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The Broader-Deeper Trade Off and Regional Trade Agreements

by

Sezi Anac

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APPROVED, THESIS COMMITTEE:

Brett Ashley Leeds, Albert Thomas
Associate Professor, Chair
Political Science

Richard J. Stoll, Professor
Political Science

T. Clifton Morgan, Albert Thomas
Professor, Political Science

Devika Subramanian, Professor
Computer Science

HOUSTON, TEXAS

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ABSTRACT

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This dissertation examines the empirical underpinnings of the broader-deeper trade off. Policy makers often worry that the enlargement of regional trade agreements comes at the expense of further deepening (integration). Enlargement will lead to more preference heterogeneity and more economic divergence among members of the RTA, which will in turn stifle decision making. Yet, our empirical understanding of whether there is such a trade off is very limited. In this dissertation, I conduct a systematic analysis of whether the trade off exists and other related questions using a dataset on regional trade agreements from the post-1950 era. The main finding of the dissertation is that enlargement does not lead to a decline in the probability of deepening in RTAs when one takes into account the different issue areas of cooperation within RTAs. Therefore, the dissertation shows that policy makers' claims about the negative effects of enlargement are overly pessimistic. On the other hand, there is some evidence that such negative effects are contextual. They arise in individual issue areas such as in trade cooperation. In other words, enlargement does lead a slow down in deepening in this area.
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Chapter 1

1. Introduction and the Research Question

Practitioners and participants of multilateral institutions often face a dilemma about membership size. While most states want to extend cooperation to as many states as possible, they also fear that this comes at the cost of increased diversity and heterogeneity among members. For these practitioners, increased heterogeneity means that while some states might have preferences for faster liberalization, others might want to defer this to a later period when it will become less costly for them to undertake such cooperative endeavors (i.e. preferences for slower liberalization). In other words, increases in membership size (broadening/enlargement) will make decision making more difficult, which will in turn prevent further cooperation/integration (deepening) in the multilateral institution. This dilemma between membership size and deepening was often encountered by observers and practitioners in the European Community as they felt concerned about further integration of their union and widening to other members. They believed that there is a trade off between increases in membership size and deepening and therefore, the Community had to choose between these two options. While some members of the Community such as France have been staunch advocates of deepening, other members such as the UK espoused increases in membership size but slower integration. The policy making community often felt pressured between these two alternative options: Should the community continue with its consolidation and delay enlargement? Or, should the community give priority to widening and continue its unification at some time later?
While there have been many speculations about the presence of a broader-deeper trade off, scholars have done little to systematically investigate whether it really exists.¹ Most studies focus on the EU and especially the post-70's period after UK's accession and conclude that the EU will have to find ways to manage its diversity (Michalski and Wallace, 1992; Wallace, 1989; Nugent, 1992). Otherwise, expansion will lead to long delays in decision making and perhaps even a failure to reach decisions on sensitive matters. These scholars even go further and claim that the EU should continue with deepening, but only make some partnership arrangements with potential members. In other words, they try to find ways to circumvent the trade off from haunting the EU by leaving the potential members out and allowing the EU to go forward with its agenda.

In this dissertation, I contribute to this debate by systematically examining whether or not the trade off exists across a number of cases. Therefore, my contribution is mainly empirical. The main reason for studying this question arises from the fact that many policy makers believe that there is such a trade off without any evidence and this belief in turn affects the policies pursued by these practitioners. However, such policies could be misleading if there is no evidence for the trade off empirically. For instance, the EU policy makers' belief that enlargement might be followed by a slow down in deepening has led them to delay the membership of several states into the EU for long periods during the last twenty years. The dissertation will try to assess whether such policies are sensible by examining the presence of the trade off empirically. The other reason for studying this question is due to the existence of several competing theories that make predictions about whether there is a trade off. Yet, we do not know whether their

¹ I discuss this literature and its weaknesses in more detail and in Chapter 2.
predictions are empirically relevant. Therefore, the study of the broader-deeper trade off will help in reconciling these different views and making better policies.

However, it is also important to note that the relation between enlargement and deepening is part of the bigger questions concerning formation and evolution (deepening) of RTAs. In other words, one could study the relation between enlargement and deepening as part of the larger question that focuses on why states form & join RTAs and why RTAs deepen. This dissertation focuses on a narrower question in order to respond to policy makers’ concerns and to reconcile competing theories. However, future research should examine these bigger questions later on.

The empirical analyses that are conducted in this dissertation improve upon the current studies. These studies are somewhat misleading for several reasons: First of all, they do not control for potentially confounding factors that might affect deepening. Therefore, we do not know the effect that membership size (amidst all the other factors) has on deepening from the current case study literature (cf Pinder, 1992; Wallace, 1989). Potential control variables include changes in economic conditions; existing level of integration of the multilateral; and voting rules (Wallace, 1989; Nugent, 1992; Pinder, 1992, Eichengreen and Frieden, 1994).\(^2\) Only after controlling for these factors, we can single out the role that additional members play on the level of integration. The second issue is that the existing case studies are solely focused on the EU. However, it is difficult to make valid inferences from single case studies (King, Keohane and Verba, 1994). Therefore, we need to investigate other multilateral organizations (in this case, regional

\(^2\) These will be explained in detail in the research design section.
trade agreements (RTAs)) in order to reach more definitive results about the relation between membership size & deepening and how these organizations deal with the effects of increases in membership size.\(^3\) This might also be of interest to the policy making community, who might want to undertake the double-task of widening and deepening. The third issue is that the current case study literature usually takes an individual event from the post enlargement era as evidence that the trade off might exist. For instance, UK’s resistance to the Social Charter and the European Monetary System is taken as examples of what is to be avoided. However, in order to properly to assess the trade off, we need to compare the extent to which integration has moved forward in the pre and post enlargement periods. The pre enlargement period is a benchmark (the reference category) that we should use to assess how an RTA is operating in the absence of new members. That is, we can evaluate the presence of a trade off only if we have some understanding of the ability of the RTA to make decisions if new members weren’t admitted. Examining a single period (i.e. the post enlargement era) may be misleading, which is the trend in most case studies (Pinder, 1998; Pinder, 1992; Wallace, 1989).

An analysis of whether enlargement has any effect on the integration process of an RTA has important implications for policy makers and scholars: If it turns out that there is a negative relation between these, then this will caution policy makers to either delay enlargement until they integrate fully or to undertake certain reforms in their decision making organs. For instance, they could change their voting rules; use more flexibility in their integration process; and obtain more information about candidates before admitting them to the RTA. On the other hand, if it turns out that there is a positive relationship,

\(^3\) The definition for an RTA is provided in the second section of this chapter.
then policy makers should undertake enlargement much more frequently as it can change
the incentives of states by making it more attractive for them to integrate and thus
generating further welfare effects. Therefore, the results of the analysis have important
implications for practitioners and policy makers. I discuss the importance of the question
for scholars in the future chapters.

The dissertation also empirically examines a different question: Under what conditions
are multilaterals most likely to experience a broader deeper trade off? Are there certain
design strategies that alleviate the possibility of such a trade off? While our theoretical
understanding of the formation of multilaterals has been advancing in the recent years
(Gilligan, 2004), we do not have much empirical evidence that allows us to understand
whether or not the conditions and solutions that are purported to alleviate the trade off
can withstand against empirical scrutiny. For instance, Gilligan mentions differentiated
obligations as an important solution to overcoming the broader deeper trade off when
establishing a multilateral. Does differentiation have its anticipated effect on the level of
integration achieved in an RTA? In the final part of the dissertation, I empirically
examine this question with the goal of contributing to our understanding of how to
circumvent the dilemma concerning membership size and depth.

In the following sections, I define some of the terms that will be used frequently in the
dissertation. What is an RTA? What does it mean for an agreement to become deeper?
What are differentiated obligations? In the next section, I provide answers to these
questions.
2. Definitions and Key Terminology

I define a regional trade agreement as a multilateral organization that comprises at least three members; that has some institutional structure within which members meet regularly to determine the future progress of the organization; and that envisions reduction of barriers associated with trade initially among states within a geographic area. The first component of this definition is that bilateral agreements are excluded. The dissertation is only intended to focus on multilateral agreements. The second component of the definition is that there has to be some decision making body associated with the regional trade agreement. In order to investigate the hypotheses in the dissertation and to operationalize some of the key concepts, regular decisions/statements/protocols declared by the members are essential. The third component of the definition is that the agreement needs to envision some liberalization of trade initially with members located within a geographic area. This, in no way, precludes the expansion of the agreement to other areas. However, the definition excludes those agreements such as GATT that was initially targeted to incorporate many states, not constrained by any region. The second issue is that the RTA might involve cooperation in other areas such as security and defense.

\footnote{The reasons for focusing on multilaterals are several: First of all, some of the hypotheses such as H2 and H4 only concern multilateral agreements. The first hypothesis (H1) could also be tested on bilateral agreements but some of the theoretical arguments undergirding this hypothesis are only focused on the effect of broadening on multilateral agreements. Secondly, it might be that decision making within bilaterals is quite different from multilaterals. In a multilateral agreement, we sometimes observe states of similar preferences forming groups with each other and then bargaining with other groups (of different preferences on an issue) before a final decision is reached. Therefore, decision making within a multilateral might resemble a series of bargaining processes between different states and then between these different groups. Hence, it is likely to be different from decision making in a bilateral. The third reason for focusing on multilaterals is due to time constraints. The data collection effort would increase considerably if bilateral agreements are also included.}

\footnote{GATT could be used to test some of the hypotheses. The main reason for excluding it is to consistently focus on regional trade agreements throughout the project. Most scholars conceptualize RTAs as having some geographic restriction to them (De Melo and Panagaria, 1993).}
border control. However, it has to have some cooperation about reduction of trade barriers.

The second important term that will be encountered is “widening” (or broadening, enlargement). This refers to increases in membership size of an RTA after its creation. In some cases, however, the RTA might change its name by formulating a new treaty at the time of admission of new members. These cases will also be considered as examples of widening despite the fact that the RTA has had a name change. For instance, the countries that established the Preferential Trade Agreement for the East and South African States (PTA) signed a different agreement, the Common Market of the East and South African States when they widened/broadened to incorporate 11 new members into the PTA. According to my definition, the PTA will be considered to broaden despite the change in the titles of the treaties.

An agreement with differentiated obligations is the third important term that will be encountered by the readers of this dissertation. The term is meant to represent those agreements where parties can undertake differing obligations over their contributions to the agreement (e.g. the level of trade restrictions to be abolished). In other words, uniform obligations are not a necessity and different members undertake different obligations.

The last important term that will be frequently used in the dissertation is the “depth” of an RTA. What does “depth” mean conceptually? Usually conceptual definitions of a term
spring from a theory through which a hypothesis is derived. Unfortunately, some of the initial literature in which the broader deeper trade-off was developed does not provide any theoretical background to it. As will be explained later, the hypothesis was first proposed by policy makers working in the institutions of the EU. On the other hand, as will be explained in the literature review, there are certain theoretical studies that clarify the concept. I will rely on these theoretical studies as well as the EU literature to define depth conceptually and to propose different operationalizations based on these conceptualizations. In this section, I will discuss these conceptual definitions and in future sections, operational definitions will be provided.

The first definition of depth refers to the degree of further cooperation away from the status quo that the members of an organization promise to undertake in their cooperative relations with other partners. The key to this definition is that making of some promise is sufficient for the analyst to conclude that deepening has occurred. The degree of depth of an RTA is conceptualized as how much the treaty requires parties to make changes in their behaviour from the status quo (or from what they would have done in its absence). Especially, within the EU studies, scholars use this definition in order to observe whether deepening is continuing. For instance, Pinder (1998) notes that an important element of deepening was the adoption of policies that brought about the European Monetary Union. The fact that states could not pass the policies to transfer to this stage is interpreted as a problem in the process of deepening. This definition of depth is also advocated by the theoretical study by Downs, Rocke and Barsoom (1995, 1998), where they define depth
"as the degree to which the treaty requires states to make changes away from the status quo". 6

This conceptual definition of depth has similarities to the definition of cooperation proposed by Keohane (1984). He mentions that one feature that distinguishes cooperation from harmony is that, for the former, states need to engage in policy adjustment through negotiations and intergovernmental bargaining. Deepening, as defined above, is exactly similar to this policy adjustment process: Have parties gone through negotiations to adjust their otherwise conflicting policies in different issue areas? If yes, then deepening has occurred according to the first definition.

However, a second conceptual definition of depth could be advanced based on Keohane’s definition of cooperation: This is the degree to which states undertake the necessary adjustments in their domestic policies after promising to make such adjustments at the international level. Keohane, for instance, argues that cooperation only ensues if states go through the double-task of adjusting policies through negotiations with other states and then, making the necessary changes in their domestic laws. If one of these steps is missing, discord prevails. This dimension of deepening requires states to undertake their commitments that they promise in an agreement by undertaking changes in domestic law.

The third definition of depth focuses on outcomes rather than the policies that are adopted. According to some scholars, cooperation could be measured with the degree to

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6 Pahre’s definition of depth also relates to this first conceptualization. He defines depth as the level of the public good that member states promise to provide. This is similar to the concept of making promises to make further adjustments to the status quo.
which policy adjustments reflect themselves in outcomes such as the attainment of higher levels of production of a collective good. For instance, we can understand whether cooperation has gone deeper in an issue area by examining pollution levels or trade volumes. This definition is especially employed by scholars such as Downs, Rocke and Barsoom (1998), who empirically study the effect of the EU and changes in its membership size on the level of trade volumes among its members as a proxy for deepening. 7

In this dissertation, I employ all three of these definitions in analyzing some of the hypotheses to be discussed. The main reason for doing this is to examine how the analyses change when different definitions are used. It could be argued that there has to be a parallel relation between some of these definitions. For instance, if an RTA is getting deeper based on the first definition, it also has to get deeper based on the third definition. By employing the different definitions, we will be able to understand whether such a relation exists or whether there are problems regarding implementation of promises (or due to other potential reasons) that prevents a parallel relation from arising between the different definitions. We will also understand how the effect of membership size changes when different definitions are used.

This concludes the discussion of the main terminology. In the next section, I give a preview of the dissertation and what we learn from it.

7 Their theory is based on the first definition. However, in testing their theory, they use the third definition because of the readily available of data on trade volumes. They believe that there should be a parallel relation between changes in depth based on the first and third definitions.
3. Outline of the Dissertation and Contributions

In the second chapter of the dissertation, I discuss the main hypotheses of the dissertation, the theoretical models that they are derived from, and how they relate to one another. I explain in detail why some scholars and practitioners expect that increases in membership size should be followed by a reduced possibility of deepening while others expect either the opposite or no change in this probability.

In the third chapter, I present the research design in order to test the first hypothesis of the dissertation and the conjectures related to it. This chapter also reviews the main findings of the dissertation for this hypothesis. The results of this chapter suggest that empirically an increase in membership size is associated with a reduced likelihood of deepening on the trade dimension based on the first definition. In other words, the claims of the conventional wisdom are supported by the data for this dimension. An examination of deepening in some RTAs, based on the second definition, suggests that the compliance rates by the members of some RTAs with its decisions are quite high and improving over time. Based on the third definition, the results suggest that enlargement has no influence on changes in trade volumes. I discuss these more in the third chapter.

In the fourth chapter, I present the research design for the second hypothesis of the dissertation. This chapter also reviews the main findings of the dissertation for this hypothesis. The results suggest that empirically how a multilateral is established has no effect on the depth level of an RTA. Sequentially developing RTAs are no more likely to
be deeper than inclusive RTAs. Potential reasons for this result are discussed taking into account the theoretical model that the hypothesis is derived from.

In the fifth chapter, I present the research design for the third hypothesis of the dissertation. The chapter also reviews the main findings for this hypothesis. The results suggest that while deepening does not significantly influence the possibility of an increase in membership size, it does increase the chances that the RTA will undertake an enlargement that *significantly* affects its membership size. The reasons for this are discussed in the chapter.

In the sixth chapter, I discuss the research design for the fourth hypothesis of the dissertation and present the results from the empirical tests. The results suggest that the use of differentiation in RTAs does not have any influence in observing deeper free trade agreements. Potential reasons for this result are discussed as well as how these relate to the theoretical model deriving the hypothesis. In the final chapter, I discuss the main conclusions and what we learn from the dissertation.

As a whole, the dissertation makes an empirical contribution to our understanding of how the enlargement of a multilateral agreement, or more specifically an RTA, affects its integration process (deepening). The current literature on this topic is mainly case-study oriented (focusing on the EU) and it does not take into account the effect of potential confounding factors on integration. These studies neither give a complete evaluation of whether enlargement has led to a decline or an increase in the likelihood of deepening in
the EU nor suggest how the relationship would look like in other RTAs. This dissertation is motivated from the weaknesses of these studies and tries to remedy these by developing a dataset on RTAs in order to examine the relation between increases in membership size and its effects on deepening systematically across a number of RTAs. Therefore, the dissertation contributes to our empirical understanding by demonstrating the dominant trend across RTAs. The dissertation also examines how the results change with different definitions of deepening. This is important because it allows us to understand whether the welfare effects of integration necessarily follow events of deepening that takes place in the legislative bodies of an RTA. The results suggest that there are divergences between the results based on different definitions.

