 3434) = 5.37 R-sq. within = 0.0124 Between = 0.000 Overall = 0.0012 Rho = .90996246 Bhargava DW = .32769108 Baltagi-Wu LBI = .56276889 | ERegime -0.0074388 (-1.50) (0.132) Xrat -0.0000778 (-5.20) (0.000) Xrtrate 9.67e-18 (0.08) (0.939) F (8, 3131) = 4.21 R.sq = 0.0106 Rho = .9870047 DW (original) = 0.063555 DW (transformed) = 1.530780 | Eregime -0.0128932 (-2.31) (0.021) Xrat -1.33e-06 (-0.12) (0.906) Xrtrate 5.34e-18 (0.03) (0.978) Wald chi-square (5, 3048) = 4964.77 Sargan chi-square (1224) = 2785.96 A-B test of AR(1) in residuals z = -26.62 of AR(2) = 0.45 |
| 1971-2001 | Eregime -0.0107356 (-1.75) (0.080) Xrat -0.0000869 (-5.39) (0.000) Xrtrate -7.44e-15 (-0.08) (0.937) F (8, 2348) = 5.14 R-sq. within = 0.0172 R-sq. between = 0.0196 R.sq. overall = 0.0118 Rho = .88347502 Bhargava DW = .36107597 Baltagi-Wu LBI = .64753027 | Eregime -0.0103937 (-1.67) (0.095) Xrat -0.0000741 (-4.42) (0.000) Xrtrate -1.17e-14 (-0.14) (0.889) F (8, 2214) = 3.92 R.sq = 0.0139 Rho = .9785553 DW (original) = 0.077359 DW (transformed) = 1.523204 | Eregime -0.0138283 (-2.06) (0.039) Xrat -5.94e-07 (-0.05) (0.963) Xrtrate 3.78e-15 (0.04) (0.965) Wald chi-square (5, 2260) = 3757.97 Sargan chi-square (1034) = 2085.50 A-B test of AR(1) in residuals z = -23.31 of AR(2) = 0.19 |
| 1990-2001 | ERegime -0.0032963 (-0.24) (0.814) Xrat -0.0001023 (-4.47) (0.000) Xrtrate -8.75e-08 (-0.04) (0.964) F (8, 790) = 2.86 R-sq. within = 0.0281 R-sq. between = 0.0080 R.sq. overall = 0.0072 Rho = .71482532 Bhargava DW = .62546584 Baltagi-Wu LBI = 1.0895246 | Eregime -0.0054494 (-0.40) (0.688) Xrat -0.0000701 (-3.05) (0.0002) Xrtrate -1.46e-07 (-0.07) (0.942) F (8, 815) = 1.49 R.sq = 0.0144 Rho = .9716545 DW (original) = 0.137894 DW (transformed) = 1.472232 | Eregime -0.0172133 (-1.14) (0.254) Xrat -0.0000258 (-1.36) (0.173) Xrtrate -7.88e-07 (-0.35) (0.725) Wald chi-square (7, 874) = 640.66 Sargan chi-square (483) = 770.93 A-B test of AR(1) in residuals z = -16.20 of AR(2) = 0.53 |

*Results show the variable coefficient with the critical value below followed by p-value.

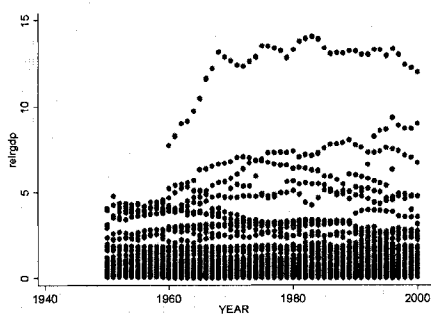
**Table 11b: Relative Military Expenditures (with real exchange rates)
(controlling for military personnel, weapons, energy, real GDP, regional
conflict/war)**

| Model | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|---|---|
| 1940-2001 | <p>ERegime -0.0050008 (-1.06) (0.291)</p> <p>Xrat -3.32e-11 (-2.70) (0.007)</p> <p>Xrtrate 3.38e-17 (0.03) (0.977)</p> <p>F (8, 3436) = 1.93 R-sq. within = 0.0045 Between = 0.0271 Overall = 0.0324 Rho = .931206045 Bharagava DW = .23467347 Baltagi-Wu LBI = .42914011</p> | <p>ERegime -0.0040768 (-0.90) (0.367)</p> <p>Xrat -3.08e-11 (-2.58) (0.010)</p> <p>Xrtrate 3.85e-17 (0.03) (0.973)</p> <p>F (8, 3125) = 1.68 R-squared = 0.0043 Rho = .9797586 DW (original) = 0.046665 DW (transformed) = 1.814568</p> | <p>Eregime -0.0006632 (-0.13) (0.895)</p> <p>Xrat -3.77e-11 (-2.83) (0.005)</p> <p>Xrtrate -4.70e-18 (-0.00) (0.998)</p> <p>Wald chi-square (4, 3051) = 4351.87 Sargan chi-square (1224) = 3398.05 A-B test of AR (1) in residuals z = -22.93 of AR(2) z = 0.14</p> |
| 1971-2001 | <p>Eregime -0.0067045 (-1.11) (0.026)</p> <p>Xrat -3.06e-11 (-2.23) (0.026)</p> <p>Xrtrate 9.56e-17 (0.00) (0.998)</p> <p>F (8, 2344) = 1.57 R-sq. within = 0.0053 Between = 0.0399 Overall = 0.0391 Rho = .91598448 Bharagava DW = .27352684 Baltagi-Wu LBI =</p> | <p>Eregime -0.0055613 (-0.99) (0.321)</p> <p>Xrat -3.13e-11 (-2.38) (0.017)</p> <p>Xrtrate -2.29e-16 (-0.01) (0.994)</p> <p>F (8, 2213) = 1.64 R.sq = 0.0059 Rho = .9746673 DW (original) = 0.058498 DW (transformed) = 1.817601</p> | <p>Eregime -0.0015568 (-0.26) (0.795)</p> <p>Xrat -3.60e-11 (-2.44) (0.015)</p> <p>Xrtrate -1.66e-15 (-0.04) (0.969)</p> <p>Wald chi-square (4, 2266) = 3393.06 Sargan chi-square (1034) = 2554.85 A-B test of AR(1) in residuals z = -20.01 of AR(2) z = 1.12</p> |
| 1990-2001 | <p>ERegime .0005607 (0.04) (0.967)</p> <p>Xrat -2.45e-11 (-1.27) (0.206)</p> <p>Xrtrate -1.28e-08 (-0.01) (0.993)</p> <p>F (8, 792) = 0.25 R-sq. within = 0.0025 Between = 0.0825 Overall = 0.0679 Rho = .83082365 Bharagava DW = .46312181 Baltagi-Wu LBI = 1.0080921</p> | <p>Eregime .0050189 (0.44) (0.659)</p> <p>Xrat -3.40e-11 (-2.04) (0.042)</p> <p>Xrtrate -2.49e-08 (-0.02) (0.983)</p> <p>F (8, 816) = 1.05 R.sq = 0.0102 Rho = .9607041 DW (original) = 0.087822 DW (transformed) = 1.930683</p> | <p>Eregime .0270357 (1.11) (0.035)</p> <p>Xrat -2.92e-11 (-1.62) (0.105)</p> <p>Xrtrate 6.97e-08 (0.05) (0.959)</p> <p>Wald chi-square (6, 880) = 491.19 Sargan chi-square (483) = 1030.54 A-B test of AR(1) in residuals z = -13 of AR(582) = 0.16</p> |

**Results show the variable coefficient with the critical value below followed by p-value.*

C. Tests on Relative National Income

This variable needed some transformation before it could be included in any regression models. Penn World Tables provides only gdp per capita measures (both real and current). Because our interest is in national income, and because military expenditures are tabulated in total, not per capita terms, real GDP per capita was multiplied by the total population variable from the COW data to produce an aggregate real national income, RGDP. Total population data is almost universally tabulated through the United Nations statistics and are thus largely uniform. A quick comparison of total population data presented by both COW and Penn World Tables showed this, providing satisfaction in using the COW population variable. As already expressed above, all aggregate demand components are very highly correlated to each other. Thus any estimation must be examined with reservation.



Relative real GDP by year

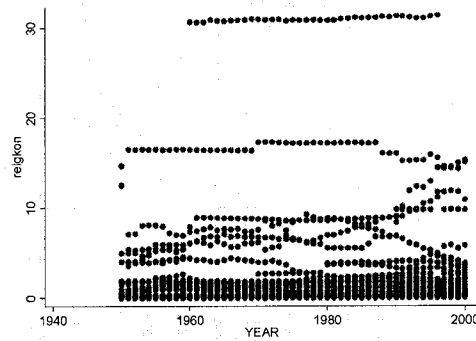
Table 12: Realtive Real GDP
RGDP = f{ eregime, xrat, xratrate, gkon, ikon, ckon, expk, impk, tpop}

| Model | RE GLS AR(1) (random effects) | Cochrane-Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|--|--|
| 1940-2001 | ERegime -0.0012393 (-1.09) (0.276) Xrat -4.35e-07 (-0.65) (0.513) Xratrate -1.12e-17 (-0.37) (0.714) Wald chi-square (10, 3822) = 30.92 R-sq. within = 0.0119 Between = 0.0429 Overall = 0.0426 Rho = .94679148 Bharagava DW = .36754219 Baltagi-Wu LBI = .92199111 | ERegime -0.0017297 (-1.55) (0.122) Xrat -4.47e-07 (-0.68) (0.499) Xratrate -1.20e-17 (-0.42) (0.678) F (9, 3297) = 11.33 R-squared = 0.300 Rho = 1.0084 DW (original) = 0.021391 DW (transformed) = 1.138461 | Eregime -0.0021638 (-2.06) (0.040) Xrat -5.88e-07 (-1.45) (0.147) Xratrate -1.57e-17 (-0.41) (0.679) Wald chi-square (4, 3236) = 7290.18 Sargan chi-square (1224) = 2940.27 A-B test of AR(1) in residuals z = -22.21 of AR(2) = 2.60 |
| 1971-2001 | Eregime -0.0014331 (-1.50) (0.133) Xrat -4.74e-07 (-0.94) (0.345) Xratrate 6.33e-14 (5.21) (0.000) Wald chi-square (10, 2654) = 16.84 R-sq. within = 0.0172 Between = 0.0328 Overall = 0.0380 Rho = .84561077 Bharagava DW = .41933259 Baltagi-Wu LBI = .75938974 | Eregime -0.0017047 (-1.83) (0.067) Xrat -4.73e-07 (-0.97) (0.332) Xratrate 5.07e-14 (4.10) (0.000) F (9, 2294) = 15.97 R.sq = 0.0590 Rho = .9984521 DW (original) = 0.026286 DW (transformed) = 1.619356 | Eregime -0.0007839 (-0.94) (0.347) Xrat -5.69e-07 (-1.88) (0.060) Xratrate 3.95e-14 (4.54) (0.000) Wald chi-square (4, 2366) = 2583.31 Sargan chi-square (1034) = 2684.05 A-B test of AR(1) in residuals z = -17.99 of AR(2) = 0.57 |
| 1990-2001 | ERegime -0.0028932 (-1.52) (0.129) Xrat -2.31e-07 (0.29) (0.769) Xratrate -6.22e-08 (-0.22) (0.822) Wald chi-square (10, 1076) = 5.05 R-sq. within = 0.0033 Between = 0.0356 Overall = 0.0433 Rho = .69303051 Bharagava DW = .70337806 Baltagi-Wu LBI = 1.3146151 | Eregime -0.0043022 (-2.41) (0.016) Xrat -5.36e-07 (-0.70) (0.485) Xratrate -6.26e-08 (-0.24) (0.808) F (9, 867) = 1.53 R-squared = 0.0156 Rho = .9914674 DW (original) = 0.037062 DW (transformed) = 1.568080 | ERegime -0.0043615 (-2.73) (0.006) Xrat 4.04e-08 (0.06) (0.950) Xratrate -5.71e-08 (-0.26) (0.797) Wald chi-square (5, 944) = 815.11 Sargan chi-square (483) = 1046.64 A-B test of AR(1) in residuals z = -11.58 of AR(2) = 2.74 |

*Results show the variable coefficient with the critical value below followed by p-value. Note: with Arellano-Bond two-step result eregime is negative and significant in all time periods.

D. Tests on Relative Government Expenditures

Government expenditures are tested because this variable appears independently of aggregate demand indicators in the derived power equation. Government expenditure (GKON) also shows a significant correlation with the power variable (.5720) and a small correlation with relative power (.1951). It is correlated with real military expenditures (.5717) as well as relative real military expenditures (.3540) and investment (.9767) and relative investment (.4507) but also accounts for fiscal policy effectiveness, or money at the state's disposal to do with as it wishes. This is not adequately accounted for simply by national income since it is partially the result of effective tax collection and foreign exchange reserves. The total value of government expenditures (GKON) is correlated with relative government expenditures (.4402) but less so than other variables allowing it to be included in the regression to control for fiscal policy. Tests on this variable were run with all countries included (i.e. superpowers were NOT removed).



Relative government expenditures by year

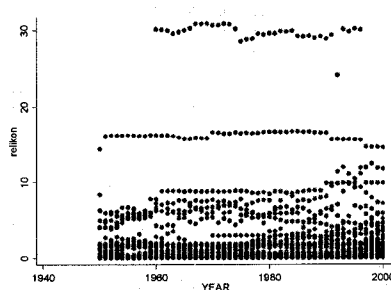
Table 13: Relative Government Spending
Relative government expenditures = f {gkon, impk, rgdp, tpop}

| Model | 1940-2001 | 1971-2001 | 1990-2001 |
|---|--|---|--|
| RE GLS AR(1) (random effects) | ERegime .0004805 (0.28) (0.778) | ERegime -0.000821 (-0.04) (0.971) | Eregime -0.000756 (-0.01) (0.989) |
| | Xrat -3.85e-06 (-4.34) (0.000) | Xrat -3.54e-06 (-3.46) (0.001) | Xrat -3.00e-06 (-1.57) (0.116) |
| | Xrtrate -2.50e-17 (-0.06) (0.955) | Xrtrate 7.84e-16 (0.07) (0.948) | Xrtrate 2.01e-08 (0.04) (0.970) |
| | Wald chi-square (9, 3826) = 22.78 R-sq. within = 0.0585 Between = 0.1834 Overall = 0.1854 Rho = .90876081 Bharagava DW = .27926784 Baltagi-Wu LBI = .52353823 | Wald chi-square (9, 2650) = 14.80 R-sq. within = 0.0328 Between = 0.1630 Overall = 0.1957 Rho = .89227299 Bhargava DW = .26585403 Baltagi-Wu LBI = .49587488 | Wald chi-square (9, 1077) = 2.68 R sq. within = 0.0027 Between = 0.1987 Overall = 0.1914 Rho = .79644466 Bhargava DW = .47333963 Baltagi-Wu LBI = .81644063 |
| Cochrane-Orcutt | Eregime -0.0002623 (-0.15) (0.882) | Eregime -0.0011045 (-0.49) (0.625) | Eregime -0.0019621 (-0.36) (0.717) |
| | Xrat -2.34e-06 (-2.50) (0.012) | Xrat -2.37e-06 (-2.22) (0.026) | Xrat 1.62e-06 (0.76) (0.448) |
| | Xrtrate -2.94e-17 (-0.06) (0.949) | Xrtrate 6.29e-16 (0.05) (0.957) | Xrtrate 3.67e-09 (0.01) (0.994) |
| | F (8,3289) = 7.34 R-squared = 0.0176 Rho = .9987666 DW (original) = 0.047726 DW (transformed) = 1.670449 | F (8,2290) = 5.51 R.sq = 0.0189 Rho = .9986816 DW (original) = 0.035315 DW (transformed) = 1.699535 | F (8, 863) = 3.39 R-squared = 0.0305 Rho = .9994176 DW (original) = 0.056954 DW (transformed) = 1.804020 |
| Arellano-Bond Lags (1) AR(2) (one-step results) | ERegime -0.0018844 (-1.08) (0.279) | Eregime -0.0032872 (-1.60) (0.109) | ERegime .0003329 (0.06) (0.949) |
| | Xrat -5.03e-07 (-0.97) (0.330) | Xrat -4.19e-07 (-0.75) (0.454) | Xrat 1.62e-06 (1.17) (0.240) |
| | Xrtrate 1.46e-17 (0.02) (0.983) | Xrtrate 6.99e-16 (0.05) (0.959) | Xrtrate -8.18e-08 (-0.15) (0.881) |
| | Wald chi-square (4, 3252) = 4233.21 Sargan chi-square (1224) = 3176.36 A-B test of AR (1) in residuals z = -20.26 Of AR(2) z = -0.18 | Wald chi-square (4, 2366) = 3561.60 Sargan chi-square (1034) = 2421.61 A-B test of AR(1) in residuals z = -19.65 Of AR(2) z = 0.47 | Wald chi-square (5, 943) = 1018.43 Sargan chi-square (483) = 945.21 A-B test of AR(1) in residuals z = -12.49 Of AR(2) = -0.37 |

*Results show the variable coefficient with the critical value below followed by p-value.

E. *Tests on Realtive Investment*

In the global compeititon for investment and capital monetary variables can matter a great deal. As an additional test of socialization (in addition to the currency union surveys), I examine the effects of the exchange regime and exchange rates on investment, an area where neither economics nor poitical science has significant analysis. In the tests on investment, I add the variable measuring the regional average of investment as a control for being in a “hot” region in order to control for the “herding effect” of financial flows described in chapter six. In addition, rather than real GDP, I control for government expenditures, consumption and total population. Tests on relative investment are also important for the relative power model because the correlation tables show a significant correlation of relative power (RELPOWER) with both total investment (0.3237) and relative investment (0.5004). The stronger correlation of relative investment to relative power indicates that for relative power, one’s share of investment is more important than absolute numbers. In fact, the correlations show that investment share is of nearly equal importance as relative military expenditures (.5397) to relative power. Thus additional tests on relative investment would make a valuable contribution bot to this study and the literature. Hausman test did not show consistent fixed effects by time period, however fixed effects did not change direction or significance of XRAT.



Relative investment by year

Table 14: Relative Investment
RelIKON= f{eregime, xrat, xratrate, avikon, gkon, ckon, expk, impk, tpop}

| Model | RE GLS AR(1) (random effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|---|---|
| 1940-2001 | ERegime -0.003896 (-2.05) (0.041) Xrat -2.32e-06 (-2.83) (0.005) Xratrate 3.94e-18 (0.02) (0.988) Wald chi-sq. (8, 3861) = 12.97 R-sq. within = 0.0349 Between = 0.2327 Overall = 0.2126 Rho = .86642252 Bharagava DW = .36840219 Baltagi-Wu LBI = .60469375 | ERegime -0.0043556 (-2.21) (0.027) Xrat -1.79e-03 (-1.93) (0.054) Xratrate -8.67e-18 (-0.03) (0.973) F (7, 3343) = 3.05 R-squared = 0.0063 Rho = .9932079 DW (original) = 0.026376 DW (transformed) = 1.917396 | Eregime -0.0098176 (-5.17) (0.000) Xrat -1.53e-06 (-2.94) (0.003) Xratrate -2.68e-17 (-0.05) (0.963) Wald chi-square (4, 3307) = 3355.37 Sargan chi-square (1224) = 3971.69 A-B test of AR(1) in residuals z = -20.01 Of AR(2) = -1.34 |
| 1971-2001 | Eregime -0.0048004 (-1.98) (0.048) Xrat -2.33e-06 (-2.55) (0.011) Xratrate 2.91e-16 (0.04) (0.969) Wald chi-sq. (8, 2673) = 11.63 R-sq. within = 0.0248 Between = 0.2079 Overall = 0.2259 Rho = .8437892 Bharagava DW = .40202818 Baltagi-Wu LBI = .65421018 | Eregime -0.0053121 (-2.14) (0.032) Xrat -1.75e-06 (-1.70) (0.089) Xratrate 3.23e-16 (0.05) (0.963) F (7, 2313) = 2.53 R.sq = 0.0076 Rho = .9933847 DW (original) = 0.033676 DW (transformed) = 1.976708 | Eregime -0.0107658 (-4.67) (0.000) Xrat -1.44e-06 (-2.39) (0.017) Xratrate 8.62e-16 (0.09) (0.931) Wald chi-square (4, 2386) = 2912.38 Sargan chi-square (1034) = 2562.47 A-B test of AR(1) in residuals z = -19.54 Of AR(2) = -1.61 |
| 1990-2001 | ERegime -0.0048533 (-0.89) (0.371) Xrat -4.18e-06 (-3.02) (0.003) Xratrate -1.11e-07 (-0.17) (0.865) Wald chi-sq. (8, 1081) = 10.48 R-sq. within = 0.0006 Between = 0.2359 Overall = 0.2296 Rho = .7010282 Bharagava DW = .65262796 Baltagi-Wu LBI = .89924306 | Eregime -0.0060756 (-1.08) (0.279) Xrat -3.06e-06 (-1.76) (0.078) Xratrate -1.22e-07 (-0.20) (0.844) F (7, 870) = 1.71 R.sq = 0.0136 Rho = .9855551 DW (original) = 0.152582 DW (transformed) = 1.911086 | ERegime -0.0071047 (-1.33) (0.185) Xrat -1.53e-06 (-1.23) (0.217) Xratrate -1.96e-07 (-0.39) (0.696) Wald chi-square (5, 953) = 754.73 Sargan chi-square (1224) = 3971.69 A-B test of AR(1) in residuals z = -20.01 Of AR(2) = -1.34 |

*Results show the variable coefficient with the critical value below followed by p-value.

F. Tests on GDP per capita relative to the United States

The variable *Y* is developed by the Penn World Tables as a measure of real gdp per capita relative to the United States. It is included here as a measure of relative capabilities versus the systemic hegemon. Because it is already expressed in real relative terms it does not require any additional manipulation. From the correlation tables, *Y* does not appear to have any relationship at all with the components of aggregate demand (*ikon*, *ckon*, *gkon*, *expk*, *impk*). It does however show a correlation with relative power (.1540), real GDP (.3596), relative investment (.1082), relative real GDP (.1738) and “democraticness” (.5799), and a very small but negative correlation with the nominal exchange rate (-.0146). This is quite interesting. It appears that catching up to the United States standard of living has more to do with a state’s share of investment rather than its total investment. And while total income is likely more important, relative income is also important, while a depreciating currency slows down the process. Relative income is also more correlated than any one variable of aggregate demand that can be affected by fiscal policy. This would seem to substantiate an emphasis on relative capabilities rather than absolute capabilities if a state wanted to approach the American standard of living. The regression tests for *Y* include relative power, relative real GDP, relative investment and “democraticness” (*POLITY2*), controlling for total population.

Table 15: GDP per capita relative to the United States
Y= {eregime, xrat, xratrate, relpower, relrgdp, relikon, polity2, tpop}

| Model | RE GLS AR(1) (random effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|---|---|--|
| 1940-2001 | ERegime -0.0329237 (-2.34) (0.019) Xrat -2.53e-06 (-0.48) (0.635) Xratrate -3.11e-15 (-0.87) (0.383) Wald chi-square (10, 3682) = 253.37 R-sq. within = 0.0694 Between = 0.1302 Overall = 0.1123 Rho = .96354257 Bhargava DW = .21731461 Baltagi-Wu LBI = .51467414 | Eregime -0.0262261 (-1.89) (0.059) Xrat -6.11e-07 (-0.11) (0.910) Xratrate -3.97e-15 (-1.11) (0.265) F (9, 3132) = 32.87 R-squared = 0.0863 Rho = 1.00274 DW (original) = 0.035323 DW (transformed) = 1.378401 | ERegime -0.0506352 (-3.81) (0.000) Xrat -4.24e-07 (-0.13) (0.897) Xratrate -3.11e-15 (-0.62) (0.532) Wald chi-square (9, 3105) = 6299.96 Sargan chi-square (1224) = 2671.88 A-B test of AR (1) in residuals z = -16.61 of AR(2) z = -4.30 |
| 1971-2001 | ERegime -0.0370214 (-2.38) (0.018) Xrat -2.03e-06 (-0.40) (0.687) Xratrate 2.37e-14 (0.29) (0.772) Wald chi-square (10, 2580) = 0.0788 R-sq. within = 0.0788 Between = 0.0942 Overall = 0.0831 Rho = .83071708 Bhargava DW = .23139325 Baltagi-Wu LBI = .48627329 | Eregime -0.0337435 (-2.19) (0.029) Xrat -8.36e-07 (-0.16) (0.874) Xratrate 3.08e-14 (0.40) (0.691) F (9, 2206) = 22.89 R.sq = 0.0854 Rho = .9980599 DW (original) = 0.033129 DW (transformed) = 1.359230 | Eregime -0.060345 (-4.33) (0.000) Xrat -4.11e-07 (-0.13) (0.895) Xratrate 4.92e-14 (0.47) (0.638) Wald chi-square (9, 2284) = 5662.10 Sargan chi-square (1034) = 2177.20 A-B test of AR(1) in residuals z = 13.71 of AR(2) z = -4.12 |
| 1990-2001 | Eregime -0.0039752 (-0.15) (0.877) Xrat -2.62e-06 (-0.56) (0.574) Xratrate 9.58e-08 (0.04) (0.971) Wald chi-square (10, 1029) = 79.44 R sq. within = 0.0193 Between = 0.1637 Overall = 0.1672 Rho = .83071708 Bhargava DW = .4059139 Baltagi-Wu LBI = 1.000234 | Eregime -0.0069723 (-0.32) (0.748) Xrat -1.80e-06 (-0.40) (0.691) Xratrate 7.10e-07 (0.33) (0.740) F (9, 811) = 7.62 R-squared = 0.0780 Rho = .9957792 DW (original) = 0.039258 DW (transformed) = 0.900226 | ERegime -0.034339 (-1.85) (0.065) Xrat -9.16e-07 (-0.39) (0.697) Xratrate 2.19e-06 (1.31) (0.191) Wald chi-square (10, 890) = 2005.36 Sargan chi-square (998.35) = -6.25 A-B test of AR(1) in residuals z = -6.25 of AR(2) = -4.04 |

*Results show the variable coefficient with the critical value below followed by p-value.

G. Tests on threat to political stability (“democraticness”)

To test the level of threat to political stability, according to the hypotheses developed in chapter five, I look at effects on “democraticness” from the Polity dataset; thus “democraticness” serves as a proxy for political stability. This is the only variable where the primary dependent variable is the original absolute value for the state, since what matters for national capability is one’s own political stability, not its political stability relative to others, which is secondary (i.e. more important not to be in chaos at all, not just less chaotic than your neighbour). Basic correlations showed a the strongest relationship between “democraticness: and GDP per capita relative to the United States (.5799) and average regional “democraticness” (.6798) followed by real GDP (.2468), regional conflict (.1949) and relative investment (.1857). The exchange regime shows a small correlation to “democraticness” (.1013) while the rate oc change of the exchange rate shows a negative but very small relationship (-.0131). In Table 16 “democraticness” was tested against the monetary variables controlling for real national income, real military expenditures and the GDP per capita relative to the United States.

Because POLITY2 and Eregime are the only two categorical variables in the dataset, a bivariate logit regression was conducted in addition to the models below. The isolated effect of a exchange regime on “democraticness” showed a substantial negative and significant relationship with increasing degrees of floating (-.055865)—that is, more floating means less “democratciness” or more political instability.

Table 16: "Democraticness" (POLITY2)
Polity2 = f{eregime, xrat, xrrate, y, rgdp, milex2}

| Model: | RE GLS AR(1) (fixed effects) | Cochrane Orcutt | Arellano-Bond Lags (1) AR(2) (one-step results) |
|-----------|--|--|--|
| 1940-2001 | ERegime -0.056177 (-0.35) (0.726) Xrat -0.000494 (-1.07) (0.286) Xrrate -9.95e-17 (-0.24) (0.814) F(6, 3444) = 0.75 R-sq. within = 0.0013 Between = 0.0041 Overall = 0.0041 Rho = .91198217 Bharagava DW = .29907764 Baltagi-Wu LBI = .48745799 | ERegime -0.0072291 (-0.45) (0.654) Xrat -0.000449 (-1.00) (0.317) Xrrate -9.28e-17 (-0.22) (0.822) F (6, 3142) = 1.29 R.sq = 0.0024 Rho = .9622297 DW (original) = 0.090671 DW (transformed) = 1.667896 | Eregime .0232242 (1.57) (0.116) Xrat 1.23e-06 (0.04) (0.972) Xrrate -2.20e-16 (-0.39) (0.699) Wald chi-square (5, 3124) = 2937.44 Sargan chi-square (1724) = 2411.09 A-B test of AR(1) in residuals z = -19.29 of AR(2) = -2.19 |
| 1971-2001 | Eregime -0.005812 (-0.30) (0.761) Xrat -0.000644 (-1.33) (0.183) Xrrate -1.62e-13 (-0.57) (0.572) F(6, 2346) = 0.68 R-sq. within = 0.0017 Between = 0.0002 Overall = 0.0005 Rho = .89948842 Bharagava DW = .31486983 Baltagi-Wu LBI = .5213596 | Eregime -0.0103356 (-0.55) (0.580) Xrat -0.000498 (-1.08) (0.281) Xrrate 3.86e-15 (0.02) (0.988) F (6, 2211) = 0.73 R.sq = 0.0020 Rho = .9566959 DW (original) = 0.097339 DW (transformed) = 1.627388 | Eregime .0207391 (1.27) (0.204) Xrat -0.00002 (-0.57) (0.570) Xrrate 3.68e-13 (1.94) (0.053) Wald chi-square (5, 2289) = 1971.82 Sargan chi-square (1334) = 1977.54 A-B test of AR(1) in residuals z = -15.90 of AR(2) = -1.53 |
| 1990-2001 | ERegime .0454137 (1.50) (0.135) Xrat -0.000721 (-1.51) (0.132) Xrrate 1.99e-07 (0.05) (0.961) F(6, 789) = 1.72 R-sq. within = 0.0129 Between = 0.3106 Overall = 0.2694 Rho = .74349564 Bharagava DW = .57592894 Baltagi-Wu LBI = 1.1366453 | Eregime .0283586 (0.99) (0.320) Xrat -0.000562 (-1.28) (0.202) Xrrate 1.68e-06 (0.42) (0.673) F (6, 814) = 0.53 R.sq = 0.0039 Rho = .9277775 DW (original) = 0.108024 DW (transformed) = 1.323137 | ERegime .0492599 (1.90) (0.057) Xrat -0.000479 (-1.30) (0.193) Xrrate 1.71e-06 (0.45) (0.652) Wald chi-square (6, 894) = 402.58 Sargan chi-square (593) = 793.26 A-B test of AR(1) in residuals z = -10.38 of AR(2) = 0.02 |

*Results show the variable coefficient with the critical value below followed by p-value.

IV. Concluding Remarks.

As expected from the simple power equation in an open economy, the exchange rate has a definite negative effect on relative power, reducing relative power as it rises (or as local currency loses value vis-à-vis the dollar). The exchange rate shows a consistent negative relationship with relative power whether tested controlling only for arms and money or tested using the expanded alternative model with more controlling variables. While this relationship is frequently not large, it is almost always significant. The results for the effect of exchange regime (i.e. Currency union to floating) is inconclusive, as it is sometimes negative and sometimes positive depending on the model used, time period tested and controlling variables. However, this variable is categorical, and is not embedded in the power equation, thus the inconclusive results are less problematic. It is not necessary for a state to enter into a monetary alliance, if it has the capabilities to protect itself it may choose to stand alone.

Checking the components of relative power, we see that real military expenditures also show a consistently negative and significant relationship to the exchange rate, albeit a small effect. Tests on national income are inconclusive, but this was expected given the multicollinearity among the variables. However, the test on GDP per capita relative to the United States shows a strong and significant negative relationship with the exchange regime. That is, increasing degrees of floating negatively affect the income differential with the USA, while increasing degrees of fixity and currency union positively contribute to closing the income gap. It would seem that if a state desired to “catch-up” to the United States controlling the stability and the level of the exchange rate would not be enough, it might need a monetary alliance. This result is all the more important since it is

the only relative capabilities test vis-à-vis the hegemon (all others being relative to the regional average). It is a clear indicator that economic balancing may pay real dividends.

The strongest negative effect is on relative investment, showing that monetary instability is very likely to cause a state to lose investment market share. One might then expect a state to seek to limit the effects of the exchange rate on investment if it cares about its share of capital flows. This result is in line with the theoretical discussion in chapter six on socialization and competition.

Another important effect is on government expenditures where the relationship with the exchange rate is large, negative and significant for six out of nine tests and negative and large (but not significant) for the remaining two of the three. This result is very important as government expenditures directly enter the simple power equation. The results would indicate a high probability that any negative exchange rate effects on power enter the equation through this variable by limiting the state's finances (possibly through a reduction in the value of local currency deposits and tax revenues).

Tests on "democraticness" showed an interesting strong negative of political stability with the rate of change of the exchange rate that was significant across multiple models and time periods with the exception of the last ten years where the relationship loses significance (but remains negative). Thus there is a distinct possibility of the exchange rate posing a threat to the state if it gets out of control, as in a financial crisis. A further threat to the functioning of the state is the likely effect on government expenditures.

The most unexpected result, however, is the effect of the exchange rate (both real and nominal) on military expenditures. Initially, it was supposed that monetary variables might have an impact on military expenditures as a result of their effect on national income (ie.

The wealthier buy more arms). But multiple estimations show that in fact, the exchange rate has a direct and significant effect on military expenditures. This has important implications for notions of power. To the extent that power is defined narrowly as military might, then a state has even more reason to pay attention to the price of their currency because the latter affects the former possibly in a big way. A stronger currency could buy more arms. A stable currency could ensure a stable flow of arms when needed.

“Money is not a price like the price of cabbage”, said Mundell. It affects a state’s ability to act, its relative standing, and its ability to compete for capital. It also has an unexpected effect on military expenditures. And if it falls into a crisis it can threaten the political stability of the society. The empirical results presented here are not those of an expert in statistical analysis. However, the consistently negative effects both substantiate the claims made by an application of structural theory to monetary affairs, and merit more attention by scholars.

Chapter Eight

Will there be more currency unions in the 21st century?

Survey Results from Latin America and Asia

The arguments presented in chapter six show that states are affected by a number of socializing selectors in international finance, perhaps more selectors than they face in international politics. The case studies examined showed evidence of varying degrees of socialization by these selectors. This chapter attempts to take the examination of socialization one step further by asking for the opinion primarily of one important set of selectors, domestic capital. In order to test the extent of socialization two original multi-country surveys were conducted; one for countries in Latin America, one for countries in Asia. The survey design, approval process, and collection was conducted over period of approximately two and a half years from October 2004 to March 2005, under the supervision and sponsorship of Professor Sharyn O'Halloran and the approval of Columbia's Human Subjects Study Protocol IRB AAAA6016 (Y1M00).

A cross-sectional survey was used to gather information on a random sample of international businesspersons in Latin America and Asia. Surveys were collected from a random selection of approximately 3,000 possible respondents per region providing approximately 350 responses from Latin America and a 5% margin of error at the 95% confidence level, and just under 200 responses from Asia and a 7% margin or error at the

95% confidence level.⁴⁴¹ The aggregate results are presented here with selected graphs.

A full graphical summary for each region is included in Appendix II.

I. Domestic capital as a state selector influencing the currency union outcome

Waltz argued that there are three possible levels of analysis from which one could explain political outcomes: the international system, the domestic state, or the individual. Waltz also argued that the demands of international system-level anarchy would supercede any influence that the other two levels might have. Thus analysis should focus exclusively on the “third image” or system level. As Cohen (2004, 432) explains, “Only in the 1980s did a small number of scholars begin to open up the black box.” Early examples included Gowa’s (1983) discussion of how domestic politics contributed to the Bretton Woods system, Odell’s (1982) analysis of domestic variables to explain US monetary policy, Destler and Henning’s (1989) consideration of how preferences and institutions interact to influence government policy and Cohen’s own (1986) study of the relationship between American banking and foreign policy. Domestic-level approaches and the system-domestic interaction approach advocated by Gourevitch (1978) are now the mainstream in international political economy. The “third image” or system level of analysis no longer dominates discussion. I have argued throughout that this is an anomaly. However, because second image arguments dominate the discussion it is worth considering to what extent they may be useful in falsifying the structural theory of currency unions presented in this dissertation.

⁴⁴¹ For a good discussion of survey research methods see Babbie 1973; Salant 1994; Dillman 2000; Presser et al 2004; and Kenyon *How to Put Questionnaires on the Internet* <http://salmon.psy.plym.ac.uk/mscprm/forms.htm>.

One might be inclined to deduce that a survey of domestic capital should indicate that a state is more likely to engage in a currency union if this important domestic constituency favors it. However, in order for such an argument to falsify a structural interpretation it might have to be noted that there were no relationship between the support (or not) of a monetary alliance by domestic capital and the relative capabilities of the state in which they were domiciled. Otherwise, if the outcome favored by domestic interests mirrored the one expected by a state's relative capabilities the theory is not only not falsified, but the argument could easily be made that domestic interests are shaped (or "socialized") by the relative capabilities of the state just as they are shaped by systemic factors, as Gourevitch (1978) pointed out. The familiar adage applied to politicians might apply here, that is, "where you stand depends on where you sit". This is in fact the general result observed by the surveys in both Latin America and Asia, with two interesting cases presented by Mexico and India.

1. Of mirrors and black boxes

A state is not an entity separate from its component parts or constituent agents. It comprises and is organized to serve those constituencies. Moreover, socialization in international economic affairs is filtered, not through the diplomatic circles where security issues develop and are addressed, but through the private sector. Firms, an influential constituency of every state, have two mechanisms for steering state action—direct political pressure through a number of channels (including media, scholarship, formal and informal lobbying and political contributions) and through capital inflows and outflows as businesses vote with their wallets. However, socializing pressures emanating

from the business sector does not simply represent internal state dynamics. Industry directly affects a state's position within the system. Because business is a part of the state, that which weakens a state's industry and infrastructure weakens the state. That which strengthens a state's industry and infrastructure strengthens the state.⁴⁴² As companies, or commercial sector selectors, see actions weakening it, they and the state become socialized into believing they are bad for it. Hirschman (1945, 1980) shows that behind the headlines and with little fanfare, the pattern of international economic relations affects domestic politics, which in turn shapes national interests, state action, and so systemic outcomes. This is more significant in asymmetric relations in which the effects on the smaller state can be quite considerable.

2. Ceteris paribus, the small and weak will seek alliances

Examining the second level of analysis, however, does not change the argument that the small and weak, relatively, will seek an alliance and their status will be reflected in or acknowledged by domestic interests. As early as 1972, Milton Friedman had argued that for a small country "the best policy would be to eschew the revenue from money creation, to unify its currency with the currency of a large, relatively stable developed country with which it has close economic relations, and to impose no barriers to the movement of money or prices, wages, and interest rates."⁴⁴³ Cohen (2004) concludes that higher degrees of monetary regionalization are more likely where states are small, economic and political linkages are strong, and where domestic politics is heavily

⁴⁴² The idea is not unlike the famous phrase, "What's good for General Motors is good for America".

⁴⁴³ Friedman 1972, 59.

influenced by tradable goods producers and financial interests. Whether the domestic influence of industry and capital may depend on the channels available for such influence is a discussion reserved for future analysis. For our purposes, however, this does not negate the result that the attitudes of domestic industry and capital to currency union correspond to the relative capabilities of their country. Those in a position of influence have been socialized into a preference for or against a currency union based on their state's relative capabilities. This is at least one indication that socialization exists in international finance as it does in international politics. Cohen (2004, 55) notes: "One safe bet, *ceteris paribus*, is that the smaller an economy's size—whether measured by population, territory, or GDP—the greater is the probability that it will be prepared to surrender the privilege of producing a money of its own."

3. Existing surveys and noted public opinion

A few surveys have begun to gauge public opinion on future currency unions in other parts of the world, while the international press offers an on-going tally of official public opinion in the form of quotes by prominent figures on the subject. For example, a May 1999 opinion poll in Mexico, querying public attitudes on currency choice asked whether Mexicans would like to see the dollar used freely throughout the economy. Some 86% answered in the affirmative. Yet when asked if Mexico should dollarize formally, eliminating the peso, an overwhelming majority declared opposition.⁴⁴⁴ At the end of 2001, according to a major opinion survey (Centre for Research and Information on Canada 2002), about 55% of Canadians favored a monetary union of some kind with the United States. In a 2002 survey of Americans overwhelmingly (84%) rejected the idea of

⁴⁴⁴ New York Times 16 May 1999.

a new common currency for North America.⁴⁴⁵ In New Zealand, a survey of some four hundred local business firms found nearly 60%—three of five—in favor of a monetary union with Australia, with only 14% against. Opinion polls show a majority of the general public also backing an alliance strategy.⁴⁴⁶

Public officials in both Latin America and Asia are on record with favorable opinions regarding new currency unions in their regions. Not surprisingly from a structural perspective, it is typically the leaders of relatively small that favor a monetary alliance, and the relatively large states that oppose or hesitate. New Zealand's Helen Clark, reversing her long-standing opposition declared in 2000, "If the largest countries in Europe see benefit in a currency merger, what is so sacrosanct about the currency of a country with 3.8 million people? It might be one of those things that becomes inevitable as we have a closer economic integration with Australia."⁴⁴⁷ Joseph Yam, head of Hong Kong's monetary authority in early 1999, called for an Asian monetary union to make the region less vulnerable to speculative attacks. "The time may come," he asserted, "when we may want to consider the possibility of our Asian currency."⁴⁴⁸ Carlos Menem, raised the possibility of a common currency for Mercosur as early as April 1997, two years prior to advocating official dollarization.⁴⁴⁹

⁴⁴⁵ Cohen 2004, 165 cites Robson and Laidler 2002, 25.

⁴⁴⁶ Cohen 2004, 161 cites Grimes and Holmes 2000 and *the Dominion* (Wellington) 20 September 2000.

⁴⁴⁷ As quoted in the *International Herald Tribune* 19 September 2000.

⁴⁴⁸ As quoted in the *Financial Times* 6 January 1999.

⁴⁴⁹ Cohen 2004, 172 cites Giambiagi 1999, 61 and further argues "It was only when his proposal received a frosty reception from the Brazilian government, then headed by President Fernando Cardoso, that he chose to switch the spotlight to dollarization instead."

Though initially opposed, Brazil has reconsidered a regional monetary union, especially since calls for official dollarization were debated throughout the region at the turn of the millennium, and implemented by Ecuador and El Salvador. By the end of 1999, as Menem called for Argentina's official dollarization, Brazil's President Cardoso had publicly warmed to the idea of a regional currency for Mercosur, saying, "it takes some time to realize just how...important it is".⁴⁵⁰ A year later, Cardoso's finance minister, Pedro Malan, was quoted as saying, "A single non-dollar currency for [Mercosur] is within our dreams."⁴⁵¹ And Cardoso's newfound enthusiasm was echoed in turn by his successor, Luiz Inacio Lula da Silva, following presidential elections in late 2002.⁴⁵² The long-term goal of a joint currency is now regularly endorsed at Mercosur meetings. According to Brazil's Central Bank president Arminio Frago, "Not dollarizing keeps the possibility of a common currency alive."⁴⁵³ However, public opinion is not all positive, while the negativity is rooted in nationalism. As Cohen (2004, 164) notes, "In most parts of the world abandonment of national money, no matter how uncompetitive, would be widely seen as something akin to military defeat—a severe blow to national self-esteem.... In Latin America, even dollarization enthusiasts acknowledge the resentment that could greet adoption of a currency featuring Founding Fathers and past presidents of the great colossus to the north." But neither was public opinion overwhelmingly in favor of the euro. As the Archbishop of Canterbury, a determined foe of British membership in Europe's EMU, insisted, "That point about national identity is a

⁴⁵⁰ As quoted in the *Financial Times* 10 November 1999.

⁴⁵¹ As quoted by Reuters 9 May 2000.

⁴⁵² *The New York Times* 3 December 2002.

⁴⁵³ As quoted in *The New York Times* 10 January 2002.

very important one. For me, being British is deeply important. I don't want to become French or German.... I want the Queen's head on the banknotes".⁴⁵⁴ What Europeans were in favor of was a European currency to balance against the dollar. According to a 1985 Eurobarometer survey on what would be the greatest benefit from making use of the ecu, 36% of respondents (the highest percentage) ranked "support the economy of Europe in the face of the dollar" as their number one reason, 26% answered "to make foreign travel more economical", and 24% answered "symbolic for the unity of Europe." In the same survey, when asked whether the ecu could one day match the dollar in international trade, 55% said yes and only 34% said no. The strong views either opposed or in favor, by the public or by public officials offer an indication that additional research in this area might be fruitful, indeed necessary.

II. Survey Design

Before EMU was embedded in a treaty and formal process, the European Commission conducted at least three large surveys of public opinion in member states, asking the public how they might view a single European currency. A few such surveys have been conducted in Spanish by the media and chambers of commerce in some countries in Latin America on the issue of dollarization (such as the Mexican Chamber of Commerce, for example). However, no organized cross-country survey has been conducted in Latin America. A similar study is also lacking in Asia, where not only is a cross-country comparison missing, but also small-scale surveys in most individual

⁴⁵⁴ As quoted by Goodhart 1995, 455 and cited in Cohen 2004, 129.

countries are missing (with the notable exception of Australia and New Zealand). This is a significant deficiency given the consideration that public officials in both regions are giving to the idea of official dollarization or a regional currency union, respectively. The surveys presented here begin to fill that gap.

1. The survey questions

The questions for each survey were designed based on the European Commission questionnaires that were available, and further developed based on the hypotheses examined in previous chapters of this dissertation. Specifically, I asked questions on 1) whether respondents supported a regional currency union, dollarization, or some other form of monetary alliance; 2) whether they expected a currency union to benefit the national economy (i.e. add to national capabilities) in various macroeconomic indicators; and 3) whether they expected a currency union to protect against monetary crises (i.e. threat); and whether their own business might benefit through more opportunities for trade (as expected by the empirical evidence presented by Rose, et al) or access to capital. To take into account issues of sovereignty and nationalism, I asked whether a national currency was a symbol of national pride and whether they favored its elimination. To examine differences in opinions among large and small firms, and right or left political affiliation, and level of education, I asked questions on the background of the respondents in these areas. Considering that those who might have studied at American universities might have been swayed by epistemic communities in politics and economics dominant in America, I asked whether and at what level they had studied in the United States. Considering that the decision to adopt a currency union is a political decision for which

politicians will be held responsible by the public or elites who support their office, I asked whether respondents would vote for a candidate that supported dollarization or currency union. Finally, recognizing that I cannot ask all possible questions in one short survey, I added an open-ended question encouraging respondents to provide any comments they had on the subject.

The careful observer might note that there seems to be a mismatch between the currency unions studied in the rest of the dissertation and the monetary union language in the surveys. In chapter one I defined a currency union as the final stage of a monetary integration continuum and indicated that that is the form of monetary alliance being addressed here. In the surveys I refer to “monetary union” rather than “currency union”. The change in terminology takes place in order to make the questions clearer to the respondents. In colloquial terms, currency union and monetary union are often used interchangeably and interpreted to mean the same thing. Because monetary union is the more recognizable term given the existing European monetary union, it allows the respondent to more easily recognize the term and understand the concept. For consistency, I explain in the accompanying letter to potential respondents and in the opening paragraph of the electronic survey itself, that what is meant by monetary union is the single currency monetary union undertaken in the European Union with the euro.

2. The survey structure

The survey structure underwent two major revisions. The survey was initially structured as a mail survey. However, when an initial mailing produced extremely low responses, an electronic version was adapted using the SurveyMonkey internet survey

program which allowed tracking of respondents via their email address and required an opt-out link. The electronic survey link was sent with a cover letter via email and a text format of the survey was included in the body of the email allowing respondents to reply via return email, fax, mail or electronically. All replied via email or electronically—no hard copies were returned. I translated the questionnaire into Spanish following such a request by one respondent to an early English language version (one Brazilian respondent also requested it in Portuguese, however given language limitations this was not possible). The survey was sent to all Asian respondents in English only.

3. The population sample surveyed

The survey was sent to one of the socializing agents identified in chapter six — domestic capital. Business leaders from firms of all sizes and all industries from the manufacturing, trade, service, agricultural and financial sectors were included. A smaller proportion of academics, non-profits and government representatives were also included. Although this was essentially a targeted public opinion poll, the respondents were both in a position to be informed as to which monetary arrangement would augment the nation's (and their own) relative capabilities and in a position to influence the outcome through various forms of lobbying efforts. Thus their opinion is a valuable indicator of the extent of socialization of a state in this area of international monetary affair. It is also an indicator of the likelihood of a state in the region considering a monetary alliance based on this domestic socializing selector.