The dissertation also contributes by evaluating whether there is empirical support for hypotheses relating to the development process of an RTA. By the use of a dataset on RTAs, I show that sequential design does not affect the depth level in RTAs. Several suggestions are made for future research based on this finding. The dissertation also contributes to our empirical understanding of RTAs by demonstrating that changes in deepening are not associated with every increase in membership size, but they do boost the chances of observing substantial increases in membership size. Finally, I contribute by showing that the use of differentiation is not necessarily a panacea to observing deeper free trade agreements. The reasons for this are discussed in the relevant chapter and suggestions are made for future research.
In the next chapter, I discuss the previous literature on the topic, present the hypotheses that will be evaluated in the dissertation, and discuss the theoretical models from which they are derived.
Chapter 2

The goal of this chapter is to present the hypotheses and conjectures that will be subject to empirical tests throughout the dissertation. In the first section, I discuss the debate that is taking place about the broader-deeper trade off. While some scholars argue that there is indeed a trade off associated with increases in membership size, others claim either that enlargement has no effect on deepening or it increases the likelihood of deepening. I present the literature regarding this debate and the other associated hypotheses regarding the development process of multilaterals.

1. The Broader-Deeper Trade off in the Scholarly Literature

A. Review of the Literature Advocating the Possibility of a Trade off

As mentioned earlier, the possibility that enlargement might come at the expense of deepening was first proposed by policy makers of the EU. The reports of the Commission and Council, before each enlargement round in the beginning of the 70’s and 90’s, expressed the concerns that the incoming members might prevent the integration process from moving forward. Reviews of such reports (Wallace, 1989) point to two important causal relations that are mentioned as the factors contributing to the trade off: The first is that new (or more) members would mean that there are more potential veto players and therefore a reduced possibility of concluding bargains. In other words, addition of more states will make it more difficult to agree upon the distribution of the costs and benefits of deepening due to the presence of a greater number of states. Secondly, enlargement
might involve the addition of states with preferences very different from those of the existing members. They might prefer a slower liberalization process compared to the existing members. For the EU case, scholars argued that the new members would slow down the liberalization process by causing a drain on the Community's resources (budget) as they are often considered to be much poorer than the existing members. In other words, the existing members would first have to deal with minimizing the divergence in the economies among the member states before they could shift their attention and resources to other matters (Wallace, 1989; Michalski and Wallace, 1992).

The scholarly community also noted the possibility of a broader deeper trade off and the reasons that might be causing it. Taylor (1983), for instance, notes that the admission of the UK would no longer make the French-German core dominant in policy making. This would make decision making more difficult in the Community. He also asserts that UK's accession (and admission of states like UK) would diminish the available resources in the budget and therefore prevent the allocation of resources to projects that would make the EU deeper. Kahler (1995) takes a similar stance and argues that addition of new members will create preference heterogeneity and block further decision making. Formal models have also reached similar conclusions: Addition of more members should make policy making more difficult and should obstruct agreements over integration especially due to the use of unanimity (Bueno de Mesquita and Stokman, 1994; Schneider and Cederman, 1994). All of these studies share the idea that the admission of more members will have negative effects on deepening due to the possibility that obstructionist states will get admitted to the RTA.

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8 I discuss this more at the end of this section.
So far, I explained that the expectation that enlargement would be followed by a decline in deepening initially emerged within the EU literature. One weakness of this literature is that the expectations about the negative effects of enlargement may be less generalizable to other RTAs due to the differences between the enlargement experiences of the EU and others. When the EU first initiated its enlargement process, there were stark differences between the potential members and the existing members. For instance, Greece, Spain and Portugal were much less developed compared to the existing members of the EU. Similarly, the UK opposed any movement towards a unification of monetary policy in the EU as opposed to the desires of the existing members to further integrate in this area. Therefore, during most enlargement experiences, the practitioners of the EU observed that the existing members wanted to integrate much faster than the potential members and that enlargement would be followed by slow downs in deepening. However, these expectations may be weaker for other RTAs. For instance, it could be that there are fewer economic differences between the new and existing members (i.e. their preferences do not diverge a lot) in some of these other RTAs or it could also be the case that the initial members of an RTA are not too liberal in their preferences initially. One of the goals of this dissertation is to examine to what extent the expectations of the EU scholars are generalizable to other RTAs. Therefore, if there are weaknesses in the arguments of this literature, then this could be better understood through empirical tests.

One of the other weaknesses of this literature is that there is not much systematic discussion of the sources of states’ preferences over liberalization. For instance, one of
the causal arguments explained above was that enlargement might involve the admission of states with divergent preferences. What are the sources of states’ preferences that determine how fast they want to integrate? In other words, why do some states prefer faster liberalization and others prefer slower liberalization? These questions are important in order to understand the conditions under which the trade off might occur. Several economists have examined these questions more extensively by studying the factors that influence the welfare effects of deeper integration schemes and therefore the conditions under which states would want to be part of deeper agreements. Here, first, I briefly examine some of the influential views on deepening and later, I explain their implications for the debate on the broader-deeper trade off.

One of the factors that affects the welfare effects arising from deeper integration is the level of trade creation and trade diversion (Viner, 1950). Trade creation effects arise if the output of inefficient industries is replaced by cheaper imports from more efficient industries in other member states. Trade creation makes consumers better off at the expense of inefficient, domestic producers. It increases the welfare of the society due to increases in consumer surplus and production gains. On the other hand, in the case of a customs union, trade diversion might decrease the welfare effects due to the transfer of trade from efficient non-members to inefficient member states. Based on these, we would observe that governments could be less willing to sign deeper agreements (i.e. prefer slower liberalization) if they are trying to develop new comparative advantages. In fact, this is one of the main reasons of why developing/ less developed states often feel less willing to become part of further liberalization as they often face the challenge of
developing new industries that can face external competition. Opening up of markets before these comparative advantages develop could stifle this process (Kenen, 1994). It could also be that case that governments that are insulated from the pressures of domestic industries which lose due to removal of barriers are more likely to be in favor of faster liberalization. Such governments are usually characterized by high degree of centralization of authority and a limited number of channels through which domestic interest groups can influence policy such as the case of Japan (Johnson, 1982). Therefore, they could find it easier to undertake the costs of liberalization. In the case of a customs union, a state’s willingness to become part of it might also depend on the level of the external tariff. If the external tariff to be placed is not too high, this might increase the chances of trade diversion and therefore the willingness of governments to become part of the union (Viner, 1950). Finally, scholars note that developing countries typically have higher imports from their partners than exports to them. Therefore, the establishment of a free trade area, for instance, is likely to cause them to lose revenue that cannot be compensated by a parallel increase from exports (Schiff and Winters, 2003).

Similarly, other economists have examined the welfare effects of other forms of deeper integration such as monetary unions (Mundell, 1963). For these scholars, states that have high mobility over factors of production amongst themselves would find it efficient to create a currency area despite the potential costs that this might have over their balance of payments. The reason is based on a comparison of fixed vs. flexible exchange rates. With flexible exchange rates, states will be able to prevent the effects of shocks arising from factor mobility on their balance of payments. However, they usually cannot ward off its
effects on inflation or unemployment. A currency area could enable states to achieve these latter objectives. Therefore, based on these, we should expect states that are highly integrated within a region and that face problems like inflation or unemployment to be more willing to accept deeper integration schemes in the form of a monetary union. On the other hand, those states that mainly encounter balance of payments problems should not be willing to become part of these.

What do these studies tell us about the broader-deeper trade off? These studies would expect that addition of states would diminish the chances of further deepening when enlargement involves the addition of states with preferences for slower liberalization compared to the existing members of an RTA. As explained earlier, various factors could be leading states to have preferences as such. But, one factor that is consistently repeated in this literature is whether a newly admitted state is developed or developing. Developing/ less developed states would find it much harder to engage in further liberalization. Therefore, these studies would mainly predict that inclusion of states that are considerably poorer and less developed than the existing members might stifle the integration process.⁹

B. Review of the Literature that Advocates Either an Insignificant or Positive Relationship

While the conventional wisdom paints a pessimistic picture about the effects of widening, two other papers that directly relate to the topic make different arguments. The first

⁹ See conjecture 1 explained in section C of this chapter.
study, conducted by Downs, Rocke and Barsoom (1998), examines the evolution (enlargement) of multilateral agreements and why, in particular, some multilaterals start out small and then develop into a more inclusive agreement rather than starting out as an inclusive one from the beginning. In other words, Downs, Rocke and Barsoom are interested in examining the supply side of multilateralism, the order and speed with which candidates are admitted to an organization. While they examine several different issues, their most important conjecture is that the existing members of an RTA will only admit new members when they expect some immediate benefits from their participation. In other words, expansion will not occur if the existing members anticipate that incoming members will obstruct further deepening due to their preferences for slower liberalization/integration of the RTA compared to what the existing members desire. The benefits of expansion should be immediate since, otherwise, the existing members will find themselves worse off due to the potential obstruction of further deepening by laggards. This means that if there are a group of states with a considerable variation in their preferences, their admission will be taking place over time as they liberalize sufficiently so that their admission is not costly for the RTA. This type of sequential admission will bias states’ decision in favor of depth rather than breadth. The RTA will expand only when a new member’s negative impact on depth is modest and when the potential member has already liberalized over time. The implication of this is that we should not observe any broader deeper trade off in RTAs since existing members will accept new members only when they are ready to provide concrete benefits to the organization. That is, there should be no dampening effect of enlargement on deepening.
One of the important assumptions of Downs, Rocke and Barsoom’s model is that states’ preferences are liberalizing over time. In other words, states that initially preferred slower liberalization will prefer faster liberalization as time passes. While these authors do not discuss the sources of these preferences and why they change, the earlier discussion about the sources of states’ preferences for deepening could be employed to understand why they change over time. For instance, it could be the case that states initially prefer slower liberalization due to their need to develop new comparative advantages. Such states could develop over time that would in turn make them more likely to prefer faster liberalization. Downs, Rocke and Barsoom’s model would expect that such states are admitted to an RTA once their preferences become more liberal.

Pahre (1995) also examines issues regarding membership size albeit within a different set up compared to Downs, Rocke and Barsoom (1998). While the latter argued that expansion should have no negative effect on the depth of cooperation (i.e. its effects are either constant or positive), Pahre goes even further by asserting that the conventional wisdom regarding the possibility of a trade off is outright wrong. He first develops a noncooperative model of public goods provision in order to understand how membership size influences the likelihood of further integration (and the demand for integration). This, in his model, depends on the difference between the noncooperative and Pareto-efficient provision of the public goods. According to Pahre’s model, expansion should increase the likelihood of deeper integration because “adding more members worsens the non-integration (noncooperative) outcome and raises the (Pareto) optimal level of integration”. In other words, as membership size increases, the difference between the
noncooperative and pareto efficient level of the public good will increase, which in turn will increase the possibility of further integration. He also develops a cooperative model of public goods provision, from which a similar result is derived: Adding more actors to an agreement makes cooperation easier by reducing everyone’s share in the bargain. In other words, increasing membership size alleviates distribution problems regarding the provision of the good and therefore it will increase the likelihood of further integration in the RTA.

Pahre, however, goes further than just claiming that we are more likely to observe deepening within the RTA after periods of expansion. He argues that deepening, in the sense where states will fulfill the promises they make in the RTA, will also increase with expansion. In other words, we are likely to observe deepening in states’ actual provision of the public good, i.e. the supply side of integration. The reason for this relates to the increased costs that violators will have to endure as membership size rises. Unlike the case where only a few states will cooperate, in multilateral cooperation the costs of punishment on defectors will be much larger as the number of states that will sanction the latter will increase. To sum up, the two conjectures of Pahre suggest that, as membership size increases, we will see further deepening in the RTA and more deepening in states’ actual provision of the public good (more compliance with the measures envisioning further deepening).

It is important to note that Pahre and Downs, Rocke and Barsoom’s models are quite different from one another as they rely on different assumptions about the nature of the
good that is under analysis. For instance, Pahre argues that RTAs could be considered as providing some type of a public good for its own members. The reason is that in most RTAs, members negotiate over issues in which one country’s actions have externalities affecting other countries in the RTA. He models these policies as spending on a collective good that is consumed by the governments and publics of the RTA (in his model, the EU). In his model, the greater is the number of states in the RTA, the higher is the utility that other members receive from the good. The reason is that more states mean more resources to be channeled to the community budget and more trade benefits for each member of the RTA. Therefore, in his model, the existing members have a lot of incentives to admit more members. On the other hand, in Downs, Rocke and Barsoom’s theory, the policies pursued by the members of an agreement is not modeled as following the features of any type of good. In other words, in their model, there is no incentive for the existing members to broaden unlike Pahre’s model, where such incentives mainly arise from assumptions about the nature of the good. For this reason, the existing members can wait until the potential members’ preferences liberalize over time. This might be one reason for why they conclude that we should not observe a trade off and why the results are somewhat different between the two models. On the other hand, when we examine which model is a better depiction of the types of policies pursued by RTAs, I believe that Pahre’s model is close to what an RTA could be considered. An RTA mainly contains the features of a club good, where the benefits are excludable from non-members and nonrival within the RTA. In a club good, only some states benefit from the

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10 He does not model or discuss how the RTA affects the nonmembers' decisions on whether to become a member to the RTA because he is not interested in this. In other words, he does not distinguish (or model) clearly the club good component of an RTA (excludability of benefits from outsiders) from its public good nature (nonexcludability from outsiders). For him, an RTA could be modeled as a public good because its benefits cannot be excluded from its members.
good and more states mean more contributions for the provision of the good. As
explained earlier, Pahre’s model does not explicitly lay out the excludable nature of a
club good. However, it directly models the latter component.

C) Hypothesis 1: Evaluation of the Trade off

Currently, however, we do not know whether Pahre/Downs, Rocke and Barsoom’s
assertions or the conventional wisdom is more accurate. In order to understand this, we
need to examine how increases in membership size affect the process of deepening
systematically. Systematic study of the broader deeper trade off involves the following
components: First, we need to control for potential confounding factors that might affect
deepening. It is difficult to understand the effect of membership size on integration
without taking into account other elements that boost or dampen deepening. The
literature mentions several of these such as economic growth levels; voting rules; and
existing level of depth of an RTA (Wallace, 1989; Nugent, 1992; Pinder, 1992;
Eichengreen and Frieden, 1994). The second component of a systematic study involves
extending such tests to other RTAs that have experienced enlargements. Single case
studies are not enough for making inferences and should be avoided whenever possible
(King, Keohane and Verba, 1994). And, thirdly, we need to use the pre enlargement
periods as a benchmark to compare the degree to which there are significant movements
towards further integration. This period is important as it signifies what has been
accomplished in the absence of new members. The existing case study literature tends to
focus on single events from the post enlargement era, which reinforces the possibility that
the trade off is real (Pinder, 1992; Pinder, 1998, Wallace, 1989). For instance, these
studies use the absence of any progress in monetary unification (EMU) during the 70’s as
evidence that there might be a broader deeper trade off. However, this might be
misleading as they do not evaluate how the RTA was operating (i.e. the pace of
integration) in the absence of new members in the pre enlargement period. Keeping these
in mind, I will evaluate the following as the first hypothesis of the dissertation:

H1: As membership size of an RTA increases, the likelihood of deepening will decline.

This hypothesis will help in testing the validity of the conventional wisdom. According to
the conventional wisdom, an increase in membership size should reduce the likelihood of
integration after the years of enlargement due to the increased size of the RTA. On the
other hand, for Downs, Rocke and Barsoom(1998), increases in the size of the RTA
should not have any negative effects on integration as the RTA members are always
going to be selective in admitting new members. Finally, Pahre(1995) suggests that the
bigger the size of an RTA, the more benefits to be reaped from further cooperation. In
addition to the effect of size, the hypothesis also takes into account whether the intensity
of enlargement (the number of admitted members) are affecting the likelihood of
deeptening. According to the conventional wisdom, deepening is less likely the greater the
number of members admitted to the RTA at the event of enlargement. More members
mean more resources that need to be channeled to these states if they are poorer than the
others and also more heterogeneity in the RTA. On the other hand, Downs, Rocke and
Barsoom and Pahre suggest the opposite due to the reasons explained before. Therefore,
if I find support for the hypothesis, then this will reinforce the validity of the conventional wisdom.

I also test a related conjecture that involves an investigation of the types of members that are likely to slow down the process of integration. As mentioned earlier, Wallace (1989) and Michalski and Wallace (1992) claim that the broader deeper trade off is especially going to be acute when the new members are significantly poorer than the existing members. The main reason is the following: The poorer members will not be able to afford the costs of integration as much as the richer ones. Therefore, the richer members will want to eliminate this gap among members before moving further with integration. However, this will have opportunity costs as it will require allocation of resources for this purpose rather than for moving along with integration. This idea is stated below as a conjecture that complements H1.

C1: The addition of new members who are significantly poorer than the existing members of an RTA will reduce the likelihood of deepening.

2. Sequential vs. Inclusive Development of RTAs

While the first hypothesis (and the conjecture) requires a direct evaluation of the existence of the broader deeper trade off, the presence or absence of a broader deeper trade off can also be tested among agreements that follow different strategies of evolution. Some RTAs, for instance, start out inclusively with a large number of
members. Others follow the opposite strategy of selecting the most ambitious members in the beginning and developing slowly to a large membership agreement. These two design strategies have direct implications for the existence of a broader deeper trade off. The reason for this is studied by Downs, Rocke and Barsoom (1998), who argue that RTAs that start out small will be able to achieve more depth than those that start out large. The logic of their argument is as the following: Suppose there is a group of states, who decide to establish an inclusive agreement. This essentially means that the initiative for further deepening within the RTA will be tied to the preferences of the conservative members, who have a tendency to obstruct such attempts. Therefore, the treaty will deepen only minimally over time. However, imagine the opposite scenario, where the most liberal and integration-oriented members do not include the states whose ideal points are far away. These states will be able to deepen with a faster pace vis-a-vis the previous scenario if they do not attract the obstructionist states in the beginning but include the ones as they liberalize over time. The reason is again clear: The possibility for further deepening will only be determined by the more liberal members and the obstructionist states will only be admitted when they have sufficiently liberalized. This leads to the second hypothesis that will be examined in the dissertation:

H2: Multilaterals that develop sequentially will be considerably deeper than those with similar membership size but that develop inclusively.

If I get support for this hypothesis, this will provide additional evidence that there is no broader deeper trade off. If an RTA can turn out to be deeper at the end of the enlargement process than an RTA that experienced no enlargement, then this indeed will
prove the advantages of sequential enlargement and that decisions of enlargement are
chosen strategically. Therefore, the verification of this hypothesis will provide support
for the absence of the broader deeper trade off.

3. Reverse Effect between Enlargement and Deepening

While the studies reviewed so far expect widening to have some effect on deepening,
others claim that the question to be asked should not be whether widening has any effect
on deepening but rather the opposite: Does deepening have any effect on widening? For
instance, Baldwin (1995) develops a model to study when countries are most likely to
join an existing trading bloc that is developing in their region. In this model, the stance of
a government’s attitude toward membership in a regional bloc is the result of a political
equilibrium that balances anti and pro membership forces. The pro-membership forces
are firms that export to the regional bloc. Deepening integration within the regional bloc
will trigger the exporters to engage in greater pro-membership political activity. This will
make the government more likely and willing to join the bloc after periods of deepening.
Once, the government joins the bloc, the cost to the other nonmembers increases further,
which will bring forth further expansion in membership size.

Baldwin’s model has important empirical implications to any study that focuses on the
broader deeper trade off. First of all, it could be that the effect of membership size on
deepening might not be as negative as expected by the conventional wisdom because of
the timing of the membership decisions. That is, if members really join an agreement
after it has deepened, then it could be that there is a reduced possibility of deepening after enlargement due to the recent experience of the RTA with deepening and not necessarily due to an increase in membership size. In order to assess such a possibility, I will empirically examine the validity of his hypothesis as it has implications for the broader deeper trade off\(^{11}\):

H3: Deepening increases the likelihood of enlargement.

4. Factors Alleviating the Broader Deeper Trade off

While the reviewed literature questioned whether or not the trade off exists, the more recent literature assumes that it indeed exists and tries to propose some suggestions as to how to overcome the trade off. Several solutions to obviate the possibility of a trade off have been studied recently. The first important paper, in this vein, is by Gilligan (2004). There, Gilligan relaxes the identical policy assumption that is used by the previous studies such as Downs, Rocke and Barsoom (1998). The identical policy assumption is the idea that all states have to agree upon uniform obligations when they are establishing or expanding an agreement. Gilligan’s main goal is to show that once this assumption is not made, we do not observe the trade off at the creation of multilaterals. He examines a situation where states are trying to establish an agreement that concerns pollution reduction within a bargaining framework. He finds that there is no trade off when states increase membership size and incorporate differentiation when creating a multilateral organization. The reason could be explained as follows: Suppose a group of

\(^{11}\) If H3 turns out to receive support from the data, I will control for the previous experience of an RTA with deepening.
integrationist states are trying to decide whether to admit a state that can only accept minimum changes to the status quo because its ideal point is closer to the status quo than the others. In this case, the integrationist group has three options: It can admit the state(S) but adopt less ambitious goals that lie close to S’s ideal point(1); it can reject the membership of S and maintain its ambitious agenda(2); or it can still pursue its own, ambitious goals and allow S to undertake whatever it can(3). Gilligan shows that, only under the last scenario, we will not observe a trade off and the treaty will be deeper than what would take place under the other scenarios. If a new member is added, all states will benefit from its participation due to reduced pollution levels. This will induce them to reduce their own pollution levels more than what they would if that member was not admitted. In this sense, the treaty will be deeper than what we would see under the second or first scenario.¹² That is, having a deeper agreement doesn’t take place at the expense of widening AND widening does not prevent deepening.¹³

The empirical implication of this study is that multilaterals that are established with differentiated obligations should be deeper than those agreements of similar membership size but with no differentiated obligations. In other words, differentiated obligations alleviate the broader deeper trade off although it might not eliminate it completely. This hypothesis hasn’t been tested by any other scholar and therefore awaits further scrutiny.

In order to test his hypothesis, I formulate an operationalization of depth that allows us to

¹² Without the agreement, no state will reduce pollution levels because each state prefers others to reduce pollution completely while itself not reducing pollution. The agreement prevents this by involving punishment.

¹³ His arguments also apply to issues concerning elimination of tariffs in trade negotiations (Gilligan, 2004, p. 465). It is also important to note that states have incentives to broaden in his model due to the costs that free riders have on the members of an agreement (i.e. costs of pollution). In other words, states want to include as many states as possible within the agreement unlike for instance Downs, Rocke and Barsoom’s model.
compare the depth of different agreements to one another. This establishes the last hypothesis of the dissertation:

H4: Agreements with differentiated obligations will be deeper than those agreements with a similar membership size but that do not contain any differentiated obligations.

In the next chapter, I discuss the research design for the first hypothesis of the dissertation as well as the associated conjecture. This chapter also presents the main empirical results for this hypothesis and discusses the implications of the results.
Chapter 3

The goal of this chapter is to evaluate whether there is empirical evidence concerning the first hypothesis of the dissertation. I first present the research design and later discuss the results. To recap, H1 is the following:

H1: As membership size increases, the likelihood of deepening declines.

As explained earlier, the conventional wisdom expects that increases in membership size of an RTA should make deepening harder due to increased heterogeneity in the RTA and potential economic divergences amongst a larger group of states. On the other hand, Downs, Rocke and Barsoom (1998) expect that increases in membership size should have no negative effect (i.e. constant or positive effect) on deepening as members will be selective in admitting new states. Finally, Pahre (1995) expects that increases in membership size should increase the likelihood of integration due to the potential benefits to be reaped within a bigger group of states. In the next section, I discuss the research design.

In testing this hypothesis, unless noted otherwise, my sample comprises all RTAs that were established after 1950.\textsuperscript{14} There are two main reasons for focusing on the post-1950 period: First of all, most trade agreements from the pre-1950 period are bilateral in nature

\textsuperscript{14} Some of these RTAs no longer exist as of 2006. Others continue to operate. In most of the analysis, the sample will consist of all RTAs. However, depending on the definition of the dependent variable, the sample might change. I discuss these issues in the next section.
and multilateral agreements are not very common. As mentioned earlier, however, the focus of my study is on multilateral agreements. Secondly, there is more readily available information on RTAs belonging to the post-1950 period. For instance, it is more difficult to find the treaties/protocols signed by the members of the pre-1950 RTAs. In evaluating the hypothesis, unless noted otherwise, I examine the evolution of deepening in all RTAs, regardless of whether or not they have experienced enlargement. I believe that the RTAs of the latter type can be useful in evaluating the first hypothesis by providing information on how an RTA that has no experience with enlargement evolves over time in its level of depth. The process of deepening in RTAs with no such experience could be a baseline in understanding the natural evolution of depth of RTAs. Therefore, their inclusion in my study might enhance the power and validity of the tests.

Having this in mind, in the next section, I discuss the operationalization of the dependent variable and issues related to testing the hypothesis using these definitions.

1. The Evolution of the Depth of an RTA

One of the key dependent variables of my study is whether or not there are any changes in the depth of an agreement in a given year compared to the previous year. Therefore, in order to create a measure for this variable, I need information on how the level of the depth of an RTA changes during its lifetime. In order to operationalize changes in depth, I use the conceptual definitions that were explained earlier.
According to the first definition, the presence of a change in depth in a given year should be operationalized using a measure that captures whether there is an adjustment made to the status quo by the RTA’s decision making (legislative) organs. In most RTAs, decisions on issues relating to integration on trade, security and institutional matters are adopted by either the Heads of States or the relevant Ministers.\textsuperscript{15} Therefore, I use the declarations, protocols and agreements signed by these bodies in order to code the changes in depth of an RTA in a given year. In other words, I check these documents to determine whether they contain any new initiative concerning further cooperation on these issue areas.\textsuperscript{16} If there is a new initiative in one of these areas, I code that year as a 1 and 0 otherwise.

Most RTAs have ongoing cooperation in various issue areas, such as trade liberalization; common security policy; and promotion of investment. I focus on three areas over which most RTAs frequently engage in cooperation and that are frequently cited by scholars who try to assess the presence of a broader deeper trade off.\textsuperscript{17} The two of these involve trade liberalization and collective security (Wallace, 1989, 1992; Nugent, 1992, Downs, Rocke and Barsoom, 1998). The third area covers institutional development of the RTA as this has been frequently cited by scholars of the EU as an important area that needs to

\textsuperscript{15} Examples include the Ministers of Trade for commercial policies and Ministers of Foreign Affairs for security issues.

\textsuperscript{16} On integration associated with trade (commerce), the annual declarations of most RTAs often express the willingness of parties to move ahead with integration by establishing a customs union or a common market. However, according to my coding rules, such articulation of willingness is not sufficient to determine that deepening has taken place regarding commercial cooperation. Instead, there needs to be some timetable for implementation of the next stage of integration in order for a year to be coded as an example of deepening. Therefore, oftentimes, I look for protocols rather than simple declarations before making decisions about whether to code a given year as having experienced deepening on trade matters.

\textsuperscript{17} The theoretical literature associated with H1 does not make any restrictions to specific issue areas in assessing depth. This means that it is not problematic to focus on these three areas.
be considered in measuring the evolution of deepening in an RTA (Pinder, 1992, Nugent, 1992). The presence or absence of a change in depth within each of the three areas is determined based on the following rules:

On the trade dimension, there are six types of initiatives that could be adopted by an RTA. These have an order to them in the sense that the larger numbered initiatives cannot take place before the smaller numbered ones have been adopted. Therefore, I code the changes in depth based on the following rules:

1. In a given year, are there new initiatives that concern the establishment of a preferential trade area, which envisions some, but not full reduction of tariffs? If yes, then the dependent variable is coded as a 1 for that year.

2. After an RTA establishes a preferential trade area, I check for the following: In a given year, are there new initiatives that concern the establishment of a free trade area (full removal of tariffs/nontariff barriers? If yes, then the dependent variable is coded as a 1 for that year.

3. After the RTA establishes a free trade area, I check for the following: In a given year, are there new initiatives that concern liberalization either by extending the number of sectors incorporated in the free trade area or by speeding up the timetable of liberalization (Advanced FTA)? If yes, then the dependent variable is coded as a 1 for that year.

4. After the RTA establishes an advanced free trade area, I check for the following: In a given year, are there new initiatives that concern the establishment of a customs union? If yes, then the dependent variable is coded as a 1 for that year.
5. After the RTA establishes a customs union, I check for the following: In a given year, are there new initiatives that concern the establishment of a common market (free movement of services, labor and capital)? If yes, then the dependent variable is coded as a 1 for that year.

6. After the RTA establishes a common market, I check for the following: In a given year, are there new initiatives that concern the establishment of an economic & monetary union? If yes, then the dependent variable is coded as a 1 for that year.

This six-step scheme has similarities to the operationalization of deepening in the previous literature (Smith, 2000; Lawrence, 1996). According to this operationalization, a customs union involves a higher level of depth than a free trade area as it requires adopting a common external tariff in addition to the reduction of tariffs envisioned in the latter. Then, a common market requires further adjustment of policies as states have to allow for free movement of services, labor and capital in addition to a customs union. Oftentimes, RTAs adopt these policies separately from one another at different times. In determining whether an RTA has become a common market, I adopted the rule that an RTA must have approved decisions that would provide for each of these three components before coding it as a common market. The main reason is that it is difficult to consider an RTA as a common market when one of these components is lacking. The literature on economic integration also suggests that it would not be reasonable to consider an RTA as a common market before these steps are finished (McCormick, 1998; Pinder, 1998). Finally, an economic & monetary union involves the highest level of
integration as states have to forgo their rights over managing national currencies in addition to undertaking the previous five steps already mentioned.¹⁸

If the RTA has ongoing cooperation in the security arena, then I use the following scheme to code changes in depth in a given year:

1) In a given year, is there a new initiative concerning establishing regular consultations and discussions on security matters in the RTA? If yes, the dependent variable is coded as a 1 for that year.

2) After the first step is completed, I check for the following: In a given year, does the RTA adopt common rules about military coordination in areas of collective defense, fighting terrorism, nuclear nonproliferation or drug trafficking? If yes, the dependent variable is coded as a 1 for that year. In order for a year to be coded as 1, it is imperative that there are detailed procedures outlined in a protocol or a treaty that explain how objectives such as mutual defense, the fight against terrorism, or nonproliferation will be implemented. In other words, statements that only condemn terrorism or that reiterate the RTA’s commitment to fight terrorism without any guidelines (or an action plan) are not sufficient to code an RTA as having adopted common rules about security matters.

3) After the second step is completed, I check for the following: In a given year, does the RTA decide to establish a regional peacekeeping force/ intervention force?

¹⁸ This six-step operationalization depicts the process of integration in most RTAs. However, in some RTAs, there could be jumps from, for instance, no cooperation to a free trade area. In other words, some RTAs directly establish a free trade area by skipping the first step. This is not a problem in terms of coding the dependent variable as it is still coded as a 1 for that year. On the other hand, these RTAs do follow the rest of the steps as mentioned above.
In order to code the changes in depth concerning the institutional structure of the RTA, the following scheme is used: The presence of a change in depth of the RTA is determined based on whether there is a movement towards supranationalism in a given year. Often times, in the EU studies, the movement towards supranational structures are interpreted as further deepening as it requires relinquishing of some power by nation states and therefore more substantial adjustments to the status quo (Pinder, 1992; Nugent, 1992). The RTA is coded as having undergone a change in depth in this dimension (i.e. coded as a 1 for a given year) if its members decide to establish decision making bodies that use voting rules that do not involve unanimity and/or if they establish bodies whose members represent the interests of the RTA as a whole rather than those of the member states. The reason for selecting these two features is that bodies as such could adopt decisions that do not favor the interests of some member states. Yet, their decisions need to be abided by each member of the RTA. Therefore, the establishment of any decision making body involving these two features will be coded as instances of deepening.  

With these at hand, I have three binary measures that represent changes in depth for each of the three dimensions. To recap, these three measures are the following:

1. Changes in the Depth Level of the RTA in Trade (from the declarations/protocols/agreements of Ministers or Heads of States)

2. Changes in the Depth Level of the RTA in Collective Security (from the declarations/protocols/agreements of Ministers or Heads of States)

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19 Examples of such decision making bodies include Council of Ministers/Heads of State, Parliament, or a Court.
3. Changes in the Depth Level of the RTA in Institutional Design (from the declarations/protocols/agreements of Ministers or Heads of States)

The first dependent variable that is used to test H1 is a binary variable that measures whether there is a change in the depth level of the RTA in trade. The reason is that there are certain variables in my dataset that only concern changes in depth in this dimension. They are irrelevant for the other dimensions. The second dependent variable is also a binary one: It is coded as a 1 for a given year if there is a change in depth in any of these three dimensions in a given year. For instance, if there is an increase in the depth score of trade, then this is enough to code the dependent variable as a one. I do not create another dependent variable that captures the idea that a change in more than one dimension is better than a change in one dimension only. The reason is that it would require equating the degree of change in depth on the different dimensions. In later chapters, I discuss why this could be problematic.

In order to assess deepening based on the second definition, I use information about the compliance behaviour of parties with newly adopted decisions. It might be argued that deepening requires a stronger criterion than just adopting new legislation. Policy adjustments in the domestic legislation might be important. For some RTAs, such as the EU, the decisions taken in the RTA do not immediately become part of domestic legislation as they are not ratified by national legislatures. While some of the important decisions within the EU are taken in the form of primary law, i.e. the member states have to ratify it in their legislatures, others are taken in the form of secondary law such as
directives and regulations. These do not have direct effect, meaning that they do not supersede national legislation and so they do require explicit domestic action to be incorporated into domestic law. Therefore, the governments may accept these decisions in the EU, but may not go through with the necessary means to make policy adjustments in their domestic law. Based on the reports of the Commission, I use a dependent variable that captures the average percentage of internal market legislation that the members of an RTA have failed to transpose in a given year. This variable is calculated by dividing the number of decisions that is not transposed into domestic legislation by all members in a given year to the total number of decisions that has to be transposed for that year. This variable measures the depth of the RTA for each year according to the second conceptual definition. I create a similar variable for EFTA, and CARICOM. The reason for focusing on these three institutions is due to the increasing tendency of RTAs to start their legislative activity after making the decision to move towards a common market. A common market oftentimes requires enacting legislation in decision making bodies on liberalization of different types of services, labor and capital. Currently, the number of RTAs that are in the process of moving towards a common market is very few. These include EU, EFTA, CARICOM, and ECOWAS. I will only be able to focus on the first three in analyzing the implementation records of RTAs due to the readily available information by the secretariats of these RTAs about the compliance behaviour of their members. Executive secretariats are the main bodies that collect systematic information on transposition of legislation, which helps me in minimizing the potential errors associated with determining whether or not a member is complying.
The third definition requires assessing the effects of increases in membership size on the outcomes of the policies adopted by the RTA, i.e. the trade volumes among the members of the RTA. I use gravity models in order to examine the effects of enlargement on the growth of the trade volumes of a given RTA over time. The trade data compiled by K. Gleditsch (2002), who has come up with procedures for remedying the missing data problem encountered in other datasets, is used in this part. The details of the gravity analysis are explained below.