Scholars have noted the unique channels of influence in monetary affairs of specific groups, such as the one targeted for this survey. Currency union can be

influenced primarily if not entirely by the interested parties since as Helleiner (1994) pointed out, finance is not usually an issue with the public given its technical complexity. Henning (2006, 123 citing himself 1994) noted the privileged position of the traded sector in influencing monetary policy. The political power of traded and non-traded sectors is in fact not equal. Firms and workers in the traded-goods sector feel the effects of monetary outcomes with greater intensity than those in the non-traded sector. Differences in the stronger organization of firms and workers for political action in the traded sector may provide it more sway over monetary policy than the non-traded sector. “Manufacturing constitutes a large share of the traded sector and is often well-represented in the policy process”, notes Henning (2006, 123). “Its general dominance of trade also imparts greater homogeneity of interests to that sector compared to the non-traded sector. Critically, moreover, the links between manufacturing and the banking system in bank-dominated systems consolidate the interests of the two sectors and confer access to government financial agencies that determine exchange-rate policy.”⁴⁵⁵ Thus surveying the opinions of firms in the traded sector is highly relevant in considering whether states will consider new monetary alliances in Latin America and Asia.

a. Sample limitations

One significant limitation of the study is that certain larger countries tended to have more respondents that have skewed the overall picture. For this reason, an examination of country specific results is necessary. Another limitation is the education level of the respondents tends to be high, college or graduate level, which provides good

⁴⁵⁵ See also Frieden 1991 and Broz and Frieden 2001 for excellent arguments on how domestic politics affects monetary policy and exchange rate arrangements.

feedback on what the level of socialization of the decision-making elites, but provides no indication of how a monetary alliance might be viewed by the broader voting public. However, since the purpose of this test is to determine effects of socialization by looking at one socializing agent, and not domestic politics, this limitation is less worrisome to our purpose. Finally, in Asia, significantly higher response rates are observed in those countries where English is more widely spoken. Language barriers limit response rates in some countries, but this can be corrected with future translations into Japanese, Korean, Chinese and Portugese. These limitations indicate that further refining of the results need to be conducted for a final determination on the probability of particular monetary outcomes in those regions in the 21rst century. However based on the principles of random survey sampling, the preliminary results presented here are a good indication of the overall sample universe, and proide a good early picture regarding the subject. The results indicate strong need for further study by both Western and Eastern scholars, particularly on the subject of an Asian monetary union.

III.Database selection

All nations surveyed were from data formerly available from the U.S. Department of Commerce National Trade DataBanak and the formerly available Foreign Traders Index (FTI). In total, the U.S. Department of Commerce datasources represent over 20,000 entries from 187 countries. Mailing lists selected a random sample of possible respondents from all business sizes (from under \$100,000 to over \$100 million) all

industries, and all methods of organization (manufacturers, importers, service providers) as well as some government officials and academics.

1. Latin America

The survey on Dollarization in Latin America was conducted in all countries of Central and South America, Mexico and the Dominican Republic. The nations of the Caribbean were excluded due to existing regional arrangements with the Eastern Caribbean Currency Union, as well as the general weakness in email lists from the same dataset for the area. The Dominican Republic was included due to its participation in the CAFTA-DR free trade agreement with the United States, its exclusion from the ECCU and the relatively healthy sample size of email addresses from the same dataset.

The purpose of the survey was to examine the extent to which commercial interests in Latin America considered a new regional monetary union or further dollarization as favorable to business, along the lines of surveys conducted in the European Union prior to EMU. Because domestic commercial interests are one important source of socialization (they themselves having been 'socialized' by the global economic environment), their response would be an indicator of the extent of socialization towards currency union in the region. For Latin America, dollarization was used as the main frame of reference for most questions as this is the primary (if not exclusive) form of currency union that has been seriously studied, proposed and implemented in the Western Hemisphere.

The survey for Latin America underwent several variations. Following a very low response rate to the paper survey in english, an electronic version was created. In

response to survey participants' requests for a Spanish version, a Spanish translation was created for the electronic format. Using the second email list beginning in June 2006, an additional question was asked as to whether participants believed a regional currency union would protect their country from future monetary crises. The question was added following development of the hypotheses in Chapter four on threat and survival. Finally, in response to some Brazilian respondents request for a Portuguese or English version (since they do not speak Spanish!), a revised electronic English version was prepared and sent only to Brazilian participants in the second round (including the new added question on monetary crisis). All electronic surveys where sent with the option of answering via web link, or via return email with the survey questions attached in the solicitation email text. The 2005 electronic survey was conducted without tracking the respondents by email identity; the 2006 electronic survey tracked the respondents by email identity. Many respondents replied via return email. These were entered into the web links manually to tabulate statistical data on all responses.

2. Asia

The survey on Asian Monetary Union was added as an amendment to the original survey protocol in June 2006 in order to take into account changes in the economics literature that showed significant rise in studies in favor of a monetary union for Asia. For the purpose of the dissertation, the Asian monetary union survey also serves as a framework for comparing the similarities and differences in socialization pressures as presented by the perceptions of domestic commercial interests in two emerging currency areas—Latin America and East Asia. Three separate sets of mailing lists where

prepared—one for East Asia excluding China/HK, one only composed of China/HK, and one only composed of India/Pakistan. The reason for this is that discussions of monetary union in Asia have focused around ASEAN plus Korea and Japan, with several initiatives coming from Japan. It is understood that China can and should play a key role in Asian monetary integration, however several analysts have commented how Japanese initiatives are motivated by an attempt to balance against growing Chinese financial power as much as American financial power in the region. Moreover, literature and news articles from the region show an ambivalence of a monetary union centered on China due to its size, state-planned economic system, capital controls and notorious hard peg to the U.S. dollar. Nevertheless the size of China alone warrants it special examination. India and Pakistan were run independently largely because of the subcontinent's absence from Asian monetary talks and initiatives, despite some academics clamoring for a more proactive approach. The generally closed nature of the Indian economy prohibits it from playing a truly regional role. Nevertheless, the sheer size of the subcontinent mandates an examination of local opinion on the matter. Pakistan has been entirely absent from the policy dialogue; however, diplomatic protocol demands the inclusion of Pakistan on any study of Asia that also includes India.

COUNTRY LIST LATIN AMERICA SURVEY: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela.

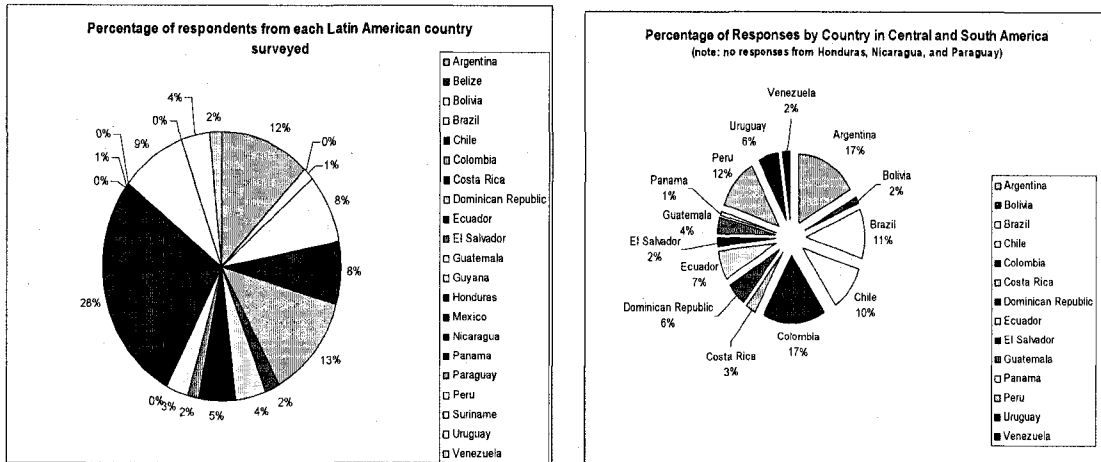


Figure 5: Countries in Latin America Survey

COUNTRY LIST ASIA SURVEY: Australia, Bangladesh, Cambodia, China, China (Hong Kong), China (Taiwan), India, Indonesia, Japan, Korea (South), Laos, Malaysia, New Zealand, Pakistan, Philippines, Singapore, Thailand, Vietnam.

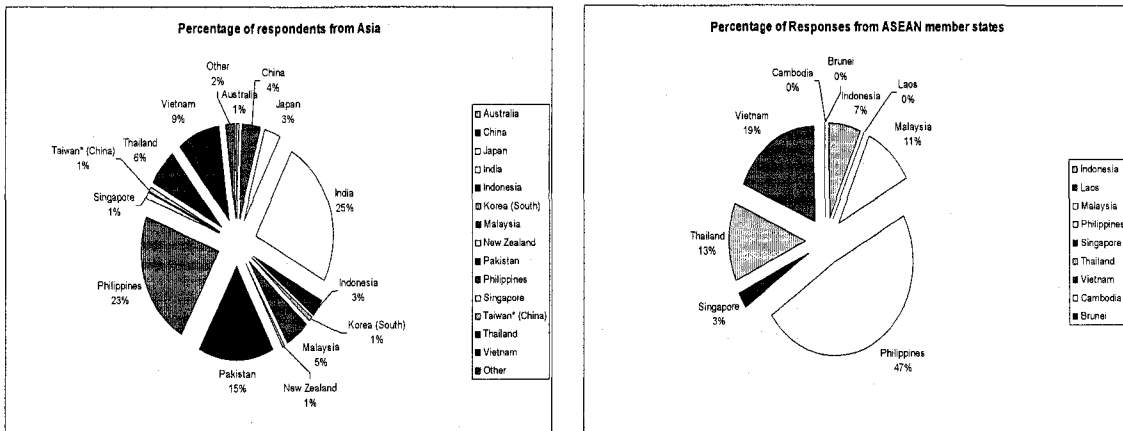


Figure 6: Countries in Asia Survey

IV. Survey Results: Latin America

Based on the theory of international monetary alliances developed in this dissertation, one might expect relatively small and financially weak countries to be more likely to enter into a monetary alliance. The smallest and the weakest might find that their relative capabilities are better augmented by joining with a powerful state, those with the capacity to stand alone or with other middling powers may prefer a regional balancing alliance, those relatively strongest and able to stand alone will prefer to do so. In monetary terms, one might expect the smallest and the weakest to favor dollarization, relatively middle-income Latin American states to prefer a regional currency, and larger and richer states with the most relative capabilities to prefer to stand alone. This is borne out by the survey data conducted for this dissertation, with some exceptions—few middle income states in Latin America showed a preference for a regional currency. This may have more to do with the weakness of Latin American regional institutions and the lack of confidence in local monetary institutions, of one's own nation as well as those of neighbors, than with nationalism, (even though nationalism runs high). For the most part, however, the theory has striking predictive power: rich Brazil is the most opposed to dollarization, small and weak Bolivia and Dominican Republic are the most in favor (up to 100%!), while Argentina shows a distinct preference for a regional currency. Mexico, with the most respondents of any country, actually increases the favorable results for dollarization, with the exception of questions related to nationalism. This initially is surprising since Mexico is one the the three largest economies in Latin America. However, given its geographical proximity and economic ties to the United States, its

frame of reference is north to America not south to its relatively poor neighbours in Central America or the richer but distant Brazil or Chile. When compared to the United States, Mexico has relatively weak capabilities, but much more to gain from a currency union with the dollar. Mexico would gain little from a monetary alliance with its weak southern neighbours or the richer but distant Latin American states with whom it trade relatively little.

1. Overall responses on dollarization

Overall, Latin America is split in their support of dollarization, with a slight majority in opposition. With results from 13 Central and South American countries (results from Venezuela could not be used, and Mexico was surveyed separately), 44% said they do not support dollarization (versus 47% of Mexicans); 16% said it needs consideration; 37% said they support it. A larger majority of 57%, do not support eliminating the national currency, 27% said they do support eliminating the national currency and 14% said it needs consideration, while only 1% said the did not know. In a later question, when asked which option would most benefit their company in the long run, 36% of respondents said maintaining the national currency, 42% said dollarization, while 22% said a regional currency (for example, a Mercosur currency or an Andean Group currency) but 50% of Mexicans chose dollarization as their preferred monetary outcome.

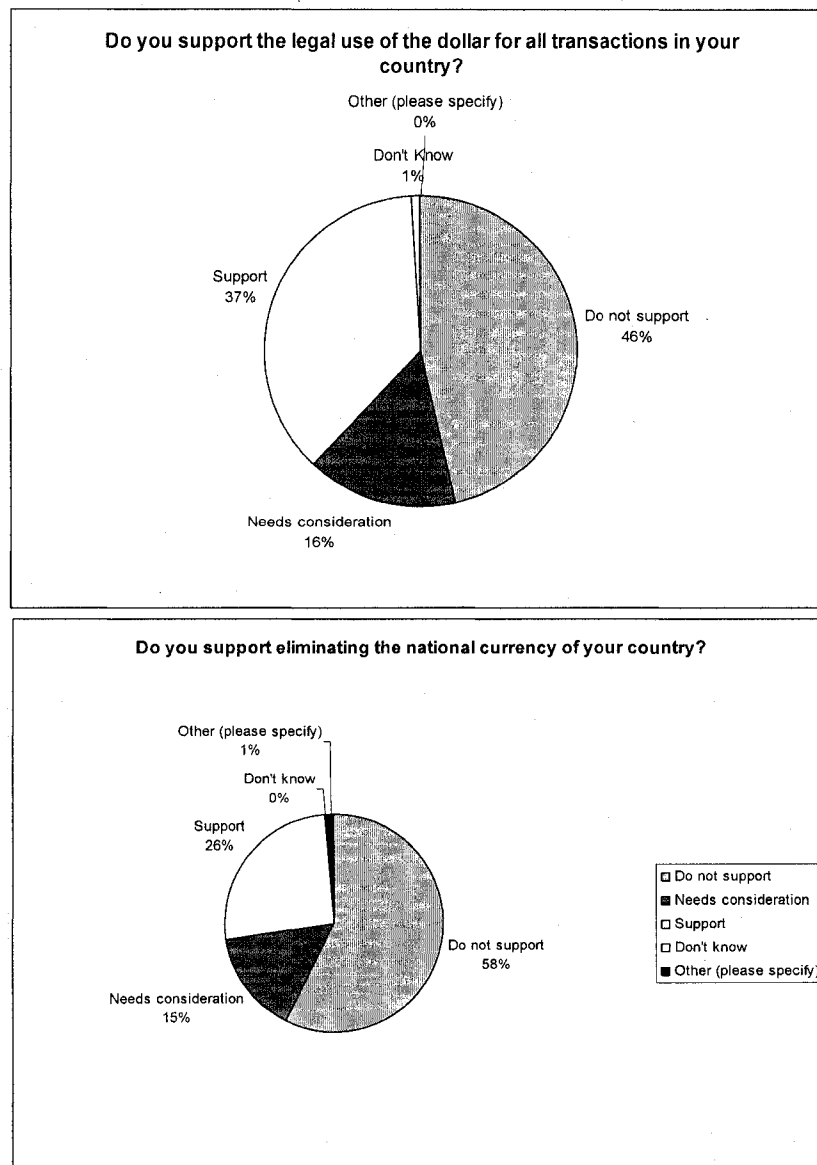


Figure 7—Attitudes Towards Dollarization (aggregate results for all Latin America)

2. Effect on macroeconomy and economic integration

Central and South Americans did not believe that dollarization would have a positive economic effect, in general, although as with other countries, responses to specific questions showed understanding that dollarization could have positive economic impact on a number of issues related to international trade and investment. A majority of

59.1% of respondents did not believe dollarization would produce great economic development; 25.1% believed that it would, 8.8% did not know and 7% chose 'other'. However, in a later question, 17% believed that dollarization would produce a negative effect on economic growth, 26% believed it would have no effect on growth, 31% believed there would be a positive effect on growth and only 13% answered that dollarization would bring notable growth and prosperity to their country while 7% answered that they did not know what the effect might be on economic growth. The figures show much more positive expectations for Mexico where 41% of respondents expect a positive impact on economic growth.

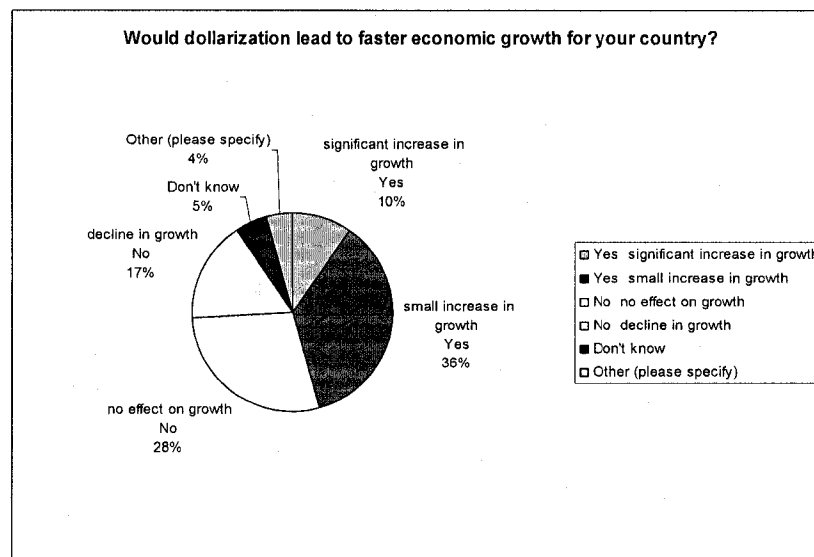


Figure 8. Dollarization and Economic Growth (aggregate Results All Latin America)

Most Central and South American respondents, 54%, believed that dollarization would contribute to economic integration with the United States (versus 63% for Mexico); 33% thought it would not; and 11% did not know. Fewer respondents, or 42%,

believed that dollarization would contribute to regional integration within Latin free trade areas such as Mercosur, the Andean Group, the Central American Common Market, or the Caribbean Common Market (versus 58% for Mexico); 32% felt it would have no effect on regional integration; and 20% found that it would actually decrease regional integration. In a later question, 44% said a single currency would complement a Free Trade Area of the Americas (versus 66% for Mexico), while 36% said it would not. Only 28.9% of all respondents in Central and South America felt that dollarization would increase their country's exports but 56.9% felt it would increase their imports; 53.2% said dollarization would not increase exports while a much smaller number, 29.3% said it would not increase imports; 15% were unsure about the effect on exports (2.9% chose 'other') while 12.1% were unsure about the effect on imports (1.7% chose 'other'). The results clearly indicate that respondents see an adverse effect on the trade balance with dollarization.

3. Effect on investment and access to capital

Despite the anticipated adverse effect on the trade balance, more respondents, 49%, anticipated that dollarization would bring more investment from the United States while slightly fewer, or 44%, believed it would lead to more investment in their country in general; 29% did not believe there would be increased investment from the United States while 37% did not believe it would lead to more investment in general; 17% were unsure what effect dollarization would have on investment from the United States, while 16% were unsure what effect dollarization would have in general. Mexicans were more optimistic, with 57% expecting more American investment and 54% expecting more

investment overall. Thus even though support for dollarization is only moderate, many more would expect dollarization to increase investment in the region, especially from the United States. A little over one third, 35.5%, of all respondents believed dollarization would increase their possibilities of obtaining commercial capital; 45.9% thought it would have no effect; and 15.7% thought dollarization would decrease their chances of obtaining capital for their business, while 2.9% responded 'other'. Mexicans were also more positive on the effect dollarization would have on their ability to raise capital—more than half expected an increase and only 5% believed dollarization would actually decrease their credit.

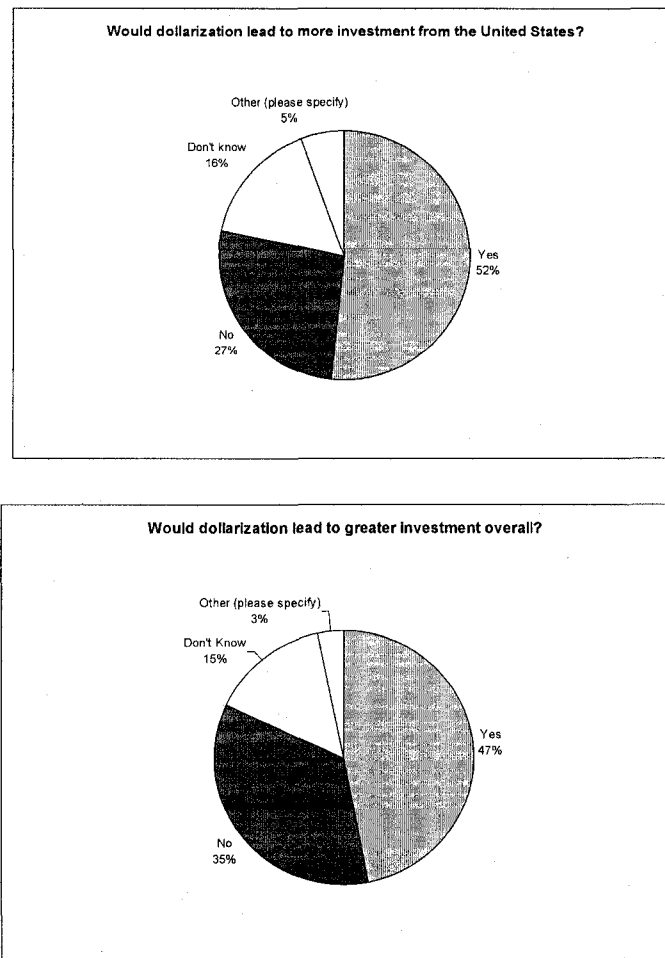


Figure 9. Dollarization and Investment (aggregate results for all Latin America)

4. Nationalism, and protection from monetary crises

Nationalism runs high in Latin America, at least where it comes in the face of the U.S. greenback. But not as much as might be expected, with lower nationalist attachment to the country's currency than in Asia and over a third of respondents not attached at all. A majority of 55.2% of all respondents answered that maintaining a national currency was a symbol of sovereignty and national pride; 35.1% said it was not, 3.4% did not know (and 6.3% chose 'other'). However, in a following question, several countries showed a preference for dollarization even though they agreed that a national currency was a symbol of pride and sovereignty. Even those against dollarization agreed that Latin America needs a single currency for economic integration, despite feelings of nationalism. One Mexican respondent put it this way: "For business its 100% better to have a single currency for trade among Latin American countries." Another noted, "It would be excellent for Mexico to at least share a single currency with the U.S., most of Mexico's exports are to the USA. Unfortunately popular opinion is ignorant and doesn't see it that way but as an insult to national sovereignty. I believe if citizens had full information they could debate the subject and see a more complete reality." Not only national pride but also fear of dependency was clear in many negative responses. For example, one Mexican respondent who was strongly against dollarization explained his position this way: "The progress of a nation is won by the efforts of its citizens not by instruments of commerce...in every country we need to achieve the conditions for conserving custom and be capable of generating wealth." Another said, "dollarization is a great dependence, and my country could no longer make economic decisions" while it the extent of protection from a monetary crisis "would depend on the USA who takes care of

its interests not Mexico's."⁴⁵⁶ His preference, however, was not for maintaining the peso, but for a regional currency.

An overwhelming majority also expected dollarization to protect the country from future monetary crises at least partially. Less than a quarter of respondents in any country answered that dollarization would not offer any protection from monetary crises. From a detailed review of the individual survey responses, it is noteworthy that in most cases, even those respondents who did not support dollarization and did not believe it would add to any macroeconomic indicators still believed that it would at least partially protect the country from future monetary crises. The same result is true for many respondents who found a national currency to be a symbol of pride and sovereignty.

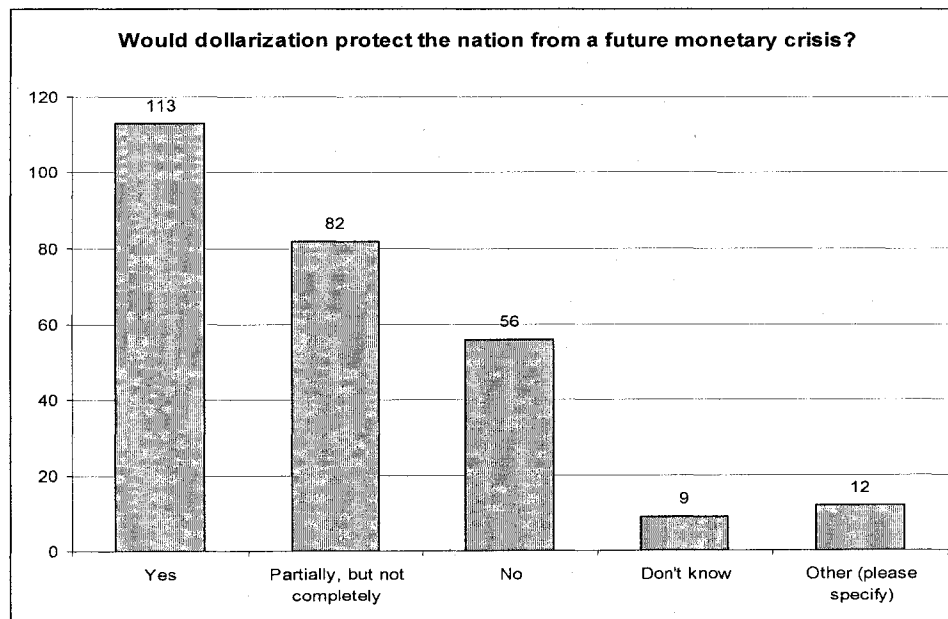


Figure 10. Dollarization and Monetary Crises (aggregate results all Latin America)

⁴⁵⁶ Interestingly, this particular respondent indicated being with a relatively large company of \$20-100 million in annual sales, had a doctorate and was educated in America.

5. Business background of respondents

Of all Latin American respondents, 79% were involved in international business, 9% were involved only in national business, and 11% were in the public sector (academia, government, etc.). These were for the most part small businesses, with 13% with annual sales below \$100,000, 33.5% indicating annual sales of \$100,000 to \$1 million, 26.1% with sales of \$1 million to \$5 million, 6.2% with sales of \$5-20 million, 6.2% with sales of \$20-100 million and 8.1% with sales over \$100 million. Of all respondents, 60% said they invoice in U.S. dollars, 2% said they invoice in euro, 15% said they invoice in other hard currency or more than one hard currency, while 23% did not invoice in hard currency (none responded that they invoice in yen alone). Of all respondents, 21% said transactions costs associated with exchange rates were very costly to their business, 42% said they were relatively costly while 17% said they were not costly because all their business was invoiced in dollars, only 6% said exchange was not costly because all business was conducted in national currency indicating that even about a third of those respondents who did not conduct international business were conducting domestic business in US dollars. Of all respondents, 52% maintain credit instruments in dollars, 1% in euro, 3% in more than one currency and none (0%) in yen, while a large percentage of 44% said they do not have any hard currency credit instruments. Relatively few, 29%, answered that dollarization would result in more international business for their company, while 42% said it would not and 16% did not know.

6. Education background and political affiliation of respondents

Respondents were highly educated, with 54% indicating a college degree and 37% indicating a graduate degree; 3% were high school graduates and 6% had doctorates. The overwhelming majority was not educated in the United States, 70%, while 2.5% indicated college in the US, 12.5% indicated graduate studies at an American university, and 15% had some non-degree training in the USA. The largest number of respondents was in the middle of the political spectrum with 17.3% moderate-conservative, 22.8% center-social democrat, 22.8% moderate liberal, 14.2% liberal, 4.3% socialist, 3.1% conservative and 12.3% with no political tendency (3.1% chose 'other'). Possible electoral politics surrounding dollarization would be split: a slim majority of 38% answered they would not vote for a presidential candidate that favored dollarization, 37% said they would vote for such a candidate and a significant number of 25% said they did not know. Mexicans were more likely to vote for a candidate that favored dollarization (42%) than the regional average. Despite objections to dollarization, it is noteworthy however that dollarization is considered a much more beneficial outcome to a new regional currency by a factor of more than two to one, in direct contrast to Asia.

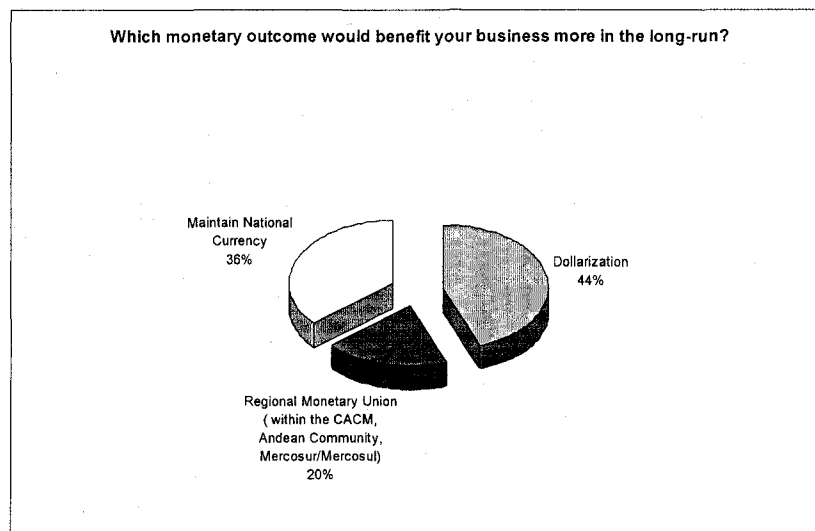


Figure 11. Preferred Monetary Outcome in Latin America

7. Responses from open-ended question in Latin America

Approximately 20% of respondents from Latin America offered additional comments. Some of these are presented below translated from the original Spanish (translation my own).

“A single currency is a natural complement to a Free Trade Area of the Americas if it is the US dollar.”

“dollarization in Argentina left 15 million Argentines below the poverty line. This is very clear. Dollarization does not benefit Latin American countries.”

“Latin American countries are not politically and socially prepared to manage a single regional currency or even dollarization.”

“[Argentina] was dollarized for 10 years from 1991 to 2001 and we had large economic growth which was destroyed by political corruption. If we take Europe’s example, its easy to realize that if Americans had a single currency, a single market, and a transparent justice system we would all grow much more.”

“Dollarization in Ecuador has been highly positive even if it has limited export competitiveness. The balance is very positive because it has promoted confidence and stability compared to the [destructive] totality of Latin American currencies and their perpetual devaluation.”

“I am generally in favor of international agreements on the matter. However, this type of a loss of sovereignty must be based on mutual connection and not domination by some countries. We must try to diminish assymetry not augment it. The European example is the most appropriate. I hope we do not have to kill ourselves in successive wars to realize that.”

“I do not agree with dollarization because one of the two parties [USA] would have unlimited capacity for currency issuance while the other has none.”

“I simply do not believe that the economic objectives of the United States are the same as ours, that is why I do not support dollarization.”

“Given that we are living under globalization we need to unify our currencies under a common front against the euro. América needs to stand united (north and south) economically, politically and juridically.

“The dollar was a symbol of stability in the past when it was considered a strong currency, its not any more.”

“If political corruption were not so rampant in Latin American countries, and they had honest intentions, then dollarization would be a favorable alternative.”

“Dollarization would make the north American free trade area stronger and Mexico more competitive so it could develop faster, both within NAFTA and compared with the region.”

“All foreign transactions from Mexico must be conducted in dollars. Dollarizing would produce cost savings for the economy and better integrate Mexico with USA and Canada, and then all of Latin America”

V. Survey Results: Asia

Based on the theory of international monetary alliances developed in this dissertation, one might expect small and financially weak countries to be more likely to enter into a monetary alliance. The smallest and the weakest might find that their relative capabilities are better augmented by joining with a powerful state, those with the capacity to stand alone or with other middling powers may prefer a regional balancing alliance, those able to stand alone will prefer to do so. In monetary terms, one might expect the smallest and the weakest to favor dollarization, relatively middle-income states to prefer a regional currency, and larger and richer states with most relative capabilities to prefer to stand alone and maintain a national currency. This is borne out by the survey data conducted for Asia as well, with some exceptions—ASEAN members showed a clear preference for a regional currency at all levels of development with an average of 60% of respondents indicating they support an Asian regional currency. ASEAN members range from relatively weak, to relatively middle income based on regional income levels. Thailand and Malaysia are in the middle income range. Singapore is at the higher income range. The Philippines and Vietnam are at the lower income range. The strong support for an Asian regional currency union may have more to do with the common experience

of the Asian financial crisis than the largely loose association within ASEAN, which is much younger and less structured than the institutionalized Latin American regional associations, or a lack of nationalism. For the most part, however, the theory has striking predictive power in Asia as well: China and Japan are clearly opposed to an Asian monetary union; richer India, though more favorable to an Asian monetary union than China or Japan is still opposed to an Asian currency; small and weak Vietnam at 33% is the most in favor of dollarization, while the Philippines at 38% is most in favor of eliminating the national currency. Middle income countries, Thailand and Malaysia are most in favor of a regional currency. The Philippines dominated responses from the ASEAN region with nearly half of all responses (and more than a third of the Asia total). The other country with a relatively high response rate was India. Both countries lack a language barrier as English is widely spoken, the Philippines being a former U.S. territory and India being a former British colony.

1. Overall results on (proposed) Asian monetary union

Overall, Asia is split in their support of an Asian monetary union, with the most populous states of India and China in clear opposition, while middle income and weaker states are clearly in favor. With results from 10 Asian countries, 43.5% said they support AMU; 37.4% said it needs consideration; 15.7% said they do not support it; 1.7% said they don't know and 1.7% chose 'other'. A much larger majority, 60%, do not support eliminating the national currency, 18.3% said they do support eliminating the national currency and 18.3% said it needs consideration, while only 1.7% said they did not know and 1.7% chose 'other'. In a later question, when asked which option would most benefit

their company in the long run, 19.6% of respondents said maintaining the national currency, 43% said AMU, 19.6% said dollarization, 8.4% said euroization, only 2.8% said yenization while 6.5% chose 'other'. In all questions, responses from ASEAN members tend to be much more favorable to an Asian monetary union than non-ASEAN Asian countries. The notable exception is Pakistan, which overwhelmingly favors an Asian monetary union (70%).

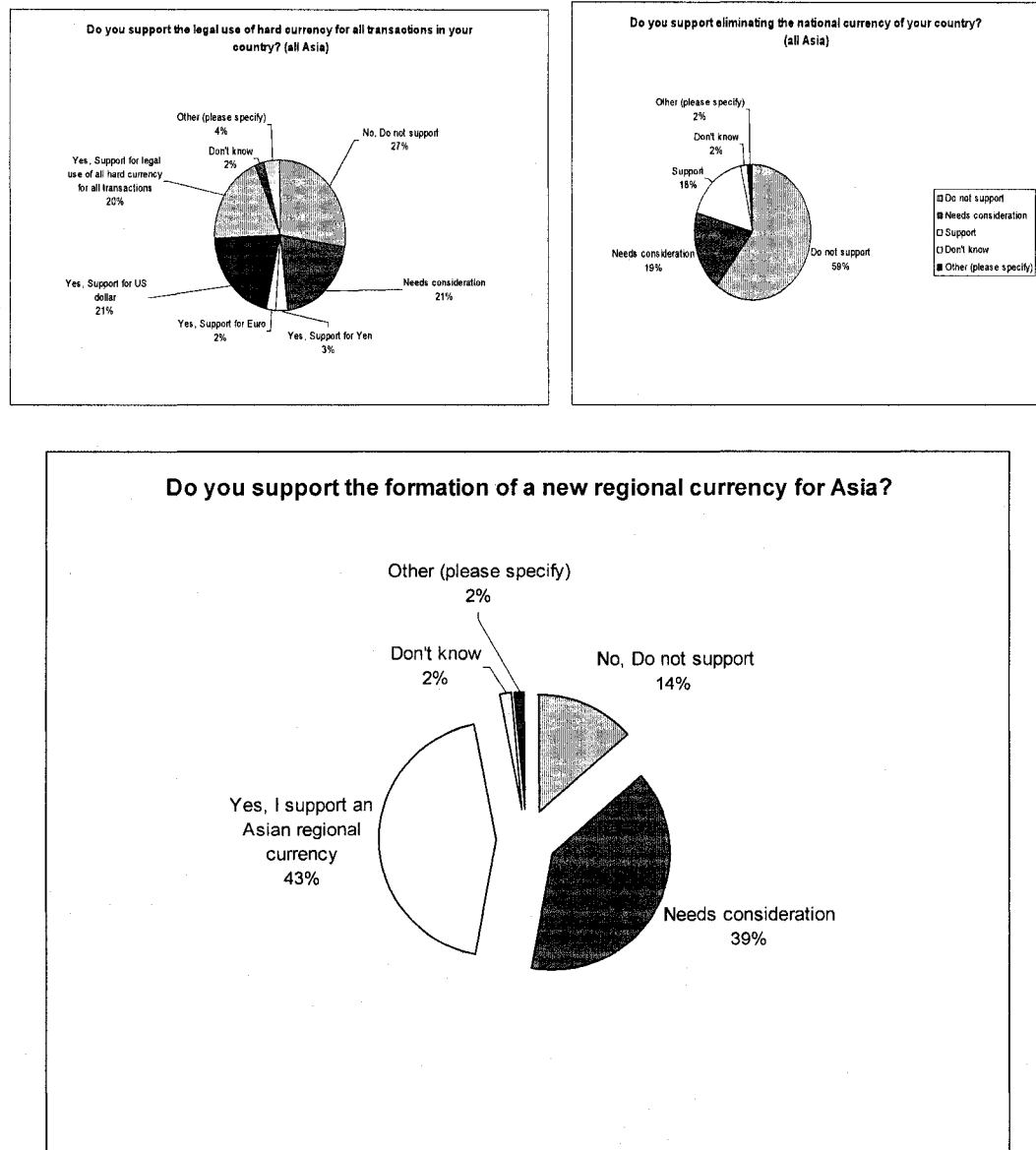


Figure 12. Attitudes Towards Asian Monetary Union

2. Effect on macroeconomy and economic integration

In far larger positive numbers than Latin America, Asians believed that a regional currency union would have a positive economic effect in general, and responses to specific questions showed understanding that AMU could have a positive economic impact on a number of issues related to international trade and investment. Some Asians also saw positive economic effects from dollarization, fewer with euroization, and surprisingly very few with yenization.

A majority of 64.3% of respondents believed that AMU would produce greater economic development; 20.9% believed that it would not, 8.7% did not know and 6.1% chose 'other'. In a later question, 42.9% believed that AMU would produce a significant increase in growth and prosperity, 29.5% believed it would have a small increase in growth, 9.8% believed there would be no effect on growth and only 1.8% answered that AMU would have a negative effect on growth. A significant percentage of 12.5% said they did not know, and 3.6% chose 'other'. Thus over 73% believe that AMU will produce positive growth effects, large or small.

An overwhelming majority of respondents of nearly 80% believed that AMU would contribute to regional economic integration. Respondents were split as to whether AMU would increase economic integration with any of the industrial powers with a slight majority of 30.7% indicating that AMU would not increase integration with any of the industrial powers. Those who believed that AMU would integrate Asia with the industrialized countries found that it would be most effective with the United States with 27.2% of respondents answering that AMU would contribute to economic integration with America. Only 11.4% said AMU would contribute toward economic integration

with Japan, and only 7% said it would contribute toward integration with the EU. A significant minority of 15.8% said they don't know, and 7.9% chose 'other'. In a later question, 70.2% said a single currency would complement the ASEAN Free Trade Area; only 13.2% said it would not, 15.8% said they did not know and 0.9% chose 'other'.

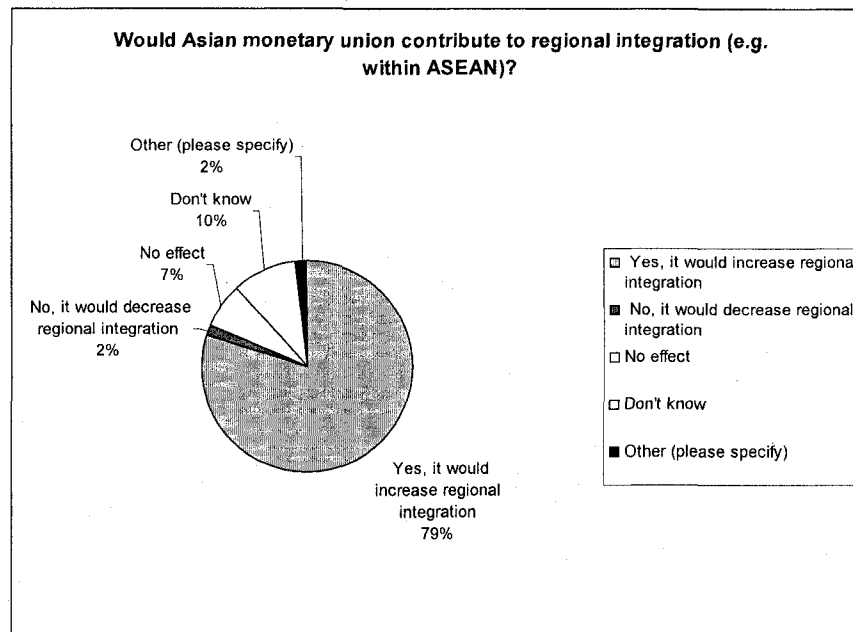


Figure 13. Asian Monetary Union and Regional Integration

A majority of 57.9% of all respondents in Asia answered that AMU would increase their country's exports and a larger majority of 66.7% said it would increase their imports; 19.3% said AMU would not increase exports while a smaller number, 11.4% said it would not increase imports; 19.3% were unsure about the effect on exports (3.5% chose 'other') while 16.7% were unsure about the effect on imports (5.3% chose 'other'). The results clearly indicate that respondents see a large increase in overall trade, and a possibility of a slight adverse effect on the trade balance as about 10% of respondents found that imports may rise while exports do not.

A majority of 64.9% of all respondents answered that maintaining a national currency was a symbol of sovereignty and national pride (about 10% more than in Latin America); 25.4% said it was not (about 10% less than in Latin America), 5.4% did not know (and 4.4% chose 'other'). Despite high nationalistic feelings higher than those in Latin America, Asia is still much more in favor of a regional currency than Latin America by a factor of more than 3 to 1.

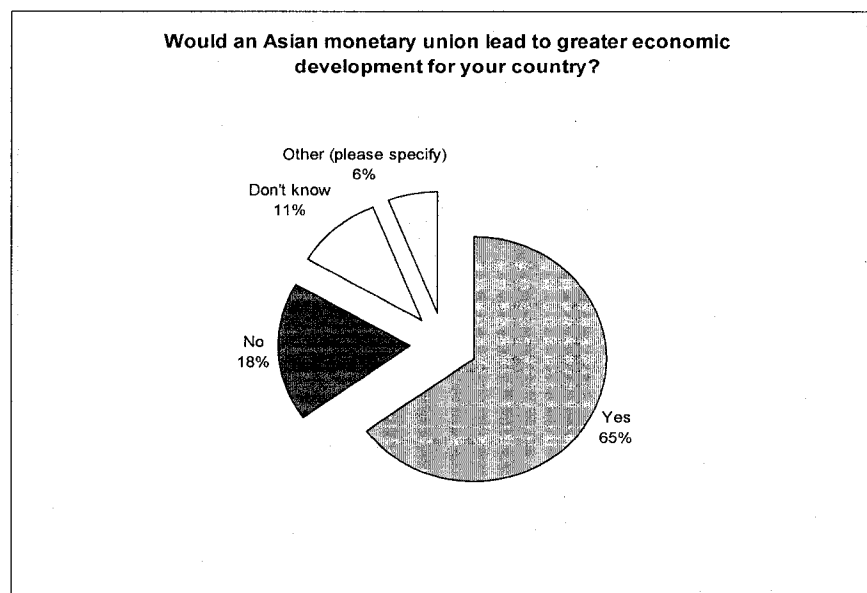


Figure 14. Asian Monetary Union and Development

3. Effect on investment and access to capital

A majority of respondents in Asia, of 42.5%, also indicated that AMU would lead to more investment in their country from the United States, 55.3% expected an increase in overall foreign investment as a result of AMU and an additional 12.3% expected an increase in foreign investment especially from Japan. Thus responses regarding overall investment showed a total of 67.6% expecting a positive increase. The disparity between

this figure and that regarding specific investment from the United States indicates that Asian may believe that AMU will produce significantly more intra-Asian investment (outside Japan) and European investment. It is noteworthy that relatively few thought increased foreign investment would come from Japan, with nearly four times as many respondents expecting additional investment from America. A significant minority of 25.7% said they did not expect an increase in investment from the United States in their country while 11.4% did not expect an overall increase in foreign investment. A total of 26.5% were unsure about the effect on U.S. investment in their country (5.3% chose 'other'), and a smaller percentage of 18.4% were unsure about the effect on total foreign investment (2.6% chose 'other'). Nearly half, or 48.2%, of all respondents believed AMU would increase their possibilities of obtaining commercial capital; 23.7% thought it would have no effect; and only 9.6% thought AMU would decrease their chances of raising capital, while 17.5% chose 'other'.

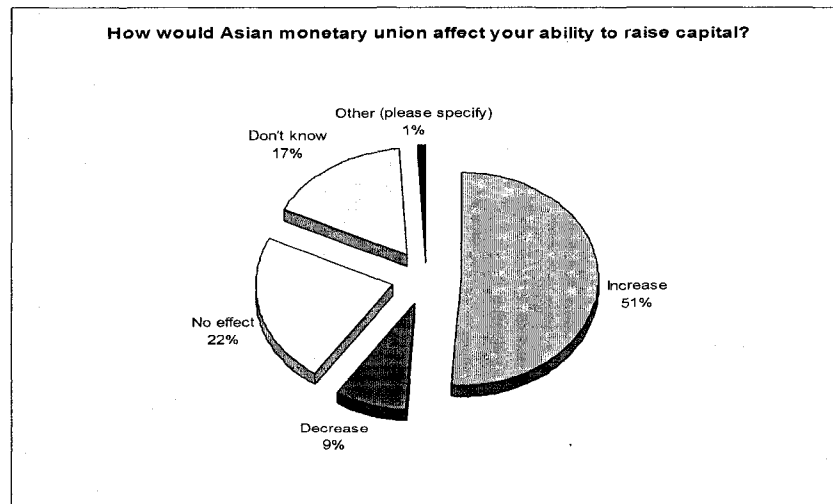


Figure 15. Monetary Union and Capital

4. Nationalism and Protection from monetary crises

Nearly a quarter of respondents, or 23.7%, said AMU would protect their country from future monetary crises. A further 36.8% said it would protect the country somewhat but not completely. Thus 60.5% believed that an Asian Monetary Union would provide at least some protection from the threat of monetary crises. As one respondent from Pakistan replied, an Asian monetary union would protect the country “with more economic growth and foreign investments”. That is, the monetary union, in increasing relative economic capabilities would thereby protect the country from monetary crises. Protection from crises is a recurring theme among Asian respondents in answers to the open-ended question. As one respondent put it, “it is the right time to cooperate with one nation to another to create vulnerable shield when it comes to monetary system”.

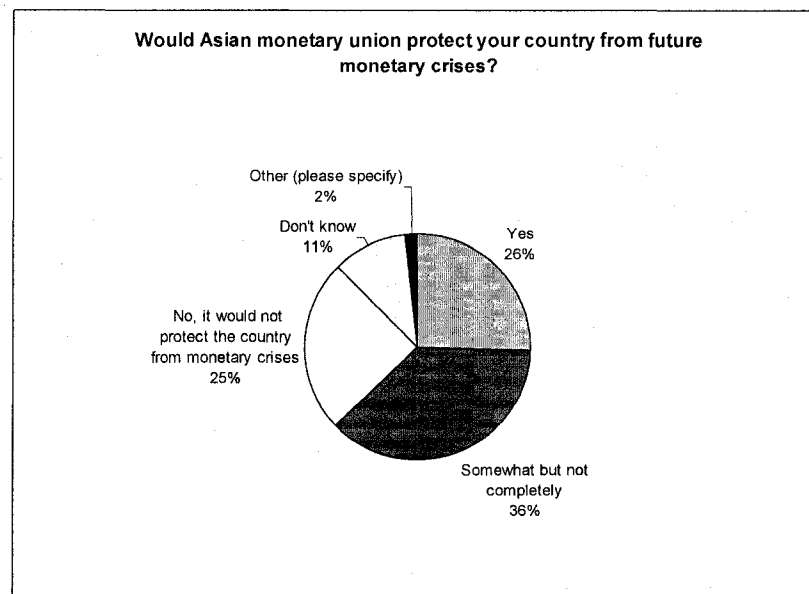


Figure 16. Asian Monetary Union and Protection from Monetary Crises

5. Business background of respondents in Asia

Of all respondents, 82.7% were involved in international business, 13.6% were involved only in national business, and 3.6% were in the public sector (academia, government, etc.). Respondents generally came from the small business sector but showed a broad distribution in size: 10.2% had annual sales under \$100,000, 30.6% indicating annual sales of \$100,000 to \$1 million, 25% had annual sales of \$1 million to \$5 million, 8.3% indicated sales of \$5 million to \$20 million, an additional 8.3% indicated sales of \$20 to \$100 million while 6.5% had sales over \$100 million. Of all respondents, 65.1% said they invoice in U.S. dollars, 13.2% said they invoice in other hard currency or more than one hard currency (typically dollars and euro, or all three), while 12.3% did not invoice in hard currency and only 0.9% responded that they invoice in yen alone but none chose euro alone, while the question did not apply to 8.5% of respondents from the public sector or national business. Of all respondents, 33% said transactions costs associated with exchange rates were very costly to their business, 44.3% said they were somewhat costly while only 5.7% said they were not costly because all their business was invoiced in dollars, only 2.8% said exchange was not costly because all business was conducted in national currency indicating that over three quarters, of 77.3%, found exchange transactions costly on some level; 5.7% answered 'other'. Of all respondents, nearly three quarters, or 73.3%, did not maintain credit instruments in any hard currency, 21.9% maintained credit instruments in dollars, 1.9% in yen, and none in euro; and 2.9% chose 'other' indicating credit instruments in more than one currency, typically dollars and an additional hard currency. A majority of 54.6% answered that AMU would result in more international business for their company, while

17.6% said it would not and 18.5% did not know, the question did not apply for 5.6% and 3.6% chose 'other'.

6. Educational background and political affiliation of respondents in Asia

Respondents were highly educated, with 36.5% indicating a college degree and 51% indicating a graduate degree; 2.9% were high school graduates and 4.8% had doctorates. The overwhelming majority was not educated in the United States, 80.8%, while 1.9% indicated college in the U.S., 13.5% indicated graduate studies at an American university, and 2.9% had some non-degree training in the USA. The largest number of respondents was right of center of the political spectrum with 23.3% moderate-conservative, but the distribution of political affiliation or tendency was evenly spread across the spectrum from conservative to socialist, to none with 5.8% conservative, 14.4% center-social democrat, 15.4% moderate liberal, 19.2% liberal, 5.8% socialist, and 15.4% with no political tendency (1% chose 'other'). A large majority of 64.4% answered they WOULD vote for a presidential candidate that favored AMU, only 13.5% said they would not vote for such a candidate and a significant number of 15.4% said they did not know (6.7% chose 'other').

7. Responses from open-ended question in Asia

Approximately 25% of Asian respondents offered additional comments. A few of these are quoted below.

“It is a must for ASEAN region to have its own regional currency like the EURO otherwise, most of us here in Asia will be eaten up by globalization. ASEAN third world countries will never make it with out single currency.”

“A [money] that will be used in the region will enhance our chances to deal with other business in other countries and give us a wider market and also for us integrate our design with other products.”

“I believe monetary union would help reduce corruption and also stabilize currency within ASEAN or greater Asia to include China, Korea, Taiwan etc. I think the same benefits would arise as has been evident in EU.”

“With the present situation in India where the GDP growth could potentially touch a double digit number, monetary union will only mean helping other countries. Unless and until there is a great benefit in doing this, it should not be done.”

“Asian monetary union is a doll in the hands of America. They cannot do anything for the upliftment of the third world countries in Asia. They are giving slow poisons to the economically back ward countries with sweet promises and capture and kill them in the near future. The example is in front of us that is Argentina.”

“Asian Monetary Union can even help reduce political tension in the Region and provide tremendous boost to the business activities and investment across countries in the region. Good luck in your survey findings and would be interested in knowing the outcome.”

“I do share that over the long term, we should have a regional currency - regardless of national pride or sovereignty in local currency. The world is getting smaller, and information exchange is moving faster. A new "world order" so to speak brought by technology.”

VI. Concluding Remarks

The broad outcome of this survey is to support the notion that monetary alliances will arise based on states' relative capabilities and where they increase states' relative capabilities. A small group of scholars today have alluded to such an outcome. The most detailed (albeit brief) prediction is made by Cohen (2004, 136-137) who noted that the most likely candidates for dollarization are the smaller economies of Central America, the Caribbean, and the Andes, “for whom the cost of a strategy of market preservation

tends to be especially high---countries with Permeated Currencies or Quasi-Currencies whose domains have already been deeply penetrated by the dollar's more competitive brand of money...The list of potential entrants would include, inter alia, Bolivia, Costa Rica, Nicaragua, and Peru, all among the Hemisphere's economies with the highest rates of informal dollarization according to recent estimates." Kirshner (2006, 153) anticipated that financial globalization would "create incentives for smaller states to affiliate with regional monetary associations or to seek cover by closely associating, in one way or another, with a great monetary power," although he has as of this writing not taken the matter any further. While Andrews (2006) understands adjustment costs to be disproportionately borne by those states with weaker relative (monetary) capabilities, while those with greater relative capabilities have maximum autonomy, and thus he argues we might expect weaker states to align to reduce their particular burden.

The same outcome predicted by Cohen, and alluded to in passing by Kirshner and Andrews, is predicted more elegantly by an application of Waltzian structural theory---states seek allies for self-help, those with the least relative capabilities will be more likely to seek an alliance with a great power, those with greater relative capabilities are more likely to attempt a balancing alliance, and those with the most relative capabilities can afford to stand alone maintaining maximum autonomy. As Andrews (2006, 114) aptly noted, "What Thucydides said of international politics is especially true of efforts to coordinate monetary policy: the strong do what they can while the weak suffer what they must." Both Cohen's prediction and structural theory's prediction (which I consider one and the same as both are based on relative capabilities) are borne

out by the survey of Latin America and Asia on the subject of currency union. Two intra-regional country comparisons will highlight this point further.

In Latin America, the majority of Chileans (55%), Brazilians (70.8%, not surprisingly, the highest opposition) and Argentineans (64.7%) opposed legalizing the use of the dollar for all transactions, similar majorities opposed the elimination of the national currency, but smaller percentages said that maintaining the national currency was the best monetary outcome for their business (Chileans 60%, Brazilians 50%, Argentineans only 34.5%). A third of Chileans and Argentineans chose dollarization as the preferred monetary outcome, but less than the 27% of Brazilians favored that option. However, for Latin America a regional currency appears to be the third choice of nearly all nations—Latin Americans prefer either to keep their own money or adopt Americas. For example, only a tiny 5% of Chileans preferred a regional currency, only 22% of Brazilians preferred a regional currency but over a third of Argentineans (34.5%). The richest Latin American countries did not believe dollarization would add much to relative economic capabilities, with many believing it would negatively impact macroeconomic indicators.

Dominican respondents overwhelmingly supported dollarization, with 81.8% saying they support legalization of the dollar for all transactions, and the overwhelming majority (63%) supports the elimination of the national currency, even though more than two-thirds said maintaining the national currency was a sign of pride and sovereignty. In a later question, when asked which option would most benefit their company in the long run, an even larger percentage (91%) supported dollarization, while only 9% of respondents said maintaining the national currency, and none chose a regional currency.

A majority of Dominicans believed that dollarization would have a positive economic effect, in general and with regard to specific international trade economic indicators in particular. More than half answered that dollarization would produce great economic development and would produce a positive effect on economic growth. All Dominican respondents, (100%), believed that dollarization would contribute to economic integration with the United States, and all (100%), believed that dollarization would contribute to regional integration within Latin free trade areas such as the Central American Common Market (whose members along with the DR are part of a free trade area with the United States). Approximately two-thirds of Dominican respondents believed dollarization would increase their possibilities of obtaining commercial capital, would bring more investment in general and from the United States in particular and would increase exports (and 80% said it would increase imports). A large majority of 75% of Dominicans answered that dollarization would protect the country from future monetary crises, while the remaining 25% said it would provide some protection but not completely (none said that dollarization would not protect the country from monetary crises).

Colombian respondents were the most diverse in opinions regarding dollarization and about evenly split among support, opposing and considering legalizing use of the dollar for all transactions, with a slight majority for those opposing: 38.2% said they do not support dollarization; 32.4% said it needs consideration; 23.5% said they support it; and 5.9% said they don't know. The majority does not support eliminating the national currency, but a significant number, 26.5% said it needs consideration, while 17.6% support eliminating the national currency and 2.9% did not know. In a later question,

when asked which option would most benefit their company in the long run, 41.9% of respondents said maintaining the national currency, 41.9% said dollarization, while only 16.1% said a regional currency (for example, an Andean Group currency) indicating that the real options were either dollarize or maintain the status quo, with little confidence in a regional money despite the deeper institutional arrangements of the Andean Group compared to say, Mercosur.

In Asia, Vietnam was most pessimistic about the prospects of an Asian monetary union protecting from a future monetary crisis with only 36.4% answering that it would protect at least somewhat (9.1% said yes, 27.3% said partially) and another 36.4% saying NO with 27.3% undecided. Vietnamese were the highest segment, 33%, in favor of dollarization, preferring it to all other monetary outcomes. While 90% thought a regional Asian currency at least deserved some consideration, only 27% supported it outright and only about 44% would vote for a presidential candidate that favored Asian monetary union. In considering the prospects of an Asian monetary union in isolation, however, Vietnamese respondents had positive expectations about a regional currency expanding their nation's relative economic capabilities with at least 50% expecting more development, economic growth, exports and imports, and at least 45% expecting increased access to capital markets. In direct contrast to Vietnam, Thailand and the Philippines were strongly in favor of an Asian monetary union. More than half of all Thais responding (57%) said they supported an Asian monetary union while another 42% said the matter needs consideration, while none said they opposed it. Over 70% of Thais expected Asian monetary union to lead to greater economic development, more exports, more imports, more investment and increase their ability to raise capital. All (100%!) said

it would increase regional integration and all (100%!) said they would vote for a presidential candidate that favored Asian monetary union. Over 85% believed that a regional monetary union would provide at least partial protection from future monetary crises (28% said it would protect their country, 57% said it would protect somewhat).

As noted earlier, one of the criticisms of neorealism has been its omission of political regime from the equation. To test whether such a criticism might have some credence, and see whether particular political tendencies affected the overall results, I asked respondents their political affiliation. I also asked their level of education and experience with an American university to test whether the more educated might be more prone to epistemic communities that favored currency union. It is noteworthy that the trends do not change significantly in either Latin America or Asia if results are filtered for education or political party (i.e. similar general results for all right-leaning respondents as for all left-leaning respondents, etc.) contrary to one recent study that claims monetary outcomes are dependent on political regime. Russell (2006, 1) claims that “democracies are more likely to join cooperative arrangements and newer states are more likely to subordinate monetary sovereignty” while “nationalist regimes are more likely to integrate than to preserve the domestic currency.”⁴⁵⁷ My own survey data presented here casts doubt on this conclusion. In both regions, the element with the strongest predictive power are the relative capabilities of the state, and the added relative capabilities to be had from the monetary alliance in question.

⁴⁵⁷ This is Russell’s Ph.D. dissertation written under Benjamin Cohen on the topic of how monetary alliances are determined. We clearly take opposite positions on the same subject.

Chapter Nine

Conclusions: Structural Theory and the Future of the International Monetary System

This dissertation has argued that Waltz's structural theory can be used to explain outcomes in the international political economy, and was demonstrated here to be applicable to the recurrent outcome of currency unions. As noted in chapter one, an early indication of the possibility of this theoretical application was found in two early papers by Mundell, "*A Plan for Europe*" and "*Uncommon Arguments for Common Currencies*" published in 1973, six years earlier than Waltz's *Theory of International Politics*. Subsequent important studies also showed some underlying structural strains, as noted in chapter two. These provided the basis for beginning a formal application of Waltzian structural theory to international monetary affairs specifically, and international economic relations more broadly. This theoretical application was developed in chapters three to six using four case studies—American monetary union, European monetary unions, dollarization in Latin America and the Asian monetary union debate—and tested using regression analysis in chapter seven and original survey data in chapter eight. This concluding chapter provides some final thoughts on the robustness of neorealism in international political economy, in the context of the final hypothesis laid out in chapter one, namely: if structural realism can be applied to international economic relations, then it is a progressive theoretical program.

To arrive at the conclusion that neorealism is robust in IPE, I first discussed the shortcomings of the IPE literature in the area of monetary affairs, identifying the specific flaws of single case generalization, equating attributes with outcomes, and reductionism or lack of system theory. I then developed an application of structural theory to economic affairs which I call Waltzian economics, described in chapter three, where I showed that political conceptions of national power capabilities excluded key elements of the open economy much like earlier economic theory had, prior to the Mundell-Fleming model. By integrating the Mundell-Fleming model into traditional equations of national power capabilities it was algebraically shown that the monetary variables can play a significant role in determining the level of these capabilities, and this was the one variable in the equation largely and immediately determined by the actions of other states. In other words, if power is a function of arms and income, where money affected income it also necessarily affected power. This concept was analyzed further in a large panel data statistical analysis of 125 countries over the period 1940-2001 in chapter seven where it was found that a state's relative power capabilities, as measured by the derived simple power equation $\text{Power} = G + A(Y, r, e) + \text{arms}$ and an alternative measure, are negatively related to the nominal exchange rate, and also to the real exchange rate but a much larger factor. Looking further at which component of relative power might be responsible for this result, it was found that relative real military expenditures (a state's military expenditures relative to the regional average within its geographic region) and relative government expenditures are both negatively related to the exchange regime so that increasing degrees of floating result in reductions in relative capabilities, negatively related to the nominal exchange rate with small effects (indicating devaluations result in

relatively fewer arms purchases, relative to the regional average) and negatively related to the real exchange rate with rather large effects, and the effect is significant with a 95% confidence level and robust with a number of different models (although not for all models). Estimations on national income provided inconclusive results. Relative investment levels were also negatively related to the exchange regime and exchange rate, and significant at the 95% confidence level with rather large effects even with changes in the nominal exchange rate (indicating that states with depreciating currencies and increasing degrees of currency instability receive relatively less capital, as might be expected by the discussion of the financial 'herd' and presents a strong indication of socializing pressures towards currency stability). The proxy variable for political stability, the level of democracy or "democraticness", showed a negative and significant relationship to the exchange regime using a simple bivariate logit regression (indicating possible political instability as the currency moves into free fall), but mixed results in more extended modeling. Clearly, the most surprising result was that for relative military expenditures which showed a consistently negative and significant relationship to the nominal and real exchange rate.

Chapter three additionally discussed the applicability of the structural factors of anarchy, threat to survival, socialization and competition for resources and the resulting need for self-help through relative capabilities and seeking allies to states in the international monetary system. Each of these factors was then further developed individually in chapters four (anarchy), five (threat) and six (socialization) and applied to selected cases of currency unions through time---American monetary union in the 18th century, European monetary unions in the 19th and 20th centuries, dollarization in Latin

America in the late 20th and early 21st centuries, and the prospects of an Asian monetary union in the later 21st century and beyond. In each case evidence was found to support each factor of the theory. The lack of governance in international finance is pervasive; volatility in exchange rates and financial crises pose a significant threat to state sovereignty and survival as we know it; as states compete for investment and financing, they are socialized by several selectors (more than in the military arena) into specific monetary policies, which, for many can be achieved only through monetary alliances.

Finally, to further test the extent of socialization in the regions where currency union could spread in the future, I conducted two original electronic surveys of mostly business persons, but also academics, and government officials in multiple countries of Latin America and Asia. The anonymous surveys showed strong support for the structural idea that support for currency union was directly related to the relative capabilities of the state. Support was higher in weaker countries less capable of standing alone in an anarchical international monetary system that threatened their survival as we know it. Support was lower in stronger economies with greater relative capabilities. This result was evident in both Latin America and Asia. The full results are presented in chapter eight with a prediction based on our hypotheses here that we are likely to see currency union outcomes among the countries of ASEAN and dollarization by the smaller countries of Central America and the Andean region in Latin America.

So what can be said about the future of the international monetary system from this discussion? We can expect systemic change, alliances, and ultimately interdependence. Anarchy, scarcity and the threat of falling by the wayside (one way or another) all force actors to act in their own self-interest in order to survive. In so doing,

the actors effect systemic change. The stronger the pressures of anarchy, scarcity and threat, the stronger the imperative to act, and thus the greater the likelihood of structural alterations. "The only remedy for a strong structural effect is a structural change," says Waltz 1979, 109, 111. "So long as one leaves the structure unaffected it is not possible for changes in the intentions and the actions of particular actors to produce desirable outcomes or to avoid undesirable ones. Structures may be changed, by changing the distribution of capabilities across units. Structures may also be changed by imposing requirements where previously people had to decide for themselves." (Waltz 1979: 108). Currency unions change the structure of the monetary system from anarchical to hierarchical. Currency crisis is precisely such an undesirable outcome. This would imply that the desire to avoid or withstand currency crises, coupled with the competition for investment and the lowering of transaction costs to facilitate more economic growth and the expansion of economic capabilities all socialize state actors into accepting and seeking various forms of regional monetary integration, the highest form being a currency union. To the extent that these pressures continue in the future we should expect more such arrangements which are already producing systemic change.

The question then that follows, is which states can be expected to enter into currency unions? Certainly those that meet the optimum currency area criteria presented by Mundell and others would be likely to engage in such discussions, and in many parts of the world they already are, witness the resurgent explosion of OCA studies regarding various regional groupings. But as this dissertation has argued, efficiency is not enough for government action, (often it is far from it); structural imperatives are key and these affect different states differently. Here again Waltz provides some answers. "In

international politics, as in any self-help system, the units of greatest capability set the scene of actions for others as well as for themselves.”⁴⁵⁸ Those states that must react (because they are too weak or dependent) do. Those states that are strong enough to withstand systemic pressures caused by the actions of other states do not depend as much on others. Thus whether or not states meet OCA criteria of similar economic shocks and factor mobility (Mundell 1961), trade openness (McKinnon 1963), similarity of production structures (Kenen 1969), business cycle synchronization (Bayoumi and Eichengreen 1994, 2002) or the meeting of convergence criteria (as per the Maastricht Treaty on EMU) is not enough to predict whether they would actually form a currency union. The state of turbulence in the system, and the threat posed by it determined by states’ existing relative capabilities at the time of the decision and the expected capabilities following the alliance must also be considered.

Indeed, Mundell (1973a, 1973b) alludes to this himself. Those states that are strong enough to withstand systemic pressures caused by the actions of other states do not depend as much on others. Thus in the international monetary system we might expect the more financially powerful states to resist any monetary integration and to stand alone to the extent they are able to weather financial crises, and succeed in attracting investment and reducing transaction costs by force of their domestic market or use of their domestic currency and financial institutions or both. This group of states would include of course the United States, and the United Kingdom, but also China, India, Brazil, and possibly Russia. Japan is interesting because its strong economy and deep financial institutions allow it to choose to stand alone or to choose to attempt to become a regional leader, balance against the United States and challenge American hegemony. Its

⁴⁵⁸ Waltz 1979, 72.

strong relative capabilities give it choices many in the region lack at the same time that systemic pressures are driving closer economic relations in Asia. Yet, like European states, Japan cannot hope for a bigger piece of the pie alone, it needs allies. Middle powers, argues Waltz, are most dangerous because they seek leadership and strive for it. Like France in the 19th century, and the EU states in the 20th century, Japan in the 21st century may seek a regional monetary union in Asia for the purpose of challenging the financial primacy of the systemic leader, the United States.

If the trend of currency unions within the international monetary system continues, what are the implications for the system's structure? Waltz here provides for an interesting outlook. "The structure of a system changes," says Waltz (1979, 144-145) "with changes in the distribution of capabilities across the system's units. As international structure changes, so does the extent of interdependence... Interdependence is a relation among equals. Interdependence is reduced by increases in the disparity of national capabilities... In any international political system some of the major and minor states are closely interdependent; others are heavily dependent. The system, however, is tightly or loosely interdependent according to the relatively high or low dependence of the great powers." Moreover, "If the inequality of nations is still the dominant political fact of international life, then interdependence remains low."⁴⁵⁹ The goal in monetary affairs is to reduce one's level of dependence and expand one's interdependence. That is, move from a subservient position to that of an equal or as close to it as possible. As more great monetary powers rise, the system will show an increase in interdependence. To the

⁴⁵⁹ Waltz 1979, 152.

extent that currency unions develop we should thus see an increase in interdependence. “States are more independent,” says Waltz (1979, 147) “if they have reliable access to important resources, if they have feasible alternatives, if they have the ability to do without, and if they have leverage to use against others.”⁴⁶⁰ Monetary integration with a currency union contributes to a state’s access to important resources like favorable credit, deepens internal economic capacity providing for alternatives to international capital markets and therefore the ability to do without foreign money.

We should also expect to see more great financial powers. What defines a great power is relative capabilities. This is true in economic affairs as much if not more so than it is in military or security affairs. To the extent that currency unions make the members more independent as a group, with alternatives, greater relative capabilities, and leverage, it creates great powers in the monetary arena. To the extent that it creates great powers, it contributes to systemic interdependence. In international monetary affairs this is quite a dramatic systemic change. It implies the erosion of the hegemonic, international monetary system, replaced by a number of equal players (whose number is yet to be determined). This is important systemic change.

While Waltz’s structural theory does not seek to make predictions but rather describe interactions, if the outcome of these interactions fits the theory then some predictions can cautiously be made. This is the case of the international monetary system viewed by a close examination of Waltz’s structural theory. For the past 150 years or so the international monetary system has been characterized by a distinct hierarchy of one—

⁴⁶⁰ Aristotle might say to these, that those states are more independent are also less slavish, since he equated anything less than self-sufficiency as slavish: “For no city-state that is naturally slavish can possibly deserve to be called a city-state at all; for a city-state is self-sufficient, whereas something that is slavish is not self-sufficient.” Aristotle, *Politics*, Book IV, chapter 4.

the hegemony of the British pound and then the U.S. dollar reigned supreme, far surpassing other currencies in relative importance. In the interwar period, anarchy reigned not from the multiplicity of equals—the franc, mark or yen could not be considered the equals of the dollar or even the pound. Rather this was a time of not only no leadership but no leadership in a system of followers, dependents without a leader, not interdependence among equals. A similar system arose in the late Bretton Woods and post-Bretton Woods era. If currency unions continue to expand, what seems to be in the future is a change in the distribution of capabilities to produce a system among equals. As Cohen (2004) predicts, currency blocs are in the future of the geography of money. But they are there because anarchy, threat, competition and socialization are working to produce alliances for survival that will mean a greater interdependence in the international monetary system at the close of the 21st century.

The speed of systemic change, like most action, will be determined by the threatening level of the anarchical system. In the international monetary system, we might expect to see more currency unions or other monetary alliances following more significant crises in the financial markets. As Porter (1979, 164) speaking on the competitive advantage of nations stated, “In fact, to succeed, innovation usually requires pressure necessity, and even adversity: the fear of loss often proves more powerful than the hope of gain.”

The larger implication, and challenge, for international political economy is to better integrate both structural realism and power relations into the study of the international monetary system and international monetary relations among states. Power in international economic relations is not only defined in terms of how many arms money

can buy or whether a rich potential rival could attack us in the future if he became richer. Although this can never be ruled out, *power relations dominate economic relations even without the prospect of war*. To that end all characteristics of power relations are also characteristics of economic relations even without the threat of military confrontation. This is true because economics is based on competition, as is politics. The basis of this argument lies in the centrality of competition in economics where all agents strive to accumulate the greatest amount of resources necessary for either survival or dominance in their realm of interaction (the marketplace). Power and resources are complementary in competition as those with the most resources have more power and those with more power (whether money or influence) have or can acquire more resources. Waltz's structural realism describes precisely such a situation for state actors in their interactions with other like agents in their realm (the state system). States are in constant competition for scarce resources that they need for either survival or dominance (but mostly for survival). Their rivals are other states and the resources they are competing for are, broadly, arms and money.

New directions. Some new directions for further research might include studies to show whether there is a difference in monetary alliance formation between democracies and non-democracies, what exactly are the seignorage gains to be accrued (or lost) to the financial leader, and a greater understanding of financial dependence and what it means. What exactly is the relationship of currency union to currency crisis? Can a monetary alliance, as defined here, reduce the risk of a currency crisis, and can this be proven empirically? Some years will have to pass before such an empirical study can take place.

We have to wait at least until the next financial crisis to see whether it was the states that sought alliances that fare better than those that chose to stand alone since the previous crisis. But one might expect that the most competitive nations would fare better than others. Produced by the World Economic Forum and the International Institute for Management Development, the World Competitiveness Yearbook measures the attractiveness (“competitiveness”) of a country for business activity and may provide an important database of variables, and a good indication of the correlation and direction between economic competitiveness and form of monetary integration. It might be expected that less competitive states have more of an incentive to enter into a higher form of monetary integration so as to improve their position. A related question might be to test to what extent currency stability is related to economic freedom, using the Economic Freedom Index that comprises twenty-one components to identify the consistency of institutional arrangements in areas such as sound money, trade openness, and market structure. It might be expected that states with relatively less economic freedom are economically weaker (have fewer relative capabilities) and so, based on structural theory, are more likely to enter into higher forms of monetary integration which would improve their position. Also, the theory may be applied in reverse, that is, to explain disintegration of currency unions, such as the ruble zone. For example, to the extent that a currency union or monetary alliance is adopted because it augments relative capabilities, so then might it be abandoned if it detracts from or hurts relative capabilities by providing less stability, less investment and less income than a member might have under alternative arrangements.

There may be a plausible effect of political regime, democratization, and currency union. It might be expected that democracies would be less likely to relinquish the national symbol of sovereignty due to popular opinion. But democracies are also arguably more accountable for economic stability and growth. To the extent that currency unions in particular contribute to economic growth (that is if research by Rose et al is right) then we might expect currency unions to rise in proportion to the spread of democracy. If we assume that national political leaders, regardless of the political institutions under which they operate, all have one fundamental goal—to retain office⁴⁶¹—then we can also assume that they would be especially sensitive to policies that help them achieve that goal. If economic prosperity increases the chances of office retention, and currency union increases the chances of economic prosperity, then national leaders might be more likely to adopt a currency union if 1) their retention of office was in question and 2) economic prosperity was unstable or future prosperity was in question. This situation would be more likely to occur in a democracy and most likely in an economically stagnant democracy, (i.e. one with lower relative capabilities). Bueno de Mesquita, Morrow, Siverson and Smith (1999, 5) show that the need for public policy successes will instill in democratic leaders a higher level of interest in promoting overall national economic growth than is true of non-democratic leaders. They demonstrate empirically that larger winning coalitions are a positive predictor of stronger national economic performance, and on the basis of their analysis they conclude that “Big winning coalitions pressure leaders to perform especially well on public policy issues. These

⁴⁶¹ This assumption is a basic one in political science. Whether the leader seeks retention of office out of selfish motives—the desire to use their position to acquire wealth, prestige, and even more power—or altruistic motives—the desire to produce policy outcomes the leader believes are most appropriate for the nation—or some combination of these makes no difference to the outcome or the argument.

leaders have the greatest incentive to provide prosperity for their citizens.” Thus democratic leaders: 1) need public policy successes to stay in office to a much greater degree than non-democratic leaders and 2) that need for public policy success gives democratic leaders a greater incentive than autocrats to promote aggregate economic growth. While even non-democratic leaders may not survive in the face of a precipitous decline in national economic activity,⁴⁶² which unstable currencies and currency crises generally produce.

As great powers rise the financial market share of the leader must necessarily fall. U.S. dollar shares of international reserves have already fallen. It can be implied that seignorage accrued from the international use of the dollar will decline and that of the euro and the yen (or other Asian currency if an Asian monetary union takes place) will rise. Yet very little attention has been devoted to the advantages of seignorage. Seignorage,⁴⁶³ arises when payments are composed of paper money created at negligible printing costs but embodying a much higher value. In this case there is a transfer of resources from the entities who acquire and hold the 'paper money' to the agency or bank or government issuing it, since the issuer can use the home-printed paper money to acquire real resources with no spending constraints. The right to issue paper used as money outside one's borders, therefore, confers on the issuer a “seignorage gain” and raises the problem of finding a method to determine how these gains should be distributed.⁴⁶⁴ Whenever possible,

⁴⁶² See Przeworski and Limongi 1997.

⁴⁶³ Seignorage is the revenue the government obtains by *financing* its budget deficit through printing money rather than selling debt; since at constant employment this would lead to inflation, it is frequently referred to as the 'inflation tax' because it acts like a tax on the holders of existing money balances.

⁴⁶⁴ Mundell 1965, 23.

governments will attempt to collect seigniorage from individuals outside their jurisdiction and thereby redistribute revenue to their own citizens. Countries with money stocks growing faster than the average can collect seigniorage from residents of countries with money stocks growing less rapidly than average under such an exchange rate regime. This is generally called an inflation tax. Neighboring countries (in this case, states or colonies) have an incentive to retaliate, however. One possible form of retaliation is to impose legal restrictions limiting the use of the offending state's currency or promotion of the use of domestic money. This situation arose in New England during the colonial period and re-emerged under Confederation, and it was the primary complaint against the United States during the Bretton Woods era. Much more research on seigniorage is needed to make any predictions, and the rise of great financial powers with a stake in a greater share may provide the incentives for these studies. An additional question might be what is the effect of currency union on investment, on foreign exchange reserves, on stock market indices, on international liquidity (reserves + credit + gold), on credit ratings, and on access to global capital markets. Each of these variables is an indicator of financial capabilities. Currently data for these variables is not fully standardized across all countries making statistical analysis problematic. However country case studies and comparative historical case studies are possible within international political economy.

Finally, financial dependence is not fully understood or sufficiently addressed by an American audience, something that may change as the monetary system moves from one of dominance to one of interdependence. "Dependency is a two way street," says Waltz (1979, 147). "Its extent varies both with how much we need them and with how much they need us." Moreover, "...the political clout of nations correlates closely with

their economic power and their military might.”⁴⁶⁵ “The more dependent a state is on others the less its leverage over them, the more it must focus on how its decisions affect its access to supplies and markets on which its welfare and survival may depend.” An international monetary system of three or more interdependent great powers will mean that the United States will have to abandon the policy of ‘benign neglect’ and pay close attention to how its policies affect others. It will also have to worry more about the policies of others. “Where disparities are great, whether among firms or among states, the largest of them need worry least about the bothersome activities of others.”⁴⁶⁶ To some extent, the US already shows signs that its starting going down this road with repeated accusations of currency manipulation by China hurting its trade balance, and China is not even a great financial power at this point.

What about the dollar? As to the question of what will become of the status of the US dollar as a reserve currency, scholars have noted the importance of system externalities and economies of scale when it comes to the top spot in the international monetary system.⁴⁶⁷ Its very costly to switch easily from one currency to another. Moreover, as long as the United States continues to be the largest single economy in the world, or even one of the largest, we can expect to see the dollar as a reserve currency, and most likely the top reserve currency and numeraire of the system. As Barry Eichengreen (1999, 33) put it, “[I]f countries don’t foul up their domestic economic policies terribly, once a reserve currency almost always a reserve currency. The status

⁴⁶⁵ Waltz 1979, 153.

⁴⁶⁶ Waltz 1979, 148.

⁴⁶⁷ See for example, Dowd and Greenway 1993, and the various works of Susan Strange.

can linger on for a very long time.” Of course, maintaining a position does not mean maintaining it with the same share of global reserves. The relative position of the dollar has declined and will decline further if Japan is successful at internationalizing the yen or creating an Asian monetary union centered on the yen. The relative position of the United States is also anticipated to decline as the relative position of China rises.

According to structural theory the relative changes in capabilities should lead to further structural changes, and action by the leader as much as reaction by the followers. If the discussion were about military alliances it might be natural to predict attempts to thwart balancing alliances against it by the hegemon, or an attempt toward systemic disruption to its advantage, or attempts to seek its own alliance partners so that the relative capabilities of the group led by it are that much greater than the relative capabilities of the groups led by rivals. In monetary affairs, it seems unnatural to anticipate that the US might seek to thwart an Asian monetary union from developing especially if the region (or some parts of it) is an optimum currency area, to attribute systemic disruptions such as currency crises to the Wall Street-Washington Complex especially when experts agree that it is the fault of economic fundamentals that trigger exodus of the financial herd, or to expect the United States might promote dollarization in Latin America (and other parts of the world, notably the Middle East, Russia, and parts of Asia). If the discussion were about military affairs, we would expect a prudent state to do precisely that, or fall by the wayside. Structural theory is clear about this: If the United States wants to maintain this position as system leader (in this case, at the top of the international monetary system) it should act to maintain its relative lead; what actions it takes to do this is a question for foreign policy analysts and economists. My own opinion is that so long as American

financial markets remain dominant (something that depends in large part on the strength of the US economy) and key commodities, such as oil, continue to be invoiced in US currency, the dollar will maintain its key currency position. But that doesn't mean others don't or won't covet this role.

Who might be the next candidates to form a monetary union? Here again relative capabilities play a key role. A common view is that EMU has only been made possible by the presence of a strong currency backed by a strong economy—Germany, the systemic leader. The role of Germany is then seen as pivotal, with the implication that other regions cannot proceed as far as Europe into a common currency unless they rely on a large champion. For some of the smaller countries of Latin America the strong champion is clearly the United States. For some of the smaller countries in Asia there are two possible champions—China (if it chooses to float the yuan) and Japan (which seeks this role now). Larger states have more options including the option to opt-out of any regional arrangement. For those with options, political considerations of national pride are likely to take center stage. For those with fewer options, regional arrangements around a hegemonic leader are the likely outcome, and the question being when and with whom not whether.

Why don't all states do it? The answer depends on their relative capabilities, the extent of the threat of the anarchical environment, and the extent of socialization in the direction of monetary union. A prime example of the absence of even a dialogue of monetary union (even a hostility to the suggestion in some cases) is within North America. The three partners in the North American Free Trade Agreement (NAFTA), the United States, Canada, and Mexico, are highly integrated with one another, both

economically and financially. There is a very large volume of cross-border foreign direct investment in North America, and a mobile labor force (especially Mexican immigration to the US). Canada and Mexico are as open and trade dependent as many Asian economies. Regional supply chains are highly articulated. Capital accounts are open. U.S. banks are now the dominant players in the Mexican market. The number one country of arrivals to the US market is Canada, and Canadian migration to retirement homes in Florida is so common that Canadian television stations are now part of the cable offerings in south Florida. Yet not only do the three countries retain their own currencies, but those currencies float against one another with little if any foreign-exchange market intervention by any of the three national central banks. Nationalism plays a key role in the Mexican and Canadian aversion to a monetary union with the United States. But all three are also able to weather economic storms alone. Despite its continued developing country status, Mexico is in a relatively better position than many of its Latin American neighbors. All would agree that Mexico is not Ecuador or El Salvador, or even Argentina for that matter. And its close economic ties to the US mean it can expect assistance in the event of severe crisis (as demonstrated by the US engineered bail-out of 1994), although it knows not to abuse this. Canada is one of the world's strongest industrial economies, while its relatively little traded currency is rarely a target of speculators. The monetary policy of each central bank is anchored by a commitment to low and stable inflation (formally in Canada and Mexico, and informally in the US). Thus while fluctuation of their exchange rates is far from negligible, it does not hamper regional economic integration or undermine financial stability. Meanwhile, the US dollar is the currency of choice in trade invoicing in both Mexico and Canada, resulting in zero transaction costs

for American firms while requiring nothing from the Federal Reserve in terms of transnational surveillance, sovereignty limitations and seignorage sharing. In short, a currency union would add little to the relative capabilities of any of the three states involved, while the pressures of an anarchical financial environment and socialization to stabilize exchange rate fluctuations and reduce transactions costs are relatively minimal compared with some other regions.

But the European experiment is not easily transplanted! I agree that the particular arrangements creating and governing the European monetary union are specific to the circumstances and history of that region. And history is not transplantable. However, by looking too closely at the details we miss the bigger picture. This dissertation has argued that monetary unions do have some common denominators that can allow them to be described by a single theoretical approach, the structural theory already dominant in international relations as presented by Waltz in 1979. The power of the Waltzian structural argument applied to international monetary relations is that it is independent of the admittedly varied political and economic domestic conditions that are particular to each state, each people, each region. It allows for a systemic analysis of states that are very different if we look inside the black box, but quite similar once we close the black box. Predictive power thus becomes more robust. That is not to say that domestic political and economic circumstances are not important, quite the contrary they are quite important. Local circumstances set up the groundwork for a state's vulnerability to threat in the anarchical environment and its exposure to the forces of socialization and competition.

OCA and structural theory. Policymakers are hardly sitting and waiting for economists to agree whether their state and their trading partners are an optimum currency area before considering the matter. Neither are they ready to jump into the proverbial monetary bed with another state simply because economists tell them they are indeed an optimum currency area. Economic analysis has tremendous influence of course, but to suppose that a political decision to enter into a currency union is governed by economic facts alone is missing the reality of policymaking and international relations. Some economists have pointed this out themselves. In discussing whether Asia will achieve a regional monetary union, economists skeptical about the project do not point to faulty OCA criteria, which most agree exist, but on institutional considerations and the weak political will to create the necessary structural changes in their relations with each other. This implies that OCA theory is necessary but not sufficient to determine whether a state will enter into a currency union or not. It also implies that not only do we need an economic theory of monetary compatibility, which OCA provides, we need a political theory of structural change, which is provided by neorealism. We might consider then a final conclusion with predictive power: If in a group of states OCA criteria are present and these states face similar levels of threat and socialization then they are likely to seek a monetary alliance in the form of a currency union, a likelihood which is inversely proportional to the state's relative capabilities. Indeed, structural theory makes this prediction even without considering OCA criteria, which, to the extent they lie inside the black box, may be endogenous to neorealism.

Mundell, Waltz and the future of the international monetary system. Mundell foresees the possibility of further currency blocs developing in Asia, centered on Japan

(with China), Latin America, centered on the dollar or home-grown in Mercosur, and possibly Africa. “In the near future the world will become less dependent on the dollar, and power in the international monetary system will be distributed differently,” predicts Mundell (2002a, 7) “The idea of a world currency today seems a long way off. But opposition to large currency areas or a world currency among modern economists is in sharp contrast to the opinion of all the great economists in the past—without exception. The ideal system for economists of the past would be a single money for the world, the very apotheosis of fixed exchange rates. A single money would maximize the properties of money as a unit of account, a convenience in exchange, a measure of value, and a unit of deferred payments (especially if it were a stable money!) and information and transactions costs.”⁴⁶⁸ Mundell proposes a G-3 three currency monetary union, via locking exchange rates, a common monetary policy and an agreement on seignorage, and eventually a common international currency—the INTOR.⁴⁶⁹

And what will the United States have to say about a world currency that is not the dollar? Probably not much that is positive. “A common theme throughout monetary history,” says Mundell (2002a, 15) “is that the top financial power has a stake in rejecting international monetary reform because it reduces its own monopoly.” Mundell also describes the future of international monetary relations as a dynamic balance of power where financial hegemons rise and fall as new competitors challenge their power and position. “Currency power configurations are never static. They evolve along predictable lines with the growth and decline of nations. Looking at the international monetary

⁴⁶⁸ Mundell 2002a, 8.

⁴⁶⁹ Mundell 2002a, 15.

system as a constantly evolving oligopoly, it seems inevitable that a countervailing power would develop to challenge the dollar. Now, at the close of the “American century”, the euro has appeared as a potential rival, the countervailing power, to the dollar.”⁴⁷⁰ To the extent that a world currency decreases America’s relative capabilities it can be expected to resist such systemic change, and the same can be said for the European Union with its euro, and that too, is predicted by neorealism.

⁴⁷⁰ On his website, www.robertmundell.net.

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Appendix I.

Statistical Appendix

Table 17. Countries in Regression Dataset

| | | |
|--------------------------|-------------------|----------------|
| Albania | Greece | New Zealand |
| Algeria | Guatemala | Nicaragua |
| Angola | Guinea | Niger |
| Argentina | Guinea-Bissau | Nigeria |
| Armenia | Guinea-Equatorial | Norway |
| Australia | Guyana | Pakistan |
| Austria | Haiti | Panama |
| Azerbaijan | Honduras | Paraguay |
| Belarus | Hungary | Peru |
| Belgium | India | Philippines |
| Benin | Indonesia | Poland |
| Bolivia | Iran | Portugal |
| Botswana | Iraq | Romania |
| Brazil | Ireland | Russia |
| Bulgaria | Israel | Saudi Arabia |
| Burkina Faso | Italy | Senegal |
| Burundi | Ivory Coast | Singapore |
| Cameroon | Jamaica | Slovakia |
| Canada | Japan | Slovenia |
| Central African Republic | Jordan | South Africa |
| Chad | Kazakhstan | Spain |
| Chile | Kenya | Sri Lanka |
| China | Korea (South) | Swaziland |
| Colombia | Kuwait | Sweden |
| Congo | Laos | Switzerland |
| Costa Rica | Latvia | Syria |
| Croatia | Lebanon | Tajikistan |
| Cyprus | Lesotho | Tanzania |
| Czech Republic | Liberia | Thailand |
| Denmark | Lithuania | Togo |
| Dominican Republic | Macedonia (FYROM) | Tunisia |
| Ecuador | Madagascar | Turkey |
| Egypt | Malawi | Turkmenistan |
| El Salvador | Malaysia | Uganda |
| Estonia | Mali | Ukraine |
| Finland | Mauritania | United Kingdom |
| France | Mauritius | Uruguay |
| Gabon | Mexico | USA |
| Gambia | Mongolia | Venezuela |
| Germany | Morocco | Zambia |
| Germany (West) | Nepal | Zimbabwe |
| Ghana | Netherlands | |

Table 18. Reinhart-Rogoff Exchange Regime Classifications:

| Natural Classification Bucket | Number assigned to category in fine grid (exchangeregimemcode variable) |
|---|--|
| No separate legal tender (currency union) | 1 |
| Pre-announced peg or currency board arrangement | 2 |
| Pre-announced horizontal band that is narrower than or equal to +/- 2% | 3 |
| De facto peg | 4 |
| Pre-announced crawling peg | 5 |
| Pre announced crawling band that is narrower than or equal to +/- 2% | 6 |
| De facto crawling peg | 7 |
| De facto crawling band that is narrower than or equal to +/- 2% | 8 |
| Pre announced crawling band that is narrower than or equal to +/- 5% | 9 |
| De facto crawling band that is narrower than or equal to +/- 5% | 10 |
| Moving band that is narrower than or equal to +/- 2% (i.e. allows for both appreciation and depreciation over time) | 11 |
| Managed floating | 12 |
| Freely floating | 13 |
| Freely falling | 14 |

* Source: Carmen M. Reinhart and Kenneth S. Rogoff (March 3, 2003) The Modern History of Exchange Rate Arrangements: A Reinterpretation, pg. 37.

Table 19. Description of Variables

(27 vars, 7750 obs)

Contains data

obs: 7,750 (max= 134,431)
vars: 27 (max= 2,696)
width: 148 (max= 2,696)
size: 1,209,000 (max=20,971,512)

| variable name | storage type | display format | value label | variable label |
|-----------------|--------------|----------------|-------------|-----------------------|
| country | | str22 | %22s | COUNTRY |
| regiona | | byte | %8.0g | REGIONA |
| year | | int | %8.0g | YEAR |
| exchangeregim-e | | byte | %8.0g | exchange regime mcode |
| mgcode | | byte | %8.0g | |
| polity2 | | byte | %8.0g | POLITY2 |
| ccode | | int | %8.0g | CCODE |
| milper | | int | %8.0g | MILPER |
| milex | | long | %12.0g | MILEX |
| energy | | long | %12.0g | ENERGY |
| irst | | long | %12.0g | IRST |
| tpop | | long | %12.0g | TPOP |
| ckon | | double | %10.0g | CKON |
| gkon | | double | %10.0g | GKON |
| ikon | | double | %10.0g | IKON |
| expk | | double | %10.0g | EXPK |
| impk | | double | %10.0g | IMPK |
| ccur | | double | %10.0g | CCUR |
| gcur | | double | %10.0g | GCUR |
| icur | | double | %10.0g | ICUR |
| expc | | double | %10.0g | EXPC |
| impc | | double | %10.0g | IMPC |
| xrat | | float | %9.0g | XRAT |
| rgdpl | | float | %9.0g | |
| cgdp | | float | %9.0g | |
| y | | float | %9.0g | |
| ppp | | float | %9.0g | PPP |

Table 20. Summary of Data

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|------|----------|-----------|-----------|----------|
| country | 0 | | | | |
| regiona | 7750 | 3.864 | 2.394628 | 1 | 9 |
| year | 7750 | 1970.5 | 17.89668 | 1940 | 2001 |
| exchangere~e | 6504 | 6.225861 | 4.720404 | 1 | 15 |
| mgcode | 6504 | 2.073954 | 1.430615 | 1 | 6 |
| polity2 | 5873 | .5794313 | 7.516005 | -10 | 10 |
| ccode | 7743 | 428.0532 | 227.0123 | 2 | 920 |
| milper | 5703 | 229.8866 | 710.8978 | -9 | 12500 |
| milex | 5621 | 4237767 | 2.20e+07 | -9 | 3.22e+08 |
| energy | 5826 | 70653.79 | 257907.5 | 0 | 3096356 |
| irst | 5860 | 5078.866 | 17439.48 | 0 | 163000 |
| tpop | 5862 | 35920.29 | 114781.2 | 251 | 1277673 |
| ckon | 4823 | 7.22e+13 | 6.10e+14 | 1.99e+08 | 1.12e+16 |
| gkon | 4825 | 1.28e+13 | 1.01e+14 | 2.45e+07 | 2.19e+15 |
| ikon | 4828 | 2.32e+13 | 2.12e+14 | -3.24e+10 | 4.85e+15 |
| expk | 4794 | 1.76e+13 | 1.64e+14 | 4.288062 | 4.71e+15 |
| impk | 4794 | 2.06e+13 | 2.09e+14 | 4.222224 | 6.22e+15 |
| ccur | 5034 | 5.25e+13 | 1.60e+15 | .0000703 | 8.90e+16 |
| gcur | 5036 | 9.92e+12 | 3.16e+14 | .0000127 | 1.75e+16 |
| icur | 5039 | 1.63e+13 | 4.74e+14 | -4.90e+09 | 2.77e+16 |
| expc | 5007 | 1.80e+13 | 5.36e+14 | .0000113 | 2.98e+16 |
| impc | 5007 | 2.12e+13 | 6.72e+14 | 8.00e-06 | 3.89e+16 |
| xrat | 5030 | 517.0834 | 11675.73 | 7.00e-15 | 625218 |
| rgdpl | 4744 | 5739.128 | 5814.325 | 326.4919 | 33308.4 |
| cgdp | 4748 | 3710.758 | 5181.548 | 98.10746 | 35618.67 |
| y | 4748 | 28.53885 | 26.25052 | 1.376197 | 124.9389 |
| ppp | 5002 | 343.2021 | 9435.228 | 1.52e-14 | 505136 |

Table 21. Initial Correlation Table

| | exchan~e | mgcode | polity2 | milper | milex |
|--------------|----------|---------|---------|--------|--------|
| exchangere~e | 1.0000 | | | | |
| mgcode | 0.9383 | 1.0000 | | | |
| polity2 | 0.0674 | 0.0265 | 1.0000 | | |
| milper | 0.1206 | 0.0767 | 0.0289 | 1.0000 | |
| milex | 0.1236 | 0.1084 | 0.1470 | 0.4652 | 1.0000 |
| energy | 0.1106 | 0.0933 | 0.1748 | 0.6591 | 0.8872 |
| irst | 0.1131 | 0.0928 | 0.2215 | 0.6112 | 0.6263 |
| tpop | 0.0927 | 0.0457 | -0.0107 | 0.8112 | 0.2536 |
| ckon | 0.1175 | 0.1288 | 0.0802 | 0.0961 | 0.0091 |
| gkon | 0.1084 | 0.1194 | 0.0829 | 0.0949 | 0.0098 |
| ikon | 0.1046 | 0.1178 | 0.0751 | 0.0894 | 0.0128 |
| expk | 0.0904 | 0.1020 | 0.0635 | 0.0827 | 0.0152 |
| impk | 0.0921 | 0.1044 | 0.0606 | 0.0811 | 0.0123 |
| ccur | 0.0274 | 0.0270 | 0.0266 | 0.0361 | 0.0114 |
| gcur | 0.0258 | 0.0252 | 0.0252 | 0.0349 | 0.0102 |
| icur | 0.0295 | 0.0296 | 0.0277 | 0.0371 | 0.0121 |
| expc | 0.0272 | 0.0269 | 0.0263 | 0.0363 | 0.0109 |
| impc | 0.0262 | 0.0260 | 0.0248 | 0.0347 | 0.0100 |
| xrat | 0.0308 | 0.0327 | 0.0225 | 0.0338 | 0.0070 |
| rgdpl | 0.0839 | 0.0051 | 0.5803 | 0.0898 | 0.3685 |
| cgdp | 0.1650 | 0.0815 | 0.4692 | 0.0537 | 0.3747 |
| y | -0.0141 | -0.0692 | 0.5852 | 0.1122 | 0.2986 |
| ppp | 0.0287 | 0.0295 | 0.0236 | 0.0356 | 0.0083 |

| | energy | irst | tpop | ckon | gkon |
|--------|--------|--------|---------|---------|--------|
| energy | 1.0000 | | | | |
| irst | 0.8328 | 1.0000 | | | |
| tpop | 0.4237 | 0.4348 | 1.0000 | | |
| ckon | 0.0021 | 0.0449 | 0.0131 | 1.0000 | |
| gkon | 0.0057 | 0.0516 | 0.0145 | 0.9790 | 1.0000 |
| ikon | 0.0074 | 0.0579 | 0.0153 | 0.9527 | 0.9759 |
| expk | 0.0077 | 0.0507 | 0.0151 | 0.9014 | 0.9449 |
| impk | 0.0041 | 0.0411 | 0.0129 | 0.9142 | 0.9506 |
| ccur | 0.0048 | 0.0264 | 0.0079 | 0.4996 | 0.5727 |
| gcur | 0.0039 | 0.0233 | 0.0072 | 0.4885 | 0.5631 |
| icur | 0.0059 | 0.0308 | 0.0086 | 0.5064 | 0.5777 |
| expc | 0.0043 | 0.0246 | 0.0080 | 0.4984 | 0.5712 |
| impc | 0.0035 | 0.0223 | 0.0073 | 0.4884 | 0.5608 |
| xrat | 0.0003 | 0.0172 | 0.0057 | 0.5072 | 0.5816 |
| rgdpl | 0.3682 | 0.3934 | -0.0438 | 0.0122 | 0.0203 |
| cgdp | 0.3159 | 0.3216 | -0.0150 | 0.0285 | 0.0322 |
| y | 0.3473 | 0.3864 | -0.0642 | -0.0057 | 0.0042 |
| ppp | 0.0015 | 0.0200 | 0.0060 | 0.5136 | 0.5881 |

| | ikon | expk | impk | ccur | gcur |
|-------|--------|--------|---------|---------|---------|
| ikon | 1.0000 | | | | |
| expk | 0.9556 | 1.0000 | | | |
| impk | 0.9670 | 0.9937 | 1.0000 | | |
| ccur | 0.5925 | 0.7320 | 0.7324 | 1.0000 | |
| gcur | 0.5790 | 0.7180 | 0.7191 | 0.9989 | 1.0000 |
| icur | 0.6050 | 0.7407 | 0.7429 | 0.9904 | 0.9842 |
| expc | 0.5918 | 0.7331 | 0.7330 | 0.9994 | 0.9973 |
| impc | 0.5820 | 0.7203 | 0.7223 | 0.9976 | 0.9951 |
| xrat | 0.6013 | 0.7398 | 0.7410 | 0.9972 | 0.9967 |
| rgdpl | 0.0206 | 0.0272 | 0.0166 | 0.0116 | 0.0094 |
| cgdp | 0.0382 | 0.0512 | 0.0396 | 0.0282 | 0.0249 |
| y | 0.0005 | 0.0003 | -0.0065 | -0.0041 | -0.0051 |
| ppp | 0.6085 | 0.7468 | 0.7477 | 0.9979 | 0.9972 |

| | icur | expc | impc | xrat | rgdpl |
|-------|---------|---------|---------|---------|--------|
| icur | 1.0000 | | | | |
| expc | 0.9928 | 1.0000 | | | |
| impc | 0.9961 | 0.9983 | 1.0000 | | |
| xrat | 0.9855 | 0.9965 | 0.9935 | 1.0000 | |
| rgdpl | 0.0135 | 0.0112 | 0.0091 | -0.0001 | 1.0000 |
| cgdp | 0.0303 | 0.0281 | 0.0252 | 0.0183 | 0.8929 |
| y | -0.0027 | -0.0047 | -0.0057 | -0.0154 | 0.9017 |
| ppp | 0.9849 | 0.9969 | 0.9928 | 0.9985 | 0.0036 |
| | cgdp | y | ppp | | |
| cgdp | 1.0000 | | | | |
| y | 0.6357 | 1.0000 | | | |
| ppp | 0.0205 | -0.0109 | 1.0000 | | |