2. Evaluation of the First Hypothesis

In order to assess whether there is empirical support for H1, I employ a large N analysis with several control variables. My sample consists of all 43 RTAs that have existed (or continue to exist) during the post-1950 period and the unit of analysis is an RTA-year. The reason is that the dependent, independent and control variables that are required to test the hypothesis vary over time during the lifetime of an RTA. For instance, the main independent variable of this hypothesis is membership size, which changes over time for an RTA. Similarly, the main control variables such as average economic growth of the RTA also vary each year. Other variables such as the voting rules do not vary annually but change over time. Therefore, the proper unit of analysis is the RTA-year.20

In this second analysis of H1, my independent variable is the raw membership size of the RTA in a given year. This variable is a good indicator of the different ways that membership size could affect deepening. First of all, this variable is useful in evaluating

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20 Although quarterly analysis could be useful in operationalizing some control variables such as economic recession, I will not be using quarterly data. The main reason is that most of the dependent and independent variables do not vary by quarters. They only vary by years.
whether deepening slows down after the years of enlargement due to the increased size of the RTA.\textsuperscript{21} Secondly, this variable captures the intensity of enlargement. For instance, according to H1, the effect of an additional three members could be worse than the admission of only one and therefore, the intensity matters. Finally, it also captures how a potential decline in the membership size affects the pace of integration in an RTA. Although decreases in membership are not very frequent in the data, they do take place. According to H1, an increase in membership should make deepening harder while a decrease in membership could facilitate integration. Therefore, raw membership size is a thorough indicator of the different ways that membership size could affect deepening.

I conduct two different analyses using two separate dependent variables. In the first analysis, the dependent variable is whether there is a change in depth in a given year on the trade dimension. Several controls are included in the analysis using this variable. One of the common observations about deepening is that it tends to slow down during years of crisis in the world economy (Wallace, 1989). Economic recession restrains even the integrationist states from going forward with deepening especially when it results in substantial adjustment costs. In my analysis of deepening, I control for such economic recessions through their reflection on the annual growth levels of the members. If the growth levels decline for most members in a given year compared to the previous years, this is a sign of economic recession. Therefore, I include a variable that equals 1 if majority of the members of the RTA encounter a decline in their GDP (per capita)

\textsuperscript{21} A variable that only captures whether there is a change in membership size in a given year cannot account for the potential effects that membership size has on deepening after the years of enlargement (i.e. after a change in membership size). So, membership size is a better indicator of what H1 is trying to capture.
compared to the previous year. If there is no such decline for the majority of the members, then the variable is coded as 0.\textsuperscript{22} I expect a negative coefficient for this variable. I also use another variable with a lower threshold of members that experience economic recession. I code it as a 1 if one quarter of the members of the RTA experiences a decline in GDP respectively. The reason for choosing a lower threshold is that even the presence of a few members with economic difficulties could be enough to prevent further deepening given the presence of unanimity voting in a great majority of the RTAs in the dataset. \textsuperscript{23}

There are four other control variables that need to be considered in conducting the analysis, where the dependent variable is changes in depth on the trade dimension. The first is the level of integration (depth) already achieved in the year(s) before enlargement. It is often thought that as integration proceeds, it becomes harder to move to the next step. For instance, Lawrence (1996) notes that one of the reasons that the Uruguay Round negotiations took a long time to come to a conclusion was the fact that the parties had to agree upon difficult subjects such as liberalization of agricultural and textile products; rules regarding enforcement of intellectual property rights; and liberalization in the services sectors. These issues are considered much harder for governments to make sacrifices due to their domestic importance. Eichengreen and Frieden (1994) also argue that the movement from a common market to monetary integration may also pose problems as governments are forgoing their right to use certain monetary tools such as

\textsuperscript{22} I use the GDP data in Penn World variables. The GDP figures are based on constant prices.

\textsuperscript{23} Based on this logic, it could be argued that even the presence of a single state could be enough to prevent deepening. In the future, analysis with different thresholds or a single state could be conducted. Currently, I don’t have the data necessary to code different variables with differing thresholds.
increases in interest rates or devaluation of their currencies in order to overcome economic recessions. For instance, at the end of 80’s, the Italian Central Bank frequently increased interest rates and devalued the local currency to boost domestic demand and moderate economic recession. According to Eichengreen, this is an important concern when governments are deciding whether or not to merge their currencies. Based on this literature, we could expect that the likelihood of deepening might slow down due to the increasing difficulty to accept moves towards the next step. In order to account for this possibility, I first create a variable that measures the depth of an RTA in a given year based on the earlier six-step operationalization. This variable is coded as follows: In a given year, if there are ongoing negotiations on trade issues, it is coded as a 0; in a given year, if an RTA is a preferential trade area, it is coded as a 1; in a given year, if an RTA is a free trade area, it is coded as a 2; in a given year, if an RTA is an advanced free trade area, it is coded as a 3; in a given year, if an RTA is a customs union, it is coded as a 4; in a given year, if an RTA is a common market, it is coded as a 5; and in a given year, if an RTA is an economic & monetary union, it is coded as a 6. After creating this, I establish another variable that equals the depth of the RTA in trade in the year previous to the one under analysis. 24 Therefore, the variable varies from 0 to 6. 25

24 At first blush, it might seem that this is a lagged DV. However, in the analysis, the DV is a binary variable that equals 1 if there is a change in depth. On the other hand, this variable captures depth in a given year and is an ordinal variable varying from 1 to 6. So, this is actually not a lagged DV. Also, scholars (Beck,2001) note that lagged DVs are not problematic in maximum likelihood analysis as much as they are when OLS is being used. In fact, Beck recommends the use of lagged DVs as one way to cope with temporal dependence in BTSCS data. Most criticisms of lagged DVs are within their application in OLS analysis (Achen, 00).

25 There are two RTA in my dataset, which do not strictly follow the 1-6 pattern explained earlier. These are the Efta and Eea. They are both at the stage of a common market but they have not established a customs union. Due to this difference, I do not include them in my large-N analysis.
The other potential confounding factor that might affect the possibility of deepening is the voting rule adopted by the institutions of the RTA (Kerremans, 1998). In most RTAs, it is usually the case that unanimity voting rule is more prone to deadlocks and slows down in deepening. Therefore, in order to control for this effect, I create a variable that codes the nature of the voting rules in the legislative bodies of an RTA. This variable is coded as a one if an RTA is using some type of majority voting in its decision making organs and 0 if it is using unanimity.

I also include another control variable that stands for whether the RTA allows its members to undertake differing commitments in implementing a new initiative. It is often argued that movement away from uniformity among the members of the RTA will indeed allow the RTA to be deeper than what it would be if all members had to undertake similar commitments (De Burca and Scott, 2000; Wallace, 1989, Wallace and Riley, 1985). For instance, in some RTAs, not all members become part of new initiatives towards further integration. At first, only a small group of more committed states pursue new integration schemes and they leave the choice to the less committed states on whether or not to join this new initiative. In order to capture this idea, I create a variable that equals 1 if only a subset of the members of the RTA become part of a new initiative. This variable is coded 1 from the start of the new integration initiative until the beginning of a new one. For instance, if only a subset of the members of the RTA participate in the formation of a free trade area, this variable is coded as 1 for each year until the commencement of a customs union, i.e. the next possible initiative. If the customs union also involves differentiation in this form, then it is again coded as 1 until the formation of a common market.
The other control variable also captures the presence of differentiation but in a different sense. Some scholars like Gilligan (2004) argue that if the signatories of an RTA incorporate flexibility by allowing members to undertake different levels of commitment, then the RTA will be deeper than what it would be if such flexibility was absent. This differs from the other form of differentiation because, in this case, all members are involved in a new integration scheme but they undertake varying commitments. In order to capture this idea, I create a variable that equals 1 if the RTA has adopted this form of differentiation in an integration initiative. In other words, it is coded as 1 from the start of a new integration scheme to the beginning of a new one similar to the way explained for the previous control variable.\(^\text{26}\)

So far, I discussed the controls to be put in explaining changes in depth on the trade dimension. The second dependent variable of the large-N analysis is going to capture changes in depth in all three dimensions explained earlier. Therefore, some of the control variables mentioned so far are not applicable for explaining deepening in these three dimensions because they only relate to trade. These are the presence of economic decline and the previous depth level of the RTA in trade. Therefore, I use the following control variables as they also affect deepening in dimensions other than trade.

The first is the presence of differentiation, which captures whether only a subset of states become part of a new integration scheme in either the trade or security dimensions. Such

\(^{26}\) These last two control variables are distinct from one another and therefore, cannot be combined. If certain members of an RTA do not become part of a new initiative, they also cannot vote to make it deeper.
differentiation is especially observed in the formation of regional peacekeeping/intervention forces. If this is the case, then the variable is coded as 1 for all the years following the formation of the peacekeeping force. Since the main dependent variable of the analysis capture the movements towards further integration in both of these areas, I input a variable in the analysis that captures whether or not there is differentiation in this manner in either the trade or security areas. The second control variable will involve the nature of the voting rules. The type of the voting rule affects deepening in all dimensions. If more flexible voting rules are used, this will facilitate deepening in all dimensions. Therefore, if the RTA is using a rule other than unanimity in a given year, then that year is coded as 1.

So far, I explained the main variables to be put in the different models. Now, I move on to discuss the sample and the analysis of technique for testing H1. As explained earlier, the main unit of analysis in evaluating H1 is the RTA-year due to the presence of time varying covariates that change annually. That is, I have a time series cross section (TSCS, hereafter) data where the number of units is 41 and the number of time periods for each unit varies from 15 to 50. This gives me sufficient cases to run a large N analysis of the effects of changes in membership size on the depth of an RTA (N=866).

To evaluate the hypothesis with the dependent variable involving changes in depth in trade, the analysis of technique is a conditional gap time model. The reasons for using this model are the following: My dataset involves RTAs that experience deepening multiple times. The conditional gap time model captures the repeated nature of the data
unlike an event history model that only accounts for the first event. In this study, my interest is on all possible initiatives of integration not just the first one. The second reason for using the conditional gap approach is that the dependent variable involves a sequence. For instance, a customs union cannot take place before a free trade area. Therefore, it would be misleading to have the possibility of a customs union in the “risk set” before the RTA has become a free trade area. The conditional gap model exactly takes this sequencing into account (Branton and Jones, 2005, Box-Steffensmeier and Jones, 2004). Finally, the conditional gap model is superior to, for instance, a logit model used with BTSCS data. The main reason is that a logit model (even those that control time dependency through splines, lowess etc) cannot take into account the case of repeatable events (an RTA experiencing deepening multiple times). In the logit approach, the second and subsequent failures are assumed to be independent of the number and timing of previous events (Beck, Katz, and Tucker, 1998). Moreover, in the logit approach, it is always assumed that duration dependency follows some type of distribution. However, I do not have any expectations about the distribution of the baseline hazard. Therefore, a Cox model that leaves this unspecified is more suitable for my study. In general, the conditional gap model, that extends the Cox model for repeated events, is the right approach for the data of interest in this study.

However, for the analysis that uses the dependent variable capturing deepening in any of the three dimensions, I cannot use the conditional gap time model because there is no real sequence in the data. For instance, it cannot be the case that deepening on trade issues always comes before the security issues or one leads to the other. In other words, there is
no clear ordering in the dependent variable. Therefore, here I will use a nonstratified Cox model that assumes ordering is unimportant yet takes into account the repeatable nature of the data (Branton and Jones, 2005). This is opposed to the previous model that stratified on event number due to the sequential nature of the dependent variable.

So far, I discussed the research design for H1 based on the first definition. Here, I also present how the related conjecture (C1) is going to be tested. This conjecture examines whether the addition of new members who are significantly poorer than the existing members of an RTA reduces the likelihood of deepening. To evaluate this, I create an interaction variable that is established by multiplying a variable that captures whether an RTA has experienced enlargement in a given year with a variable that captures the difference between the average economic status of these new members and the existing ones of the RTA.\textsuperscript{27} According to C1, the addition of new members and especially those with lower average economic status should make it more difficult for the RTA to deepen. Hence, the interaction term is the appropriate independent variable for testing the conjecture. The analysis is similar to that of H1: The dependent variable is the presence of a change in deepening in the trade dimension. Economic growth of existing members; existing depth level of the RTA (in trade); voting rules in legislative bodies; and presence of differentiation will be incorporated as control variables. A conditional gap model is used to evaluate the conjecture.

To evaluate how RTAs perform based on the second conceptualization, I mainly rely on graphs that help in evaluating the trend in the incorporation of legislation into domestic

\textsuperscript{27} Their average economic status will be measured by their GDP per capita.
law for each RTA. That is, I plot the annual percentage figures for each RTA, namely the
EU, EFTA, and CARICOM. This allows me to examine how RTAs fare over time in
transposing RTA level legislation into their domestic laws. This is the first step towards
complying with the decisions taken at the RTA level. 28

In evaluating H1 based on the third conceptualization, I run gravity models for the RTAs
that have experienced enlargement. The goal of this analysis is to identify the effect of
membership size (enlargement) on the growth in the trade volumes between the members
of an RTA. The expectation is that increases in membership size will reduce growth in
trade volumes among the dyads in the RTA due to their anticipated, negative effect on
depth of the RTA based on the first definition (i.e. change in the depth compared to
the previous year). In other words, since increases in membership size will reduce the
likelihood of approval of new initiatives that would lead to further deepening in trade,
this will also have parallel negative effects on the growth (increases) in trade volumes.

I run the gravity models separately on the RTAs that have experienced enlargement. The
sample will be all the members of a given RTA while the unit of analysis is going to be a
dyad-year. 29 The main reason for this is that the dependent variable represents the
changes in the trade volumes of the dyads constituting the RTA. I estimate the following
equation in order to assess the effects of membership size on trade volumes:

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28 The second conceptualization asks only about whether domestic law has been changed according to the
decisions taken at the RTA level, but not whether or not they are being enforced. Nevertheless, it does
provide some sense of the implementation records of member states.
29 Time span covers the lifetime of the RTA.
\[ D(\log(\text{bilateral trade}_{ij}))) = \text{Constant} + b_1 \cdot D(\log(Y_{it} Y_{jt})) + b_2 \cdot D(\log(P_{it} P_{jt})) + b_3 \cdot D(\log(R_{it} R_{jt})) + b_4 \cdot M_t \]

In the equation, \( D \) is referring to the change (difference) in the value of the associated variable compared to the previous year. For instance, the dependent variable is the change in the bilateral trade of a given dyad (I and J) in a given year compared to the previous year. \( Y \) refers to income (gdp), \( P \) to population, \( R \) to the exchange rate (the value of the currency with respect to the dollar), \( M \) to the membership of the RTA in a given year and \( b_1, b_2, b_3 \) and \( b_4 \) are the relevant coefficients.\(^{30}\) Each of the gravity variables are in the form of products (Tamumi and Eichengreen, 1995). Exchange rates are included as control variables as they are often thought as altering the trade volumes among states. In this analysis, \( b_4 \) is the main coefficient of interest. If \( H1 \) is accurate, the coefficient should be negative. The analysis of technique is the OLS.

This concludes the research design for the first hypothesis. In the next section, I discuss the main dataset that is used in conducting the analysis based on the first definition.

Later, I present my results.

3. Descriptive Information about the Data

In this section, I present some descriptive information regarding the data compiled on 43 RTAs from the post-1950 period to the readers. The dataset that is used in the dissertation does not exist elsewhere. Therefore, I believe it is important to have some initial

\(^{30}\) Membership is not in the change format because the expectation is that a reduction in the growth of trade volumes should continue in the years after enlargement due to the size of the RTA. In other words, because membership size is expected to reduce the likelihood of deepening after years of enlargement, this should also be reflected in the growth in trade volumes.
understanding of the descriptive features of the main variables in the primary dataset of
the dissertation. For testing H1, I collected longitudinal information corresponding to the
lifetime of these RTAs. One of the most important variables of my study is whether or
not there are changes in depth on issues concerning trade. The majority of the RTAs have
experienced at least one stage of deepening on this dimension. For instance, there are
three RTAs in the data that are preferential trade agreements (or that were PTAs before
being annulled). These are the Bangkok Agreement, the Asia-Pacific Economic
Cooperation (APEC), and the Latin American Integration Association (LAIA). Although
the Bangkok Agreement has been in existence since 1976, it has deepened very
minimally over time as it has not moved to the stage of a free trade agreement. The
APEC has been in effect since 1989 and has again achieved very minimal levels of
deeplening on the trade dimension. Similarly, the LAIA, which has united the states of
Latin America under its umbrella since 1980, only moved in a very piecemeal fashion in
deeplening further as of today.