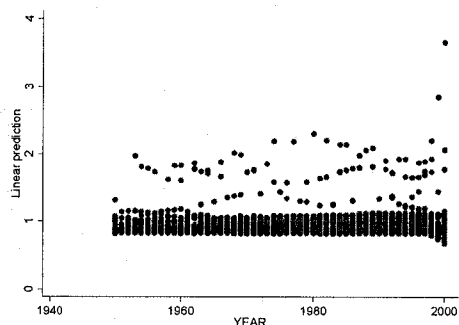
Table 22. Correlations of selected variables with transformed variables

| | exchan-e | xrat | xratrate | power | avpower | relpower | gkon |
|--------------|----------|----------|----------|---------|----------|----------|---------|
| exchangere-e | 1.0000 | | | | | | |
| xrat | 0.0312 | 1.0000 | | | | | |
| xratrate | -0.0587 | 0.0022 | 1.0000 | | | | |
| power | 0.0279 | 0.9970 | 0.0017 | 1.0000 | | | |
| avpower | 0.0301 | 0.3509 | 0.0053 | 0.3525 | 1.0000 | | |
| relpower | 0.1783 | 0.1643 | -0.0726 | 0.1653 | 0.0105 | 1.0000 | |
| gkon | 0.1115 | 0.5890 | 0.0058 | 0.5720 | 0.1951 | 0.3353 | 1.0000 |
| avgkon | 0.1101 | 0.1955 | 0.0210 | 0.1913 | 0.5515 | 0.0053 | 0.3260 |
| relgkon | 0.1251 | 0.1330 | 0.0130 | 0.1267 | 0.0177 | 0.4782 | 0.4402 |
| ikon | 0.1056 | 0.6161 | 0.0053 | 0.5969 | 0.2044 | 0.3237 | 0.9767 |
| avikon | 0.1047 | 0.2006 | 0.0174 | 0.1959 | 0.5665 | 0.0061 | 0.3143 |
| relikon | 0.1070 | 0.1379 | 0.0155 | 0.1317 | 0.0177 | 0.5004 | 0.4507 |
| ckon | 0.1191 | 0.5150 | 0.0059 | 0.4986 | 0.1677 | 0.3108 | 0.9803 |
| expk | 0.0915 | 0.7498 | 0.0049 | 0.7309 | 0.2518 | 0.3236 | 0.9436 |
| impk | 0.0930 | 0.7522 | 0.0046 | 0.7331 | 0.2520 | 0.3031 | 0.9489 |
| exchangere-e | 1.0000 | 0.0312 | -0.0587 | 0.0279 | 0.0301 | 0.1783 | 0.1115 |
| milex2 | 0.0267 | 0.9970 | 0.0017 | 1.0000 | 0.3524 | 0.1630 | 0.5717 |
| avmilex | 0.1025 | 0.0037 | 0.0131 | 0.0121 | 0.0343 | 0.0133 | 0.0117 |
| avmilex2 | 0.0289 | 0.3510 | 0.0051 | 0.3524 | 0.9997 | 0.0103 | 0.1962 |
| relmilex2 | 0.0452 | 0.1645 | 0.0203 | 0.1582 | 0.0191 | 0.5397 | 0.3540 |
| polity2 | 0.1013 | 0.0238 | -0.0131 | 0.0279 | -0.0122 | 0.1017 | 0.0857 |
| avpolity2 | 0.0549 | -0.0234 | 0.0206 | -0.0186 | -0.0518 | 0.0025 | -0.0587 |
| relpolity2 | 0.0057 | -0.0103 | 0.0654 | -0.0088 | -0.0066 | -0.0094 | -0.0192 |
| rgdp | 0.1424 | 0.0140 | 0.0031 | 0.0272 | 0.0192 | 0.2751 | 0.0479 |
| avrgdp | 0.0811 | -0.0020 | 0.0184 | 0.0078 | 0.0232 | 0.0128 | -0.0055 |
| relrgdp | 0.2026 | 0.0292 | -0.0859 | 0.0347 | 0.0052 | 0.8313 | 0.1079 |
| y | 0.0040 | -0.0146 | 0.0202 | -0.0020 | -0.0122 | 0.1540 | 0.0084 |
| | avgkon | relgkon | ikon | avikon | relikon | ckon | expk |
| avgkon | 1.0000 | | | | | | |
| relgkon | 0.0300 | 1.0000 | | | | | |
| ikon | 0.3203 | 0.3842 | 1.0000 | | | | |
| avikon | 0.9712 | 0.0347 | 0.3246 | 1.0000 | | | |
| relikon | 0.0297 | 0.9774 | 0.3966 | 0.0341 | 1.0000 | | |
| ckon | 0.3211 | 0.4161 | 0.9536 | 0.3068 | 0.4285 | 1.0000 | |
| expk | 0.3088 | 0.3529 | 0.9579 | 0.3096 | 0.3634 | 0.9015 | 1.0000 |
| impk | 0.3129 | 0.3321 | 0.9685 | 0.3143 | 0.3421 | 0.9138 | 0.9937 |
| exchangere-e | 0.1101 | 0.1251 | 0.1056 | 0.1047 | 0.1070 | 0.1191 | 0.0915 |
| milex2 | 0.1916 | 0.1254 | 0.5966 | 0.1960 | 0.1303 | 0.4984 | 0.7307 |
| avmilex | 0.0196 | 0.0352 | 0.0121 | 0.0290 | 0.0380 | 0.0107 | 0.0156 |
| avmilex2 | 0.5549 | 0.0172 | 0.2056 | 0.5700 | 0.0172 | 0.1688 | 0.2529 |
| relmilex2 | 0.0279 | 0.6986 | 0.3289 | 0.0289 | 0.7359 | 0.3113 | 0.3241 |
| polity2 | -0.1374 | 0.1750 | 0.0789 | -0.1166 | 0.1857 | 0.0822 | 0.0672 |
| avpolity2 | -0.2366 | 0.1019 | -0.0608 | -0.2076 | 0.1008 | -0.0770 | -0.0438 |
| relpolity2 | -0.0092 | 0.0139 | -0.0180 | -0.0078 | 0.0170 | -0.0211 | -0.0183 |
| rgdp | -0.0296 | 0.1641 | 0.0506 | -0.0112 | 0.1757 | 0.0447 | 0.0479 |
| avrgdp | -0.0405 | 0.0478 | -0.0019 | -0.0137 | 0.0485 | -0.0076 | 0.0034 |
| relrgdp | 0.0018 | 0.1582 | 0.1013 | 0.0021 | 0.1720 | 0.1072 | 0.0854 |
| y | -0.0308 | 0.0970 | 0.0050 | -0.0254 | 0.1082 | -0.0011 | 0.0046 |
| | impk | exchan-e | milex2 | avmilex | avmilex2 | relmil-2 | polity2 |
| impk | 1.0000 | | | | | | |
| exchangere-e | 0.0930 | 1.0000 | | | | | |
| milex2 | 0.7329 | 0.0267 | 1.0000 | | | | |
| avmilex | 0.0130 | 0.1025 | 0.0060 | 1.0000 | | | |
| avmilex2 | 0.2532 | 0.0289 | 0.3524 | 0.0190 | 1.0000 | | |
| relmilex2 | 0.3014 | 0.0452 | 0.1570 | 0.0130 | 0.0190 | 1.0000 | |
| polity2 | 0.0636 | 0.1013 | 0.0262 | 0.1949 | -0.0154 | 0.0373 | 1.0000 |
| avpolity2 | -0.0544 | 0.0549 | -0.0208 | 0.2864 | -0.0566 | -0.0070 | 0.6798 |
| relpolity2 | -0.0184 | 0.0057 | -0.0088 | -0.0040 | -0.0064 | 0.0277 | 0.0660 |
| rgdp | 0.0389 | 0.1424 | 0.0189 | 0.7295 | 0.0055 | 0.1529 | 0.1986 |

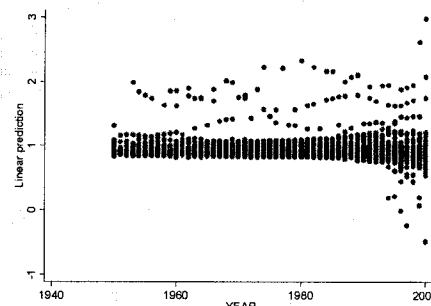
| | | | | | | | |
|------------|----------|----------|---------|--------|---------|--------|--------|
| avrgdp | -0.0012 | 0.0811 | 0.0013 | 0.8891 | 0.0059 | 0.0098 | 0.2468 |
| relrgdp | 0.0817 | 0.2026 | 0.0323 | 0.0092 | 0.0050 | 0.1686 | 0.0991 |
| y | -0.0030 | 0.0040 | -0.0050 | 0.3413 | -0.0165 | 0.0507 | 0.5799 |
| | avpoli~2 | relpol~2 | rgdp | avrgdp | relrgdp | | y |
| avpolity2 | 1.0000 | | | | | | |
| relpolity2 | 0.0028 | 1.0000 | | | | | |
| rgdp | 0.2591 | -0.0000 | 1.0000 | | | | |
| avrgdp | 0.3711 | -0.0086 | 0.7816 | 1.0000 | | | |
| relrgdp | -0.0042 | -0.0169 | 0.2955 | 0.0069 | 1.0000 | | |
| y | 0.6868 | 0.0116 | 0.3596 | 0.3646 | 0.1738 | 1.0000 | |

Residuals of selected dependent variables following GLS AR(1) regressions

Relative Military Expenditures



Relmiles2 residuals without milex2

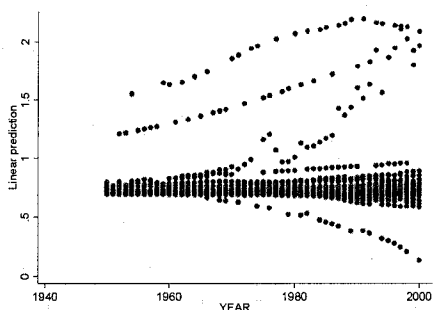


Relmiles2 residuals with milex2 in the regression

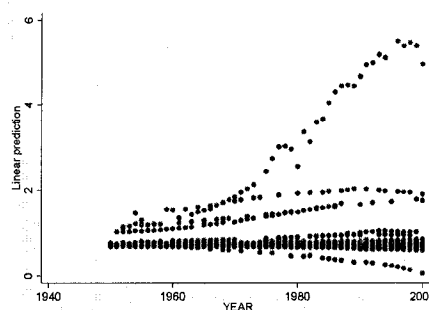
| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|------|----------|-----------|----------|----------|
| relmiresids | 3806 | .9053189 | .1468131 | .6748341 | 3.659488 |
| relmilesre~d | 3679 | .920437 | .1539415 | -.480636 | 2.983853 |

Adding milex2 to control for weapons systems increases chi-square from 9 to 19 but does not add significantly to the variance in the regression residuals.

Relative Government Expenditures



Relgkon residuals without fiscal policy

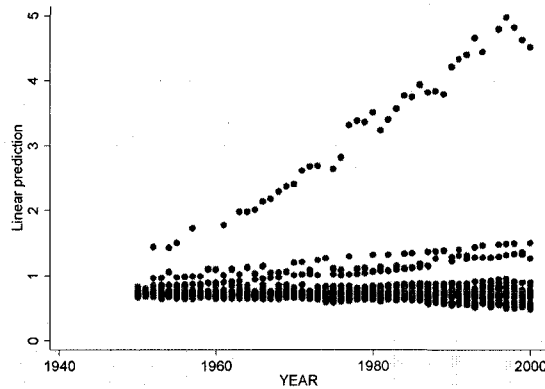


Relgkon residuals controlling for fiscal policy

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|-------------|------|----------|-----------|----------|----------|
| gkonresids | 3826 | .7259206 | .1432441 | .1349894 | 2.193117 |
| gkonresids1 | 3826 | .7342467 | .3246637 | .0596126 | 5.516538 |

Adding a control for fiscal policy increases chi-square substantially (in this case four-fold) but doubles the standard deviation of the residuals. R-squared also increased substantially with the control for fiscal policy, as did the significance of several coefficients (while direction did not change).

Relative Investment



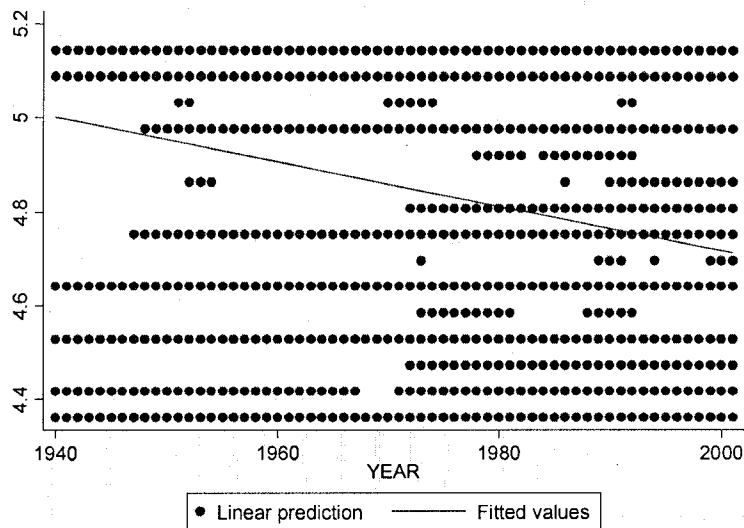
Relative investment residuals regardless of controls in the regression produced a distribution with shape shown above with a clear outlier.

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|-------------|------|----------|-----------|----------|----------|
| ikonresids1 | 3862 | .75045 | .2882276 | .4878546 | 4.9823 |
| ikonresids2 | 3862 | .7558213 | .3744931 | .381388 | 6.01694 |
| ikonresids3 | 3862 | .7528671 | .3240858 | .4376661 | 5.401597 |
| ikonresids4 | 3862 | .7556441 | .3694694 | .3842293 | 6.042898 |
| ikonresids5 | 3866 | .7503079 | .2618087 | .3951922 | 4.978946 |
| ikonresids6 | 3866 | .7514229 | .2870782 | .3936919 | 5.249082 |
| ikonresids7 | 3826 | .7577416 | .2730674 | .5045734 | 5.048206 |
| ikonresids8 | 3826 | .7573409 | .3031296 | .3897681 | 5.333008 |
| ikonresids9 | 3826 | .7573811 | .2958784 | .390024 | 5.299136 |

It is noteworthy that the direction of the sign of the monetary variables (negative) does not change with each succeeding model; neither does the significance. The size of the coefficient is what varies.

Democraticness

Because Polity2 and exchange regime are both ordered categorical variables, bivariate regressions were conducted using the Logit model. Using this model, the exchange regime was found to be both negative and significant in its effect on democraticness, that is, as the currency moves from greater stability to free fall, the political stability declines. The logit model was unable to calculate chi-squares when numerical variables were added indicating a problem with the model's fit with the data. Because of this, and to ensure a level of consistency with other dependent variable tests within the panel, the same panel tests were used for "democraticness" that is, Autoregressive GLS, Cochrane-Orcutt and Arellano-Bond. Nonetheless, the bivariate logit result is an important indicator of the relationship between political stability and monetary stability.

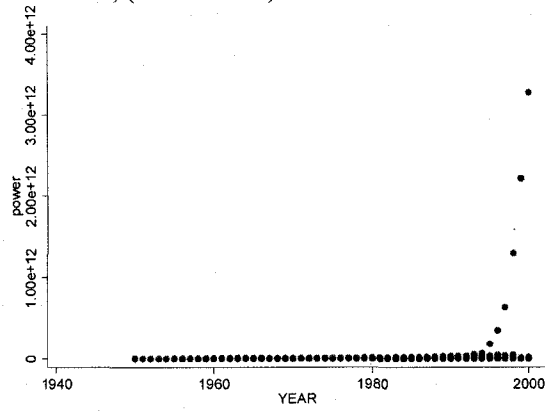


Residuals of xtlogit regression of polity2 against exchange regime

Graphical representation of dependent variables

Figure D1. Power and Relative Power

Power Year, (all countries):



Relpower Year, (all countries):

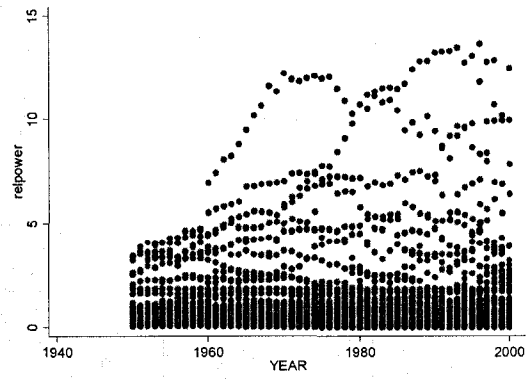
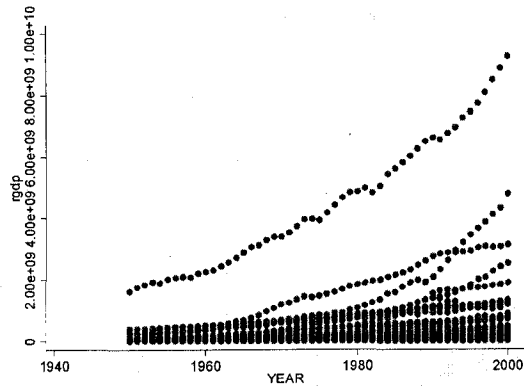


Figure D2. Real GDP and Relative GDP

RGDP (real GDP) Year, (all countries):



Relrgdp (relative real) by Year (all countries):

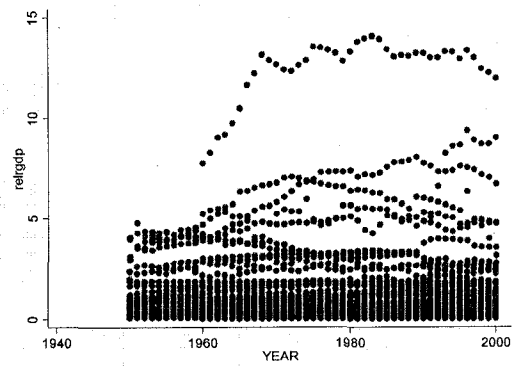
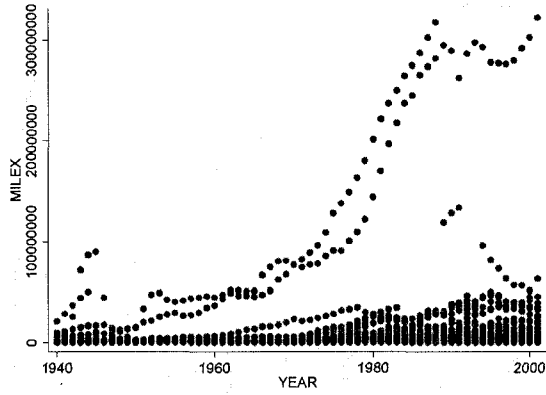
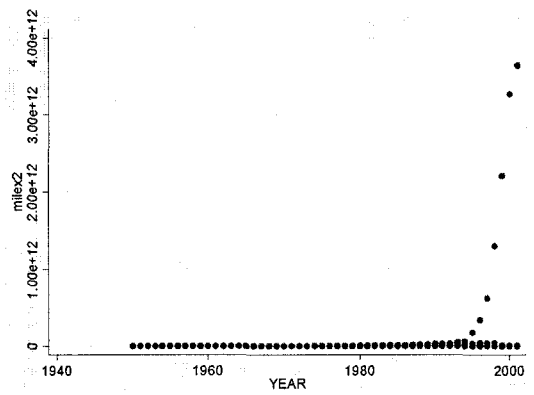


Figure D3. Military Expenditures (real, nominal) and Relative Military Expenditures

Milex (nominal military expenditures) Year:



Milex2 (Milex times PPP deflator) by Year (all countries):



Relmilex2 (relative real military expenditures) by Year (all countries):

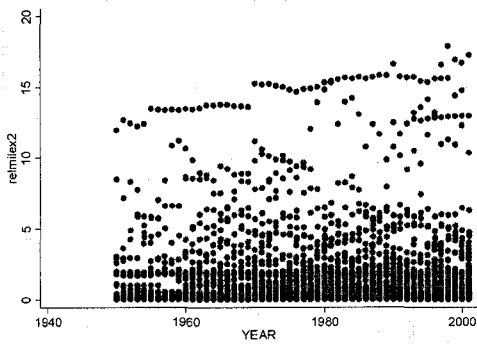
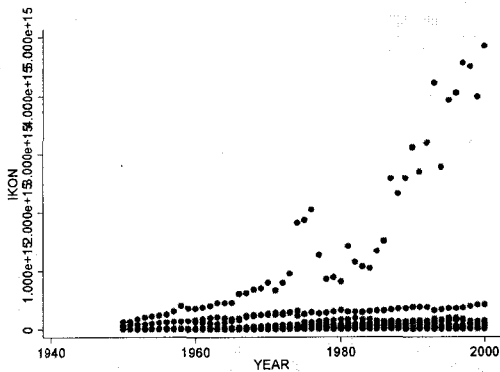


Figure D4. Investment and Relative Investment

Ikon (real investment) Year (all countries):



Relikon (relative real investment) Year (all countries):

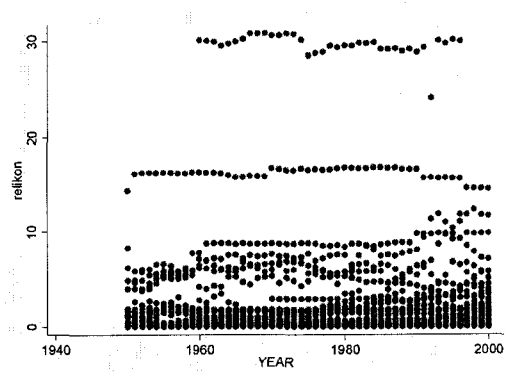


Figure D5. Government Expenditures and Real Government Expenditures

Gkon (government expenditures) Year (all countries): Relgkon Year (all countries):

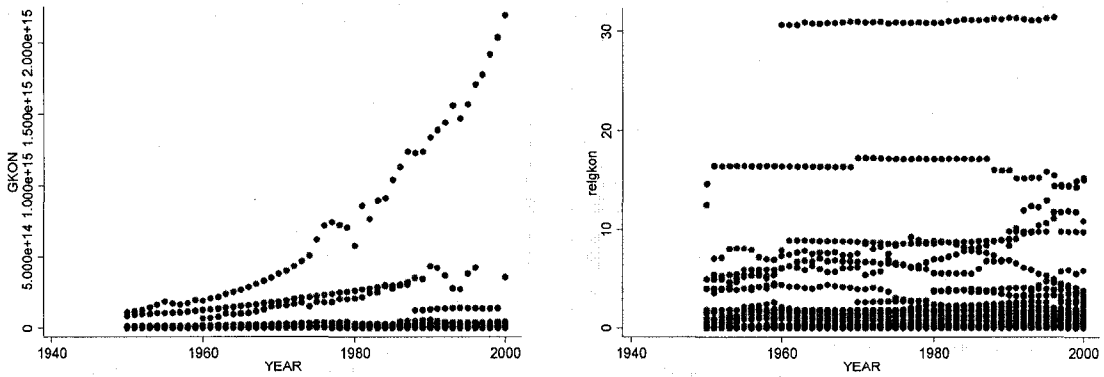
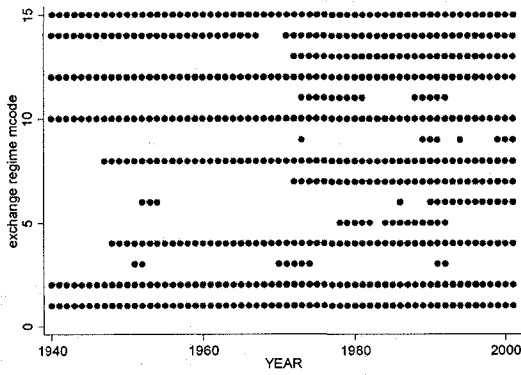
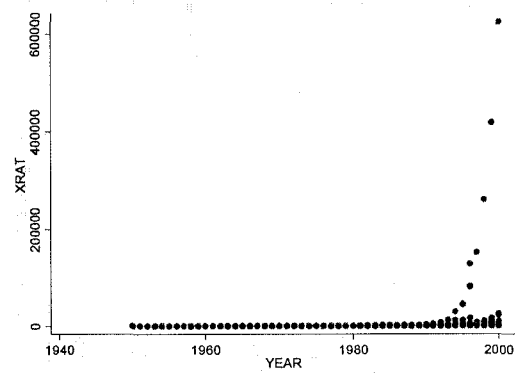


Figure D6. Monetary variables

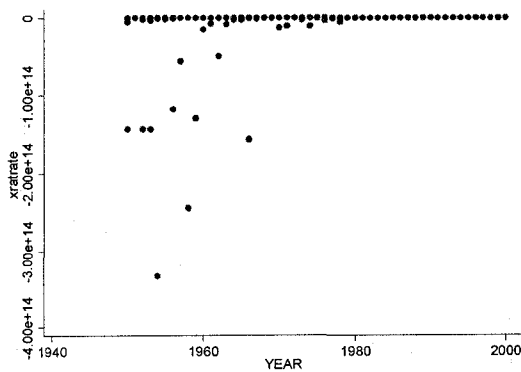
Exchange regime year (all countries):



Xrat Year (all countries):



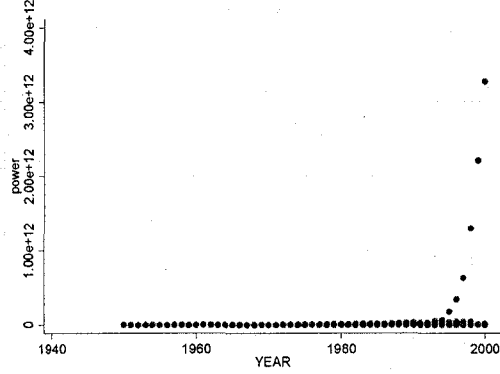
Xratrate Year (all countries):



Graphical representation of dependent variables
(with USA, USSR/Russia and China removed)

Figure D1a. Power and Relative Power

Power Year (w/o USA, Russia, China):



Relpower Year (w/o USA, Russia, China):

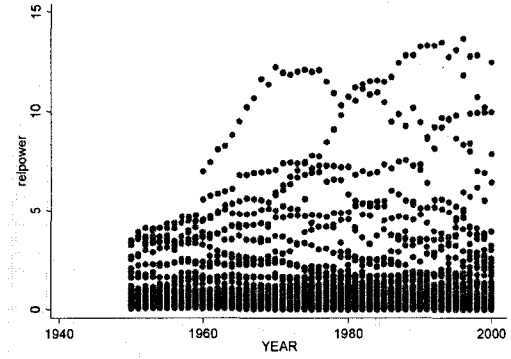
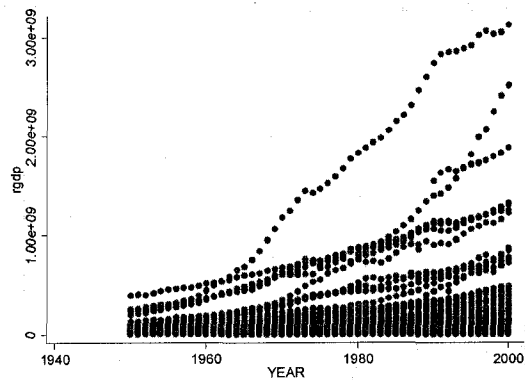


Figure D2a. Real and Relative GDP

RGDP Year (w/o USA, Russia, China):



Relrgdp year (w/o USA, Russia, China):

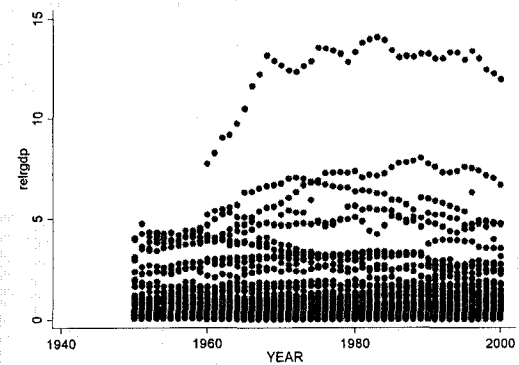
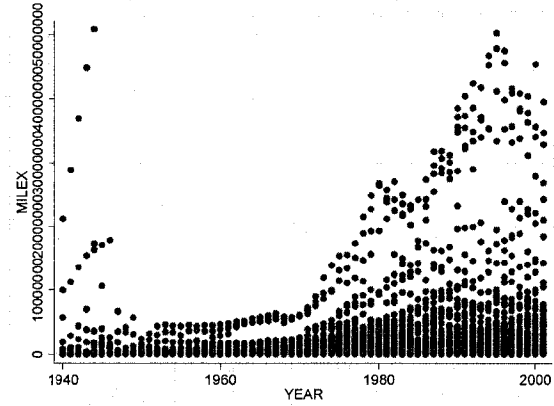
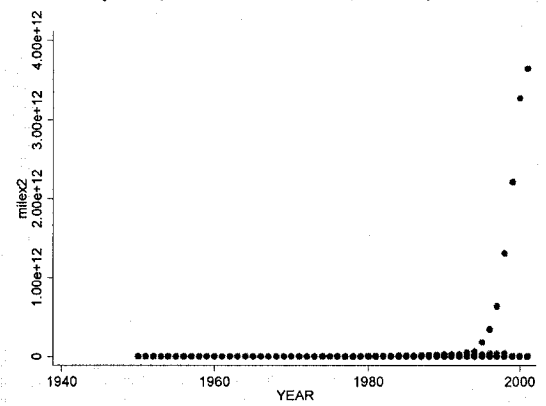


Figure D3a. Nominal, Real and Relative Military Expenditures

Milex Year (w/o USA, Russia, China):



Milex2 year (w/o USA, Russia, China):



Relmilex2 year (w/o USA, Russia, China):

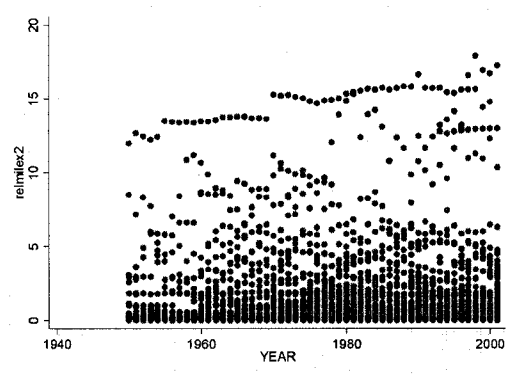
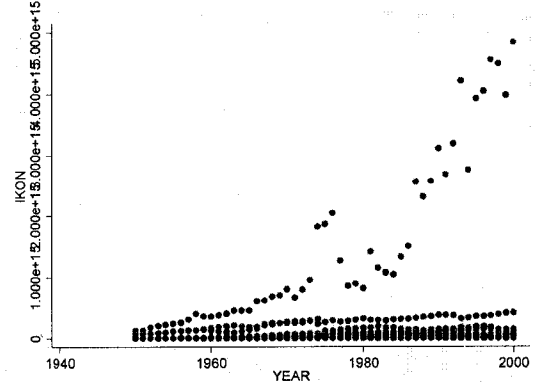


Figure D4a. Investment and Real Investment

Ikon Year (w/o USA, Russia, China):



Relikon year (w/o USA, Russia, China):

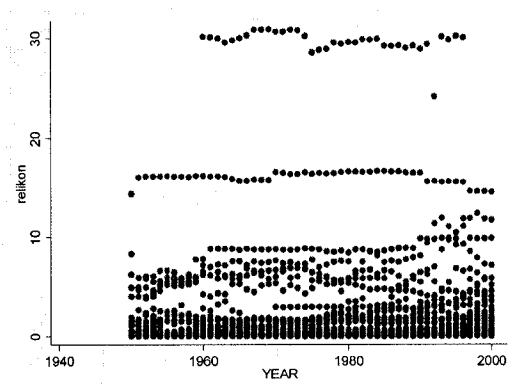
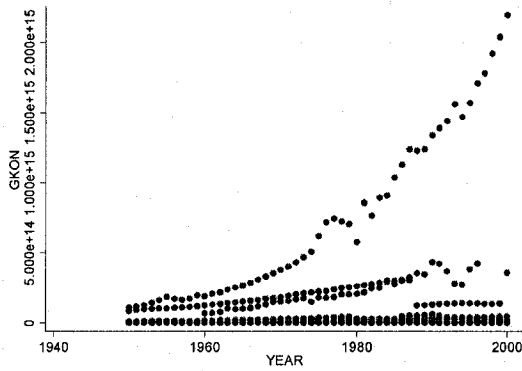


Figure D5a. Government Expenditures and Relative Government Expenditures

Gkon year (w/o USA, Russia, China):



Relgkon year (w/o USA, Russia, China):

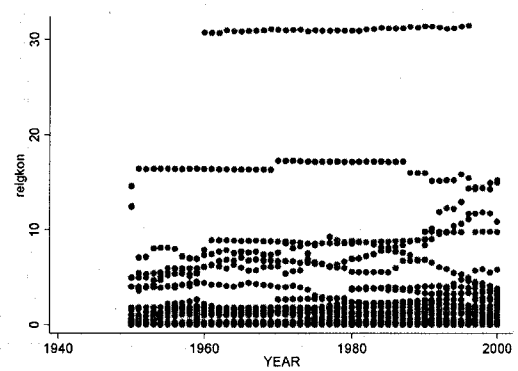
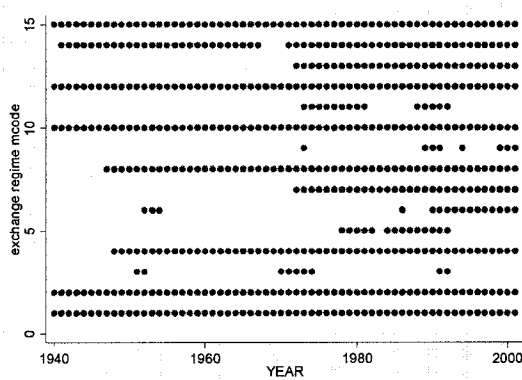
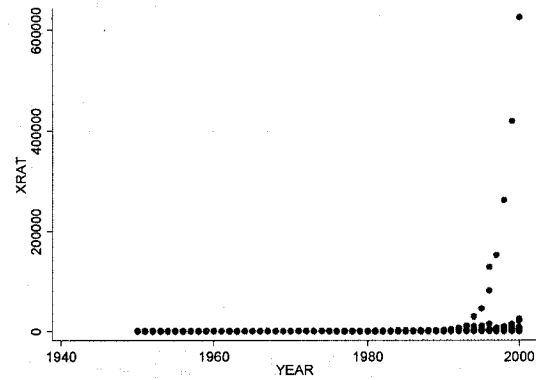


Figure D6a. Monetary variables

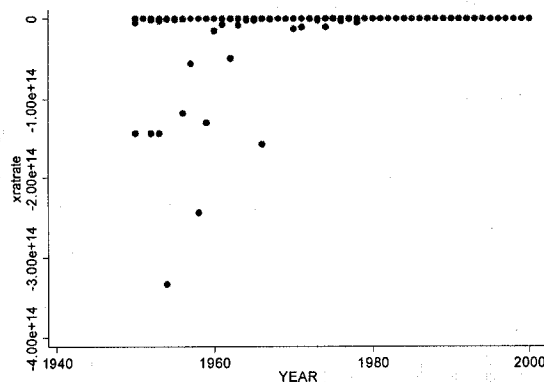
Exchange regime year (w/o USA, Russia, China):



Xrat year (w/o USA, Russia, China):



Xrtrate year (w/o USA, Russia, China):



Appendix II

Graphical Survey Results for Latin America and Asia

Figure L1. Overall attitudes towards dollarization

Responses from all Latin America:

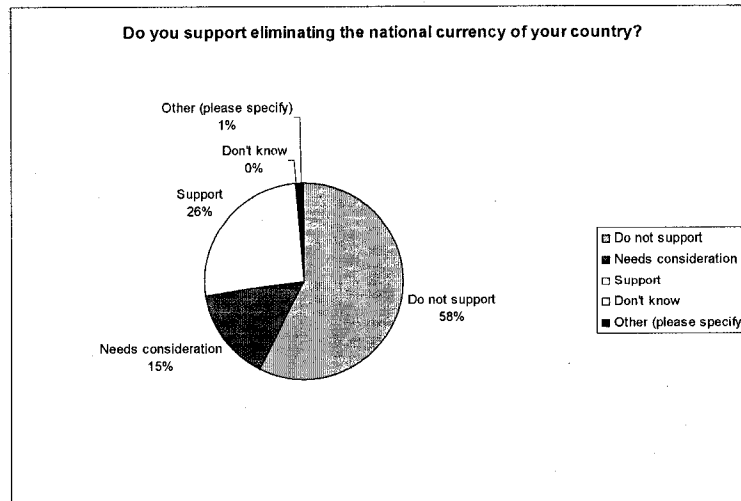
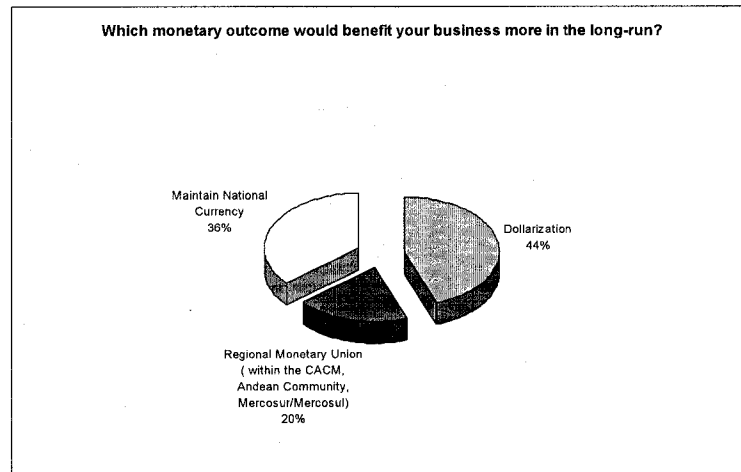
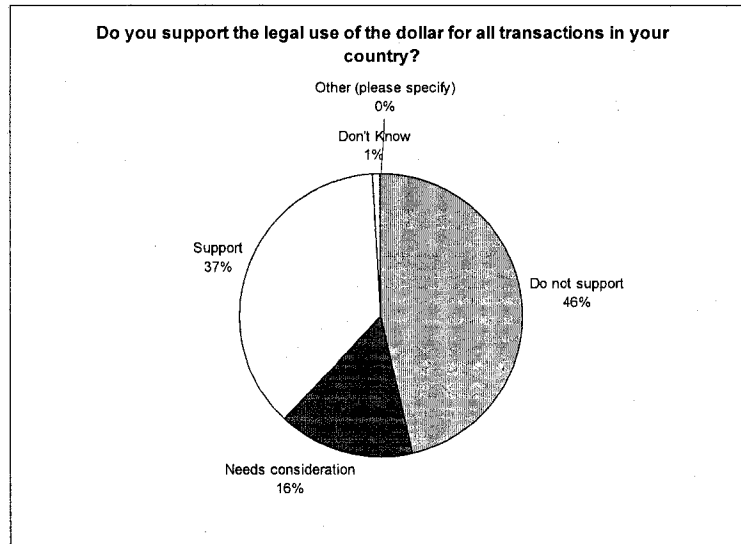


Figure L2. Overall attitudes towards dollarization

Responses from Mexico only:

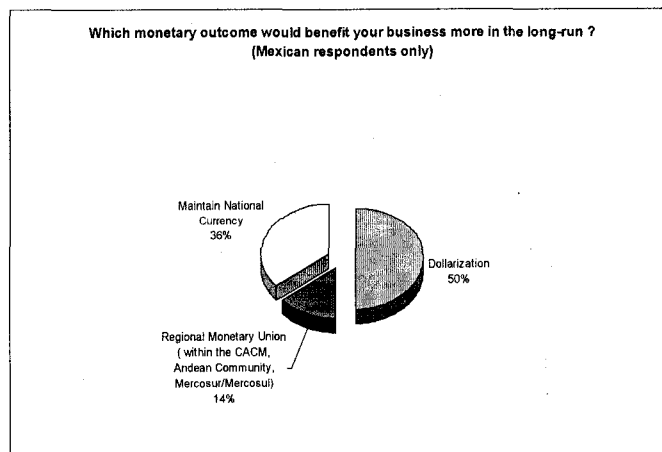
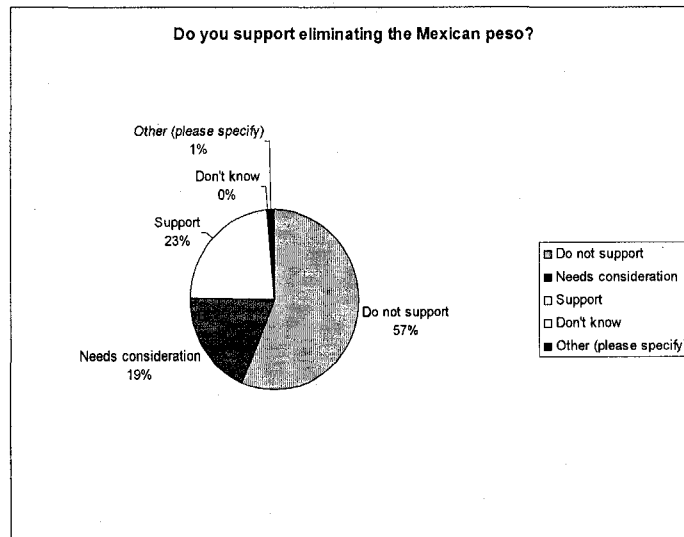
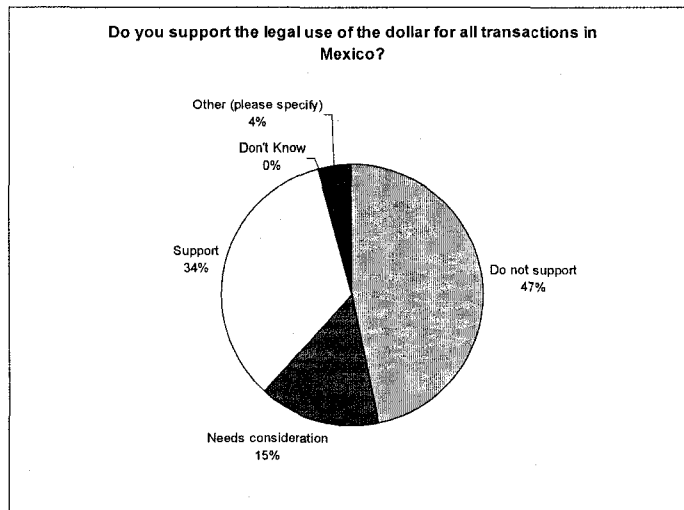


Figure L3. Overall attitudes towards dollarization

Responses from Central and South America only:

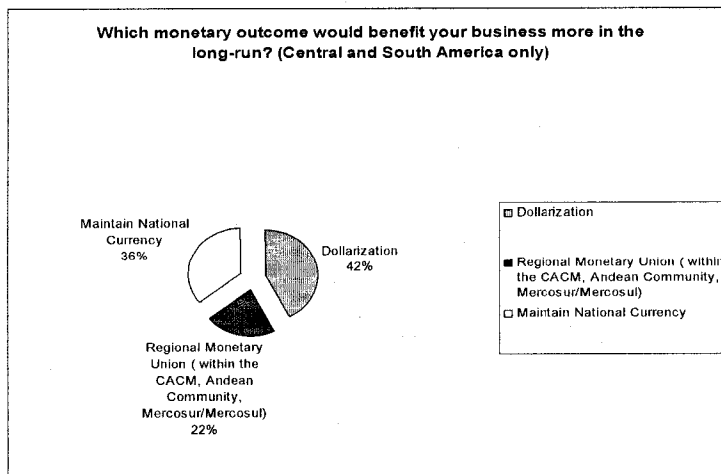
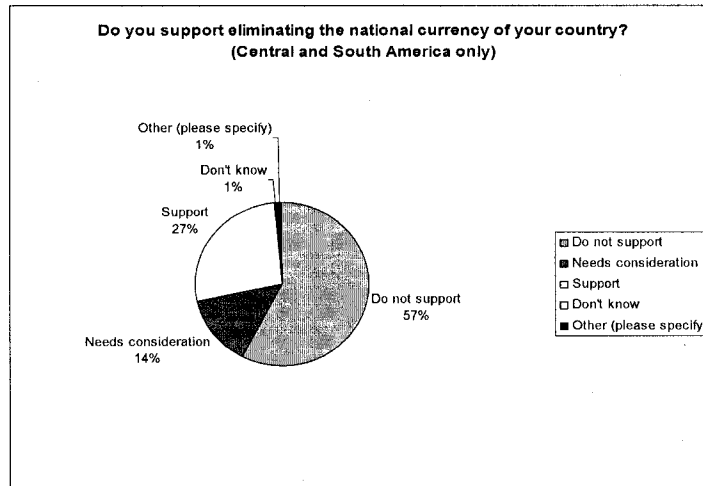
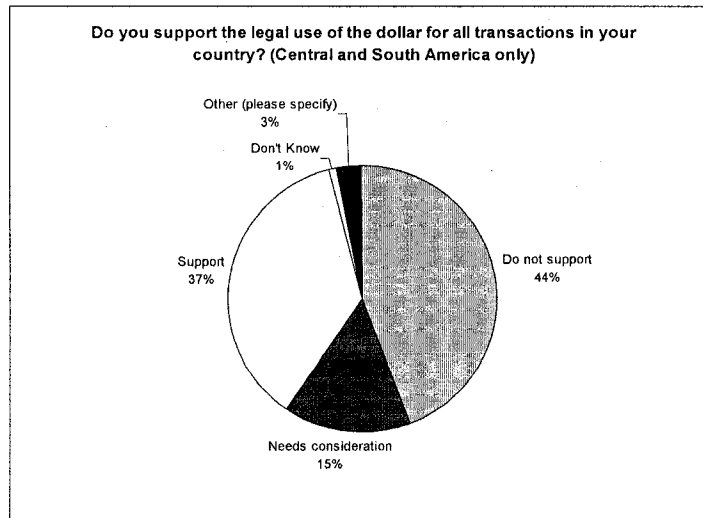


Figure L4. Dollarization and the Macroeconomy (Development, Growth, Trade)

Responses from all Latin America:

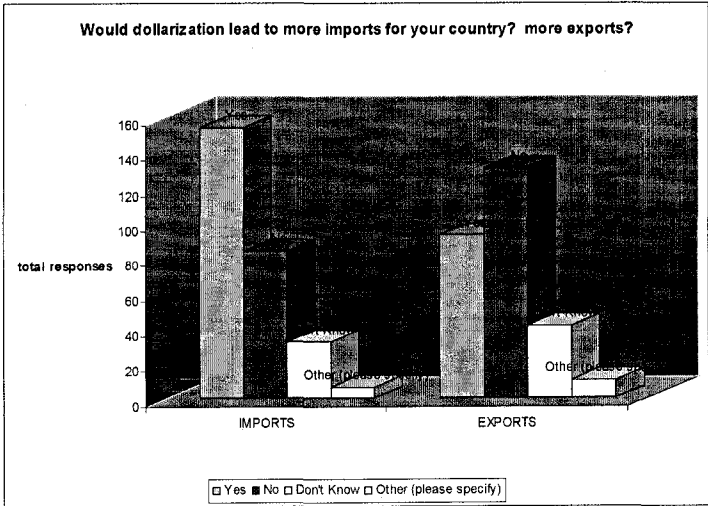
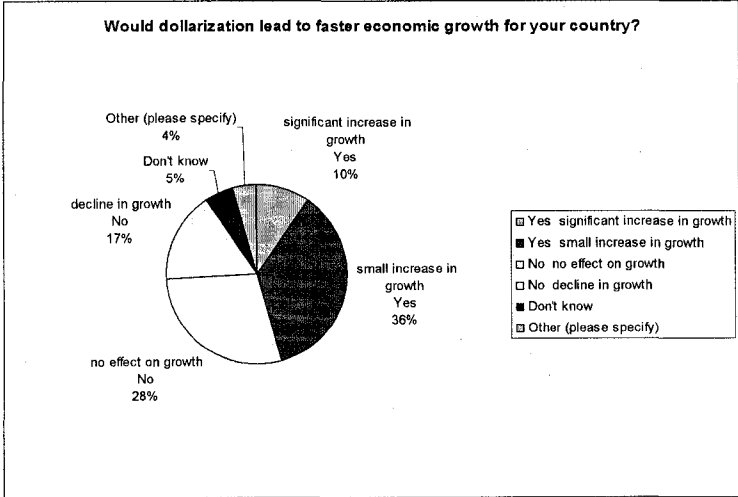
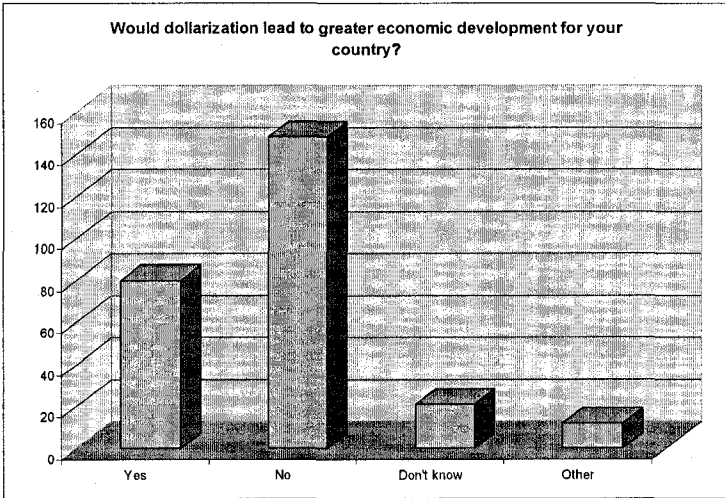


Figure L5. Dollarization and the Macroeconomy (Development, Growth, Trade)

Responses from Mexico only:

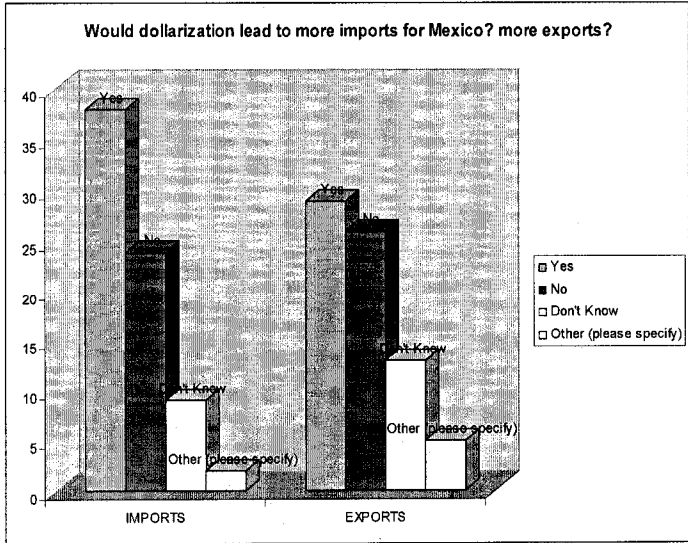
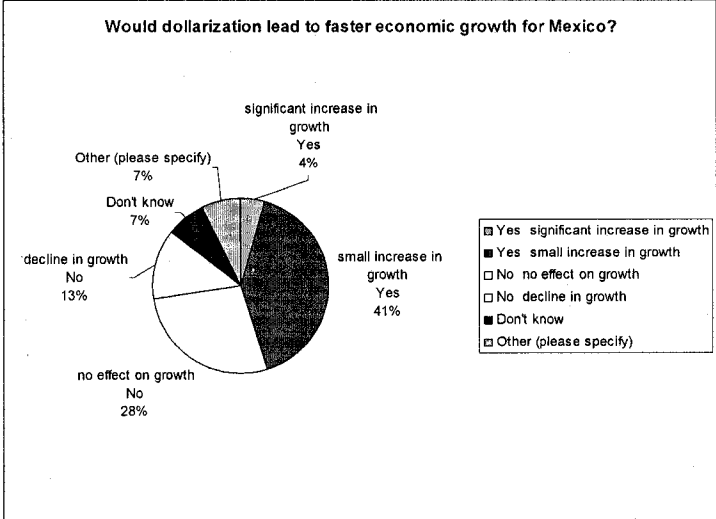
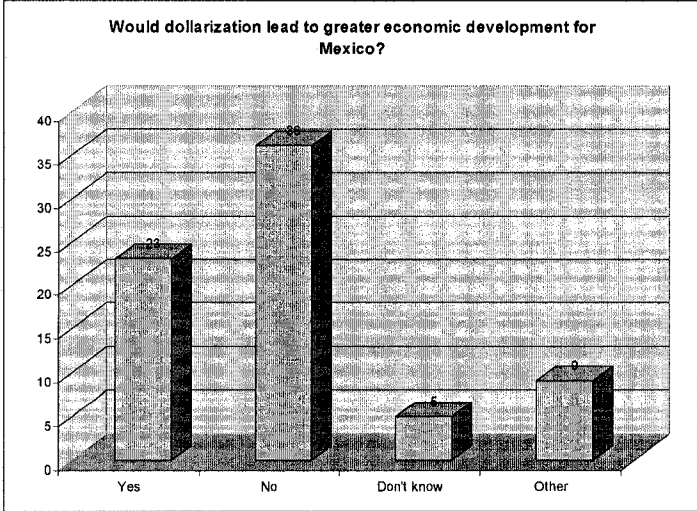


Figure L6. Dollarization and the Macroeconomy (Development, Growth, Trade)

Responses from Central and South America only:

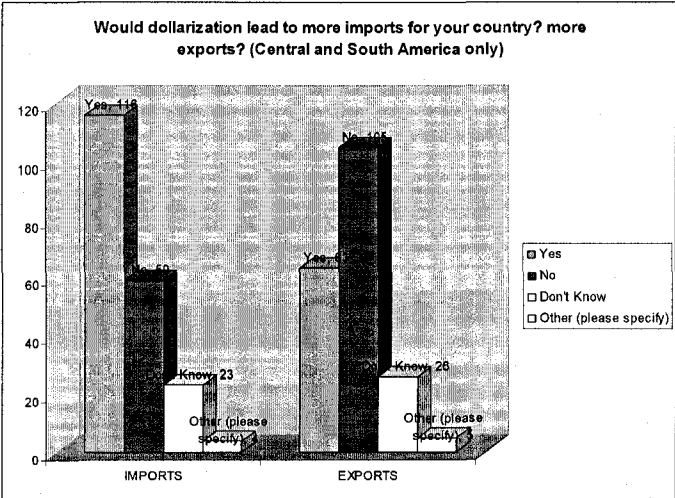
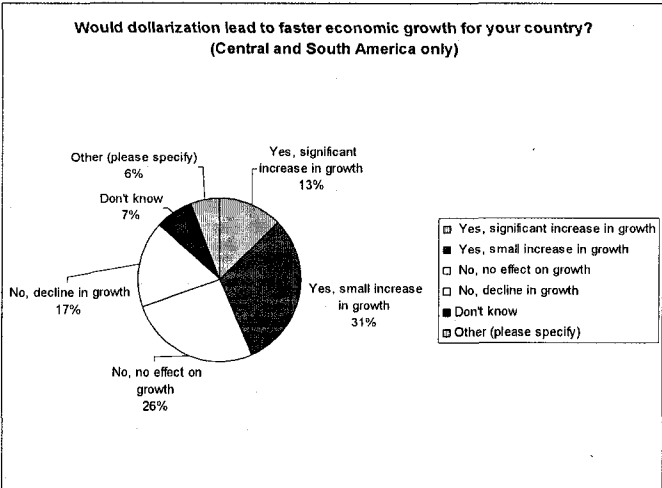
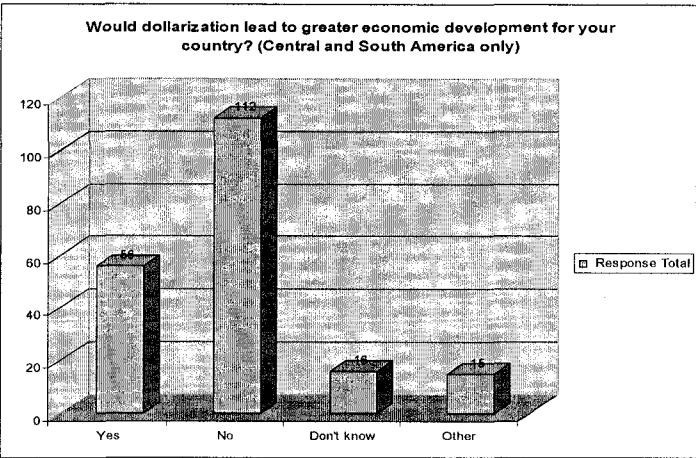


Figure L7. Dollarization, Globalization and Economic Integration

Responses from all Latin America:

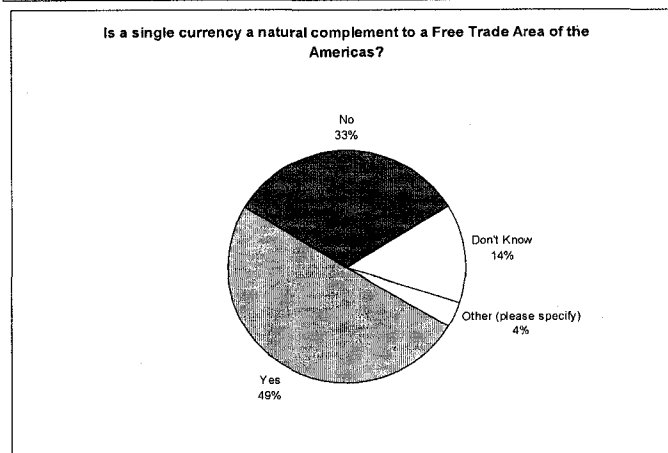
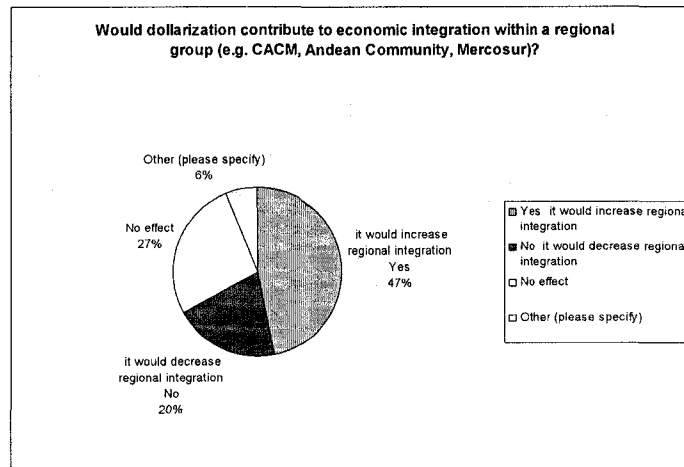
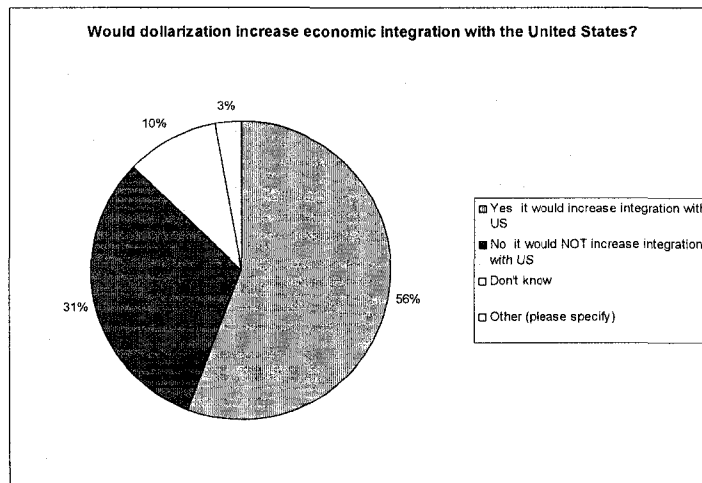


Figure L8. Dollarization, Globalization and Economic Integration

Responses from Mexico only:

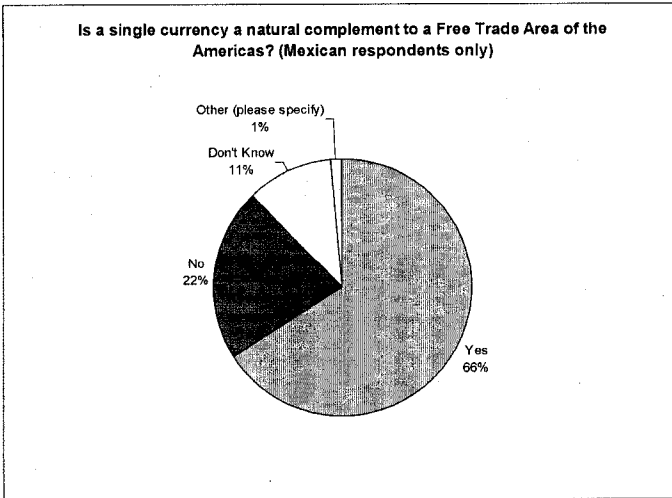
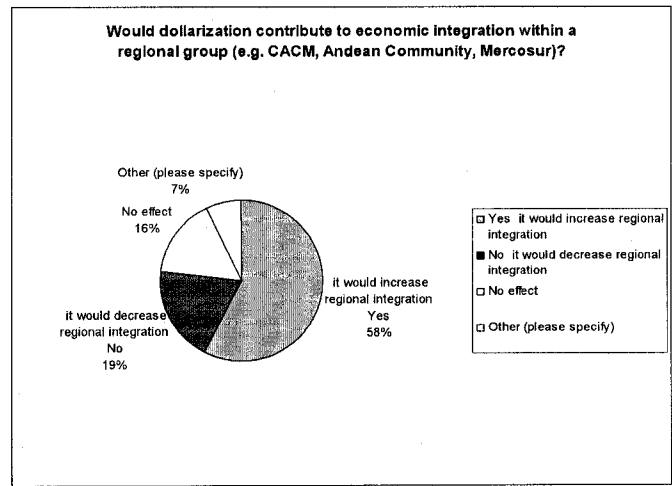
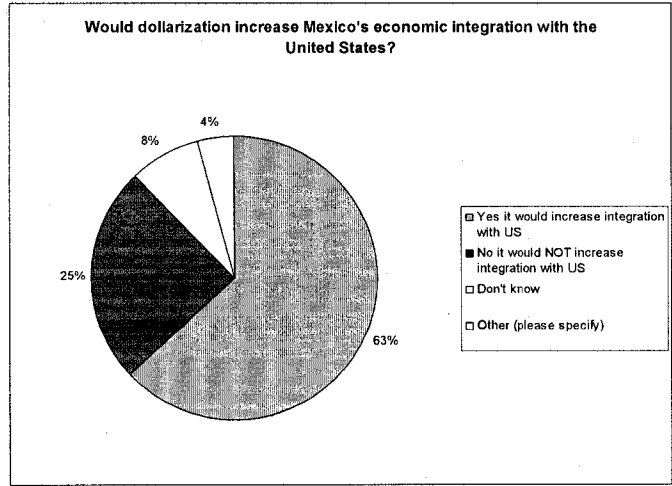


Figure L9. Dollarization, Globalization and Economic Integration

Responses from Central and South America only:

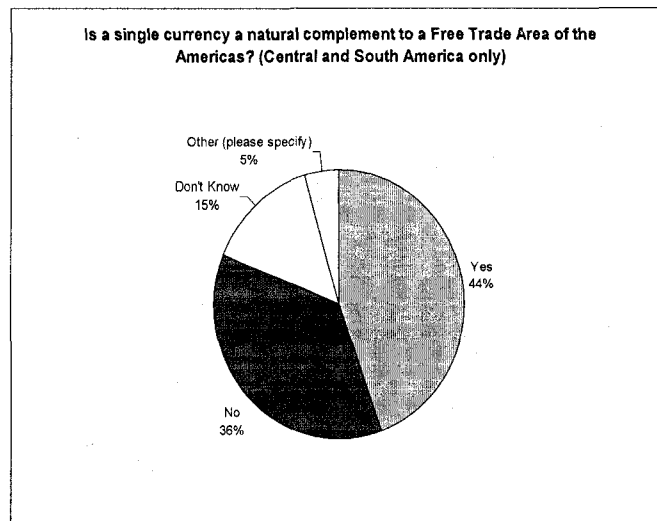
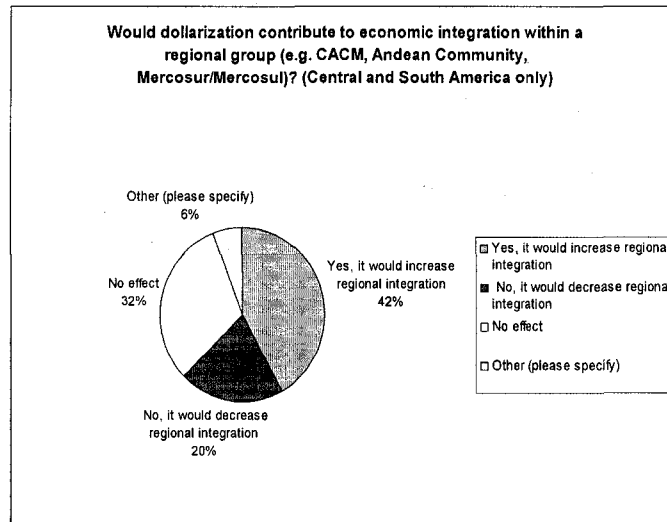
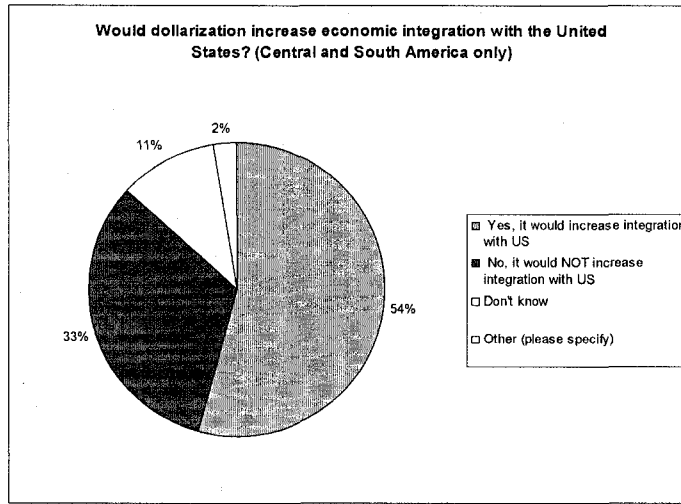


Figure L10. Dollarization, Investment and Capital

Responses from all Latin America:

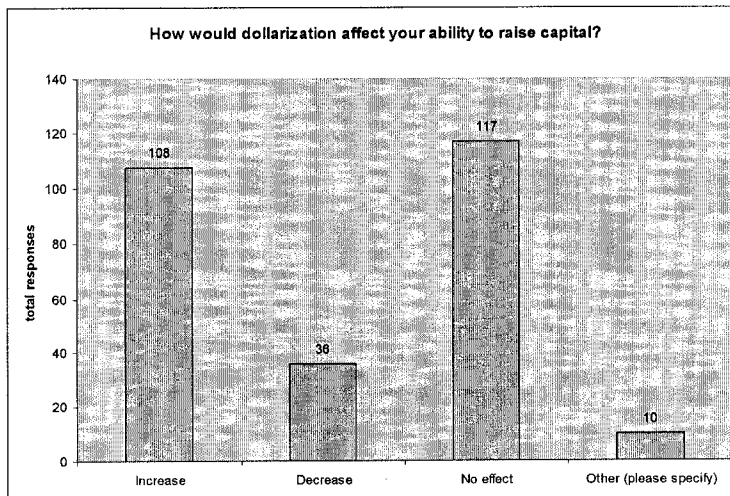
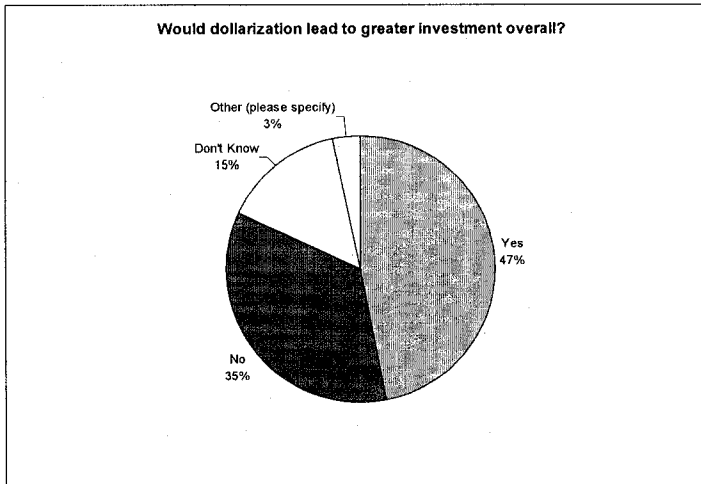
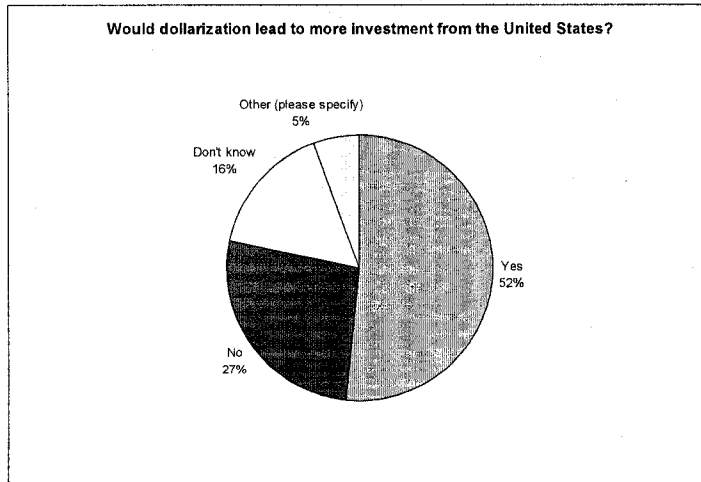


Figure L11. Dollarization, Investment and Capital

Responses from Mexico only:

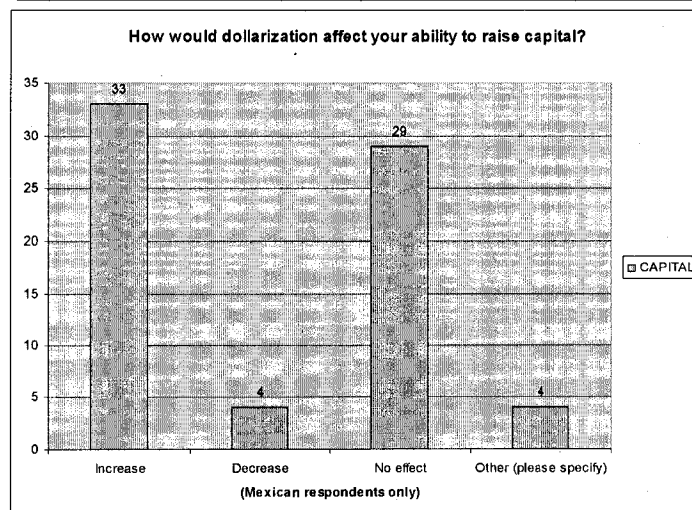
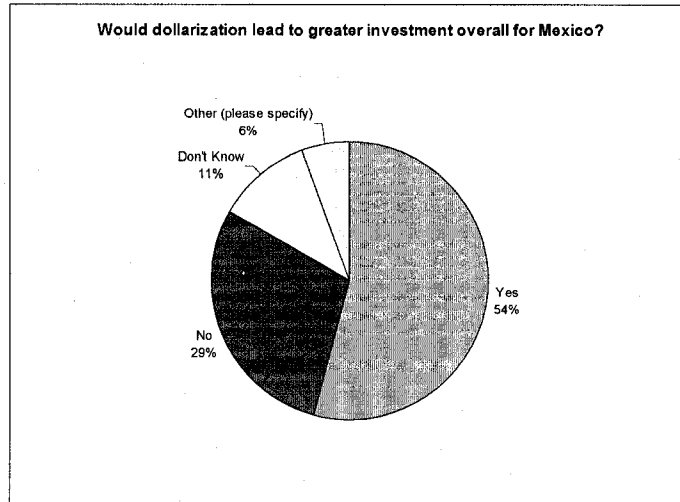
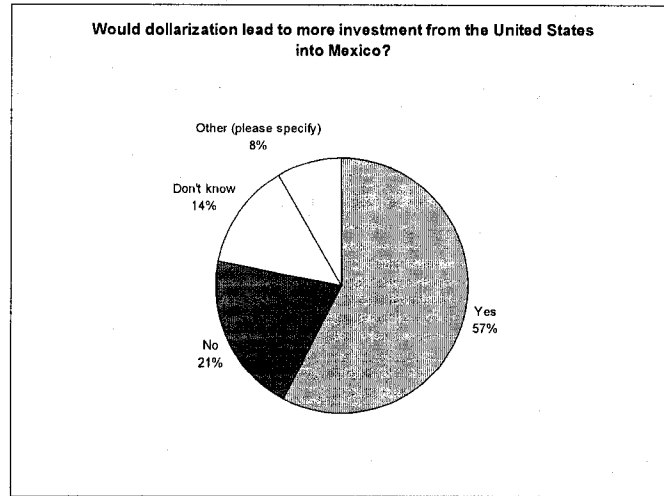


Figure L12. Dollarization, Investment and Capital

Responses from Central and South America only:

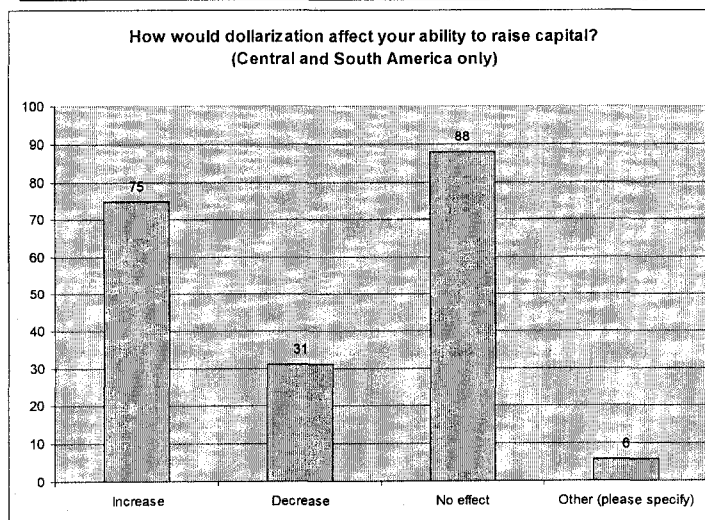
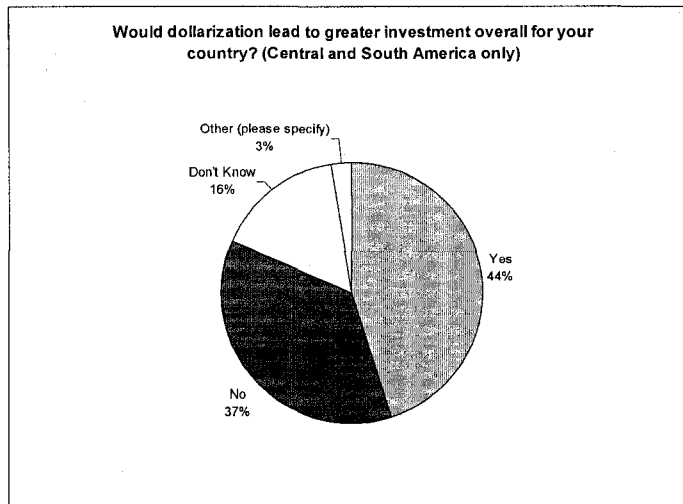
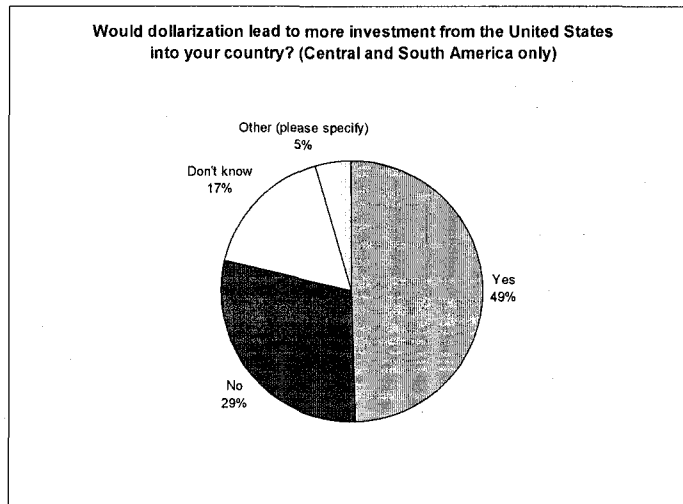


Figure L13. Transactions Costs

Respondents from All Latin America:

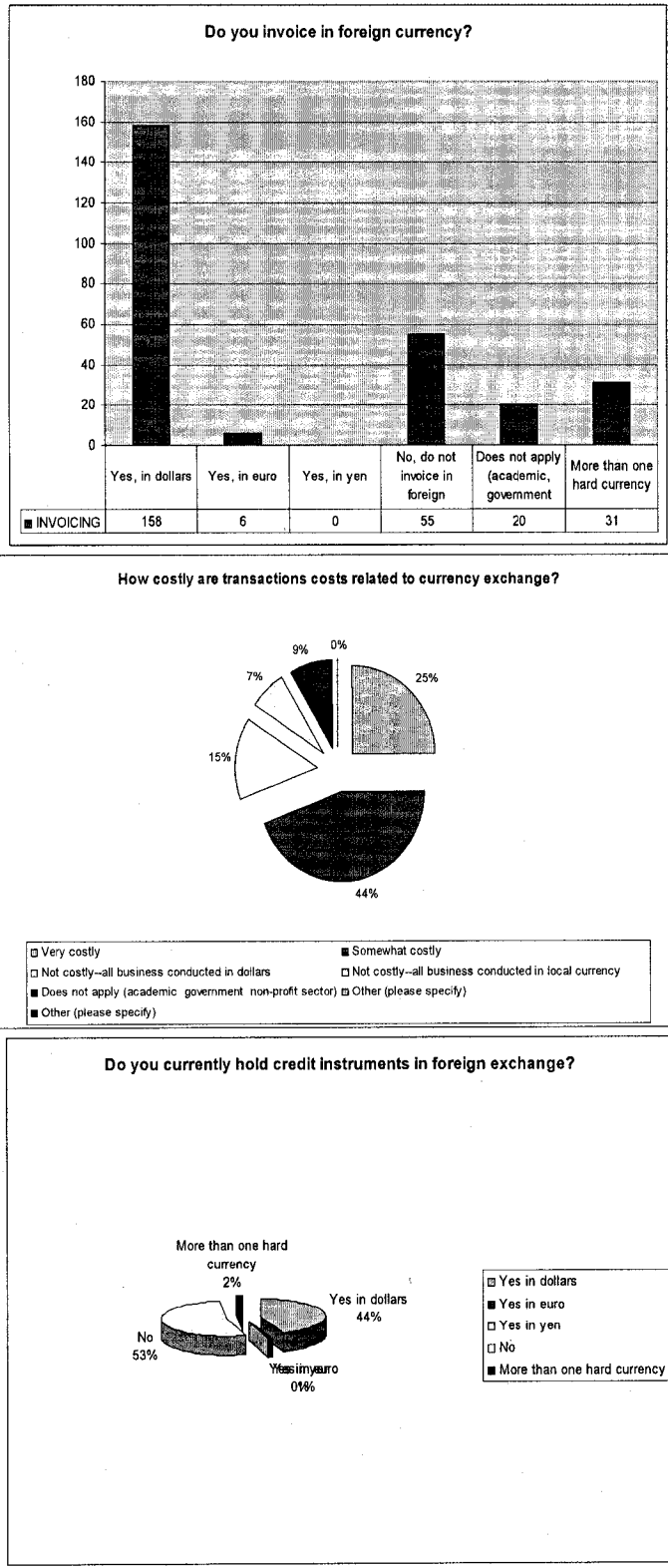


Figure L14. Transactions Costs

Respondents from Mexico:

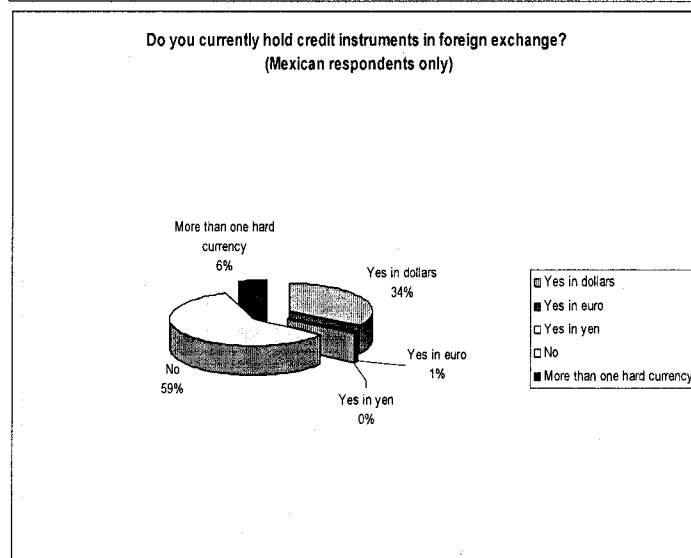
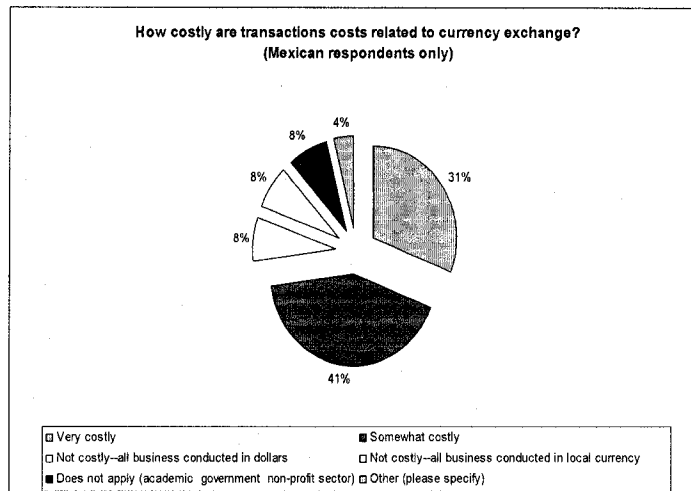
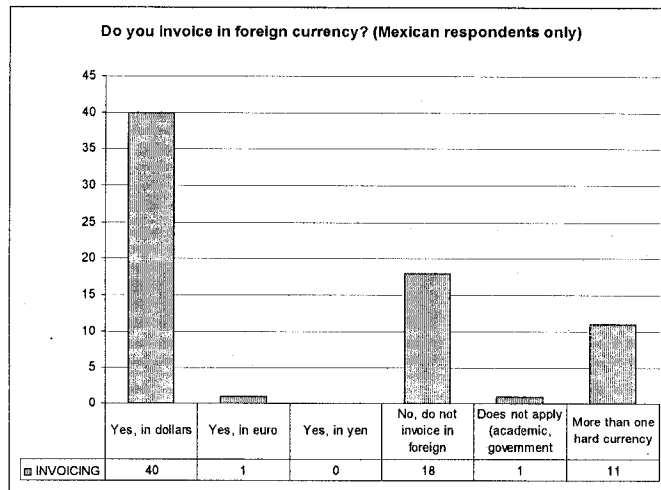


Figure L15. Transactions Costs

Respondents from Central and South America:

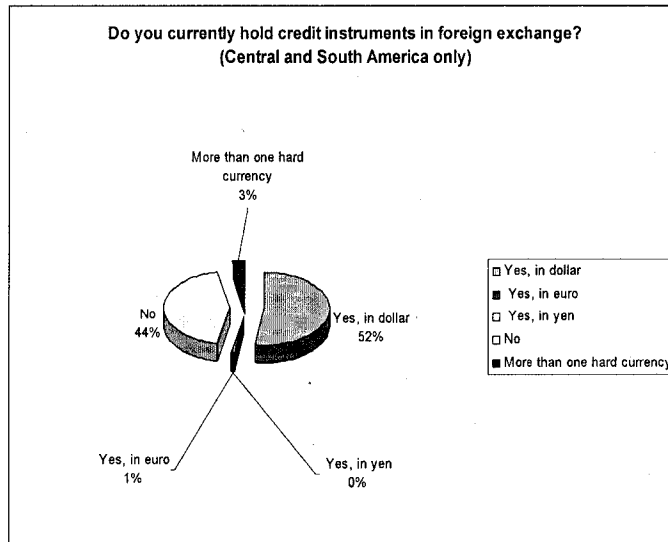
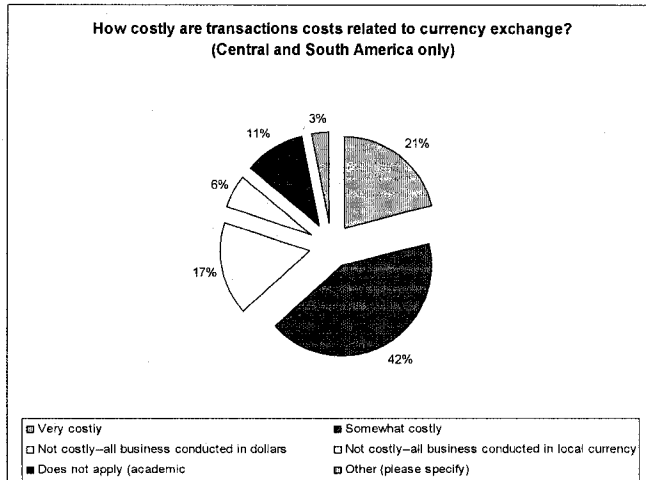
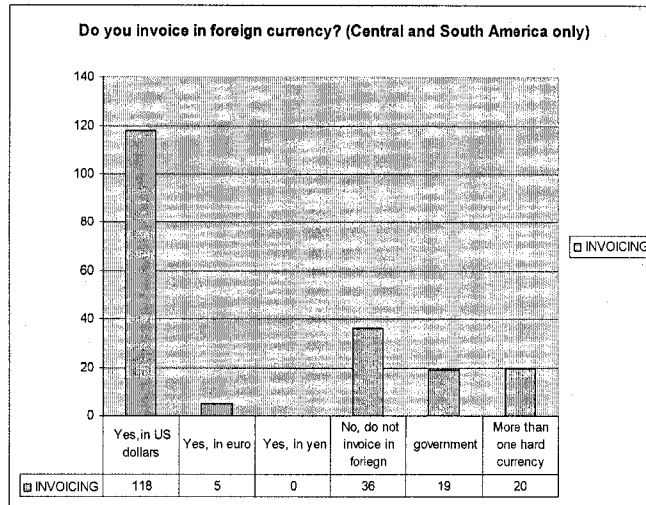
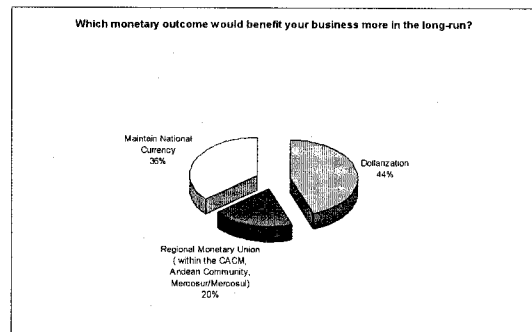
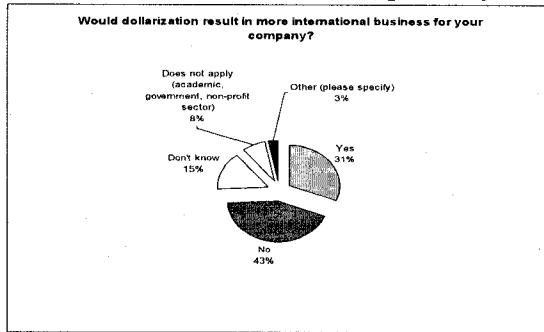
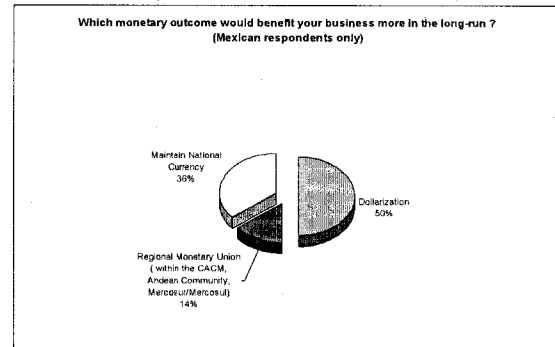
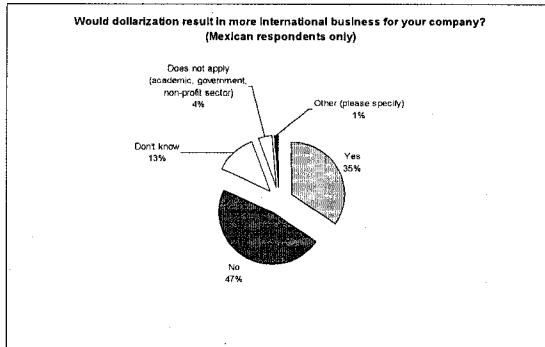


Figure L16. Most Profitable Monetary Outcomes

Responses from All Latin America:



Responses from Mexico only:



Responses from Central and South America only:

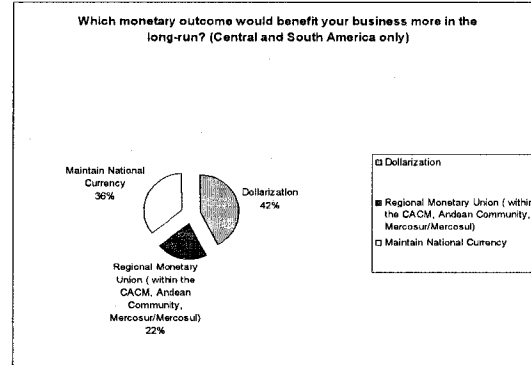
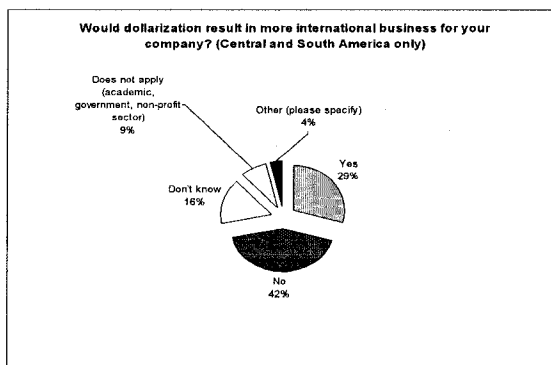
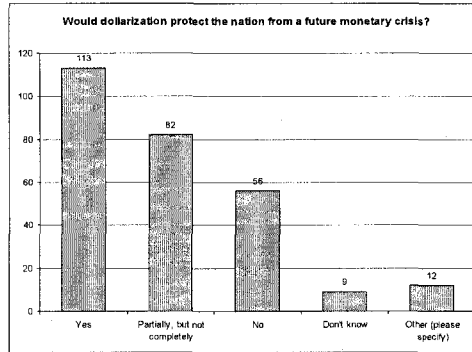
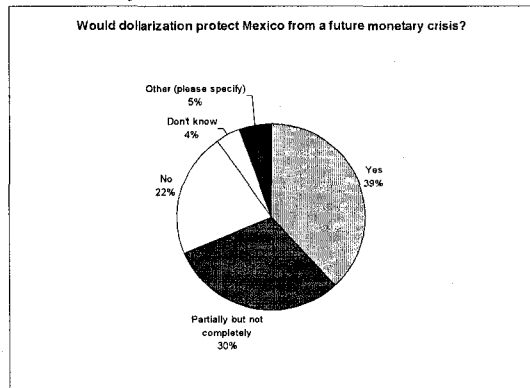
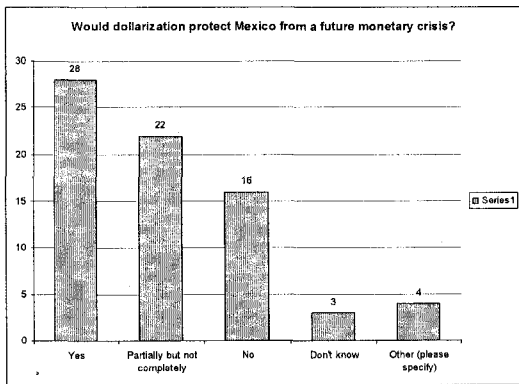


Figure L17. Dollarization and Protection from Monetary Crises

Responses from all Latin America:



Responses from Mexico only:



Responses from Central and South America only:

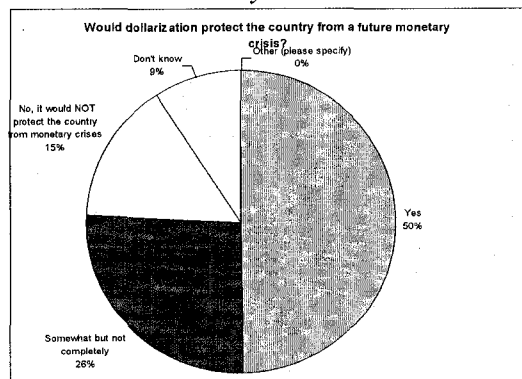
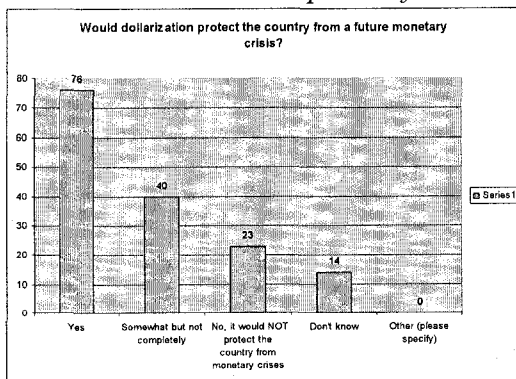
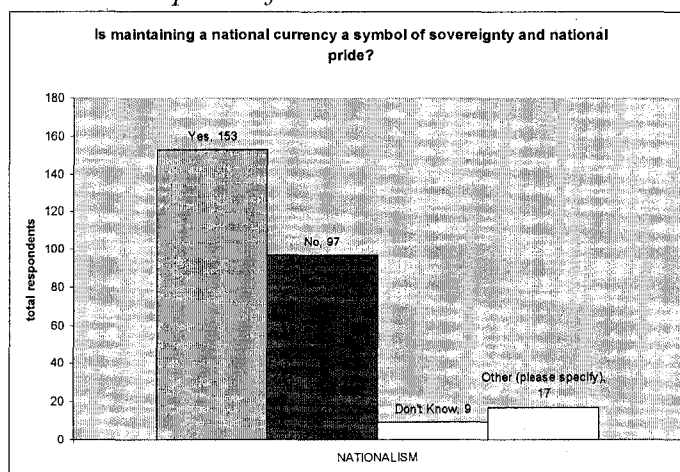
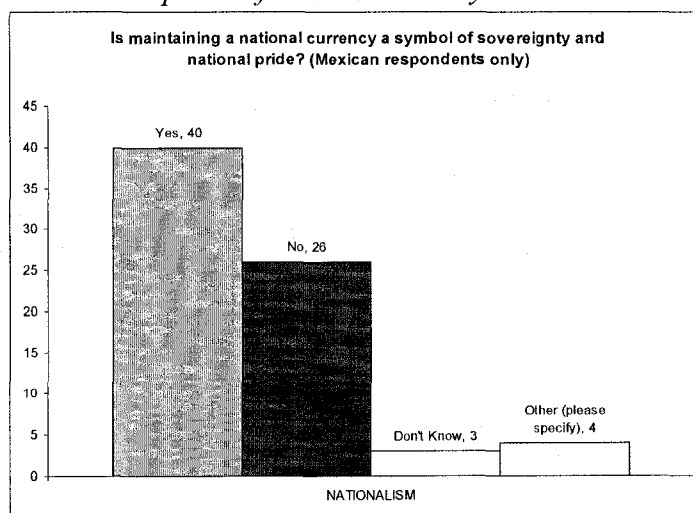


Figure L18. Nationalism

Responses from all Latin America:



Responses from Mexico only:



Responses from Central and South America only:

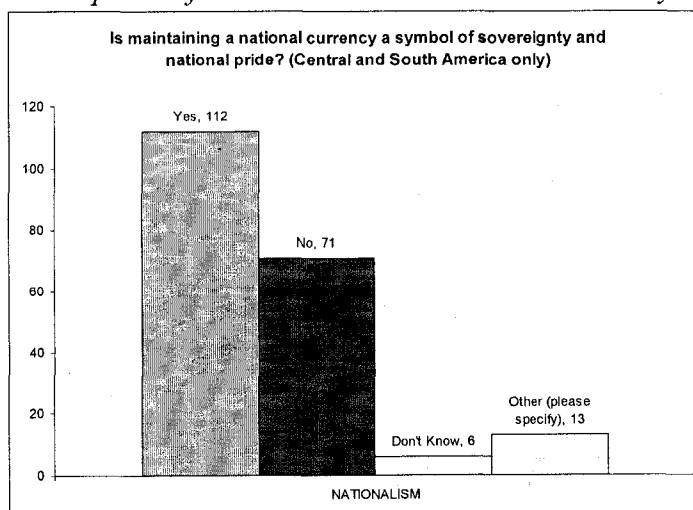
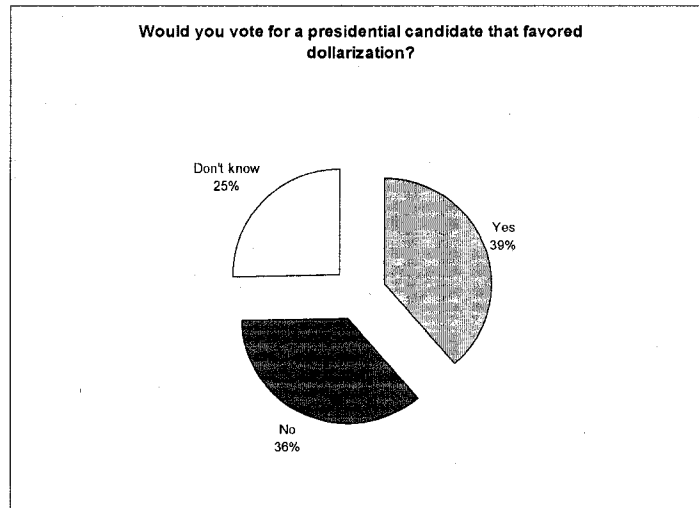
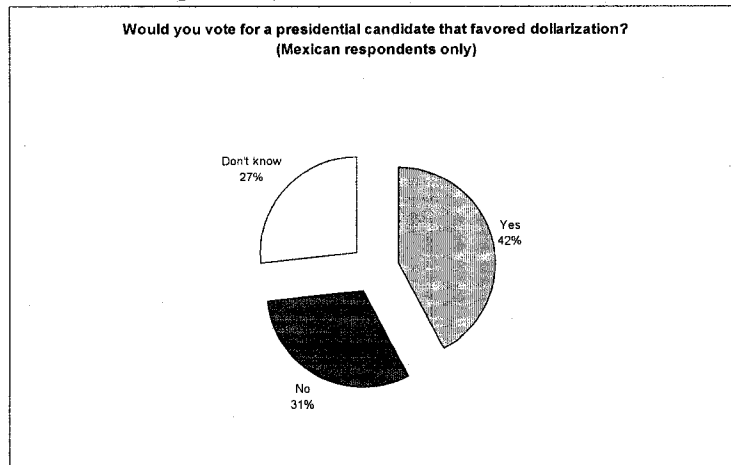