On the other hand, many of the RTAs in the data have been successful in cooperating to
become free trade areas (FTA). There are 20 RTAs that have signed protocols for
establishing an FTA. These RTAs have agreed upon reduction of barriers on majority of
the industrial goods that are traded between their members. Examples include the West
African Economic Community, the Economic Community of the Great Lakes and the
Indian Ocean Commission. One important issue is that some of these RTAs are more
advanced that the others as they have succeeded in including majority of their sensitive
industries/goods within the free trade area. In particular, the ASEAN, MERCOSUR,

31 The list of RTAs included in the dataset is in the appendix.
AGADIR, ECOSEC, CEFTA and NAFTA are more advanced forms of FTAs compared to the rest due to their efforts in reducing the number of sensitive goods exempted from the principle of free trade.

The next stage of integration on the trade dimension concerns establishing a customs union. There are approximately 11 RTAs that have succeeded in achieving this level of integration in the dataset. The great majority of these RTAs are located in Africa, which demonstrates the great strides that the members of these nations have gone through in achieving high levels of integration compared to other continents in particular Asia and Latin America. While some of these customs unions have started out with high, initial common external tariffs that have been gradually reduced to more reasonable levels, others have succeeded in lowering their tariffs from the beginning.

Several of the remaining RTAs are either at the stage of common market or an economic & monetary union. These involve European Free Trade Area, Caribbean Community, the European Economic Area, and the EU. These RTAs have shown remarkable success by signing protocols on the free movement and establishment of labor; free movement of services; and free movement of capital very recently. For instance, the EU has first finished enacting the necessary legislation to establish free movement of labor and capital in the beginning of the 90's. Towards the end of this period, it has also agreed upon protocols that provide for the free movement of services. Similar types of legislation have been enacted in the other common markets. Some RTAs, such as the ECOWAS, have also agreed upon the free movement and
establishment of labor. However, because they have not completed the other steps towards becoming a common market, they are not considered as common markets in this dissertation. Finally, the EU is the only RTA that is an economic and monetary union. It has completed harmonization of its industries among the member states and adopted a common currency as a legal tender.

Other than these, four RTAs have started negotiations over trade liberalization but have not completed establishing some type of a preferential trade area. Since these RTAs have ongoing negotiations on this dimension, they are also included in this study. Examples include the Association of Caribbean States (ACS), the Intergovernmental Authority on Development (IGAD), and the Arab Maghreb Union (AMU). The latter, for instance, is in the process of adopting a protocol on a free trade agreement. Similarly, the IGAD members are holding negotiations on these issues.

Having mentioned the distribution of the RTAs on the trade dimension, I will now consider their level of depth on the security dimension. In this issue area, 6 RTAs have only ongoing regular consultations on security matters such as mutual security & defense, fight against terrorism, drug trafficking and/or denuclearization. 10 RTAs have surpassed this stage by signing some type of protocol that outlines how the RTA will cope with these problems and external threats. For instance, the South African Development Community has signed a protocol on the establishment of an Early Warning Protocol that would provide for a mechanism to prevent conflicts from erupting. The West African Economic Community has signed a defense pact that provides for mutual assistance in

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The number of such RTAs is few.
the event that one party is attacked by an outside aggressor. The ASEAN has also signed a protocol on the denuclearization of Southeast Asia and on the measures that need to be taken in order to work towards this goal. There are 7 other RTAs that have not only signed similar protocols but also agreed upon the creation of a regional peacekeeping/intervention force. The European Union, Economic Community of West African States and Economic Community of Central African States are some examples of RTAs that have signed protocols to establish such forces in the event of conflict that affects one or more of the members. The great majority of the RTAs (20) have, however, no ongoing cooperation on the security dimension. The reason for this is apparent as my major criteria for determining whether an organization is an RTA depends on the presence of some effort towards increasing cooperation in trade. Therefore, it is reasonable to have approximately half of these RTAs not engaged at all on security issues.

Finally, different RTAs have deepened further than the others on the dimension pertaining to institutional design. Some RTAs such as the EU, the Bangkok Agreement, the Black Sea Economic Cooperation Organization, and the Carribean Community have started using qualified or simple majority voting in their main decision making organs during their lifetime. Some RTAs have deepened on this dimension by establishing organs such as a Court, a Parliament or a Commission that comprise individuals who function independently from the member states and make binding decisions. For instance, many RTAs have established a Court for adjudicating disputes. Some RTAs such as the East African Community and the Andean have established a regional Parliament.
However, their decisions are only consultative and therefore these institutions are not considered as instances of deepening.

Having explained the status of the RTAs concerning their depth, I will also discuss some of their features with respect to the main independent and control variables. In the dataset, there are 26 RTAs, which have experienced increases in their initial membership size after inception. 10 of these 26 RTAs have enlarged multiple times. Some of these enlargement experiences result in the admission of one member only while others result in the admission of many more states. Finally, in the dataset, the membership size of RTAs varies between 3 and 25.

There are also differences among the 44 RTAs on how they handle new initiatives for deepening. 10 RTAs in the dataset have established differentiated agreements where the most integration oriented members spearheaded cooperation in the trade and/or security dimension by leaving the less integration oriented states out of the new initiative. That is, in these 10 RTAs, only a subset of the members of the RTA has become part of the deeper RTA. On the other hand, 17 RTAs in the dataset have incorporated other forms of differentiation where the participants of a new initiative have assumed differing obligations from one another. This demonstrates the diversity in the design of RTAs in the dataset.

Finally, one of the most important control variables of the dataset is whether some of the members of an RTA have experienced a decline in economic growth. The African RTAs

33 A table of summary statistics for the independent variables could be found in the appendix.
have on the average gone through such declines during 27% of their lifetime. For the RTAs in Asia, this number falls to 10%, which tells us that the states constituting the RTAs of this region have been more prosperous during the lifespan of the RTA. In Latin America, we observe that at least half the members of these RTAs have experienced economic declines during 22% of the lifetime of the RTA on average. In Europe, this average diminishes radically to 5% suggesting that these states have experienced increases in their GDP in the period when an RTA of this region is in effect.

In the next section, I discuss the results of the analysis pertaining to H1 under the light of this data.

4. Large N Analysis

In this section, I present two sets of results concerning the evaluation of H1. In the first analysis, the results of a conditional gap model are discussed in order to explain the changes in depth on the trade dimension. In the second analysis, I present the results of a nonstratified Cox model in explaining the changes in depth for the three dimensions together.

The table below presents the first set of results.
Table 3.1 Conditional Gap Time Model of Deepening for the Trade Dimension

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated Coefficient (Standard Error)$^{34}$</th>
<th>Substantive Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-.11 (0.05)*</td>
<td>91% decrease</td>
</tr>
<tr>
<td>Differentiation-subset</td>
<td>-0.09 (0.83)</td>
<td></td>
</tr>
<tr>
<td>Differentiation</td>
<td>1.22 (0.43)*</td>
<td>238% increase</td>
</tr>
<tr>
<td>Economic Decline</td>
<td>-0.53 (0.26)*</td>
<td>41% decrease</td>
</tr>
<tr>
<td>Voting Rule</td>
<td>-1.93 (0.67)*</td>
<td>14% decrease</td>
</tr>
<tr>
<td>Previous Depth Level</td>
<td>0.004 (0.25)</td>
<td></td>
</tr>
</tbody>
</table>

N= 866

*p<0.05

The analysis demonstrates that increases in membership size have a significant, negative effect on the likelihood of deepening. A change in the value of membership from its minimum to maximum value decreases the potential of deepening by 91%. Therefore, the results support the EU scholars' expectations that enlargement will have negative repercussions on the integration process of an RTA.$^{35}$ Enlargement is making it harder for members to pass new initiatives on the trade dimension. This also shows that Downs, Rocke and Barsoom(1998)'s expectation that members of an RTA will admit members

$^{34}$ Robust standard errors are calculated in order to capture non independence for observations associated with the same RTA.

$^{35}$ I checked whether cross sectional variation in membership might be affecting the results. For instance, it could be that the presence of big membership RTAs that haven’t been through any enlargement could be affecting the results. However, this is not the case in the data: The mean membership size of RTAs that have not experienced enlargement is smaller than the mean membership size of RTAs that have experienced enlargement. In other words, in general the enlarged cases are larger in size than the nonenlarged cases.
selectively is not warranted.\textsuperscript{36} Finally, the results do not provide any evidence for the claim that increases in membership size promote integration as suggested by Pahre(1995). I discuss the potential reasons for this result later in this chapter.

The other variables also reveal some important trends about the factors that determine when we should see deeper RTAs. First of all, the presence of differentiation in the RTA significantly increases the chances of deeper integration on commercial issues (by 238%). Differentiation makes it easier for members of an RTA to strike agreements by allowing them to undertake obligations parallel to what they can accomplish. A good example for this comes from the Andean Community: In this RTA, the less developed (and landlocked) states were allowed a longer liberalization period in establishing a free trade area compared to the more developed states. They decided to become a party to the FTA after this flexibility was granted to them by the more developed states. Therefore, in this example, differentiation prevented the bargaining of a new initiative from failure due to the requirement that less-integrationist minded members have to follow the preferences of the more integrationist ones.\textsuperscript{37}

On the other hand, there is no support for the potential positive effect that a different type of differentiation might have on the likelihood of deepening. In some RTAs, certain members allow other members to form deeper agreements initially on their own. For

\textsuperscript{36} It could be the case that the existing members have denied membership to certain states. But, overall this doesn’t seem to be the trend as the data suggests that the newly admitted states make it less likely that members deepen on this dimension. So, overall then there is something that prevents the existing members states from admitting the new members selectively.

\textsuperscript{37} In this case, the less integrationist states corresponded to the less developed members. However, this might change depending on the issue area.
instance, in the 22-member COMESA, a free trade agreement was signed only by a handful of states in the beginning. Despite the fact that some members have joined the FTA later on, there are still states, which are part of the COMESA but not the FTA. The analysis demonstrates that the presence of such differentiation has no significant effect on deepening. One reason for this could be that, oftentimes, RTA members that are more integrationist may not want to proceed to higher levels of integration without leaving too many members behind. In fact, this was the case with COMESA as the members of the FTA did not want to proceed to a customs union without ensuring that the less integrationist states became part of the FTA. Therefore, at the aggregate, differentiation might seem to alleviate deepening only up to a certain extent as states won’t want to create too much divergence within the RTA. This might be one reason why the variable is not significant.

The other variable that has a significant effect on integration is whether or not the RTA members have experienced an economic decline. This variable captures whether more than 25% of the members of an RTA in a given year have experienced a GDP decline. Measured in this way, the variable shows that when some members are facing economic difficulties domestically, this prevents them from supporting new initiatives for further deepening. Oftentimes, such initiatives have domestic repercussions for members such as increase in competition from foreign markets and decline in profits from customs duties. States are less willing to join such measures if they are not doing well economically. In different analyses, I also tested the same model using a variable that captures whether at least the majority of the members of an RTA are experiencing an economic decline in a
given year. While the variable was in the anticipated direction, it was not statistically significant. However, this should not refute the previous finding because since most RTAs require voting through unanimity, the presence of a minority of states experiencing economic difficulties is as important as the presence of a majority of states undergoing such ordeals. Therefore, I conclude that the data points towards a negative trend between the economic situation of RTA members and integration.

The other control variable is the voting rule used in the RTA in a given year. Surprisingly, this variable is significant but not at the anticipated direction. In other words, the use of majority voting in an RTA decreases the chances that there will be more deepening. One potential reason for this is due to the stage at which RTAs have made the decision to make such a shift in the voting rules. In general, the data suggests that RTAs have made such institutional changes after becoming a customs union and before reaching the stage of a common market. An important feature of this stage of deepening is that it takes a considerably longer period of time for an RTA to move from a customs union to a common market compared to the transition from an earlier stage of integration (say a free trade area) to a customs union. In fact, as mentioned earlier, there are very few common markets in the dataset due to the extensive legislation that RTAs have to enact in order to establish one. Therefore, it is actually not very surprising that this variable is at the unanticipated direction.

Finally, the previous depth level of the RTA does not seem to have any significant effect on deepening. This result is actually surprising as a cursory look at the data suggests that
the time spent on moving from one stage to another considerably expands as the RTA is getting deeper. For instance, in the dataset, the average time spent from the point of becoming a customs union to a common market is 33 years. On the other hand, an RTA spends about half the time (15 years) in moving from a free trade area towards a customs union. The insignificant result could, however, arise from the fact that there are few RTAs that have reached the stage of a common market in the data. Therefore, there could actually be less variation in the time it takes to move between the lower stages of integration. This might be one reason why the variable is not significant.

The next table demonstrates the results using the three dimensions together. As mentioned earlier, the dependent variable here is whether or not there is deepening in a given year in the trade, security or institutional design issues.

Table 3.2 Nonstratified Cox Model of Deepening in All Three Dimensions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
<th>Substantive Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.03 (0.03)</td>
<td>48% decrease</td>
</tr>
<tr>
<td>Differentiation-Subset</td>
<td>0.14 (0.34)</td>
<td>15 % increase</td>
</tr>
<tr>
<td>Voting Rule</td>
<td>0.42 (0.58)</td>
<td>52 % increase</td>
</tr>
<tr>
<td>N=922</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results demonstrate that increases in membership size have no significant effect on the likelihood of deepening in any of the three dimensions. While the coefficient is

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38 Robust standard errors are calculated in order to capture non independence for observations associated with the same RTA.
negative, it does not reach significance. This indicates that the negative effects of enlargement are more acute for the trade dimension rather than the others. While enlargement is not promoting more integration in these three areas, it also does not prevent further deepening in the security and institutional design dimensions as much as it does on the trade dimension. This also suggests that some of the new members admitted to RTAs may not be profitable to admit due to their adverse effects on economic integration. On the other hand, they could be contributing to the RTA in other areas such as collective security and institutional deepening by not preventing new initiatives of integration in these areas.

Some of the other control variables seem to follow the trend observed in the previous analysis. The presence of differentiation in an RTA, in the form of a subset of members establishing deeper agreements, turns out to be insignificant in influencing deepening in any of the three dimensions. The most important difference of this variable from the one in the previous analysis is that it captures the presence of differentiation in both the trade and security dimensions. The insignificant result seems to suggest that the members of an RTA cannot always establish deeper agreements simply by leaving the less-integrationist states out of the deals. Such differentiation could create a permanent split in the RTA and potentially lead to its disintegration. Therefore, the results suggest that members use this way of establishing deeper commitments cautiously.

Finally, the other control variable (voting rule) has no significant effect on deepening in any of the three dimensions. This is in contrast to the earlier finding, where this variable
turned out to be significant at the unanticipated direction. In this analysis, this variable suggests that the use of majority voting as opposed to unanimity does seem to increase the chances of overall depth of the RTA. Yet, this effect is not very strong as the variable fails to reach significance. One reason for this could be the presence of only a few RTAs that use majority voting in its main decision making organs. There are 4 such RTAs out the 43 in the dataset. More frequent use of such voting rules in other RTAs could make this variable more significant. The other reason could be the stage or timing of the decision to use such voting rules. Most RTAs start using these voting rules at a point when they have already reached high levels of integration. Therefore, it takes even more time to reach the next stage of integration after this stage. As mentioned earlier, this was the pattern on the trade dimension. But, it is also the pattern seen on the security and institutional dimension. In the dataset, by the time the RTAs adopt majority voting, they already have regular consultations as well as joint protocols/ agreements on security issues. Yet, they have not managed to establish regional peacekeeping missions. Similarly, on the institutional dimension, by the time the RTAs adopt majority voting, they have already established independent dispute settlement bodies. At the point of the shifts, the RTAs are generally trying to establish supranational organs such as a parliament or a tribunal that make binding decisions. Therefore, it gets harder to achieve these goals even if the voting rules are relaxed within the RTA. This might be the other reason for the insignificance of this variable.

Finally, I present the results for the conjecture (C1).
Table 3.3 Conditional Gap Model Examining the Effects of Economic Divergence on Deepening

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Standard Error*)</th>
<th>Substantive Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of Divergence between the economic status of old and new members (at the year of enlargement)</td>
<td>-0.01 (0.07)</td>
<td></td>
</tr>
<tr>
<td>Differentiation-Subset</td>
<td>-0.56 (0.84)</td>
<td></td>
</tr>
<tr>
<td>Differentiation</td>
<td>1.28 (0.44)*</td>
<td>259% increase</td>
</tr>
<tr>
<td>Previous Depth Level</td>
<td>0.06 (0.26)</td>
<td></td>
</tr>
<tr>
<td>Economic Decline</td>
<td>-0.53 (0.27)*</td>
<td>41% decrease</td>
</tr>
<tr>
<td>Voting Rule</td>
<td>-1.97 (0.73)*</td>
<td>86% decrease</td>
</tr>
<tr>
<td>N=866</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Robust standard errors are used in order to account for potential non-independence among observations of the same RTA

In this analysis, we observe that an increase in the difference between the GDP of the new members from the existing members of an RTA (at the year of enlargement) has no significant effect on the likelihood of integration. This rather surprising finding could result from the fact that this variable only captures the difference between the GDP of the members at the year of enlargement. It could be the case that the deviation of the GDP of the old and new members in the years following enlargement should also matter in influencing the chances of deepening of the RTA as the year of enlargement may not be
representative of the overall divergence in the RTA during its lifetime in the post-enlargement era. For instance, in the year of enlargement, the divergence between the old and new members might be substantial. However, due to the decreasing divergence between the old and new members in the following (post enlargement) years, the RTA might experience deepening multiple times. Using the current variable, this pattern could lead us to believe that the divergence is not related to deepening although this might not be the case since it does not capture the post-enlargement years. I plan to investigate this further in future research.