Figure L19. The fate of a statesman that favored dollarization

Responses from all Latin America:



Responses from Mexico only:



Responses from Central and South America only:

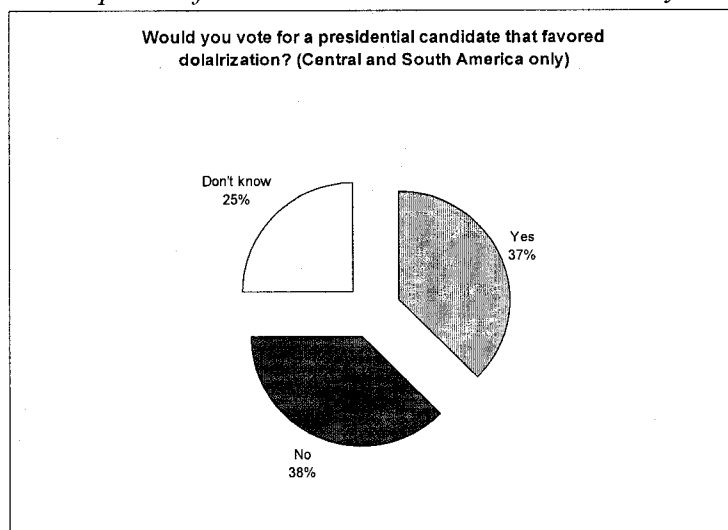
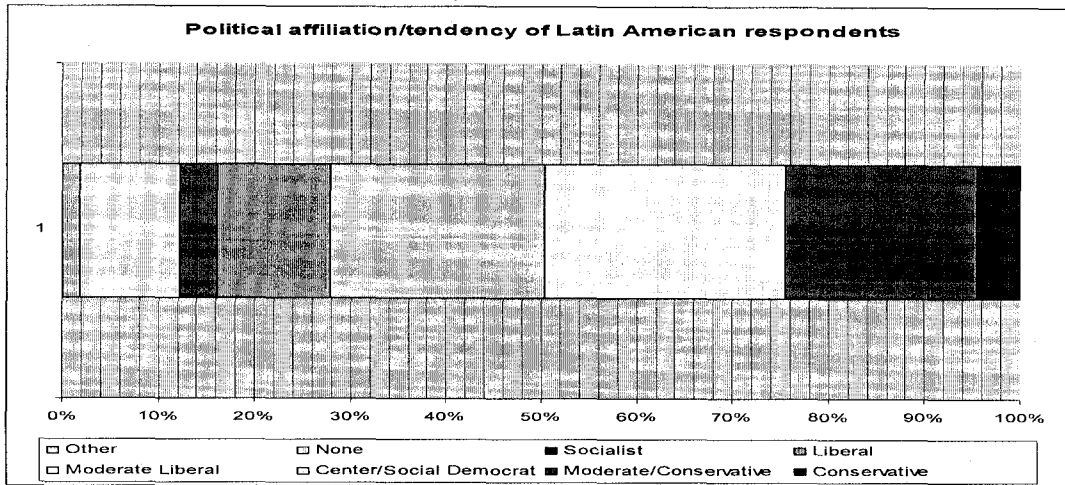
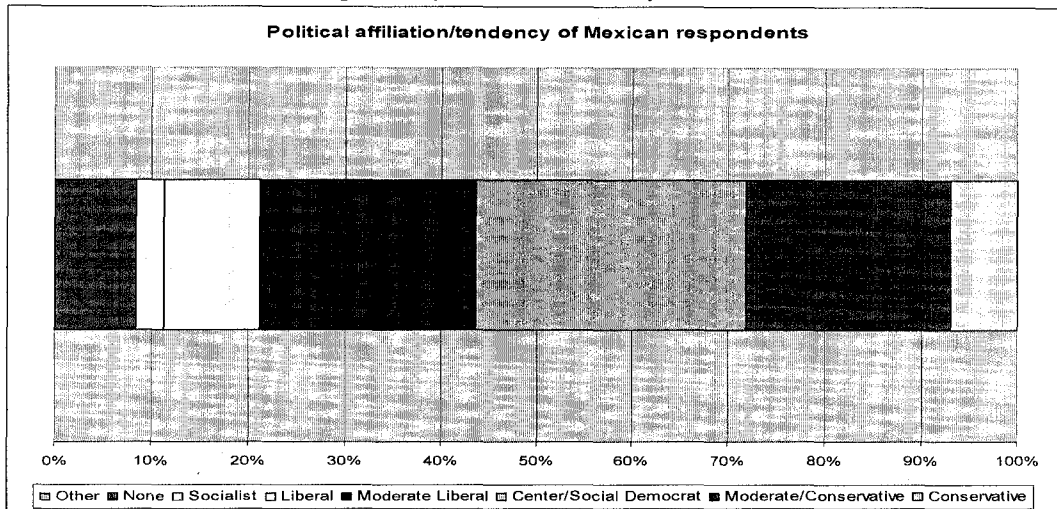


Figure L20. Political Affiliation/Tendency of Respondents

Responses from All Latin America:



Responses from Mexico only:



Responses from Central and South America only:

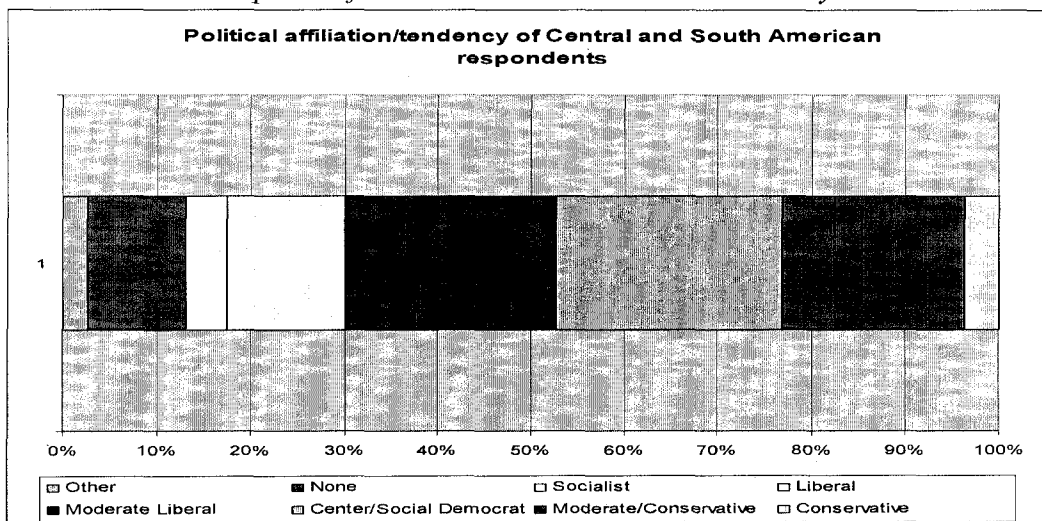
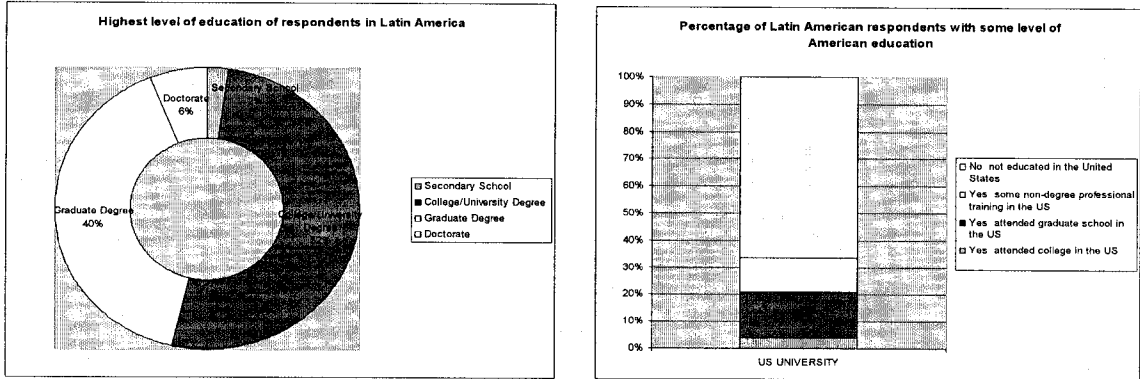
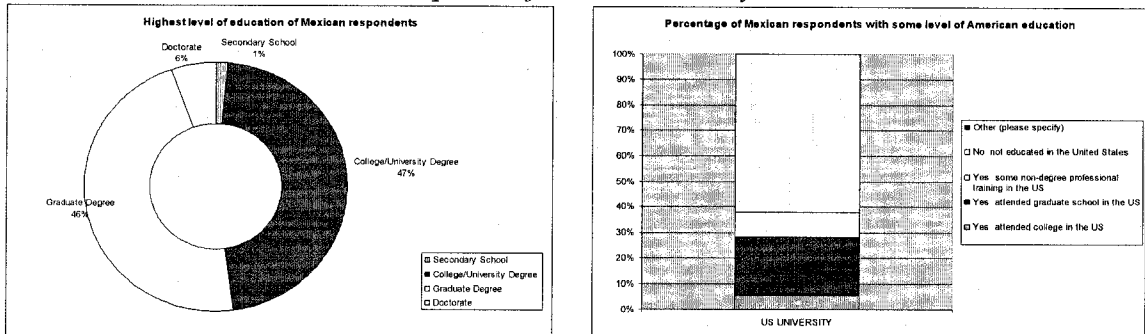


Figure L21. Education of Respondents

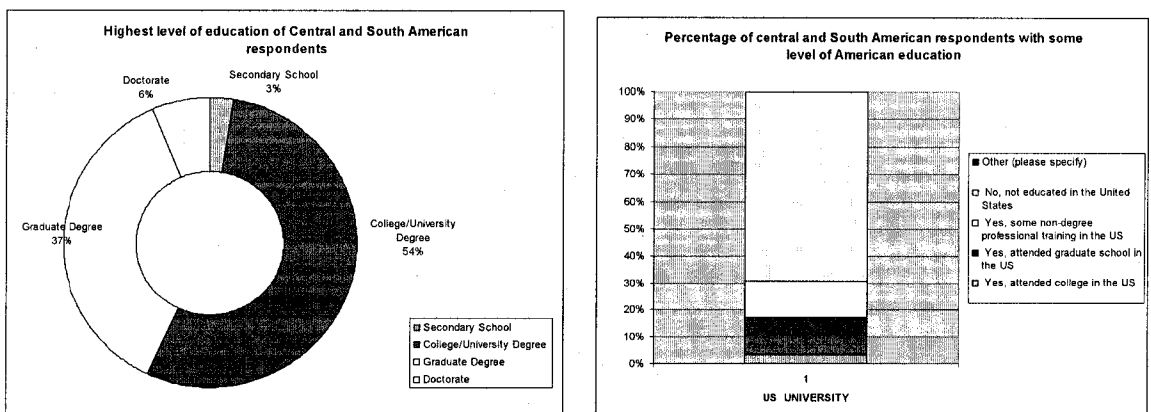
Responses from All Latin America:



Responses from Mexico only:

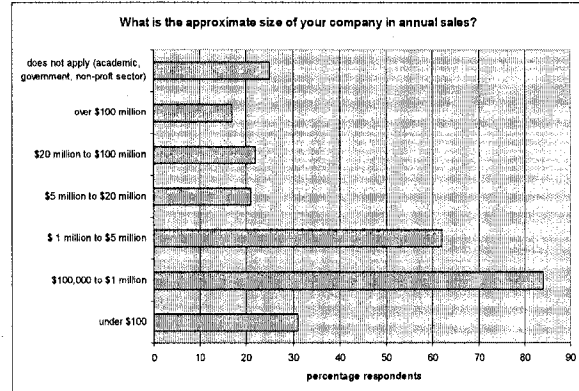
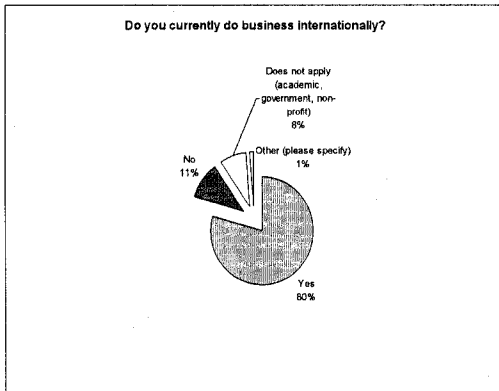


Responses from Central and South America only:

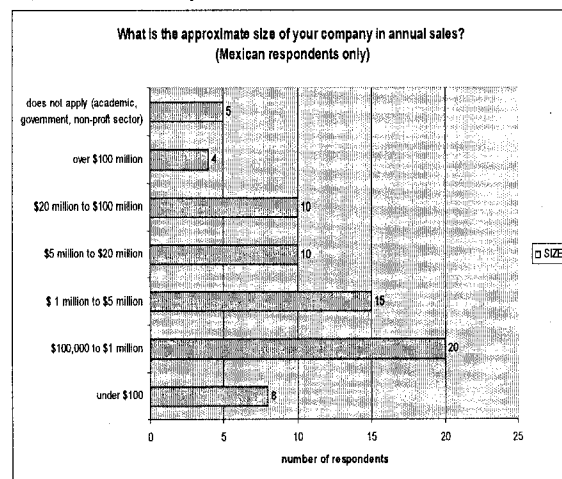
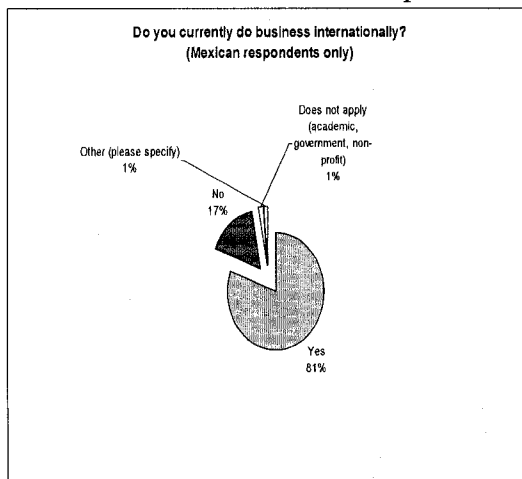


L22. Company Size

Responses from All Latin America:



Respondents from Mexico only:



Responses from Central and South America:

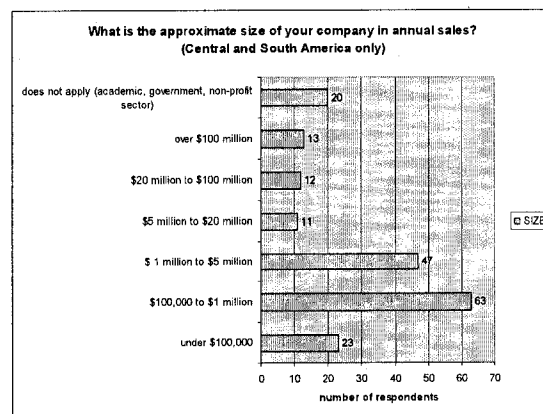
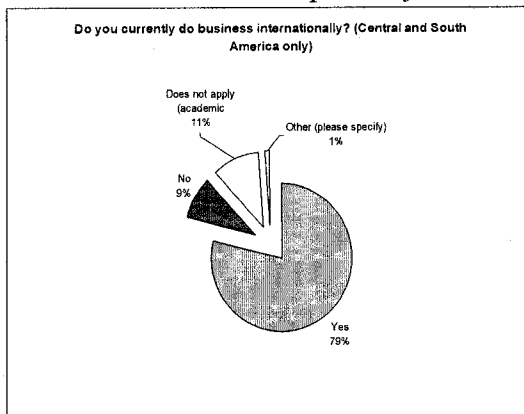


Figure A1. Overall Support for Asian Monetary Union

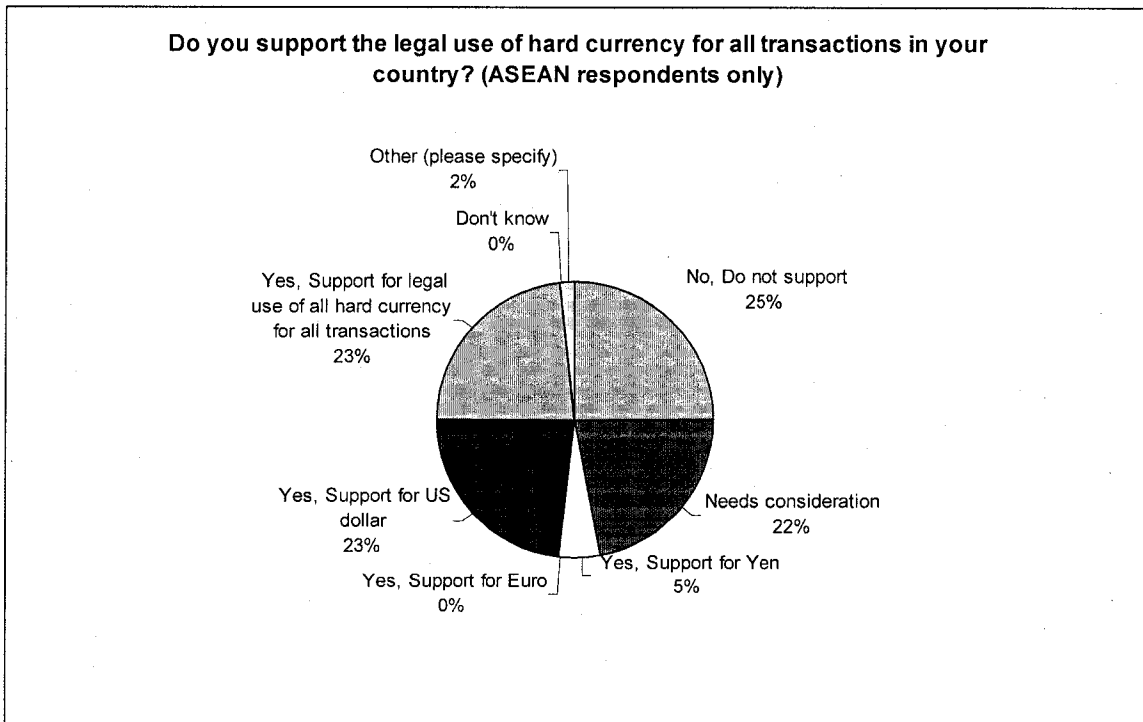
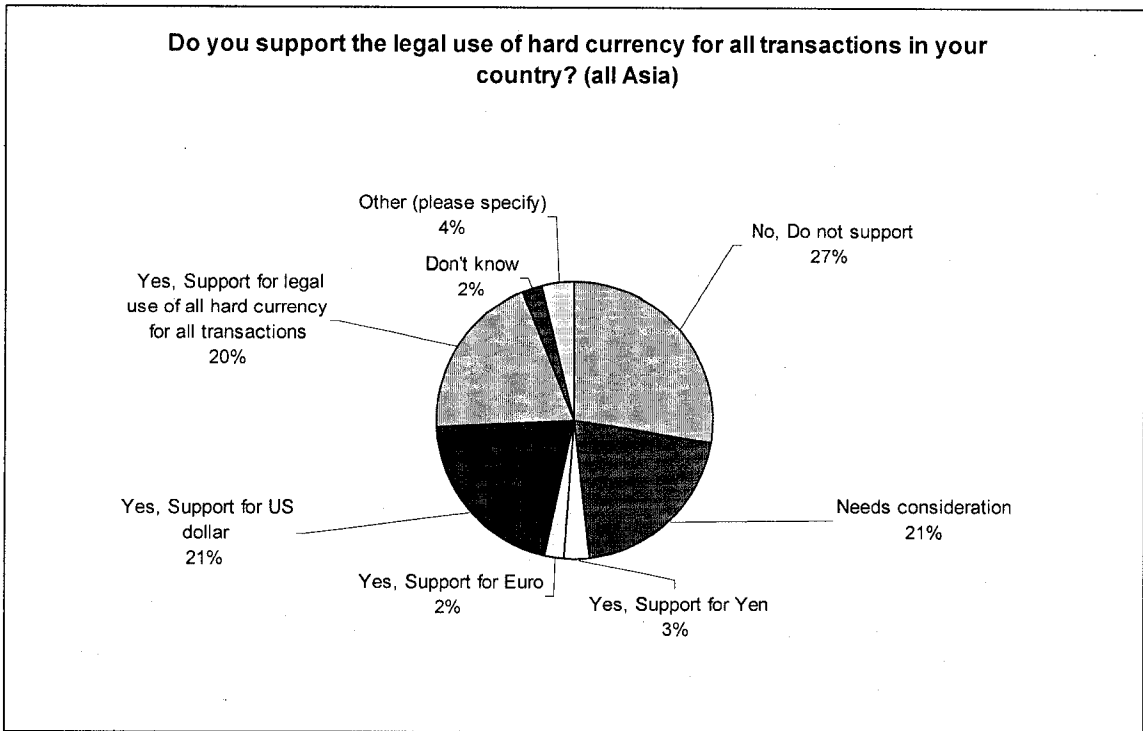


Figure A2. Elimination of the National Currency

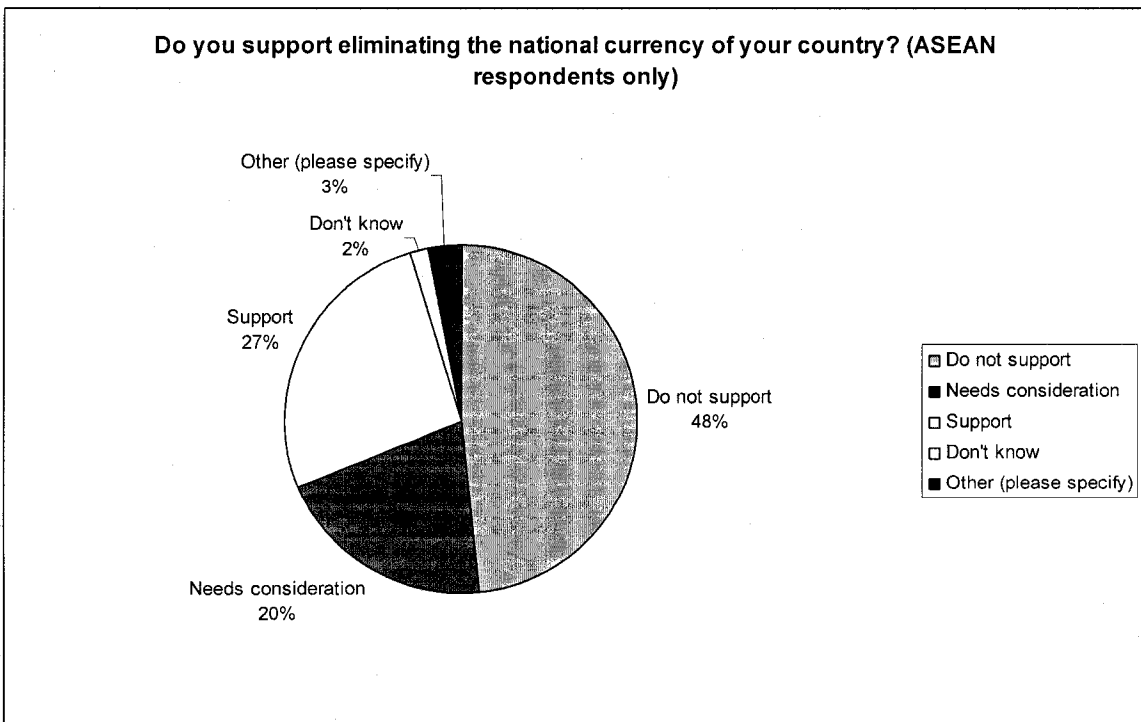
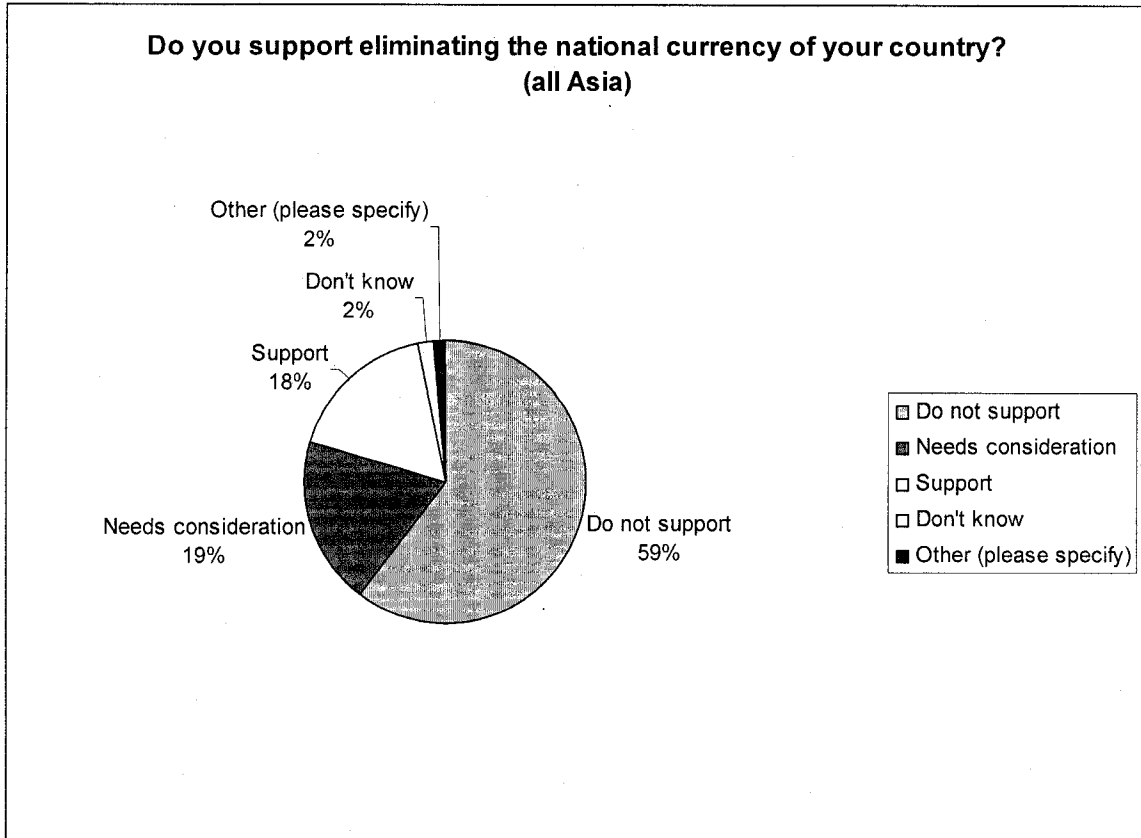


Figure A3. Formation of a New Regional Currency

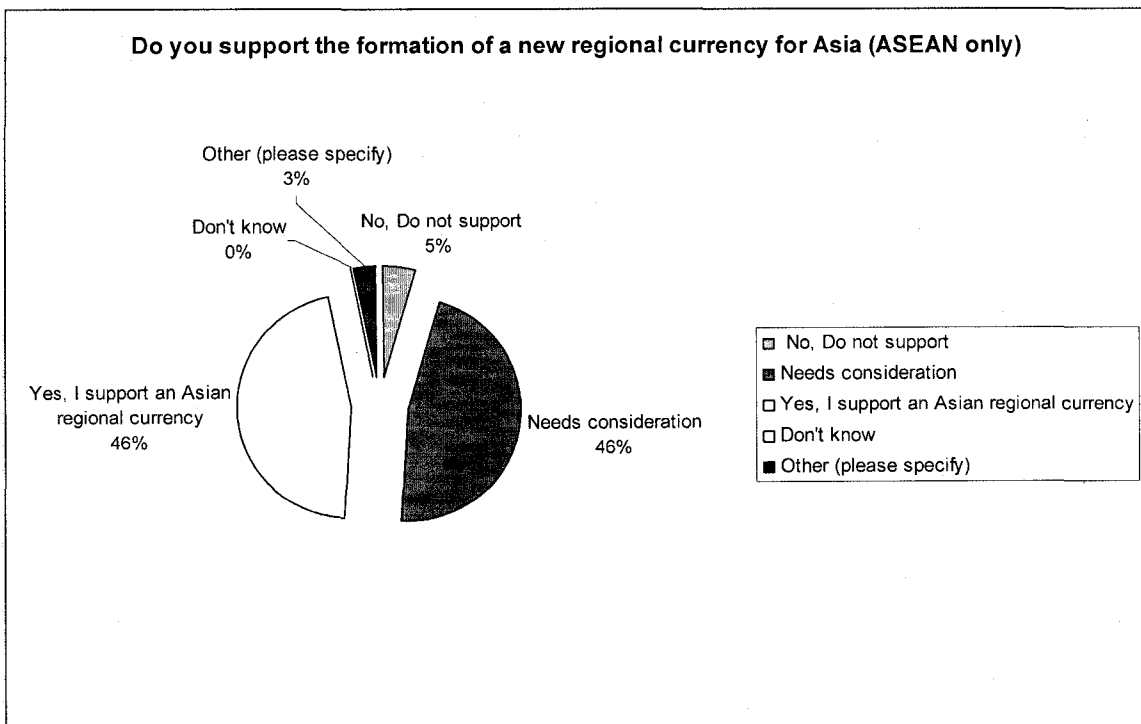
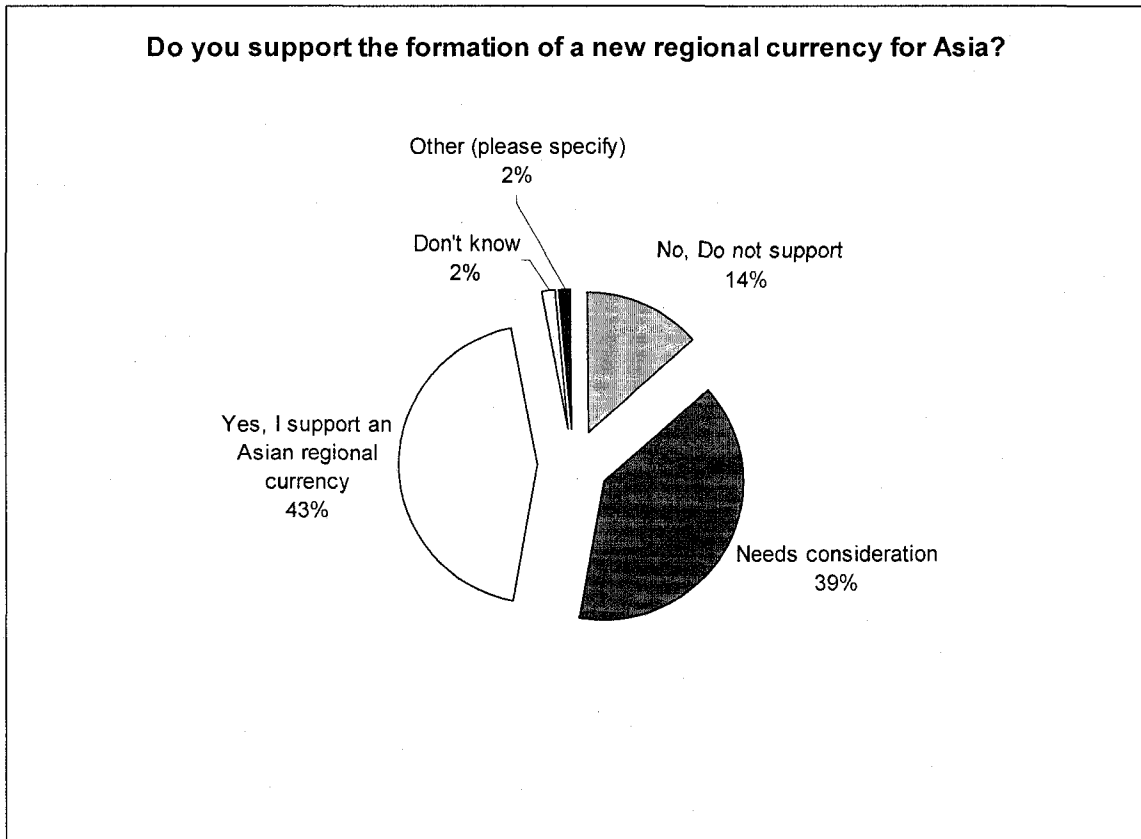


Figure A4. Monetary Union and Economic Development

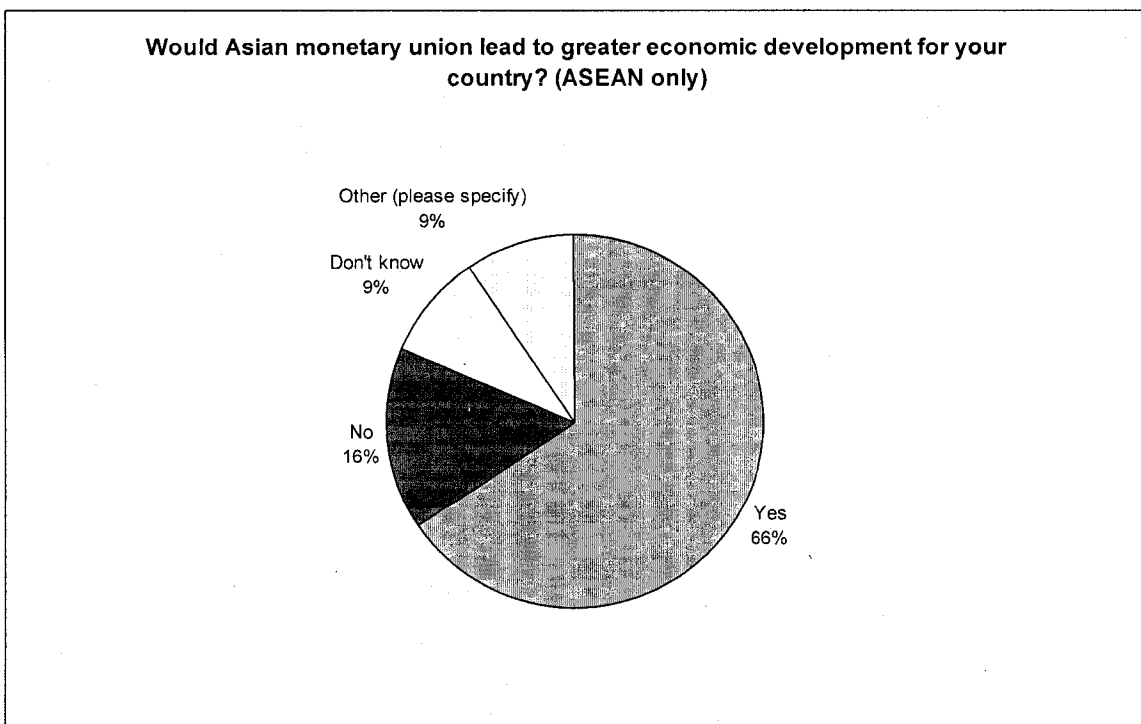
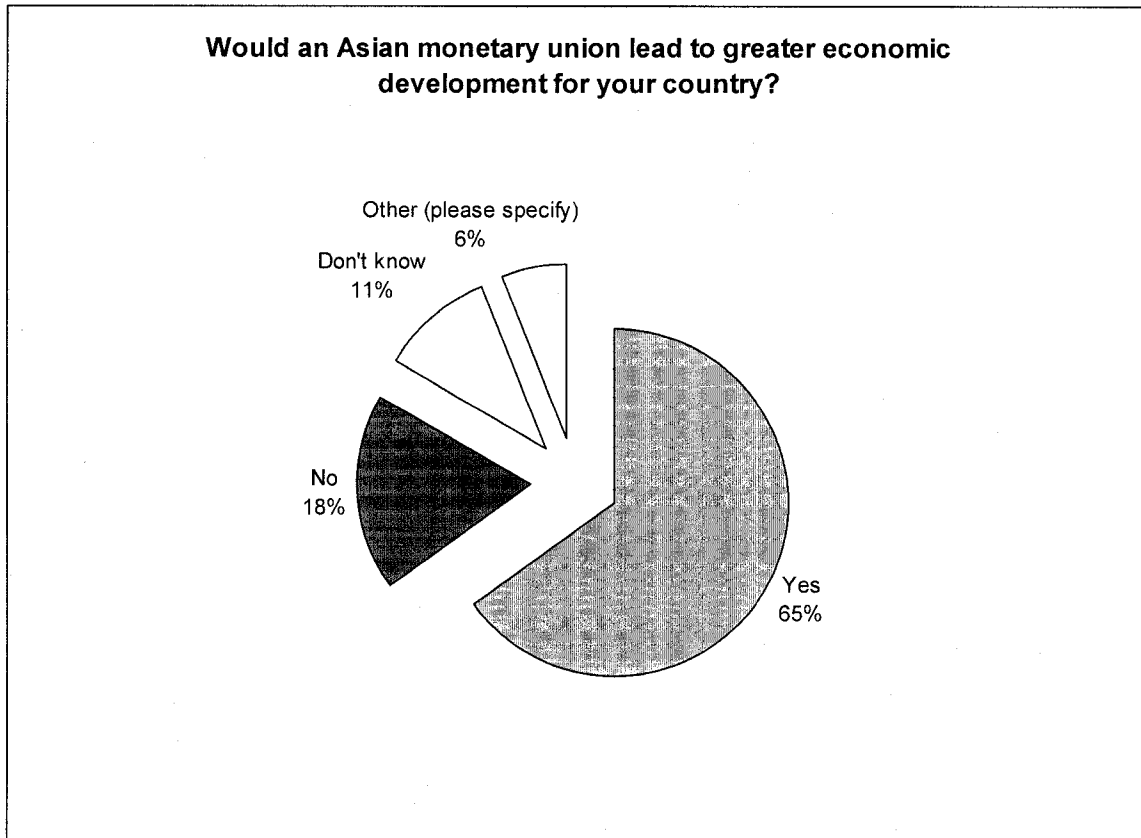


Figure A5. Monetary Union and Capital

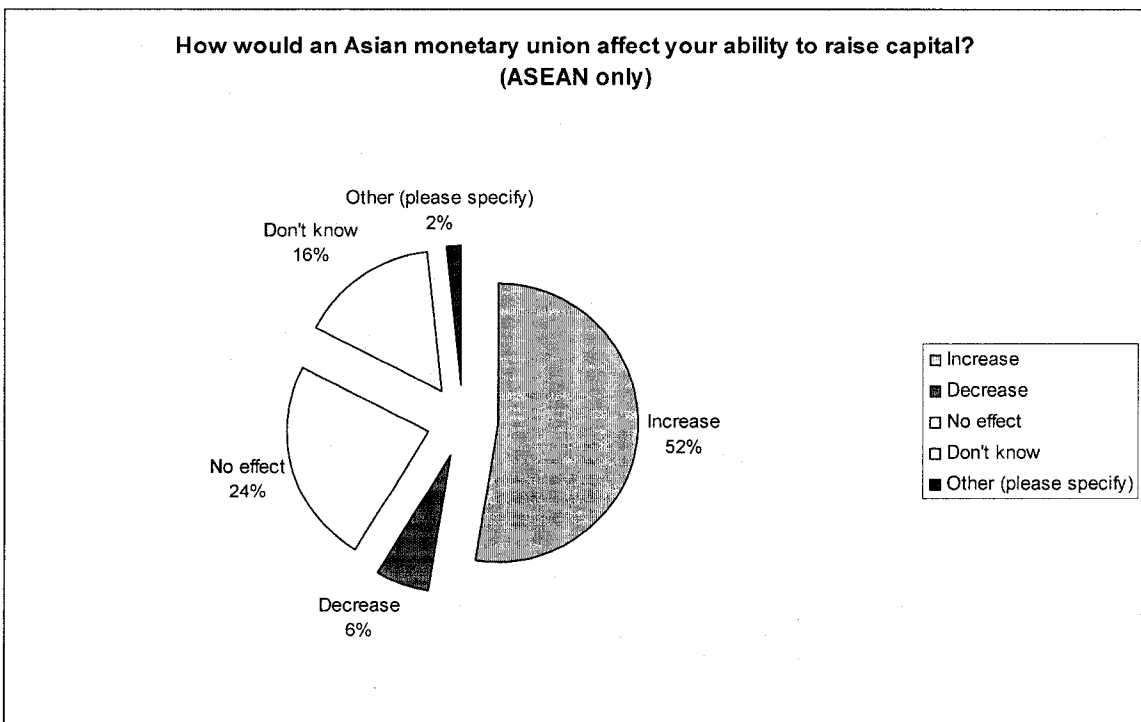
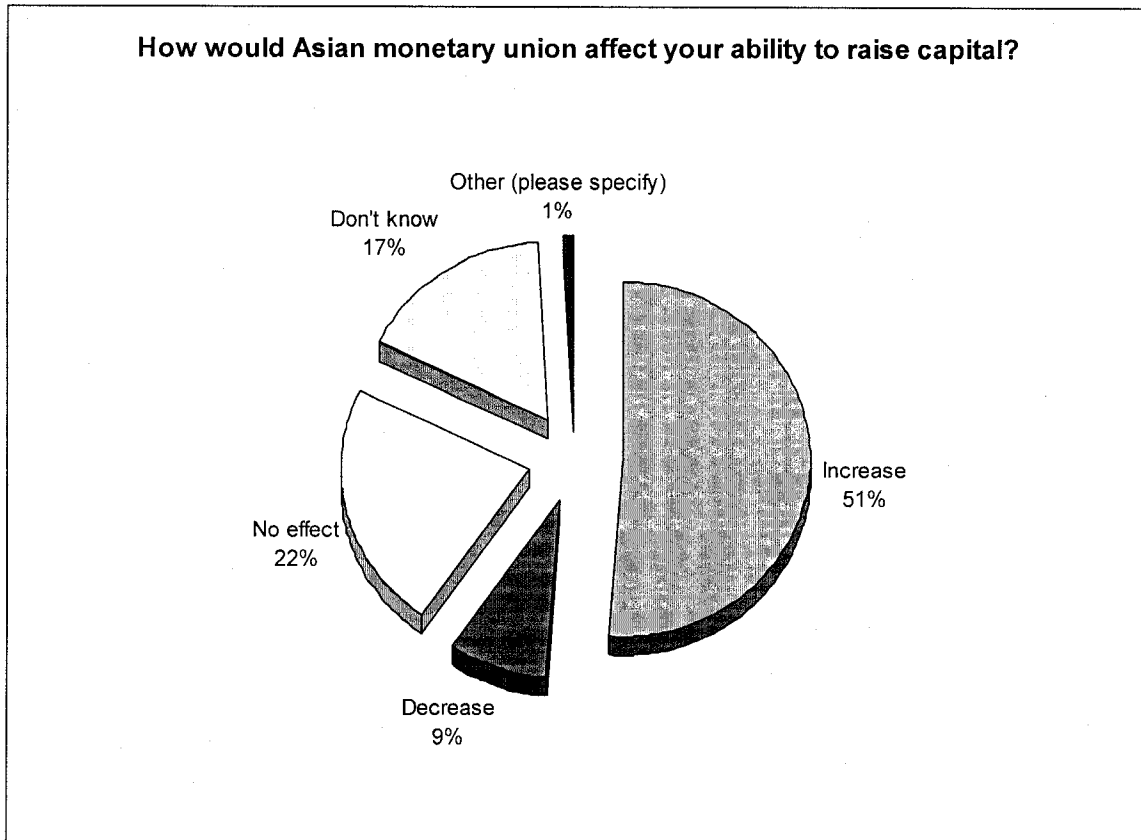


Figure A6. Monetary Union and Globalization

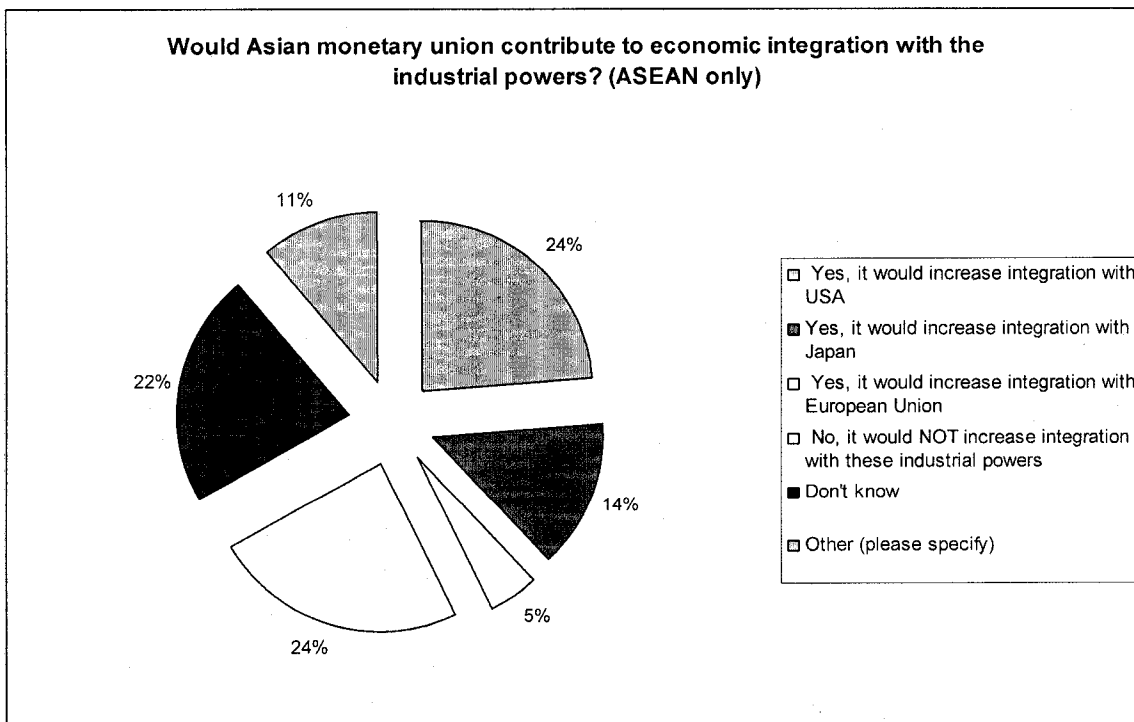
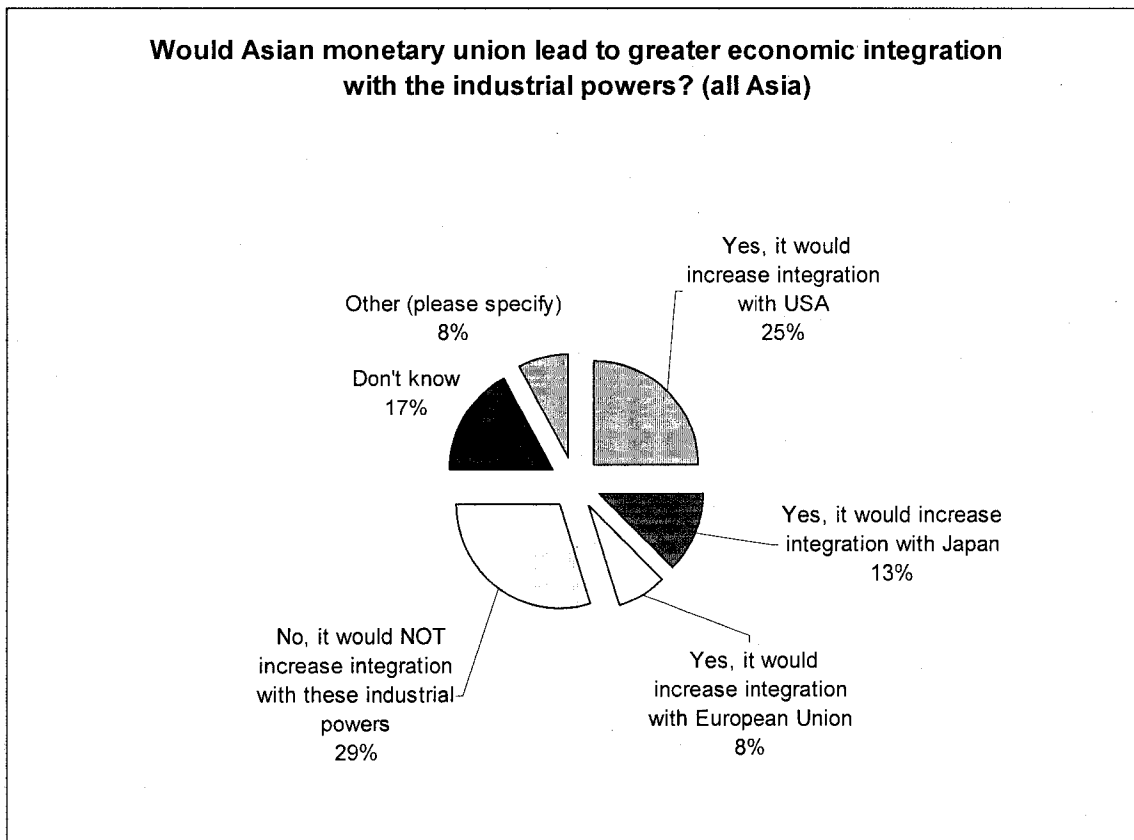


Figure A7. Monetary Union and Regional Integration

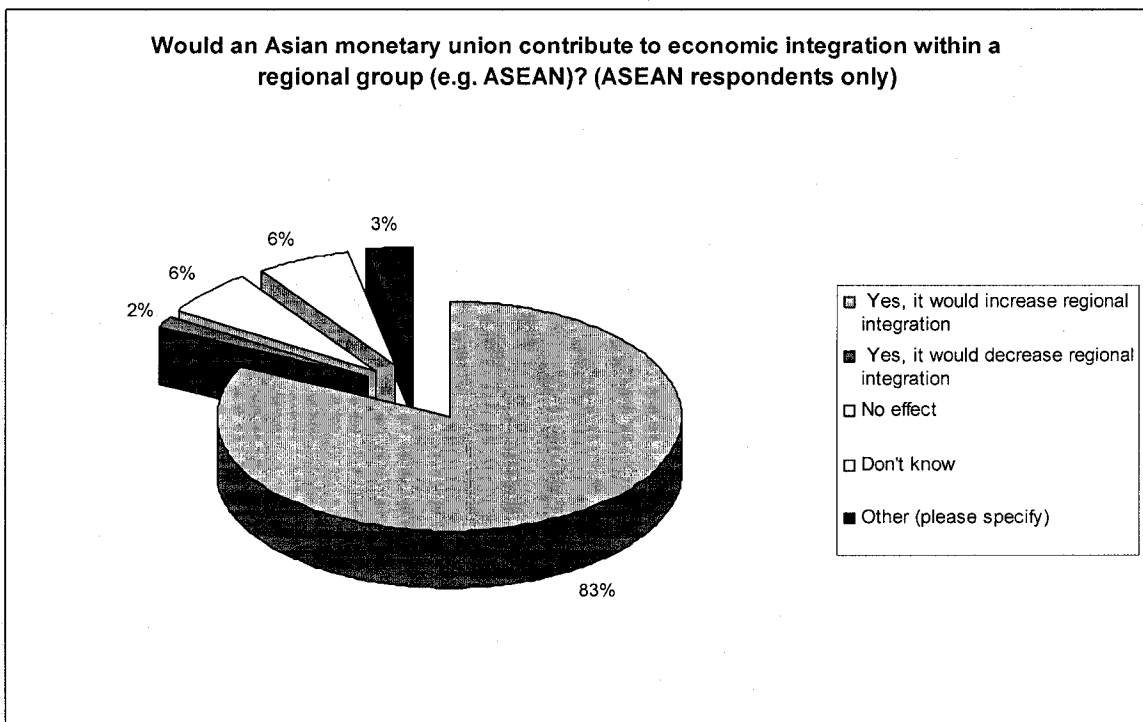
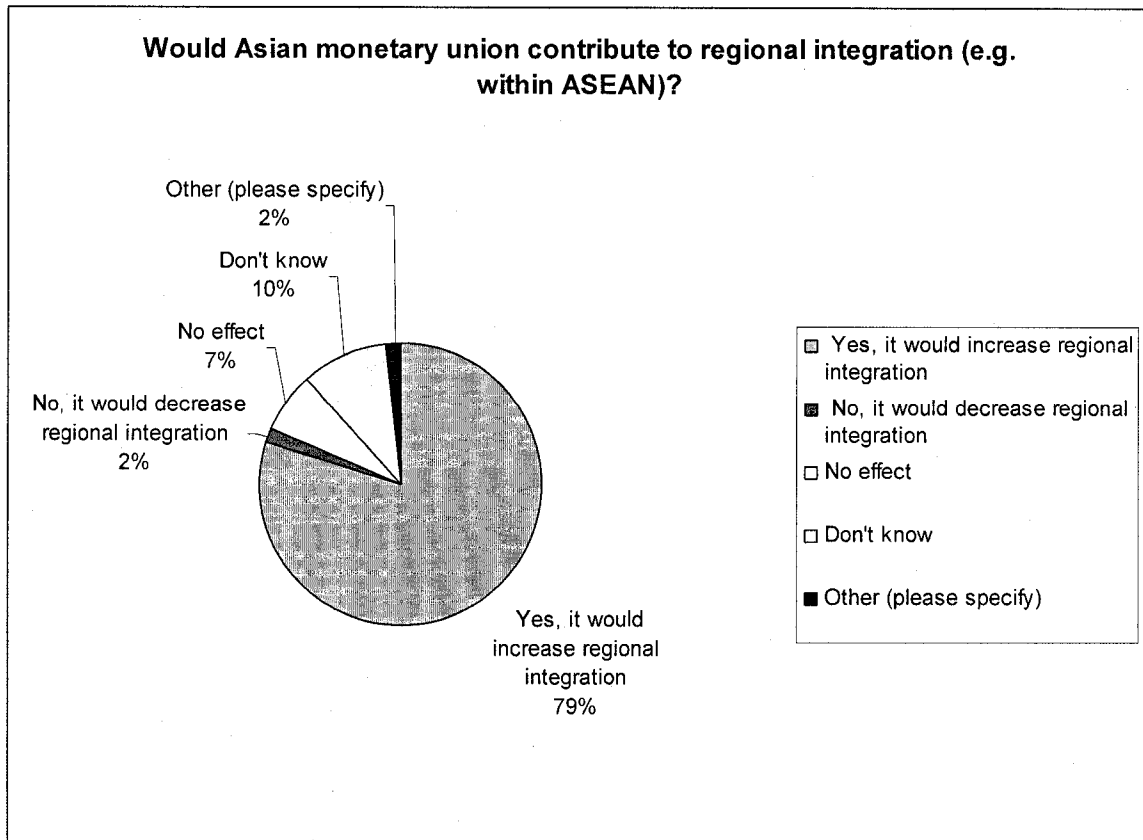


Figure A8. Monetary Union and Trade

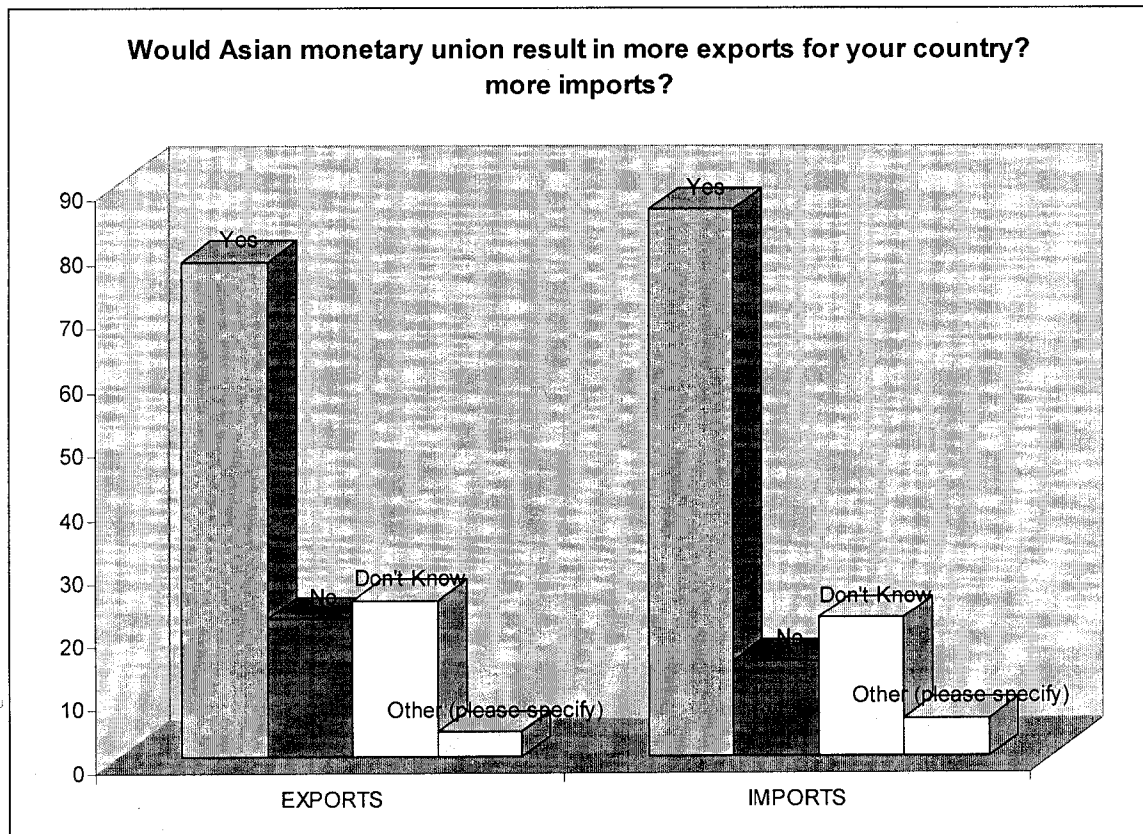
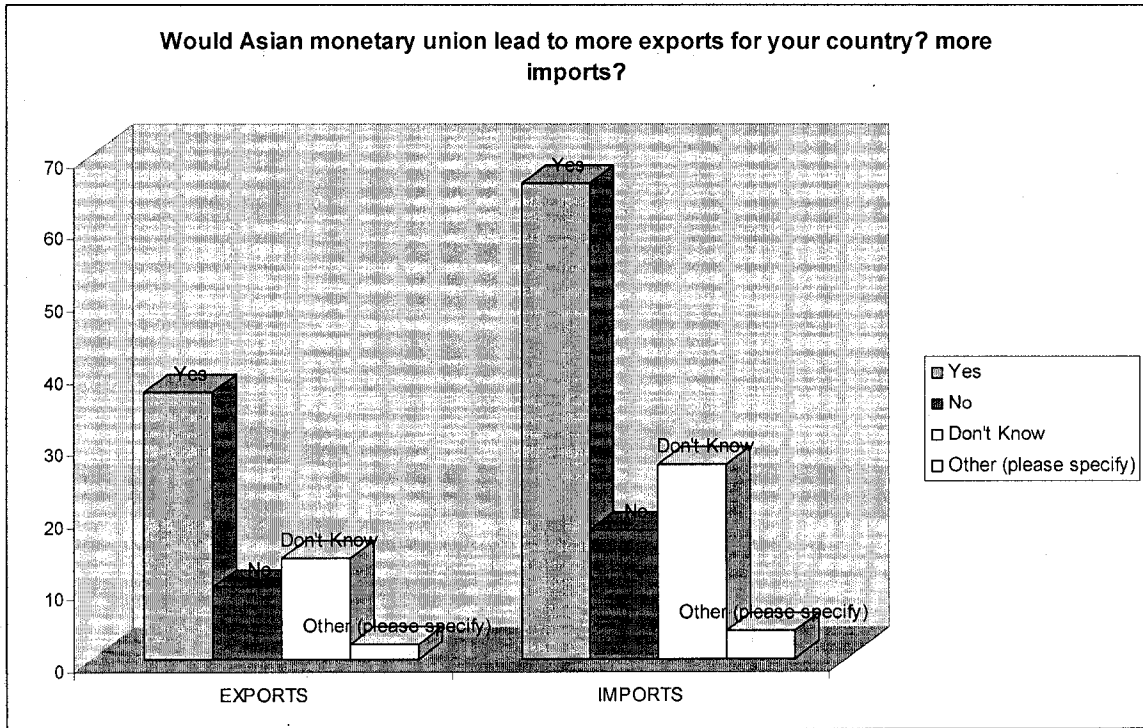
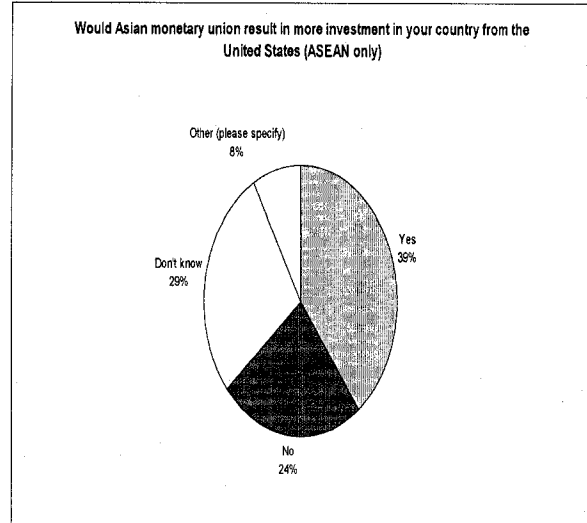
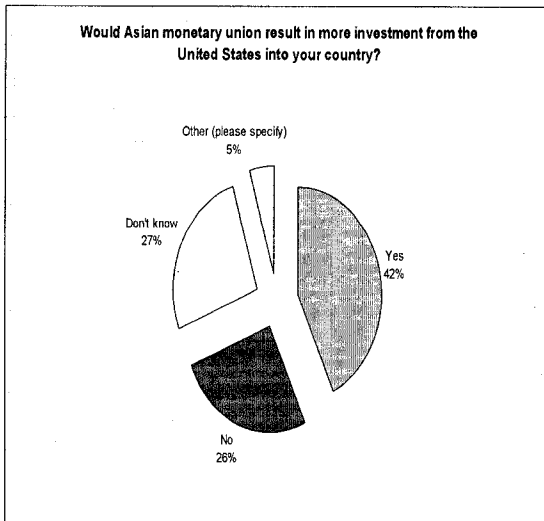


Figure A9. Monetary Union and Investment

A. Investment from the United States:



B. Investment Overall:

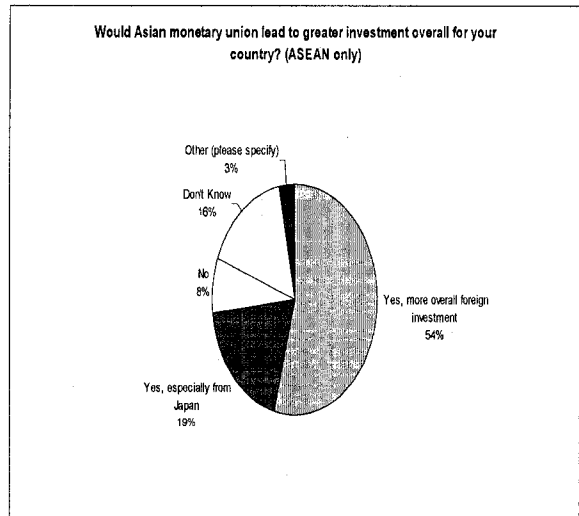
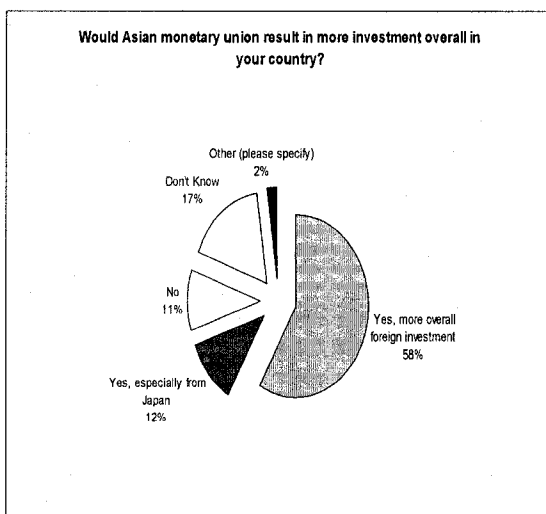


Figure A10. Monetary Union and Growth

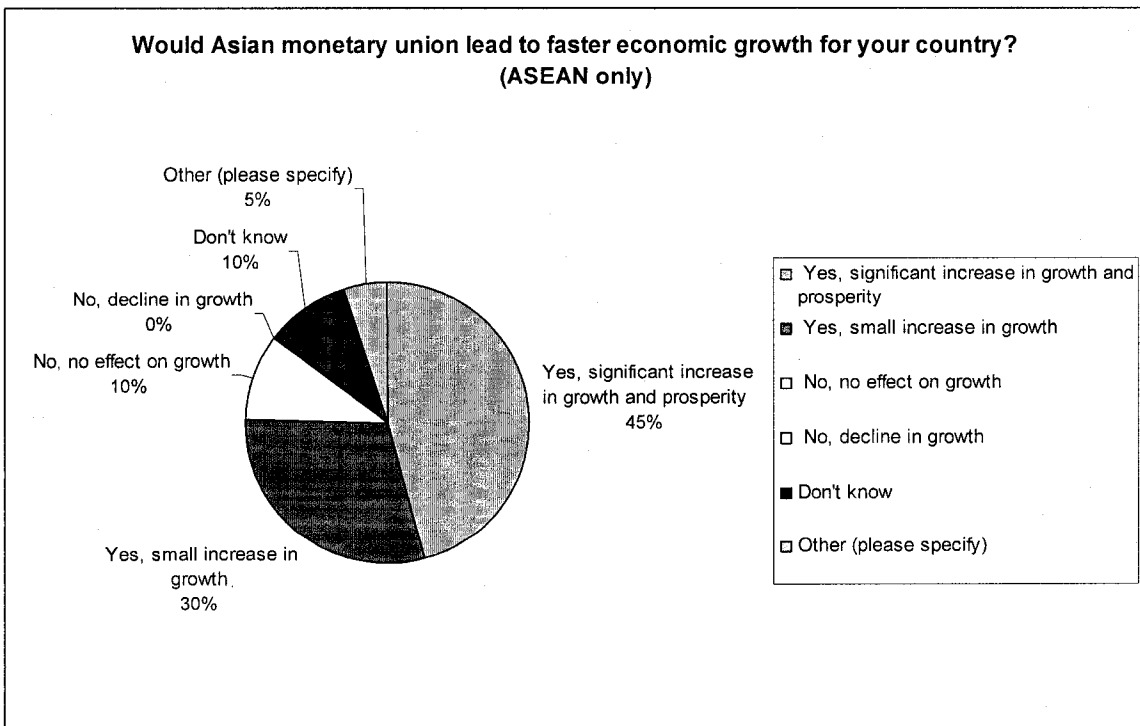
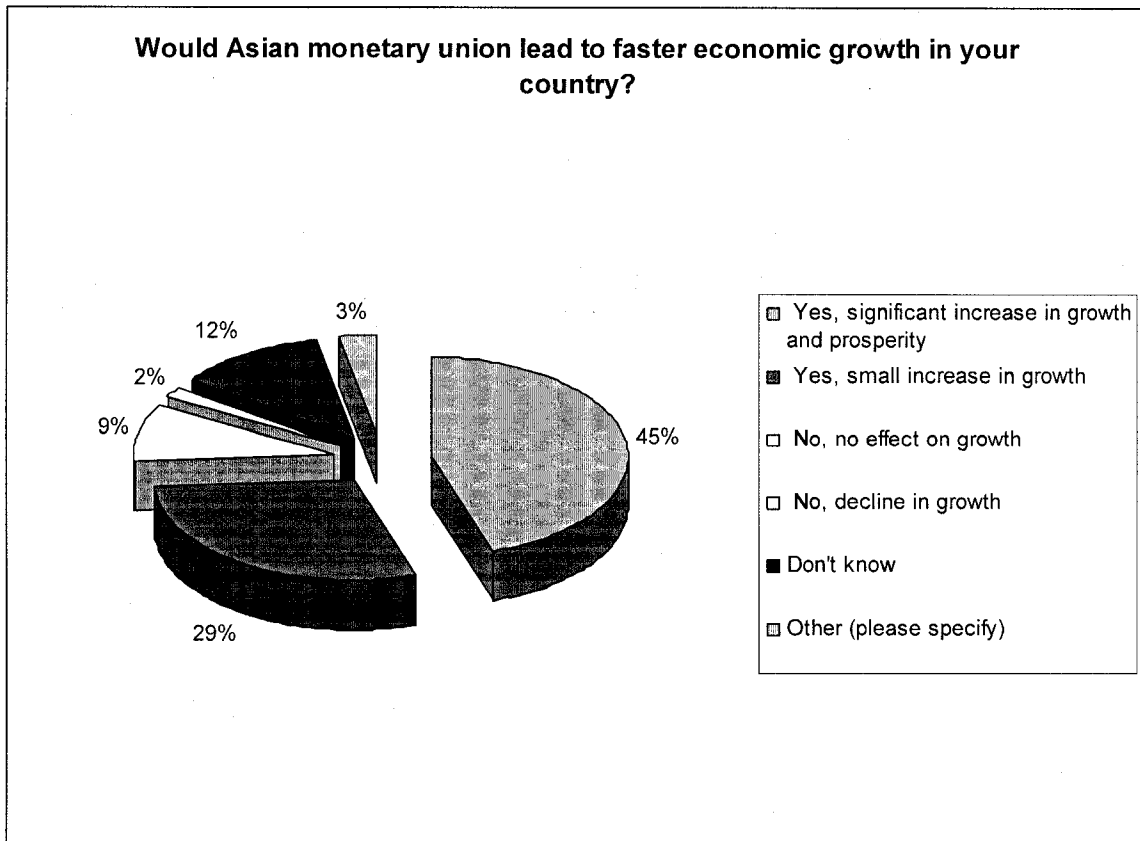


Figure A11. Protection from Crises

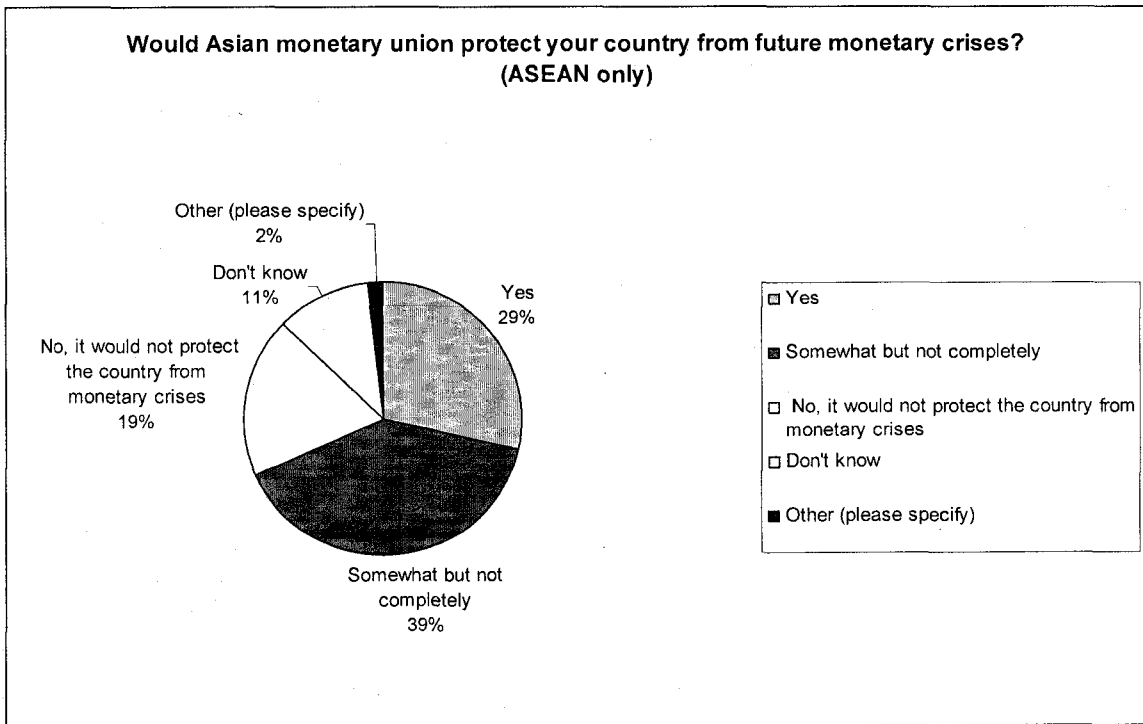
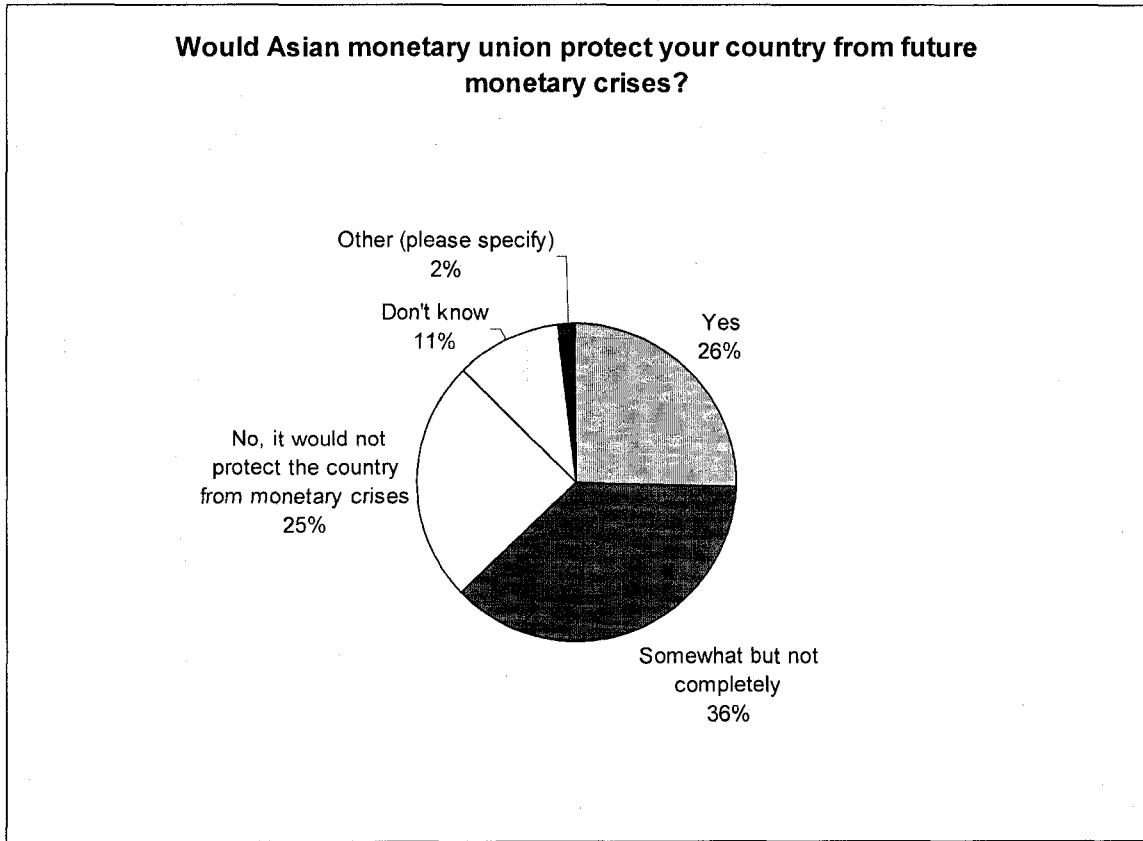


Figure A12. Monetary Union and Free Trade Areas

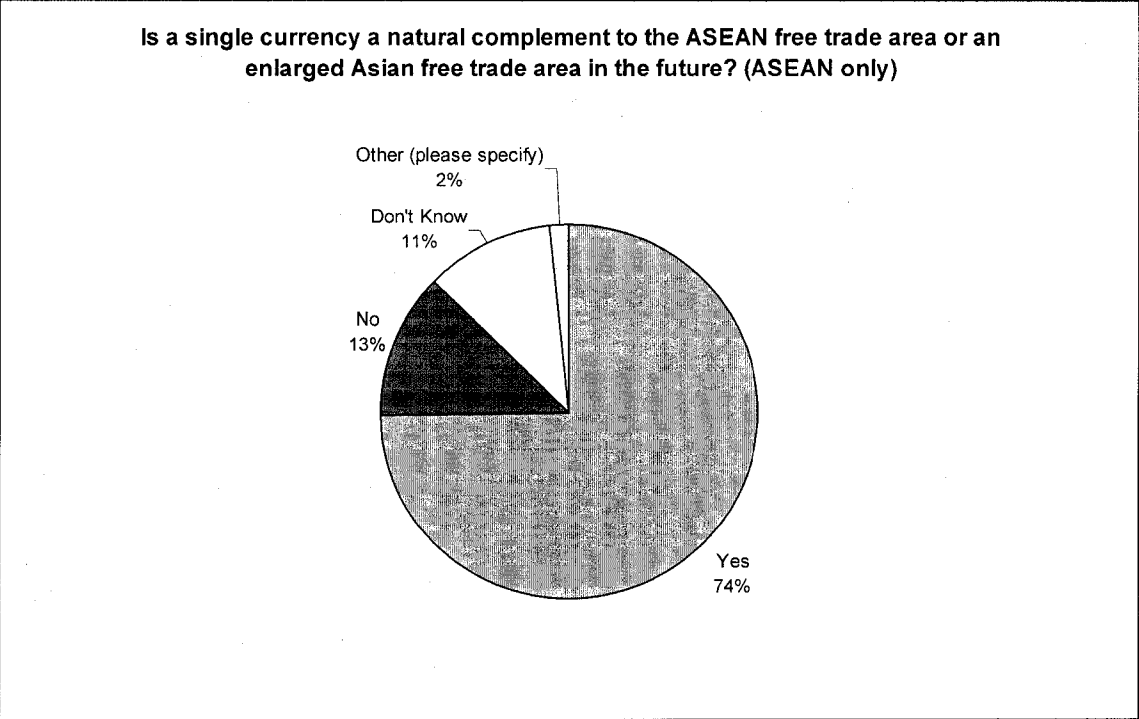
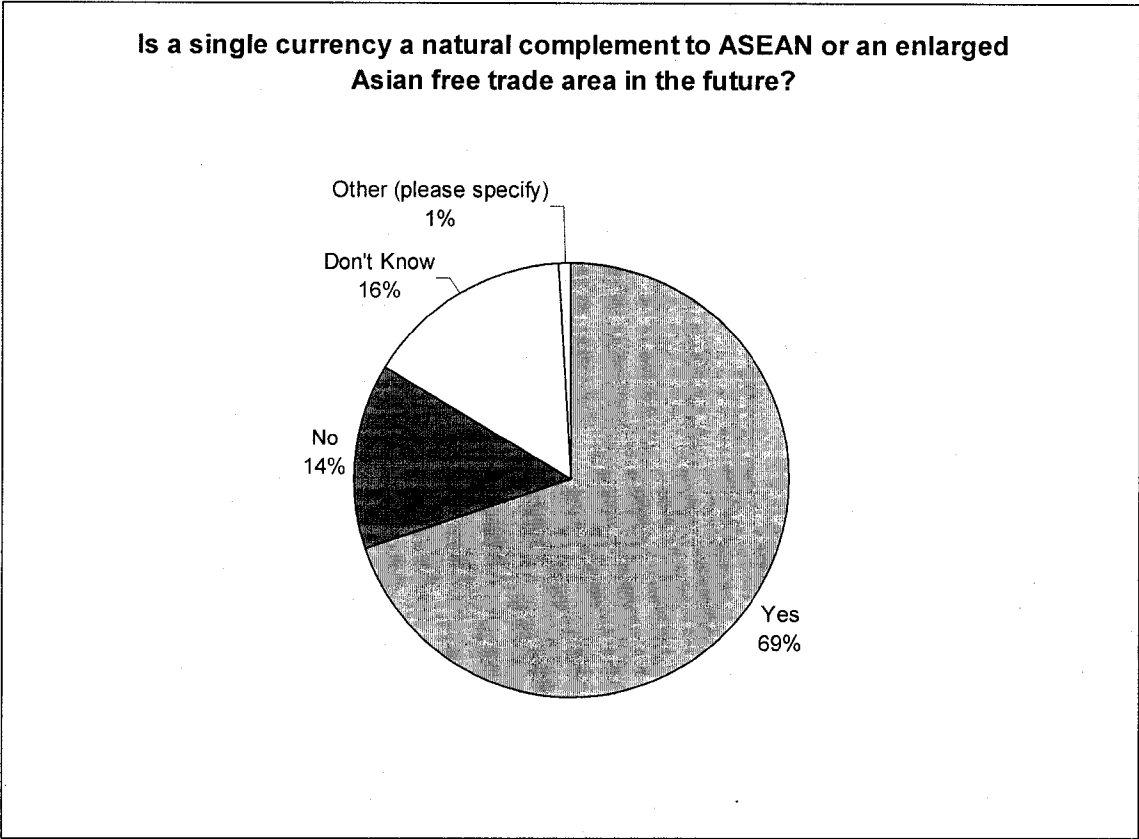


Figure A13. Nationalism

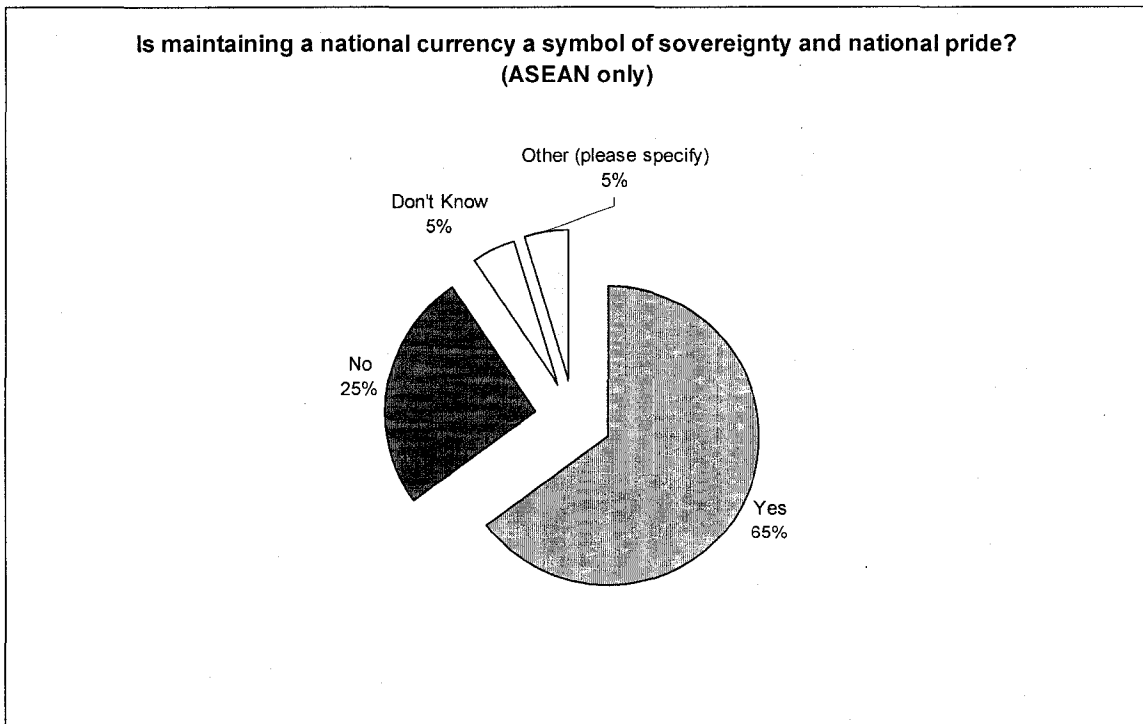
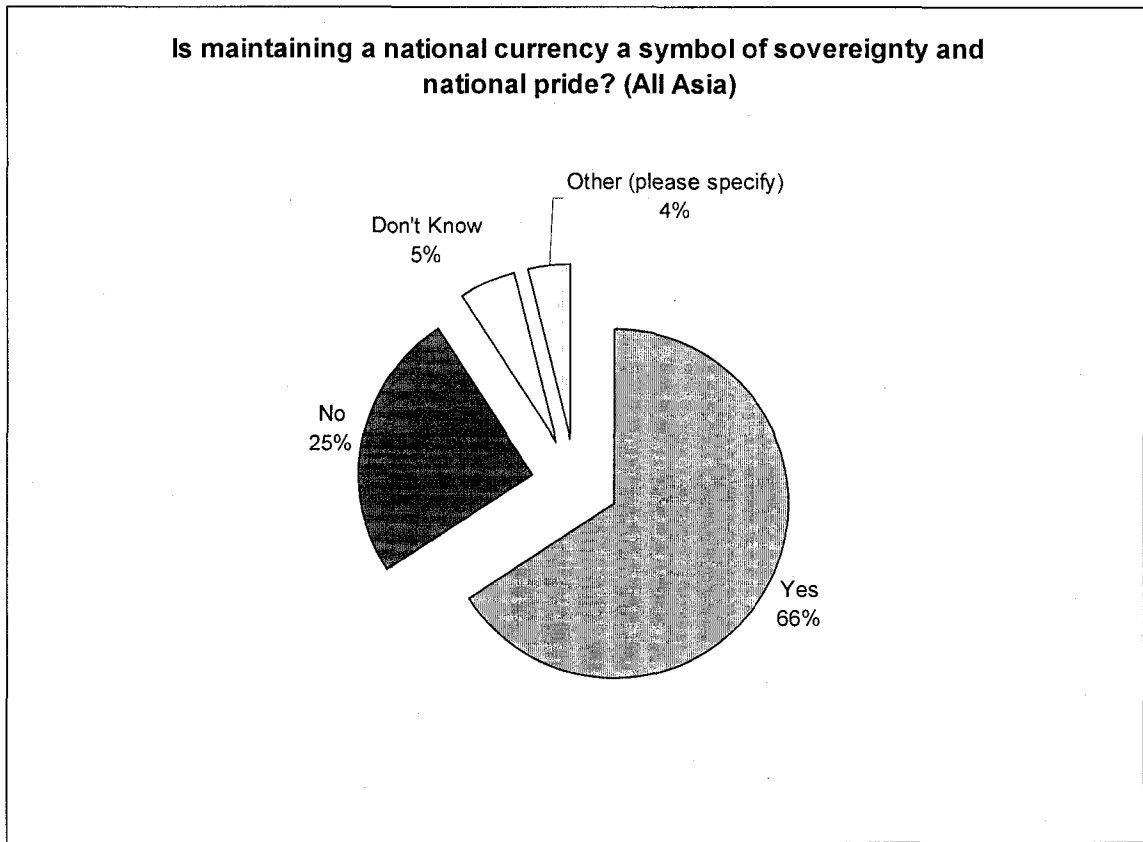


Figure A14. Company Profile

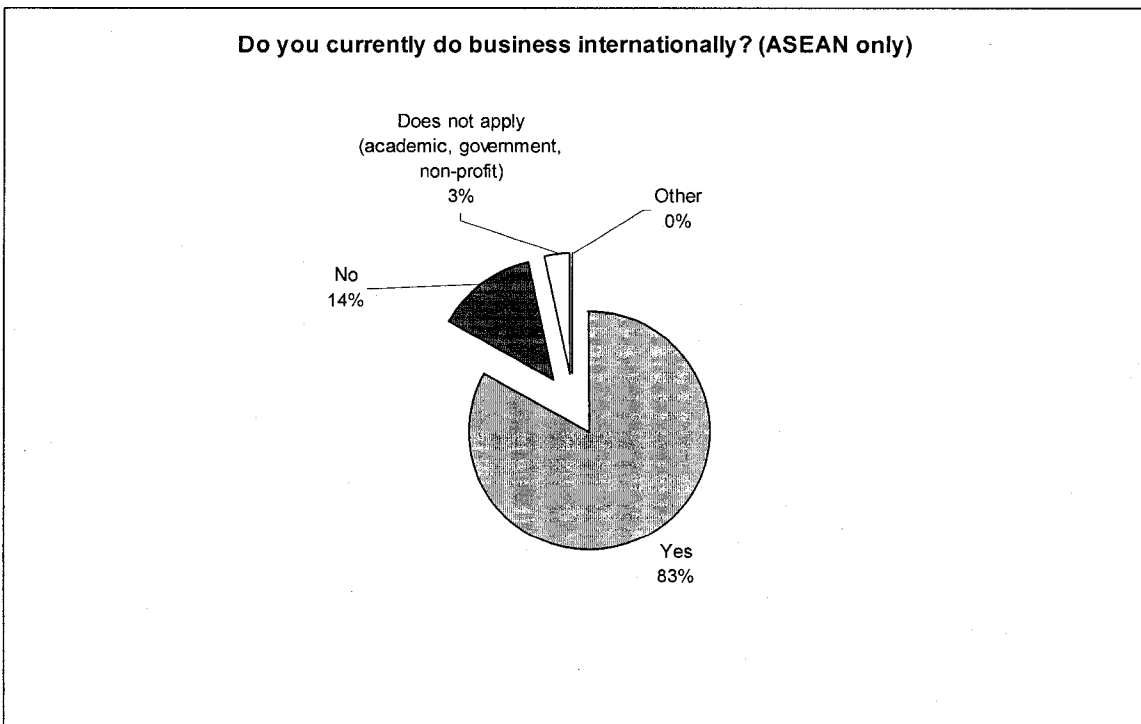
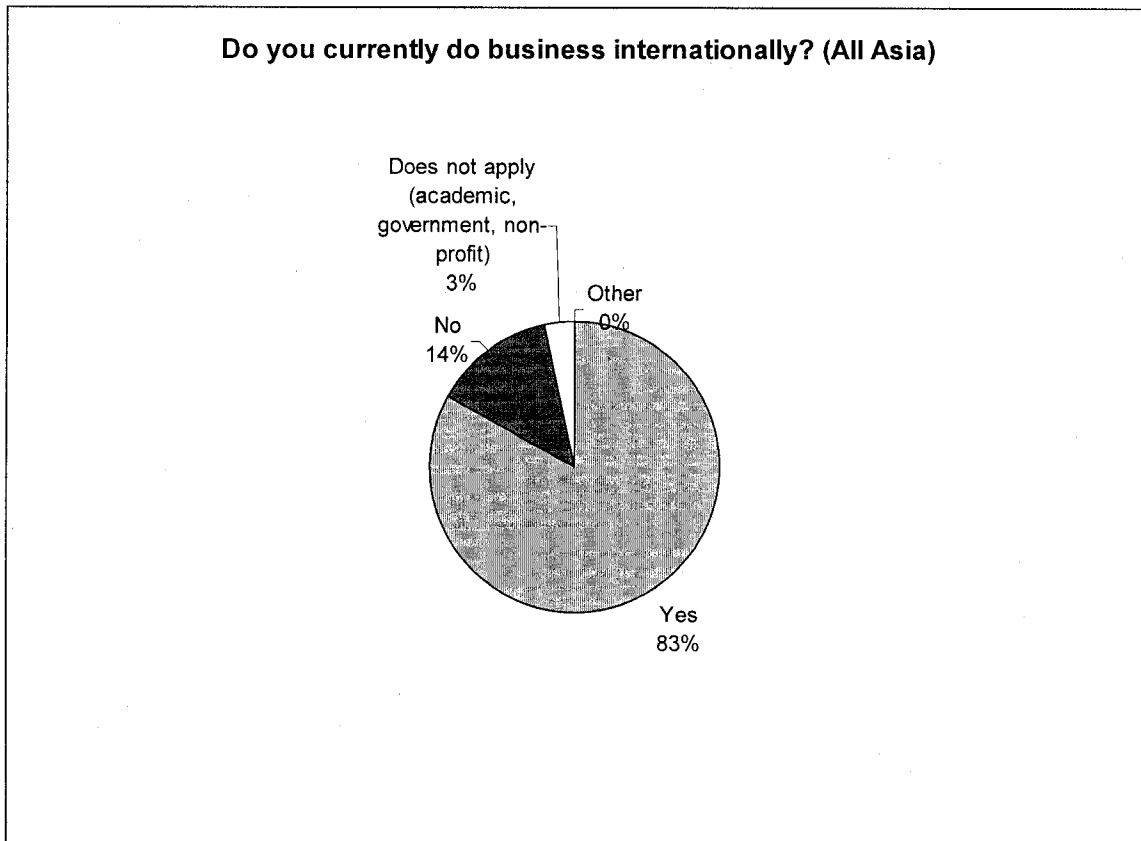


Figure A15. Invoicing

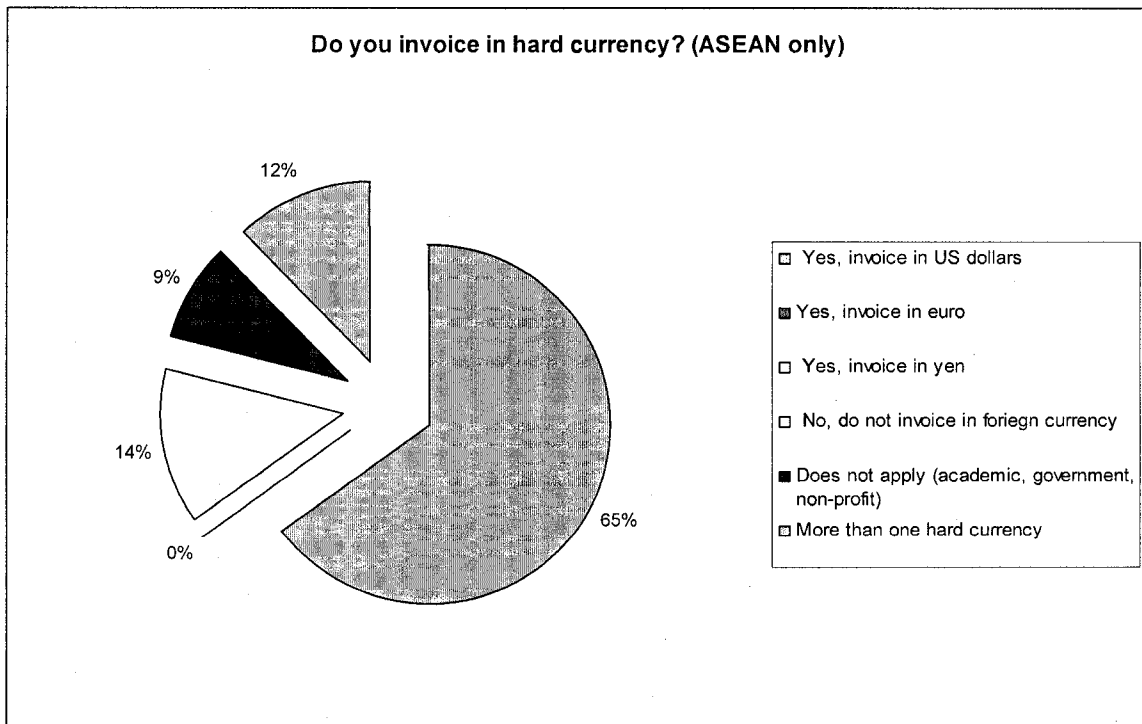
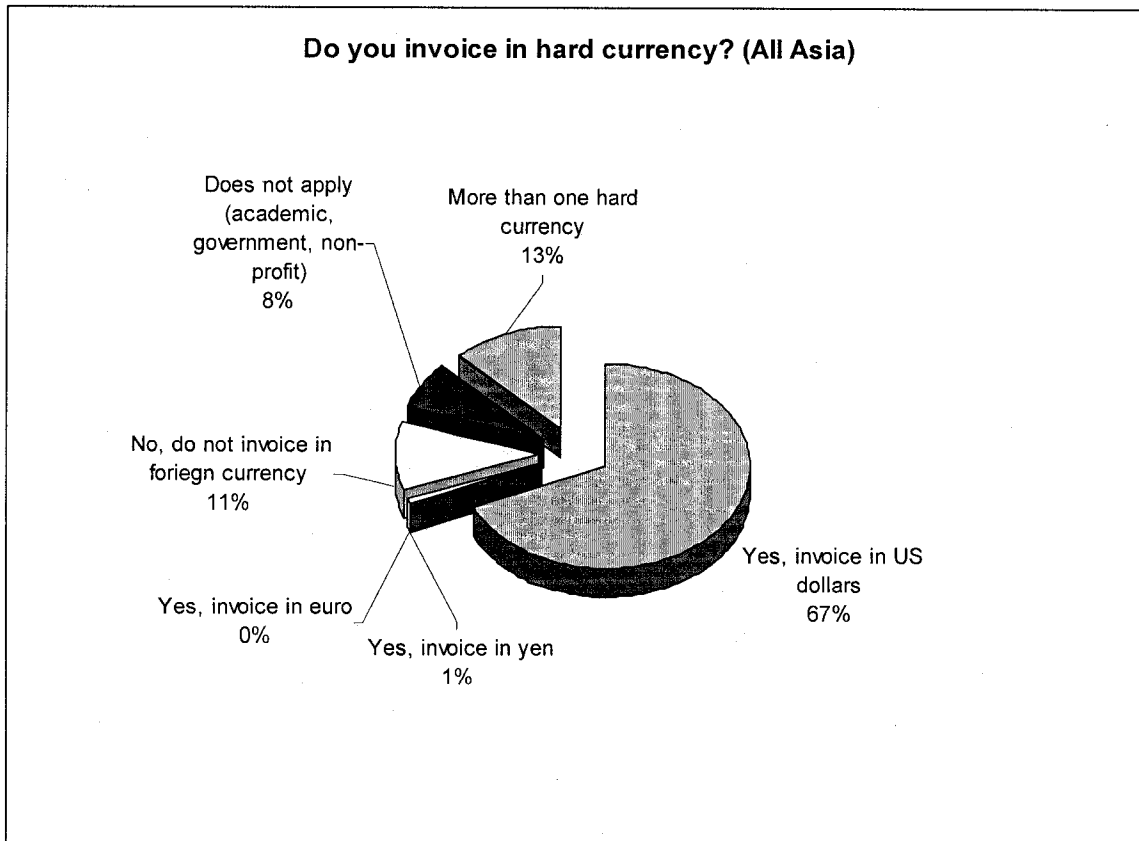