The other variables behave as before. The presence of differentiation, decline in economic growth, and the nature of the voting rule have significant effects on the probability of deepening in an RTA. In the next section, I discuss the results based on the second conceptualization.

5. Level of Compliance with New Initiatives of Integration in RTAs

So far, we have examined whether new initiatives of integration are observed during the years after an increase in membership size as frequently as during the years preceding the enlargement. The dominant trend is that membership size reduces the likelihood of integration in RTAs in the trade dimension but it has no effect when all three dimensions are considered together. The question that motivates this section is the following: Are member states complying with the initiatives that become law in both the pre and post enlargement periods? In other words, is the general pattern positive and towards
compliance or are states approving legislation but not upholding their commitments by not transposing them into domestic legislation? In this section, I explore this question.

Here, I examine the compliance rates of three RTAs over time based on the availability of information compiled by the secretariats of these RTAs. These RTAs are chosen because they are the only ones that have started the process of becoming a common market and for which information is available. RTAs that are on their way to becoming a common market legislate numerous initiatives that make them amenable to making comparisons over time on compliance.

For the EU, the Commission compiled information on compliance for the years 1989-1992 (i.e. the four year period together) and from 1997 onwards annually.\textsuperscript{39} By the year 1992, the 10 members of the EU should have transposed approximately 390 pieces of legislation concerning the internal market. However, only 216 of these have been really incorporated into national legislation. Therefore, the transposition deficit was 44\%, which means that the EU was operating at 56\% of its "capacity" by this time. The reason for such a low number could be related to the slow decision making process in some members' legislative bodies, stringent voting rules in the national parliaments, or simply the unwillingness of states to comply with such legislation.

The deficit follows the trend seen below in the years from 1997 until now.

\textsuperscript{39} In the EU, the states have started enacting internal market legislation by the beginning of 1988.
Here the transposition deficit indicates the percentage of directives not transposed into domestic legislation by all member states. It is clear from the graph that the deficit is lower compared to the 1989-92 period. While the graph shows fluctuations ranging between 10 and 30%, none of the numbers surpass 30%. This means that the internal market is actually functioning at 70 to 90 percent of its capacity in this period. The trend is improving as the number of directives that get transposed by all states is increasing each year. Yet, it is not very satisfactory either as approximately 8% (112 directives) of the total number of directives is not transposed by 2006. The main reason for the spike from 9 to 27% in 2004 is the enlargement. This event had negative repercussions on compliance due to the admission of new members with radical differences between their domestic laws and the EU law. However, the new members quickly started transposing directives, which in turn brought back the deficit back to its normal average of 8%.
The other common market of the dataset is the European Free Trade Area. The following depicts the rate of compliance of the members of this RTA with internal market legislation:

Figure 3.2 Transposition Deficit in the EFTA

The graph commences on the year 1998 mainly due to the availability of information regarding transposition from the secretariat of this RTA.\textsuperscript{40} Here, the transposition deficit again indicates the percentage of legislation not transposed by all member states. The rate fluctuates between 4 to 16\% between the years 1998 and 2006. In other words, the internal market is functioning at 85-95 percent of its capacity. While these numbers are smaller than the corresponding figures for the EU, they still point toward substantial noncompliance with internal market directives by member states.

\textsuperscript{40} The EFTA has started enacting internal market legislation by the beginning of 1995.
The other RTA of interest is the Carribean Community. This RTA is rather different from the others as it does not use directives in order to adopt legislation for a fully-functioning internal market. Instead, the members have adopted a number of protocols regarding free movement of services, agricultural goods, labor and capital. Therefore, it is not possible to depict a time-series trend of the compliance rate annually. However, recent reports prepared by the secretariat of the Caricom provide some evidence of whether deepening based on the second definition is being observed. Between the years 1995-2000, 8 protocols have been adopted by this RTA concerning the establishment of a common market. Only 4 of these protocols were adopted domestically by all member states by the year 2000. In other words, the single market was operating at 50% of its capacity due to the noncompliance of some member states with protocols. As of 2006, the noncompliance rate has dropped to 12.5% as only 1 protocol remains to be ratified by all of the member states. This protocol concerns the free movement of labor. 41

As a whole, it could be argued that these three RTAs have not shown a remarkable success of compliance at the beginning of their process towards becoming a common market. Their noncompliance rates have reached 30-40% at the initial stages. However, as time has evolved, they have improved their rates of compliance to more negligible figures, ie below 5-10% (in the case of the first two RTAs). It is important to note that the reported non-compliance rates only encompass whether the RTA members have failed to ratify the directives/protocols adopted by the decision making bodies of an RTA. They do not capture whether these directives are enforced fully after ratification is completed. In

41 I could only find the reports of the secretariat for the years 2000 and 2006. Therefore, I cannot report whether there were changes in noncompliance rates in between these dates.
this sense, the reported rates are an incomplete picture of noncompliance. However, it could be argued that states that take the decision to adopt these directives/protocols domestically are also likely to enforce their commitments. In general, there is an empirical pattern that states (especially democracies) will not undertake commitments that they cannot fulfill (Leeds, 1999). Therefore, I believe the reported noncompliance rates could be treated as the overall trend in non-compliance for these RTA.

6. Membership Size and Its Effect on the Growth of Trade Volumes

So far, we have seen that increases in membership size have negative repercussions on the integration process of an RTA in the trade dimension. The question that motivates this section is whether the relation that is seen between these two variables of interest reflects itself in a parallel manner on changes in trade volumes. This is of critical importance as one of the ultimate goals of trade liberalization is to experience increases in trade volumes as a result of elimination of barriers constituting commerce. There seems to be no reason to spend so much time in preparing and enacting new initiatives in RTAs if this does not have a parallel positive increase in expected outcomes. On the other end, if agreements have no parallel effect on trade volumes, then it could be argued that the finding that membership size leads to a decline in the integration process (based on the first definition) is not a problem since it won’t reflect itself on trade volumes. Therefore, it is important to understand whether increases in membership size have any effect on expected outcomes. If there is a parallel relation between deepening based on the first definition and the third definition (trade volumes), we should expect that increases in membership size should also have a negative and significant effect on the
growth rate of trade volumes of all members of the RTA. In other words, increases in membership size should lead to a decline in the growth rate of trade volumes because the RTA cannot agree upon new initiatives of deepening, which in turn reflect themselves as decreases (or slow down) in growth rates.

In order to test this hypothesis, I have conducted separate tests on those RTAs that have experienced changes in membership size according to the research design explained earlier. In the dataset, there are 26 RTAs, which have experienced some change in its membership size. Five of these have experienced such a change on or after the year 2000. Since the trade data compiled by Gleditsch ends in the year 2000, I do not run analysis on these RTAs. On the other hand, three RTAs have experienced a change in membership size very close (in two years) to their date of inception. I also do not run tests on these because they do not have enough periods to judge the difference in the growth of trade volumes between the pre and post enlargement period. Finally, there are two other African RTAs (SACU and MSG), whose dyads have either too many missing values on bilateral trade volumes/the exchange rate or too many zeros for these that make it not possible to run the gravity models. Therefore, I have conducted analysis on the remaining 16 RTAs. The results for these are listed in the appendix.

In these tables, the dominant trend between membership size and growth in trade volumes is that the former has no significant effect on the latter. In 11 out of the 16 RTAs increases in membership size have no significant influence on deepening based on the growth of trade volumes. On the other hand, there are a number of RTAs that have seen a

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42 There is no logarithm for dyads that have zero bilateral flow.
significant decrease in their growth of trade volumes after experiencing increases in membership. In 4 RTAs, namely the EU, CEFTA, CEAO and LAFTA, there is a significant reduction in the growth rate of trade volumes. Finally, in only one RTA, namely the COMESA, there seem to be a positive and significant trend between the two variables of interest. Therefore, due to the dominance of the null relation, I conclude that membership size generally has no effect on changes in growth in trade volumes.

The reasons for the divergence between the results based on the first and third definition could be several: First of all, it could be that my definition of deepening based on the first definition is stringent. For instance, I do not code an RTA as a common market until it has enacted legislation on all areas of free movement of services, labor and capital. The literature on economic integration suggests that it would not be reasonable to consider an RTA as a common market before these steps are finished (McCormick, 1998; Pinder, 1998). However, even if the RTA has not completed legislative activity on all of these three areas, it could have progressed on, say, one of these three dimensions.43 Such events are not coded as deepening according to the first definition. However, they could increase the growth in trade volumes as they involve reduction of barriers. Therefore, this could be one reason for the negative relation between the two variables based on the first definition and the dominance of the null results based on the third definition. Another possibility for the divergence is that an event of deepening could have positive effects on the growth of trade flows for a number of years following their approval by the RTA members. In other words, even if there may not be a new initiative after the RTA experiences an increase in membership size, the effects of deepening from the pre-

43 There are only a few such RTAs in the data.
enlargement era could carry forward for a number of years into the post-enlargement era. Therefore, even if the RTA is not deepening based on the first definition, its trade flows would be growing due to the effects of previous integration schemes from years preceding enlargement.

The effect of other variables also seems to follow the anticipated directions. For instance, generally, positive changes in income of the members of an RTA significantly increase the growth rate in trade volumes for most RTAs. Higher income translates itself into higher trade volumes. On the other hand, the results show that, for most RTAs, an increase in the value of dollar with respect to the other currencies has no significant effect on the growth in trade volumes. Here, a coefficient that is less than ½ demonstrates that trade has diverted to other states due to the change in the exchange rate. We see that this is the case in most RTAs but the effect is not significant. Finally, changes in population do not seem to affect trade flows in most RTAs. Here the anticipation is that increases in population would decrease bilateral trade flows because more populated states tend to increase their domestic production that in turn reduces their trade dependence. In all models, this variable is at the anticipated direction but is significant in only some of them.

7. Conclusions

Several conclusions could be reached from this chapter. First of all, we learn that there is some empirical support for the EU scholars’ concerns about the effects of enlargement on deepening. The data reveal that the general pattern is towards a reduction in the
likelihood of further integration as a result of increases in membership size in the trade dimension. This negates the expectations of Downs, Rocke and Barsoom (1998) and Pahre (1995) and provides support to the conventional wisdom. On the other hand, when the three dimensions are considered together, increases in membership size have no effect on the likelihood of integration, which lends support to Downs, Rocke and Barsoom’s perspective. This suggests that some of the new members admitted to RTAs may not be profitable in terms of their effect on economic integration. On the other hand, they might be bringing benefits in other dimensions such as collective security and further deepening of the institutions of the RTA.

We also learned that several other factors such as economic difficulties, voting rules and the presence of differentiation in the RTA influence the possibility of further integration on the trade dimension in RTAs. One issue that needs to be further examined is whether the divergence between the economic situation of the new and existing members in the post enlargement years lead to a decline in deepening. The analysis presented here only focuses on the years of enlargement and, therefore, could be limited.

The results presented so far suggest that an increase in membership is associated with a decline in the probability of deepening on the trade dimension. Yet, they do not investigate the causal mechanism behind this result. There could be several reasons behind this finding: For instance, it could be that the negative relationship arises due to the heterogeneity in preferences and the use of stringent voting rules. Or, it could be the case that enlargement requires a significant redistribution from richer to poorer states,
which in turn slows down deepening. Other possible reasons behind the slow down involve potential effects of uncertainty about new members’ preferences on the integration process of the RTA. It could be that existing members may not be able to identify the benefits/costs of admitting candidates. Therefore, the uncertainty about the preferences of these states could be a reason for delays in bargaining during the integration process. Future studies could further examine the causal mechanisms deriving the results.

We also learned that there is no direct, parallel relation between increases in depth based on the first definition and the growth in trade volumes. Membership increases do not have significant, negative effects on growth of trade volumes and therefore, the concerns about the negative effects of enlargement are not necessarily warranted. Future research could examine the reasons for the absence of parallel results between the first definition and third definition. Finally, we observe that the compliance rates in the RTAs that have started the process of becoming a common market are improving and not as problematic as what they used to be earlier during the process.
Chapter 4

The goal of this chapter is to examine the second hypothesis of the dissertation (H2). To recap, this hypothesis is the following:

H2: Multilaterals (RTAs) that develop sequentially will be deeper than those with similar membership size but that develop inclusively.

According to H2, the design of how an agreement develops has important implications on the level of depth that the members could achieve. Sequentially developing RTAs will be deeper than the others because the initial members can strategically manipulate the decision of when to enlarge and whom to admit. If the initial members of an RTA leave out the less-integrationist potential candidates out of the RTA in the beginning, then they can achieve high levels of depth in the absence of potential veto players. Later, they can admit more members as they feel confident that such members will not pose a threat to the integration process of the RTA. Therefore, the sequentially developing RTAs will be deeper than the others (Downs, Rocke and Barsoon, 1998).

In order to test this hypothesis, I need to compare the depth level of those RTAs that have developed sequentially to those that have followed the inclusive design after controlling for membership size. The major problem with comparing the depth of RTAs is that most RTAs involve cooperation among a number of issues such as trade and security. One could develop an operationalization of the total depth of an RTA by simply “adding up” the level of depth for each issue area. However, the problem with this strategy is that it
requires making the assumption that one unit increase in depth in the security dimension is equivalent to a unit increase in depth within the economic dimension, which might be problematic. In order to avoid this problem, I just focus on the trade dimension of an RTA as one of main purpose of these organizations is to integrate economically (and by definition, all RTAs have to have this dimension while not all RTAs may include dimensions covered in others). This has the advantage of avoiding any errors that arise from making calculations with otherwise incomparable numbers (and assigning arbitrary and questionable weights to different issue areas). Therefore, for the dependent variable, I use the scheme developed in the previous chapter for determining the depth level of an RTA in the trade dimension. This variable varies between 0 and 6, where 0 refers to ongoing negotiations in trade and 6 is an economic & monetary union.

The sample for this hypothesis consists of all RTAs and the unit of analysis is the RTA itself. In total, the sample contains 41 RTAs, having in mind the definition of the RTA mentioned earlier. The main dependent variable is the depth score of the RTA as of 2004 (i.e. the current depth score of the RTA) as the theory is interested in the variation observed in the depth of RTAs after a considerable period of time after their establishment. Therefore, I focus on the most recent depth level of the RTA.

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44 EFTA and EEA are not included due to the fact that they don't strictly follow the ranking of the dependent variable as explained earlier in Chapter 3.
45 I coded the depth score as of 2004 rather than 2006 as some of the control variables that are discussed below can only be coded as of 2004. So, in order to be consistent, I chose this year in coding the dependent variable. The depth scores take into account how much the RTA has deepened since its inception until 2004. Therefore, they do capture how far the RTA has progressed since its inception. There is also little difference in the depth scores between 2004 and 2006.
The main independent variable is whether or not an RTA has developed sequentially or inclusively. Unfortunately, Downs, Rocke and Barsoom (1998) do not give a strict definition for these two terms. However, certain conditions seem to be necessary in order to consider a multilateral agreement as a sequential or an inclusive one. First of all, for an agreement to be considered as sequentially evolving, there needs to be at least one period of enlargement. Therefore, the first independent variable captures whether or not an RTA has experienced at least one period of enlargement. According to the second rule, I not only look for previous experience with enlargement to code for sequentialism, but also examine the timing of the enlargement. An RTA is coded as growing sequentially if the enlargement has taken place 10 years after the inception of the RTA. In their model, Downs, Rocke and Barsoom assume that some time needs to pass after inception and until the first enlargement in order for an RTA to be considered as widening sequentially. The reason is that as time passes, the preferences of potential candidates are more likely to converge to those of the initial members. Therefore, enlargement processes that are experienced over longer periods of time are more likely to lead to deeper agreements. Downs, Rocke and Barsoom, however, do not specify the exact length of this period. Therefore, in coding the independent variable based on this second rule, I use different thresholds (5, 10, 15 years) in order to examine the robustness of the results.

I use an ordered probit to test this hypothesis as the dependent variable is an ordered ranking that varies from 0 to 6, 0 referring to no substantial cooperation on commercial issues (i.e. ongoing negotiations) and 6 referring to a monetary union. An OLS is not meaningful as it would treat the difference between 1 and 2 same as the difference
between 2 and 3, whereas in fact they are only a ranking. I also include some control variables in the analysis (not too many due to the small number of cases). I include the age of an RTA as a control variable as some RTAs might be deeper because they have lived longer (Downs, Rocke and Barsoom, 1998). The second control variable is the economic size of the members of the RTA (average GDP per capita of the RTA) as it could be that trade blocs with richer states move further in deepening than others. Here, a complication arises from the fact that the unit of analysis is an RTA and that the main interest is in the factors influencing the depth of the RTA as of 2004. In most instances, an RTA’s depth in a given year is influenced by factors that have taken place since its inception until this given year. In this case, it is the average GDP of the members of the RTA after its inception that determines its level of deepening as of 2004. In order to capture this, I calculated the average GDP of the members of the RTA pertaining to the last ten years (1994-2004) in controlling for the effects of development on the current depth level of the RTA. In other words, I first determined the average GDP of an RTA for each year between 1994 and 2004. Later, I calculated the mean GDP over time for the ten year period for each RTA. This establishes the control variable that captures whether or not the RTA has been composed of richer or poorer states during the last ten years of its lifetime.\footnote{I use the Penn World data in making the calculations. All GDP figures that are used to calculate the control variables are in constant prices.}

The third control variable is the membership size of an RTA (as of 2004). This is included since the hypothesis itself requires holding this constant while varying the design of the RTA (the independent variable). The final variable to be included is the
variance among the economic power of the current members. It might be that the greater
is the difference in the economic status of the members, the RTA will face more
problems in deepening due to the inability of the poorer members to accept the costs of
integration and due to the necessity to allocate funding from the budget to close the
divergences in the economic status among members (Michalski and Wallace, 1992). This
variable is measured in the following way: First, I calculate the difference in the GDP
(per capita) of the members with highest and lowest GDP of the RTA for each year.
Then, I average these annual difference figures over time for the last ten years of that
RTA (1994-2004). Here, the expectation is that the members with very low GDPs can
prevent integration especially in RTAs with unanimity voting, which is the prevailing
trend in the dataset. It is expected that as this variable gets higher, the RTA is less likely
to get deeper. 47

The results of the first set of analysis are demonstrated in the next table.

47 One might argue that using the difference between the maximum and minimum values as a measure of
divergence may not be representative of the overall divergence as other states may not be at the extremes.
Therefore, one could argue that the standard deviation of the GDP of the members may be a better
indicator. However, this is not the case as it is the difference between the maximum and minimum values
that matters in affecting deepening due to the prevalence of unanimity voting in RTAs. In other words, the
presence of a few states at the extremes may be sufficient to stifle further deepening. Therefore, difference
between the maximum and minimum values is a better indicator. Nevertheless, I also use the standard
deviation just to see if the results are robust. Here, I average the standard deviation of the GDP (per capita)
of the members of the RTA over time (for the years between 1994 and 2004). In other words, I calculate the
standard deviation of the GDP of the members of an RTA for each year between 1994 and 2004. Then, for
each RTA, I average the standard deviation for each of these 10 years over time.
Table 4.1 Ordered Probit Model of Depth of RTAs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequentially-Evolving RTA</td>
<td>0.10 (0.38)</td>
</tr>
<tr>
<td>Age</td>
<td>0.03(0.01)**</td>
</tr>
<tr>
<td>Membership Size</td>
<td>-0.02(0.03)</td>
</tr>
<tr>
<td>Average GDP of the RTA (log)</td>
<td>0.51(0.25)**</td>
</tr>
<tr>
<td>Difference of the GDP of RTA members (log)</td>
<td>-0.16(0.17)</td>
</tr>
<tr>
<td>First Cut Point</td>
<td>2.25(1.78)</td>
</tr>
<tr>
<td>Second Cut Point</td>
<td>2.75(1.79)</td>
</tr>
<tr>
<td>Third Cut Point</td>
<td>3.45(1.80)</td>
</tr>
<tr>
<td>Fourth Cut Point</td>
<td>4.00(1.81)</td>
</tr>
<tr>
<td>Fifth Cut Point</td>
<td>5.30(1.88)</td>
</tr>
<tr>
<td>Sixth Cut Point</td>
<td>5.74(1.96)</td>
</tr>
</tbody>
</table>

** p<0.05  
* p<0.10

The results show that sequentially evolving RTAs, measured as whether or not an RTA goes through enlargement, have no significant effect on the likelihood of observing deeper RTAs. The substantive effects presented in the appendix also confirm these results. Why might be the reasons for this result? First of all, one of the assumptions of Downs, Rocke, and Barsoom(1998)'s model is that the preferences of states are liberalizing over time. In other words, states will want to establish deeper agreements over time. However, the data suggests that, in some of the sequentially evolving RTAs, the initial members do not establish deeper agreements until the enlargement process commences. A notable example is the ASEAN. In this RTA, the enlargement process begins approximately seventeen years after the inception of the RTA. Yet, during these years, there is no deepening of the RTA on trade issues. In Downs, Rocke and Barsoom's theory, the initial members should have used this time to continue with deepening and then, they should have admitted new states. However, we do not observe this strategy in
ASEAN. By the time new states are admitted in this RTA, this RTA again faces the regular problems of deepening: Several less-developed, new members cannot cope with the effects of liberalization. Therefore, deepening again slows down. A similar trend of lack of deepening in the absence of new members is seen in the Bangkok Agreement. Therefore, there are a few cases that suggest that liberalization of preferences over time is either too slow or sometimes not forthcoming at all.

On the other hand, there are several RTAs such as CEFTA, (again) ASEAN, COMESA, EU, and SADC, where we observe that newly admitted members are the reasons behind the slowing down of integration. For instance, in CEFTA in 1997, the existing members wanted to expand liberalization to agricultural products as this constituted an important part of their trade relations. However, the new members, namely Romania and Bulgaria, prevented further liberalization in this area. Similarly, the new members of ASEAN namely Cambodia and Laos, slowed down the plans of initial members in extending liberalization to sensitive products. A deal in this area was reached many years after what the initial states had planned in the beginning. According to Downs, Rocke and Barsoom (1998), initial members should have admitted new states whenever they feel confident that the preferences of these potential candidates are as close as to their own preferences. If their preferences are not close, then their admission should have been strung out over time. In the examples just mentioned, we observe that newly admitted states do not always have similar preferences to those of the initial ones. This suggests several possible scenarios: It could be that the initial members cannot easily identify the preferences of the potential candidates at the stage of admission. This uncertainty about
the preferences of newly admitted states might be causing delays in bargaining during the integration process of RTAs. This idea is also commensurate with the use of bargaining models by certain scholars to explain the stop and go nature of integration in some RTAs such as the EU (Schneider and Cederman, 1994). The other possibility is that the preferences of the newly admitted states might change after they get admitted. This could be possible due to changes in leadership, party in power or changes in the economic situation. Whatever the reason might be, the data suggests several cases where the new members obstruct the plans of the initial members.

The other variables suggest possible factors that affect probability of deepening. The first is the age of the RTA as of 2004. The results show that the longer that an RTA endures, the greater is the possibility that it will deepen. A change in this variable from its minimum (4) to maximum value (60) increases the probability of becoming a customs union by 28%, the probability of becoming a common market by 10%, and the probability of becoming an economic and monetary union by 20%. On the other hand, it decreases the chances of ending at lower levels of integration. For instance, it decreases the probability of becoming an FTA by 15%, a PTA by 14% and the probability of no cooperation by 28%.

The size of the membership (in 2004) does not seem to be affecting the possibility that we will observe deeper RTAs. While an increase in the membership size from its minimum (3) to maximum (25) seems to decrease the chances of observing a customs union by 11%, it does not affect the other categories in substantial amounts. A closer
examination of the dataset also reveals the reasons behind this result. There are some RTAs, such as the EU and COMESA, with high membership size in the year 2004 but has managed to achieve substantial levels of integration. On the other hand, several RTAs with high membership size, such as the APEC, have failed to move beyond establishing a preferential trade area. Similar mixed results could be observed among RTAs with low membership size. 48

The other variable of interest measures the average GDP of the members of the RTA over its last ten years. This variable significantly increases the chances of observing deeper RTAs. An increase in the size of this variable from its minimum to maximum increases the chances of an advanced FTA by 7%, a customs union by 32%, a common market by 6% and a monetary union by 6%. High-income RTAs establish deeper agreements because they have more goods/services to trade with each other. This, in turn, increases the benefits of more substantial reductions in trade barriers.

The final variable of interest measures the average degree of divergence in the economic situation (GDP) of the member states over the last ten years. According to the results, this variable does not have any significant effect on the probability of deepening. One reason for the insignificant result could be that, in the RTAs where the difference is high, the rich states also have enough potential funds to alleviate the costs suffered by the poor members due to further liberalization. Therefore, as the difference is increasing, this also

48 These results might seem to diverge from the results in chapter 3. However, the analysis conducted there is quite different from this one. These results do not capture the variation that takes place in membership size over time and how it affects deepening over time. They just look at the relation between the two for a given year (2004), i.e. the analysis is cross sectional.
means that there are more funds to remedy the problems arising from the difference.

Overall, then, the difference may not be very harmful to the integration process of the RTA as long as there are enough donors in the RTA. 49

The next set of results is presented in the following table.

Table 4.2 Ordered Probit Model of Depth of RTAs with the Second IV

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequentially-Evolving RTA (involving time)</td>
<td>0.43 (0.44)</td>
</tr>
<tr>
<td>Age</td>
<td>0.02 (0.01)*</td>
</tr>
<tr>
<td>Membership Size</td>
<td>-0.02 (0.03)</td>
</tr>
<tr>
<td>Average GDP of the RTA (log)</td>
<td>0.51 (0.24)**</td>
</tr>
<tr>
<td>Difference of the GDP of RTA members (log)</td>
<td>-0.18 (0.17)</td>
</tr>
<tr>
<td>First Cut Point</td>
<td>2.04 (1.77)</td>
</tr>
<tr>
<td>Second Cut Point</td>
<td>2.55 (1.78)</td>
</tr>
<tr>
<td>Third Cut Point</td>
<td>3.27 (1.79)</td>
</tr>
<tr>
<td>Fourth Cut Point</td>
<td>3.83 (1.79)</td>
</tr>
<tr>
<td>Fifth Cut Point</td>
<td>5.10 (1.87)</td>
</tr>
<tr>
<td>Sixth Cut Point</td>
<td>5.53 (1.94)</td>
</tr>
</tbody>
</table>

In this second model, the only difference from the previous is that the time dimension is incorporated in operationalizing a sequential RTA. Here, an RTA is coded as a sequential one if its enlargement process started 10 years after the inception of the RTA. The reason is that if an enlargement is experienced in the period very close to the inception of the RTA, the convergence between the preferences of the initial members and potential candidates might be very low. Therefore, the anticipated positive effects of sequential formation may not be forthcoming. However, the results lend no support for H2. The

49 The variable that used standard deviation to capture divergence is also not significant.
results were robust with other measures using different time dimensions (5, 10, 15 years). The substantive effects are also very similar to the previous model. Therefore, they are not presented.

Conclusions

In this chapter, I examined whether sequential treaty design is more likely to lead to deeper agreements. If sequentially evolving agreements are more likely to be deeper, then states should choose this strategy over the inclusive design due to its potential for engendering such welfare improving outcomes. The results suggest that the sequential treaty design has no influence on deepening. The result is robust as it doesn’t change with different specifications of sequentialism including the time dimension.

I suggested several avenues for future research in order to explore the reasons behind this result. First of all, the data suggests that liberalization of preferences over time is not observed in some of the RTAs. Therefore, these RTAs do not deepen in the absence of new members. Secondly, Downs, Rocke and Barrooms(1998)' theory is based on the premise that the member states can identify the benefits and costs of admitting a state to the RTA. However, the process of enlargement may actually be replete with elements of uncertainty for the members of an RTA. Oftentimes, the initial members may not know or may not be able to approximate the preferences of potential candidates with respect to different issues of integration that might arise in the future. This uncertainty about the preferences of newly admitted states might be causing delays in the integration process of some RTAs. The other reason behind the results could be that the newcomers experience
some shift in their preferences due to, for instance, changes in leadership or the party in power that makes them more obstructionist than what they used to be at the stage of admission. If such changes were foreseen by the existing members, then they might not have supported the decision to admit such states. Such avenues could be explored more in the future.
Chapter 5

The goal of this chapter is to evaluate the third hypothesis of the dissertation. To recap, this hypothesis is as follows:

H3: An experience with deepening increases the likelihood of widening.

This hypothesis is based on the idea that a government’s attitude towards membership in an RTA is the result of a political equilibrium that balances anti- and pro- membership forces within a state. As an RTA is deepening, this also reduces the profits of non-member firms, which in turn induces them to engage in greater pro-EU political activity (lobbying). Even if the government is previously indifferent to membership, the extra activity by these pro-EU exporters will persuade the government to look for ways to join the RTA. Therefore, the RTA will enlarge. The enlargement of the RTA makes it more costly for outsiders to remain out of the bloc due to their cost disadvantage in a greater number of markets. Therefore, this will bring even more members into the bloc. As a whole, then the process of deepening will result in a greater number of members joining the RTA (Baldwin, 1995).

I test this hypothesis through a large N analysis, where the unit of analysis will be an “RTA-year”. The reason is that the hypothesis expects an increase in membership size in the RTA after the years where deepening has taken place. An RTA level analysis is not suitable because of the changes in the depth and membership of an RTA over time. The data under analysis is TSCS, where the spatial domain is all possible RTAs and the time span for each RTA varies depending on the lifetime of the RTA.
The main dependent variable of the analysis is whether or not an RTA has experienced an increase in membership size in each year of its lifetime. It is coded as a 1 if the RTA has experienced an increase in a given year and a 0 if it has not experienced an increase. I also test the hypothesis using a variable that stands for more substantial changes in membership size. This variable is coded as a 1 if the RTA has experienced at least a 10% increase in membership size compared to the previous year and 0 otherwise. It could be argued that testing the effect of deepening on every change in membership size is a stringent test of H3. Deepening may not be very influential on “every” observed increase in membership size but only on more consequential enlargements. Testing the effect of deepening on the latter constitutes an “easier” test of the hypothesis and therefore, the results should be taken more cautiously. Nevertheless, the second test is also commensurate with the logic of H3 as we should expect more members to join an RTA after an event of deepening since one member’s request for membership will trigger other members to demand membership in order not to be left out of the bloc. Therefore, if there is an increase in depth, the expectation is that this should be followed by the membership of many members.

The main independent variable of the analysis is whether or not an RTA has experienced deepening in the last five year period previous to the one under analysis. Here, I mainly focus on economic integration as Baldwin(1995)’s hypothesis relates to deepening in this area. Therefore, as the main independent variable, I look for evidence for deepening such as movement from a preferential trade agreement to a free trade area; from a free trade
area to a customs union in the years preceding the one under analysis. Oftentimes, the
effects of deepening arise in the years following the commencement of a new initiative.
Due to the potential lag between the timing of new initiatives and their anticipated effects
(decrease in trade volumes between members and non-members), I check for the
presence of such events during the five year period previous to the year under analysis.
Because the choice of a five year period is arbitrary, I use different time periods in order
to evaluate the robustness of the results.

I include several control variables that might affect membership size in a particular year.
The first control variable is the average GDP of the regional trade bloc.\(^{50}\) It might be that
a bloc that comprises members with high levels of GDP might be more attractive for
outsiders to join (Mattli, 1999). The non-members might have more trade opportunities
with such wealthy members compared to other blocs. Another control variable denotes
the presence of alternative blocs in the area. The reasoning behind this is that if there is
some other RTA in the region, outsiders might prefer to join this existing bloc in order to
protect themselves from the negative effects of the one that is experiencing deepening. In
determining different “regions”, I use the geographic regional divisions/sub-divisions
established by the United Nations.

In order to test the hypothesis, I use a nonstratified Cox model. This model is appropriate
as it takes into account the fact that an RTA can experience an increase in membership
size multiple times during its lifetime and the potential temporal dependence between

\(^{50}\) Since the unit of analysis is an RTA year, this variable is calculated by averaging the GDP of the
members of an RTA for each year during its lifetime.
these events. A conditional gap model is not appropriate since there is no order in the dependent variable. For instance, it cannot be argued that one state gets admitted before the other. Therefore, the nonstratified Cox approach is the right model selection for the data.

The next table presents the results using the dependent variable that denotes whether there is a change in membership size in a given year.

**Table 5.1 Nonstratified Cox Model of Membership Size Change in RTAs**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient(Standard Error(^{51}))</th>
<th>Substantive Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience with deepening (during the last 5 year period)</td>
<td>0.21 (0.35)</td>
<td>23%</td>
</tr>
<tr>
<td>Average income of the RTA</td>
<td>0.20 (0.24)</td>
<td>17%</td>
</tr>
<tr>
<td>Presence of alternative RTAs in the geographic area</td>
<td>-0.63 (0.46)</td>
<td>-46%</td>
</tr>
<tr>
<td>N=922</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results reveal that there is no support for H3, when the dependent variable is the presence of any increase in membership size. The result is robust as it does not change if one examines changes in depth in shorter/longer periods than five years. This is a

\(^{51}\) Robust standard errors are calculated in order to capture non independence for observations associated with the same RTA.
surprising result because there are several RTAs in the dataset that follow the pattern expected by H3. For instance, in ECOSEC, we observe seven members being admitted after the formation of a free trade area. In the CEFTA, four states are admitted after the commencement of an advanced free trade area. In CARICOM, LAFTA, SADC, many states become members after critical steps towards higher levels of integration. So, what could be the reasons behind this result? First of all, some of these RTAs that do undertake significant steps towards economic integration are either established with all the potential members in their region initially or there are other rival groups in the region that attract membership. For instance, the ECOWAS is established inclusively with all the potential states existing in West Africa when it commences in 1980. Therefore, it never experiences any enlargement although it moves from no cooperation to a customs union in twenty years. In other RTAs such as the EFTA, GCC, CEMAC, there are rival RTAs that attract membership from potential states located in the region. In the case of GCC, many non-members in the region have chosen the Arab League. In the case of CEMAC, several non-members in the region have chosen ECCAS, an alternative bloc in Central Africa.