Figure A16. Transactions Costs

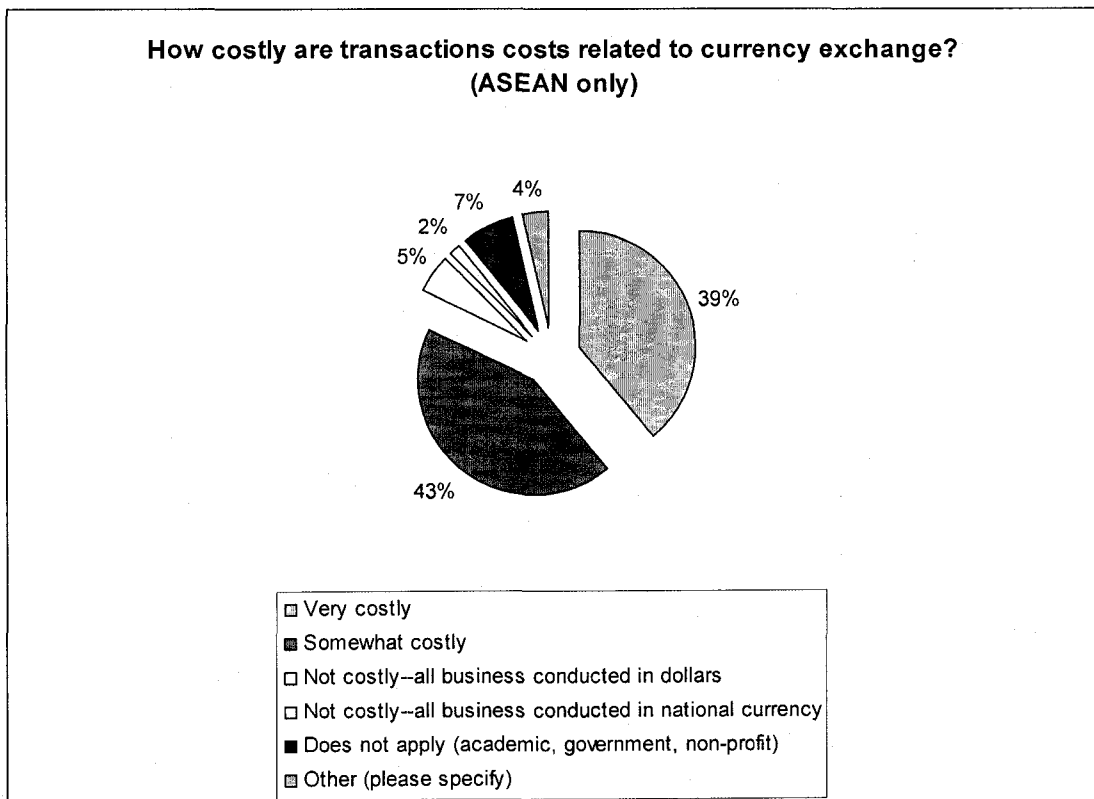
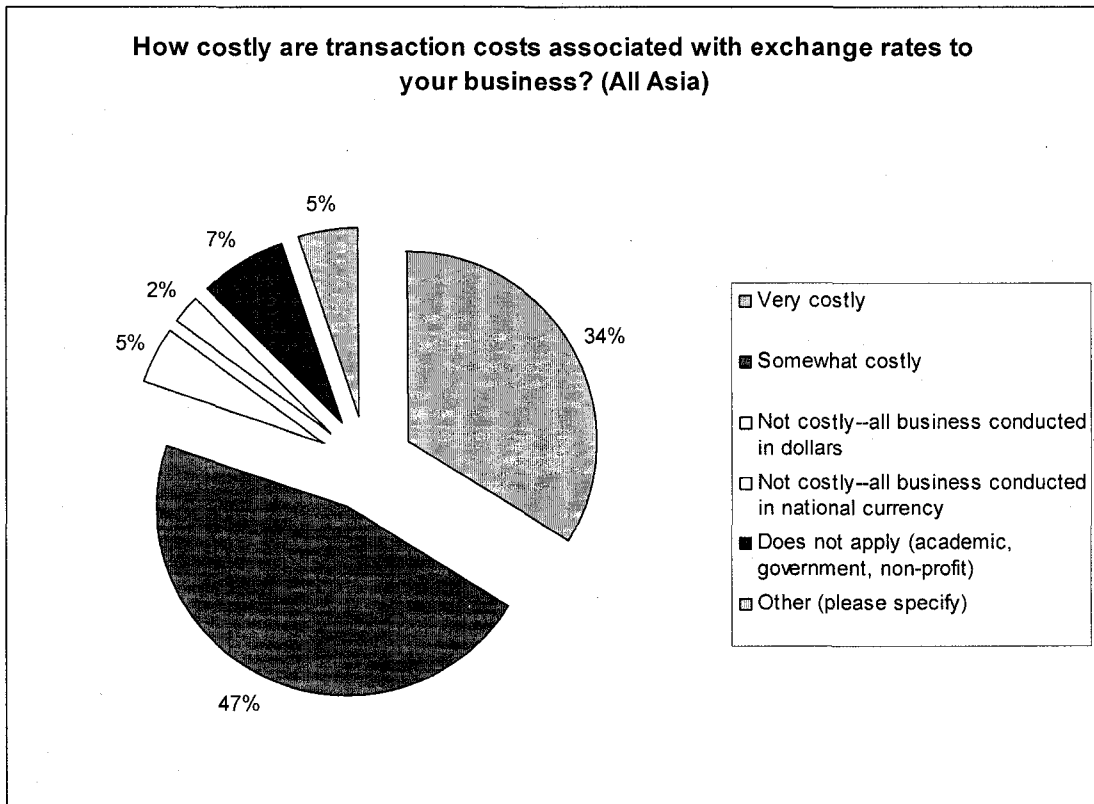


Figure A17. Credit

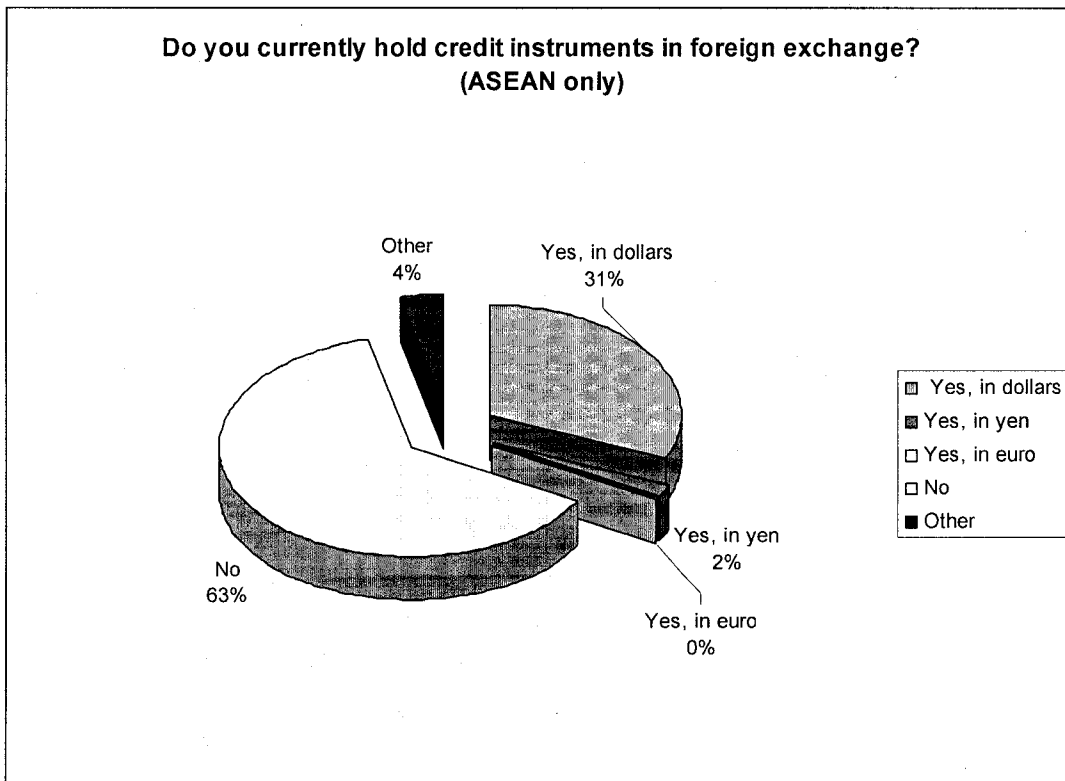
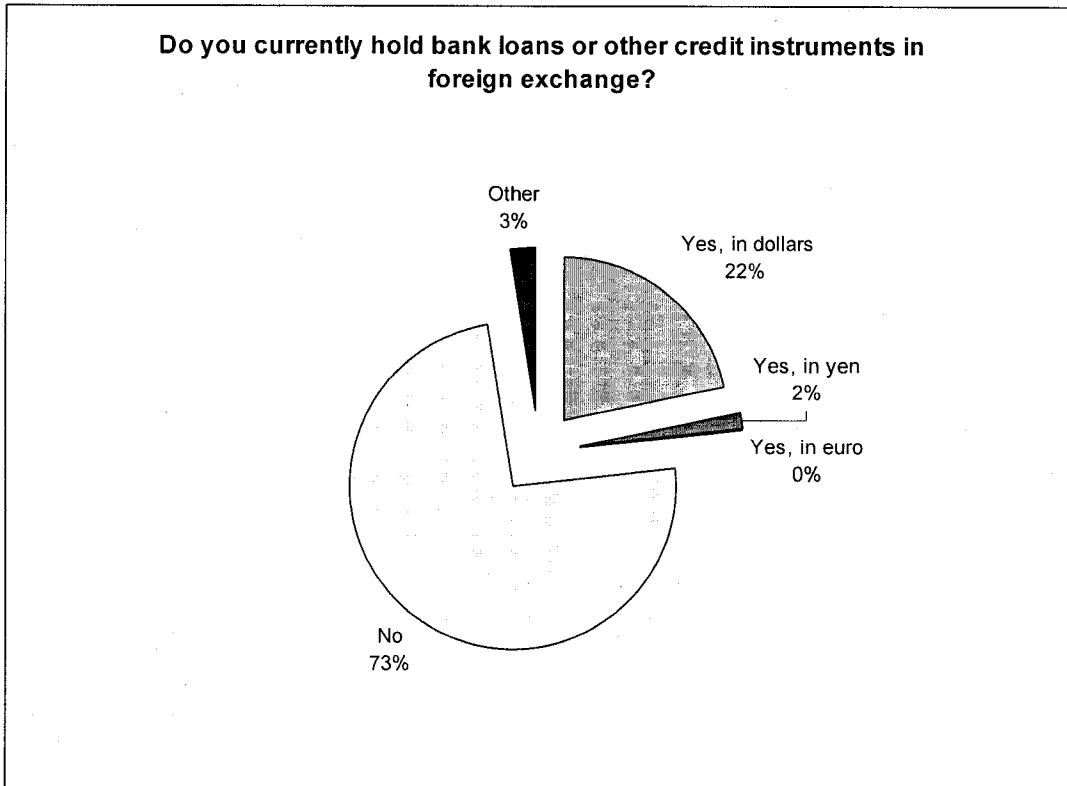


Figure A18. Monetary Union and International Business Expansion

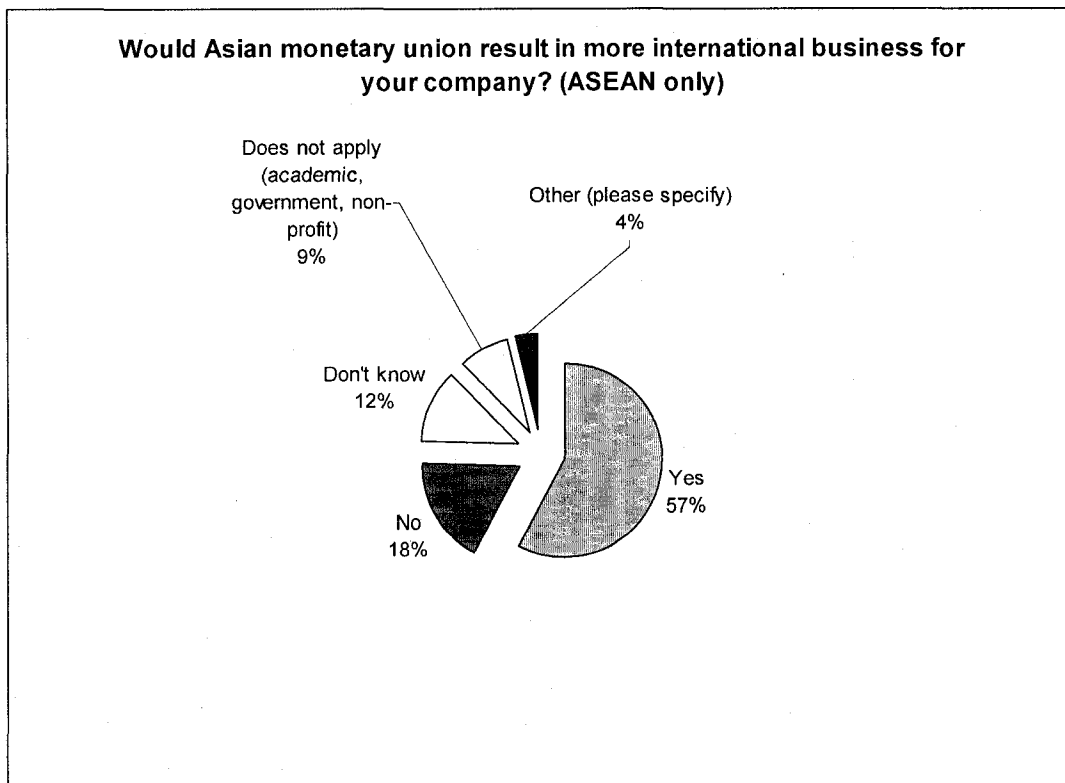
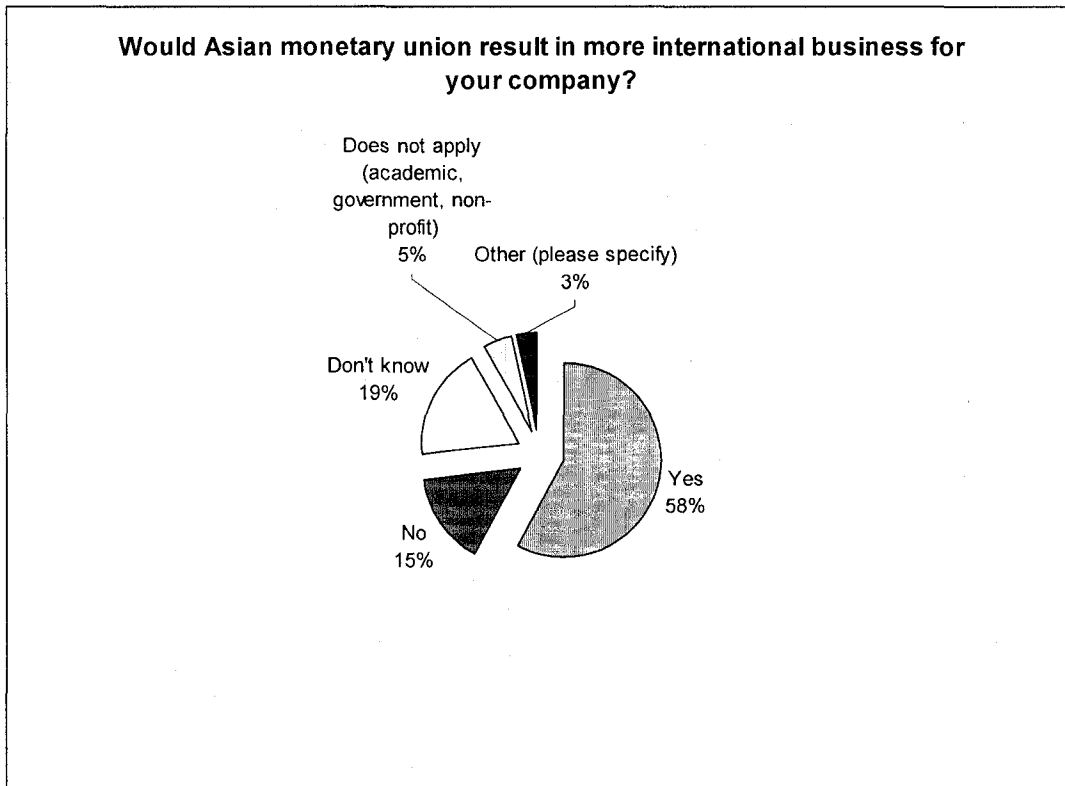


Figure A19. Company Size

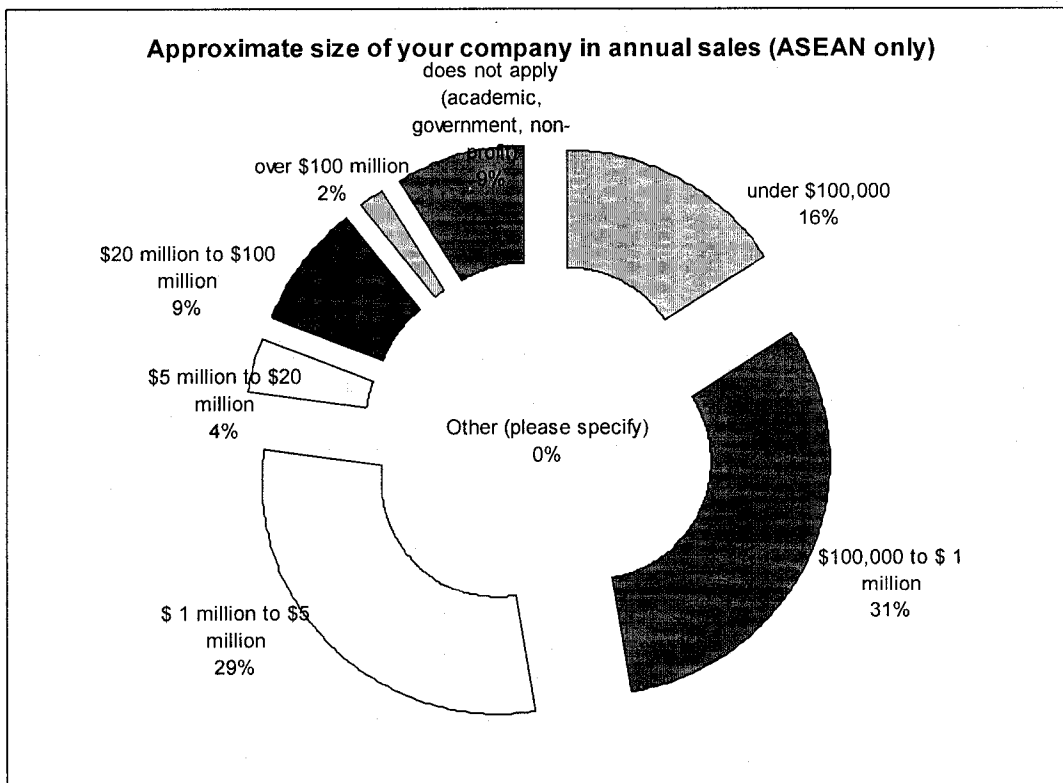
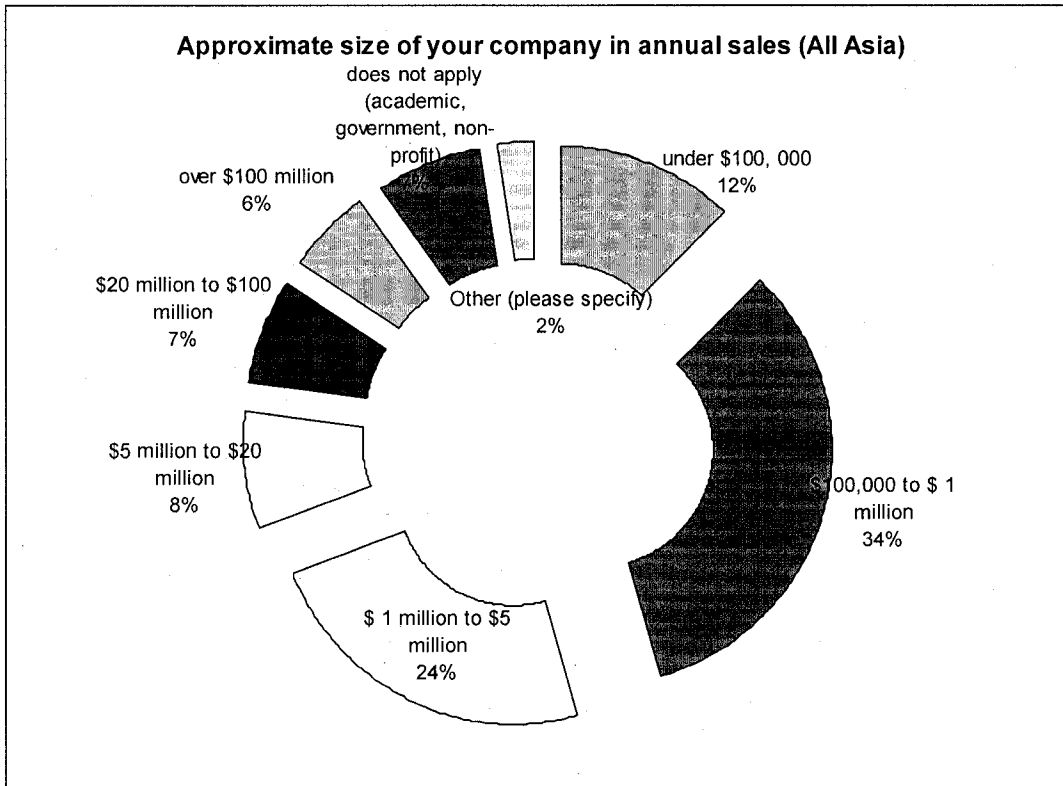
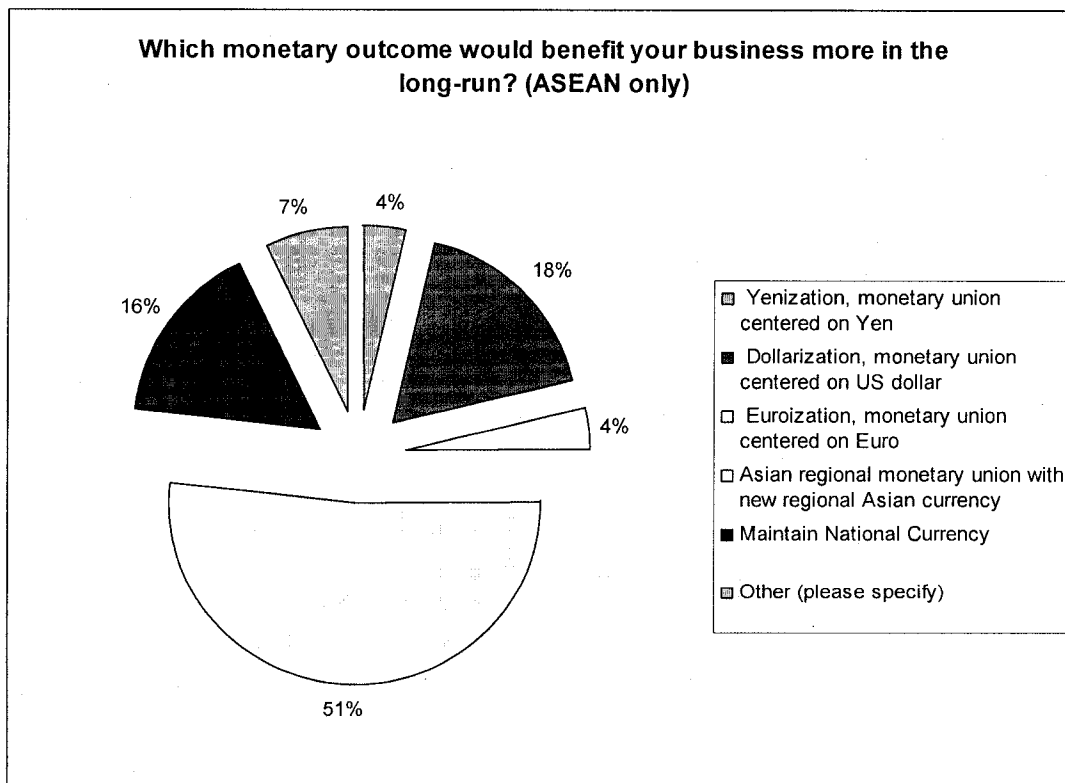
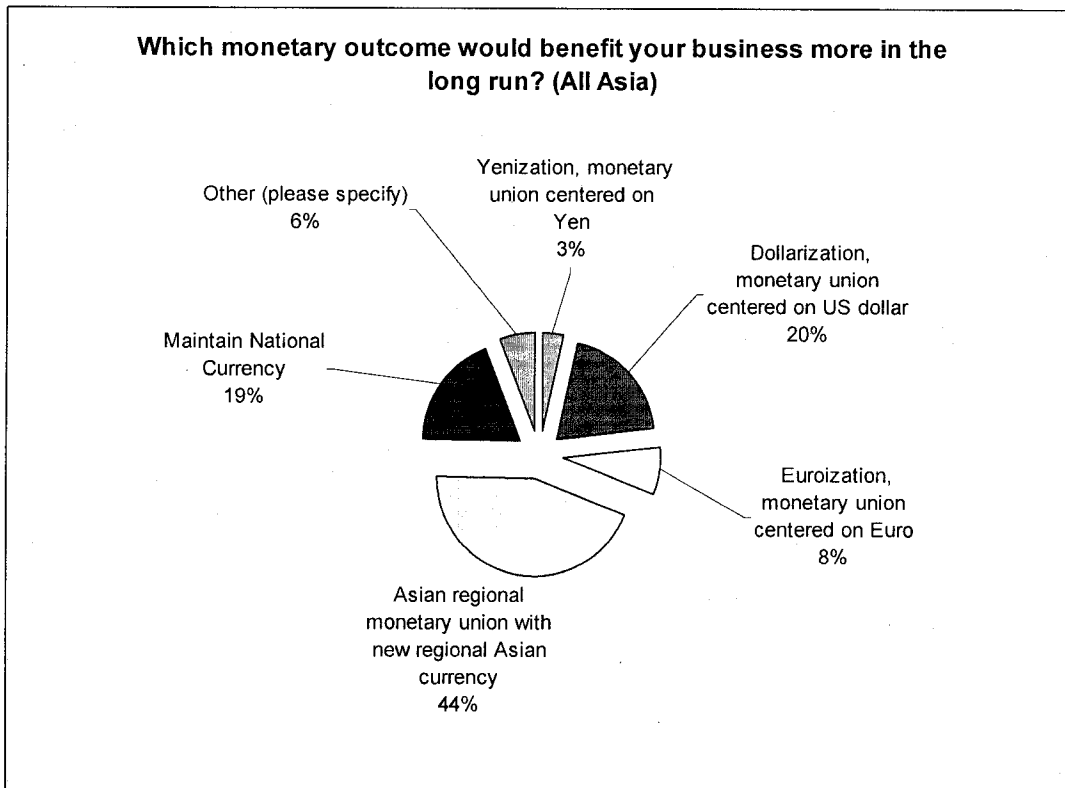


Figure A20. Most Profitable Monetary Outcome



- Yenization, monetary union centered on Yen
- Dollarization, monetary union centered on US dollar
- Euroization, monetary union centered on Euro
- Asian regional monetary union with new regional Asian currency
- Maintain National Currency
- Other (please specify)

Figure A21. Education Level of Respondents

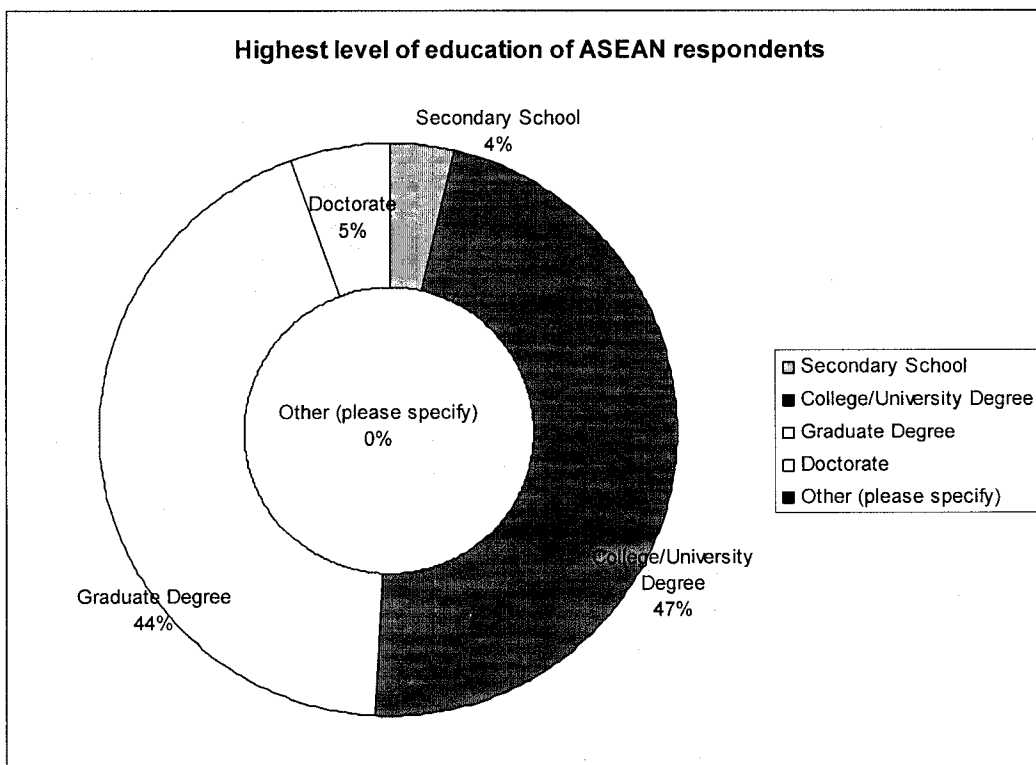
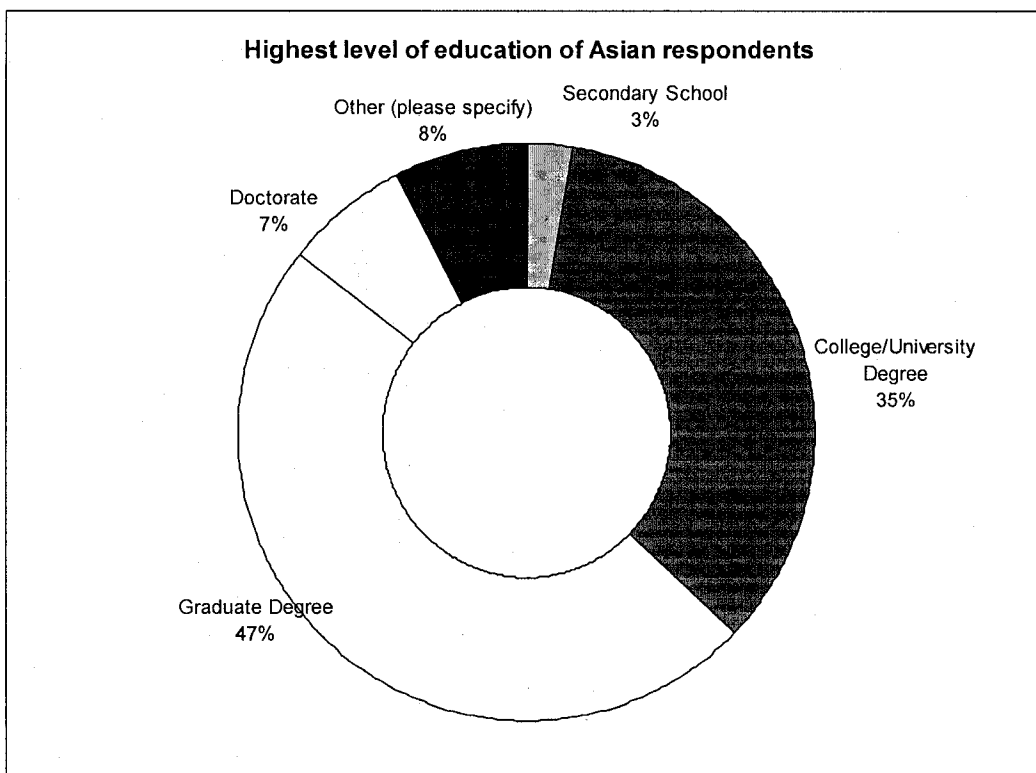


Figure A22. Respondents with American Education

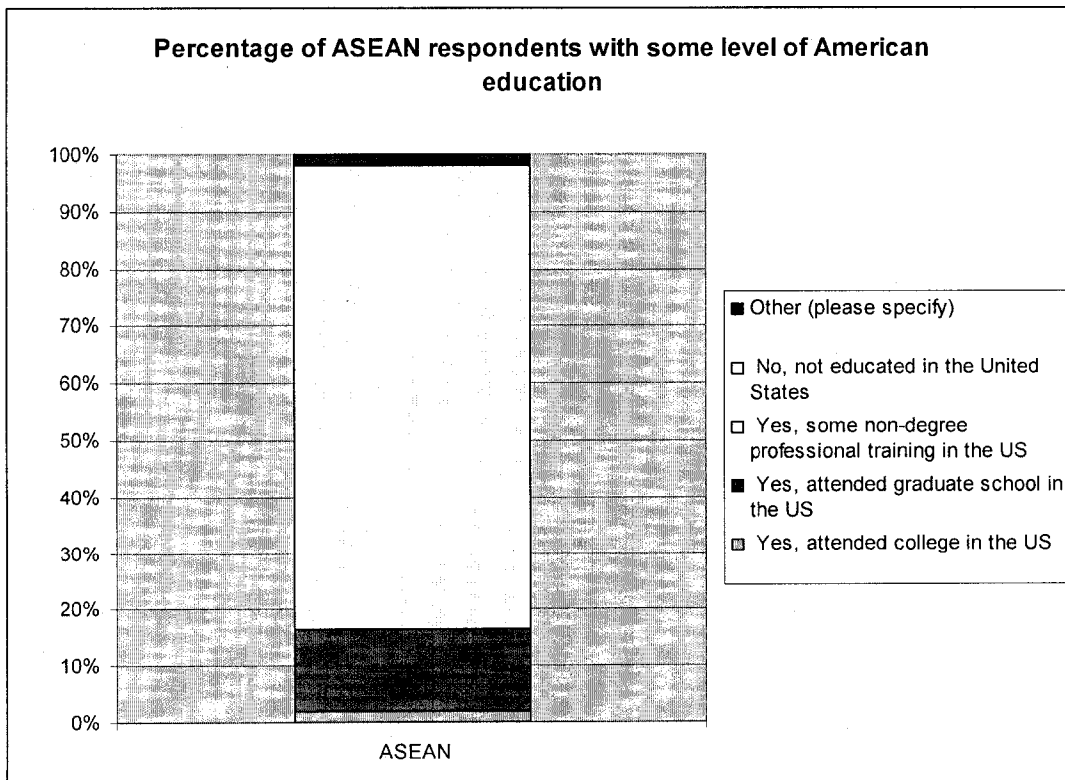
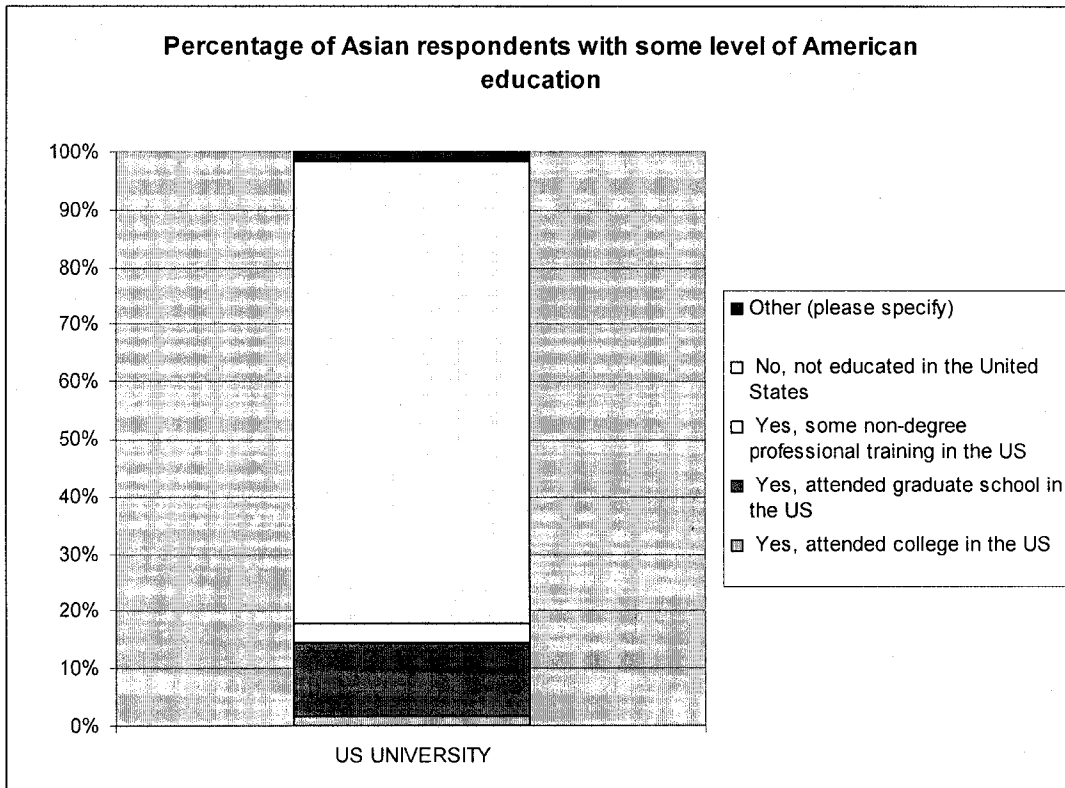


Figure A23. Political Tendency

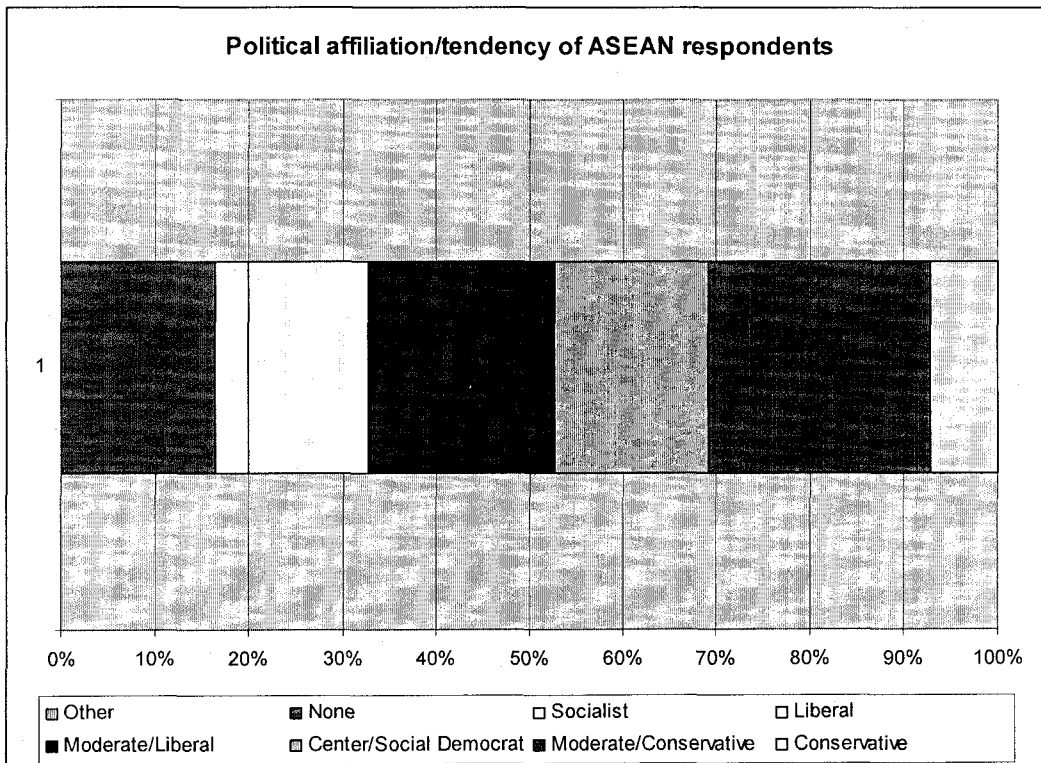
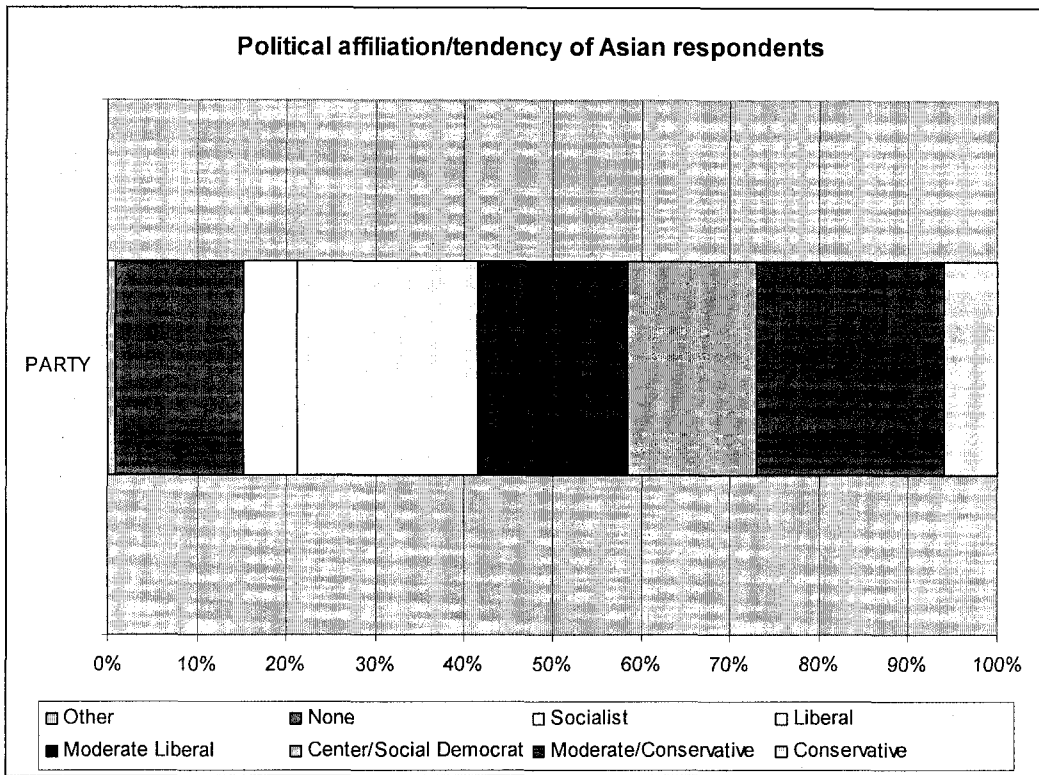
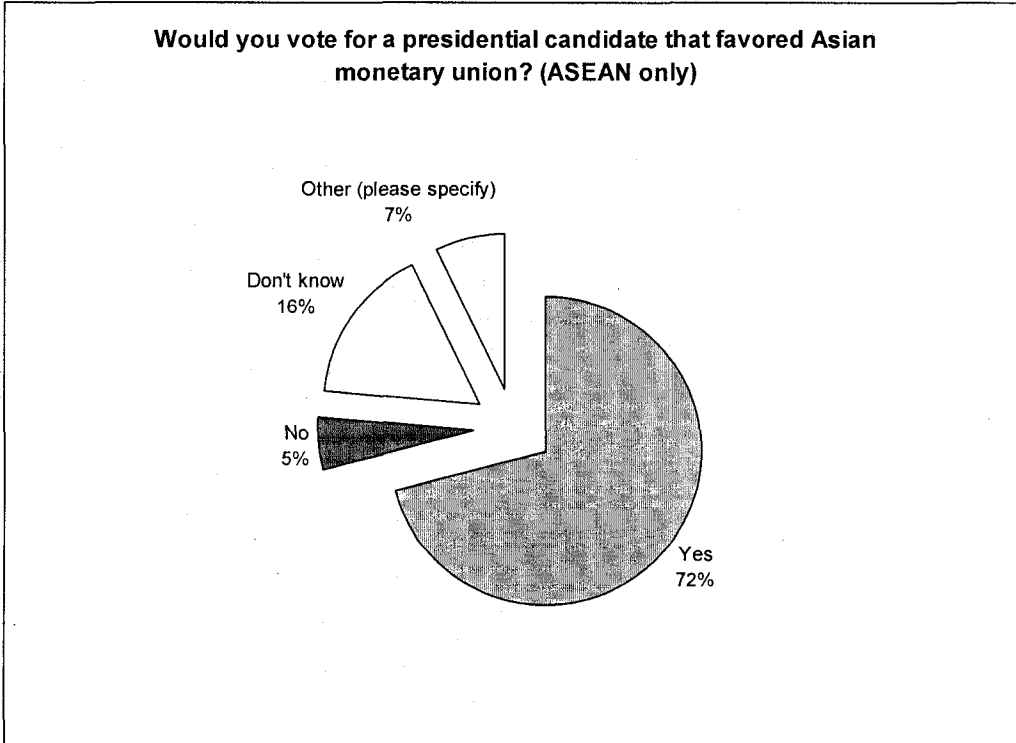
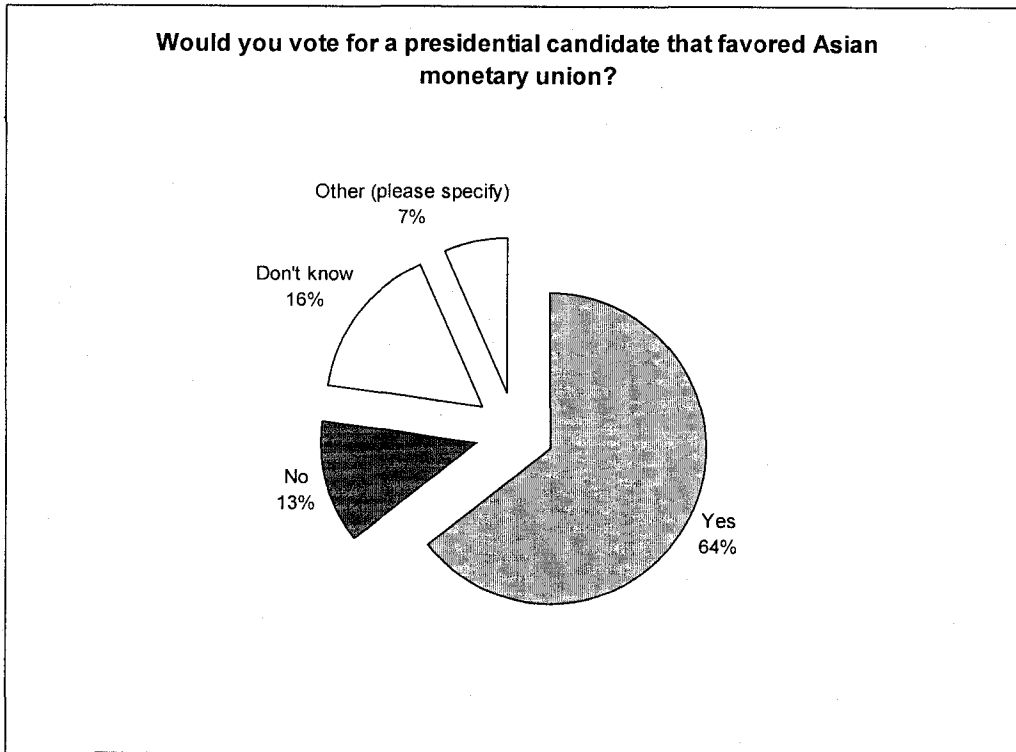


Figure A24. The Fate of a Statesman that Favors Monetary Union



Appendix III : Acronyms Used in this Dissertation

| | |
|----------------|---|
| ACU | Asian currency unit (proposed) |
| ADB | Asian Development Bank |
| AMF | Asian Monetary Fund (proposed) |
| APEC | Asia Pacific Economic Council |
| APMF | Asia Pacific Monetary Fund |
| ASEAN | Association of South East Asian Nations |
| ASEAN+ 3 | Association of South East Asian Nations plus Japan, Korea and China |
| BIS | Bank for International Settlements |
| CACM | Central American Common Market |
| CAFTA-DR | Central America Free Trade Agreement-Dominican Republic, denoting the free trade agreement of the United States with the nations of Central America (Guatemala, Honduras, Cost Rica, El Salvador, Nicaragua) and the Dominican Republic |
| CFA franc zone | Central French African franc zone |
| CIS | Commonwealth of Independent States (formed by the states of the former Soviet Union) |
| EC | European Community |
| ECB | European Central Bank |
| ECCU | Eastern Caribbean Currency Union |
| ECLA | United Nations Economic Commission for Latin America and the Caribbean |
| EMS | European Monetary System |
| EMU | European Monetary Union |

| | |
|-----------------|--|
| ERM | Exchange Rate Mechanism (of the EMS) |
| EU | European Union |
| FLAR | Latin American Reserve Fund under the Andean Community (Fondo Latinoamericano de Reserva) |
| G7 | Group of seven major industrialized nations: Canada, France, Germany, Italy, Japan, United Kingdom, United States. Formed in 1975. Russia was added to form the G-8 post Cold War. |
| G10 | Group of ten industrialized nations that are party to the General Agreement to Borrow, a supplementary source of intergovernmental funds: Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom, United States. Formed in 1962. |
| G20 | Group of 20 nations formed in 1999 as a forum for cooperation in the international financial system: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States. |
| GDP | Gross Domestic Product |
| HIPC Initiative | Highly Indebted Poor Countries Initiative launched in 1996 as an IMF debt reduction program. |
| HST | Hegemonic stability theory |
| IMF | International Monetary Fund |
| IPE | International political economy |
| IR | International relations |
| LAFTA | Latin America Free Trade Area (of the 1960's) |
| LMU | Latin Monetary Union (of the 19 th century European nations) |
| LONDON CLUB | Informal group of private sector lenders (commercial banks). |
| MERCOSUR | Literally "Market of the South" Common market comprising Brazil, Argentina, Uruguay and Paraguay |
| NATO | North Atlantic Treaty Organization |

| | |
|------------|---|
| OCA | Optimum currency areas |
| PD | Prisoner's dilemma |
| PARIS CLUB | Informal association of official creditors. Permanent members are: Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Russia, Spain, Sweden, Switzerland, United Kingdom, United States. |
| SMU | Scandinavian Monetary Union |
| UN | United Nations |
| UNCTAD | United Nations Conference on Trade and Development |
| UNDP | United Nations Development Program |
| USTR | United States Trade Representative |
| WTO | World Trade Organization |
| WW II | World War Two |