The other reason behind the null result could be that the assumptions underlying Baldwin’s hypothesis do not correspond to what is observed empirically. One of the assumptions of H3 is that anyone who requests membership to an RTA is admitted. However, at times, we see that this is an implausible assumption. For instance, Burma wanted to become a member of ASEAN at the end of 1990’s. However, due to its human rights violations, its membership was delayed considerably. Similarly, in the Central
American Common Market, membership is restricted only to those states within the Central American region. Therefore, given that this RTA was established with almost all of the states in the region and due to these geographic restrictions, it did not go through an enlargement process despite the considerable improvements in economic integration. Similarly, in the EU, there have been several periods of enlargement. However, membership is actually restricted to states that have fulfilled the requirements of the Copenhagen criteria, namely respect for human rights, democracy and rule of law. Therefore, in several RTAs, states might have applied for membership to the RTA after improvements in economic integration. However, the RTA might have declined their requests due to the restrictions on membership. \(^5^2\)

The third reason for the null result could arise from the focus of this dissertation on multilateral agreements. It could be the case that outsiders do establish some type of an agreement with the members of an RTA but only bilaterally. In other words, instead of becoming members of an RTA, they sign bilateral agreements with the individual members of that RTA. Such has been the case with NAFTA: After the signing of NAFTA, several South American states have started negotiations with the US bilaterally in order to sign free trade agreements. I do not capture these here due to my focus on changes in membership in multilateral agreements. However, future research could examine why non-members prefer such bilateral deals as opposed to membership in the RTA.

\(^{52}\) Or, it could be the case that non-members do not even apply for membership if they expect that their demands will be declined due to strict membership requirements.
The other two variables are at the anticipated direction but not significant. The average income of the members of an RTA does not significantly influence whether or not it is likely to enlarge. In the data, most of the high income RTAs do undergo enlargement. The most prominent ones include the EU, the EFTA, and the APEC. On the other hand, several of the low-income RTAs also experience enlargement. One reason for this trend could be that many of the low-income vs. high-income states are located geographically close to each other. Therefore, most states in Asia, Africa, or Latin America, may not be able to join the more high-income RTAs due to geographic restrictions on membership or, for the simple reason that transportation costs of trade with such RTAs would be quite high. Therefore, these states might prefer to join RTAs in their surroundings despite the fact that they might gain more from membership into high-income RTAs.

The other variable of interest is whether or not there is a rival RTA in the region where an RTA is located. Here, the expectation is that the presence of a rival bloc reduces the chances that a given RTA in that region will undergo enlargement. However, this variable turned out to be insignificant. One reason for this could be seen from the data: Most of the RTAs that don’t have a rival RTA in their region are established inclusively, i.e. with all the potential states in that sub-region, and therefore most of them do not undergo any enlargement. For instance, the UDEAC established in Central Africa, is coded as having no rival group in its region. It also does not go through any enlargement because it already contains all the states that are considered to be in Central Africa (based on the UN classification). Similarly, the CACM is also coded as having no rival group in its region (Central America). However, it only goes through one enlargement because it
already contained most of the states considered to be in Central America when it was established.

So far, the results suggest no support for H3. I also conducted easier tests of the hypothesis using a dependent variable that stands for whether the RTA has experienced a 10% increase in membership size compared to the previous year and 0 otherwise. The results are as follows:

Table 5.2 Nonstratified Cox Model of Substantial Changes in Membership Size

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (Standard Error#)</th>
<th>Substantive Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience with deepening (during the last 5 years)</td>
<td>0.65 (0.35)*</td>
<td>91% increase</td>
</tr>
<tr>
<td>Average Income of the RTA</td>
<td>0.05 (0.25)</td>
<td>22% increase</td>
</tr>
<tr>
<td>Presence of Alternative Blocs in the Geographic Area</td>
<td>-0.55 (0.44)</td>
<td>42% decrease</td>
</tr>
<tr>
<td>N=922</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#Robust Standard Errors are calculated

** p<0.05
*  p<0.10
The results suggest that a recent experience of an RTA with deepening significantly increases the chances of substantial changes in membership size.\footnote{The result is robust in the sense that I still find significance when the threshold is increased.} There is also substantive significance for this variable as there is a 91% increase in the dependent variable when the RTA experiences deepening in a given year. This reflects the trend in most of the RTAs that have undergone enlargement with significant effects on their membership size. For instance, in the EU, the first enlargement in 1973, the fourth enlargement in 1995, and the final enlargement in 2004 all follow a period of deepening. In CARICOM, the first enlargement that results in the admission of seven states comes after the signing of a free trade protocol. Similarly, in ASEAN, all of the periods of enlargements come after periods of deepening. All of these enlargement experiences leave an important imprint on the functioning of the RTA as they involve the admission of several members. As mentioned earlier, the results of this analysis should be taken as providing moderate support for H3 as the analysis constitutes an easier test compared to the previous analysis. Normally, if H3 was accurate, we should have found stronger results in the previous test. However, this test suggests that there are certain enlargements in RTAs that are clearly triggered by the recent experience of the RTA members with economic integration. Therefore, in this sense, there is some moderate support for H3.

What does this suggest for H1? Since it is the case that a recent experience of deepening is usually followed by a period of enlargement that changes the membership body of the RTA considerably, enlargement could be associated with a reduction in the probability of deepening due to the recent experience of the RTA with deepening, not due to an increase in membership size. However, this possibility does not change the results regarding H1.
presented in chapter 1. The conditional gap time model (as opposed to, for instance, a
logit) already controls for temporal dependence across all repeated events for an RTA by
using conditional time between events (time between previous and next event) and by
allowing each event to have its own baseline hazard. Therefore, the effects of how a
previous event influences the next one are captured by the baseline hazards estimated for
each event (strata). In general, then, the effect of membership size continues to have a
negative effect on deepening as this model accounts for temporal dependence for all
observations in analyzing the likelihood of deepening in an RTA.

Conclusions
The analyses conducted in this chapter provide moderate support for H3. The results
show that deepening of an RTA does not influence the likelihood of enlargement when
the dependent variable is the presence of any change in membership size of an RTA
without taking into account the number of members admitted. On the other hand,
deepening does influence the chances that an RTA will go through a significant
enlargement process that substantially increases its membership size. I suggested several
reasons for the null results associated with the first analysis. First of all, it could be that a
demand for membership by an outsider does not necessarily guarantee that this demand
will be accepted by the RTA. The RTA might have other requirements that need to be
fulfilled in order for a member to get admitted. These include geographic restrictions and
respect for certain values shared by the members of an RTA. Another reason behind the
null result is that there are several RTAs that go through significant deepening but are
established inclusively with almost all the states in their geographic sub-region.
Therefore, they do not go through any enlargement because they include all the possible states that are likely to become members in the beginning. Finally, there are some RTAs that go through deepening but only establish bilateral ties with potential candidates for membership. Therefore, their membership does not change yet they do form closer links with other non-members.

Despite the fact that H3 cannot account for the possibility of every change in membership size, it can explain more substantial enlargement processes. The data showed that most of these enlargements follow a process of deepening in the RTA. Therefore, there is some reason to control for the effect of a previous experience with enlargement in the analysis for H1. However, H1 already controls for the timing of previous events due to the nature of the conditional gap model. As opposed to a logit, this model accounts for temporal dependence among all repeated events (of deepening) in an RTA through the use of conditional time between events and stratification on each event. Therefore, the results for H1 are robust.
Chapter 6

The goal of this chapter is to examine the final hypothesis of the dissertation. To recap, the hypothesis is the following:

H4: Agreements with differentiated obligations will be deeper than those agreements with a similar membership size but that do not contain any differentiated obligations.

This hypothesis is based on Gilligan(2004), who argues that we should observe the trade off especially in agreements where states require every member to assume identical obligations. Once that requirement is relaxed and flexibility is induced into the agreement, the trade off should disappear. The reason is that this allows more integrationist, liberal members to undertake stronger commitments and the rest to undertake shallower ones (or as much as they can). The result is a deeper agreement with more states participating and the integrationist states contributing significantly more to the agreement than the less integrationist states.

In order to test this hypothesis, I need to compare the depth level of those RTAs with differentiation to those without differentiation after controlling for membership size. Therefore, the sample consists of all RTAs and the unit of analysis is the RTA itself. The total sample contains 37 RTAs. The reason this number differs from the ones mentioned previously is that only some of these RTAs have established a free trade area among their members. The ones that are still at the stage of a preferential trade area cannot be employed for this analysis as it becomes difficult to code the dependent variable for such RTAs.
Examples of differentiated obligations are several: Some countries might be given preferential treatment such as a reduction in the speed with which they will eliminate tariffs and others might be allowed opt outs for sensitive sectors. I do not code general escape clauses or safeguards that are available to each member as a differentiated obligation. The reason is that it might be difficult to tell whether they were specifically put in for a member or whether everybody demanded it during the negotiations.

According to Gilligan(2004), only explicit differences in the obligations of members should be considered as a differentiated obligation. The second reason is that almost every trade agreement has some sort of an escape/safeguard clause within it. Therefore, it is extremely difficult to find variation if one considers an escape clause as a differentiated obligation.

The dependent variable, for this hypothesis, is the depth of the RTA. However, unlike the previous hypotheses, here my main focus is on the charter/treaty establishing the RTA as Gilligan(2004)'s theory concerns making comparisons across treaties when they are established. Most of these agreements initially establish free trade areas, and therefore I need to operationalize the variation observed in the depth of free trade agreements. The rules to be followed during coding are as follows: Most trade agreements that contain differentiation give certain members the right to liberalize tariffs slower than the speed of liberalization accepted by others. For instance, the less developed countries may be allowed to liberalize in 8 years while the others promise to liberalize in 5 years. On the other hand, if there is no differentiation, all members are required to liberalize gradually
in a fixed period of time. I use the variation in the 1) speed of liberalization (the total number of years required to completely eliminate tariffs) and 2) percentage of members that promise to follow a certain speed in order to establish a coding scheme for free trade agreements. To account for the variation in depth in such agreements, I adopt the following rules:

1. The agreement is considered as very deep (coded as 1) if more than 50% of the members decide to liberalize tariffs completely in a 1-5 year period.

2. The agreement is considered as moderately deep (coded as 2) if more than 50% of the members decide to liberalize completely in 6-10 years.

3. The agreement is considered to have little depth (coded as 3) if more than 50% of the members decide to liberalize their tariffs completely in 11-15 years.

This scheme basically uses the variation in the percentage of members that adopt a given liberalization procedure and their speed of liberalization to code the level of depth. This arises from the idea that the more members adopt harder obligations and the higher is the speed of liberalization, the deeper is the agreement. The coding scheme explained is also commensurate with the way depth is operationalized in the literature. Downs, Rocke and Barsoom (1998) use the variation in the percentage of members that decide to reduce certain levels of emissions to code environmental agreements from highly deep to not deep. Therefore, there are parallels between my operationalization of free trade agreements and their coding rules for environmental agreements. Given this coding scheme, the main analysis of technique is an ordered probit. If the hypothesis is accurate,

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54 In the analysis, I vary the thresholds in order to check for robustness.
55 A frequency table that explains how many observations fall into each category could be found in the appendix.
we should expect a significant, negative coefficient (due to the order) for the main independent variable.

The main independent variable is whether or not an agreement has differentiated obligations. If some members are given explicit preferential treatment, the agreement is coded as having such obligations. The main control variables are the membership size of an agreement; the average GDP of the trading bloc; the colonial history of the members of the RTA; and the presence of other forms of differentiation discussed below. The former is used as the theory requires holding constant membership size of an RTA. The average GDP of a trading bloc is also something to control for as agreements with richer members can afford the costs of liberalization such as loss in revenues in tariffs and duties (Murinde, 2001). The average GDP is calculated for the year when the free trade agreement is first established. The third control variable captures whether or not the members of the RTA have a previous history that required them to abolish some of their barriers even before the establishment of the RTA. For instance, some RTAs in Africa have a colonial history, which has allowed them to liberalize much earlier than other RTAs with no such colonial history (Okolo and Wright, 1990). The final control variable is whether or not there are other forms of differentiation embedded in the agreement. For instance, as mentioned earlier, the ability of integration oriented states to go further with deepening by excluding the least integration oriented states completely is often considered as an important factor that increases the chances of deeper agreements to be established among the members of an RTA (De Burca and Scott, 2000). Therefore, in
order to capture this idea, I create a variable that stands for 1 if only a subset of the
members of the RTA has become a part of the free trade area established by the RTA.

The table below shows the main results from the data.

Table 6.1 Ordered Probit Analysis of Depth of Free Trade Agreements

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of Differentiation</td>
<td>0.25 (0.48)</td>
</tr>
<tr>
<td>Membership Size</td>
<td>0.02 (0.07)</td>
</tr>
<tr>
<td>Previous Experience with Integration</td>
<td>-1.40 (0.55)*</td>
</tr>
<tr>
<td>Average Income (at the year of signature)</td>
<td>0.08 (0.28)</td>
</tr>
<tr>
<td>Presence of Differentiation (subset)</td>
<td>0.41 (1.01)</td>
</tr>
<tr>
<td>Cut off 1</td>
<td>0.69 (2.62)</td>
</tr>
<tr>
<td>Cut off 2</td>
<td>1.90 (2.63)</td>
</tr>
</tbody>
</table>

* p<0.05

The results show that agreements with differentiated obligations are not deeper than
agreements without such obligations. This variable has no significant influence on the
depth of free trade agreements. The result is robust as it does not change when different
cut off values are used both for the number of years it takes to liberalize and the
percentage of states falling in each period. What could be the reasons for this result? First
of all, one of the expectations in Gilligan (2004) is that in agreements with differentiated
obligations, some states will contribute to the agreement much more than a group of
others. The reason is that the inclusion of more states to the agreement induces them to
contribute even more than what they would in the absence of such states. However, this
does not seem to be the case for some agreements in the data. For instance, in SAARC,
there is differentiation in the agreement as a result of which the developed states liberalize in 8 years while the developing states liberalize in 10 years. Therefore, the agreement is considered under the second category (moderate depth) based on the coding rules. In other words, this is a case where differentiation has not made the agreement considerably deeper. ECOWAS is another case, where the more liberal members do not contribute considerably more than the laggards. These suggest that differentiation does not necessarily guarantee deeper agreements especially if the preferences of the more integrationist states are not more liberal than those of others.

Secondly, while Gilligan(2004) expects his hypothesis to hold for all types of multilateral agreements such as those concerning trade, environment etc, it could be that his results are more likely to hold for agreements where the benefits accruing from the agreement are nonexcludable. The reason is that, in nonexcludable agreements, the main proposers (initiators) of the agreement more or less have to accept whatever contributions the laggards can make as the laggards have every incentive to stay out of the agreement and still maintain its benefits. Therefore, the depth level between those agreements with differentiation and those without are more likely to be higher in areas where the benefits are nonexcludable. On the other hand, in areas like trade where the benefits are excludable, it could be that the initiators of an agreement could exclude potential members if they do not contribute at least some reservation value of that initiator. Therefore, even if there could be some differentiation in the agreement, the difference that this creates on depth could be less significant since the proposers of the agreement know that they can exclude the benefits of the agreements if the laggards do not
contribute some value close (even if not identical) to their own contributions. This seems to be the trend in the data as in most agreements with differentiation, the difference between the contributions of the more integrationist and less integrationist ones are very minimal, which in turn creates little increase in the depth of a free trade agreement in agreements with differentiation. Future studies could examine more carefully how the nonexcludability assumption affects Gilligan’s results.

Thirdly, there are a number of RTAs that have established free trade agreements with no differentiation but with high levels of depth. One of the most important features of these agreements is their previous experience with integration before the agreement is signed. These agreements are mostly clustered in Africa and Latin America and they might be contributing to the null results presented.

Finally, it could be that more refined coding rules of depth that capture smaller differences (changes) in liberalization across RTAs could be more useful in assessing the hypothesis. It is not possible to capture very small changes in liberalization in this analysis because this would require estimation of several more parameters (cutoff values) due to the additional categories to be created for the dependent variable. In the future, as more RTAs establish free trade agreements, it could be possible to establish more refined coding rules for the dependent variable.

The results also show that the presence of an experience with integration in the past significantly increases the chances of observing deeper free trade agreements. A cursory
look at the data reveals this strong trend: Some of the RTAs established in Africa already had prior experiences with economic integration during their colonial periods. For instance, the previous French colonies in Central Africa had already created some type of a customs union amongst each other under the supervision of France before 1950. After decolonization and formation of independent states, these states establish a new customs union (coded in the dataset as UDEAC) where liberalization proceeds fairly quickly as much of it had been done earlier on. Similarly, some states in West Africa had established a customs union before 1960 while they were the colonies of France. Therefore, in the RTA established after decolonization by these states, liberalization advances quickly.

The results suggest that membership size of an RTA does not affect the rate of liberalization (depth) in a free trade agreement. Overall, most of the agreements in the data that are established with many members are either at the second (moderate depth) or third level (not deep). On the other hand, there are also several agreements with small membership size and again at the second or the third level. Examples include ASEAN, EU, SAARC, and the Northern Triangle. Therefore, membership size seems not to affect the rate of liberalization in free trade agreements.

The presence of other types of differentiation and average income turn out not to affect the depth of a free trade agreement. The former takes the value of a 1 in only three cases in the data. Therefore, the variation in the variable is quite limited, which might be one reason why it is not significant. The insignificance of the income variable might be
deriving from the fact that several African RTAs, with low average incomes, are coded as
highly deep due to the ease with which they liberalize as a result of their history. Other
than these, in general, RTAs with high income levels such as GCC, EFTA, EEA
liberalize fast enough to be coded as belonging to the first category (highly deep).

Conclusions
The results presented in this chapter suggest no support for H4. I suggested several
reasons of why this situation might be arising in the data. First of all, it could be that
differentiation is only associated with deepening when there are a group of more liberal
states whose preferences diverge significantly from the others. While there are a couple
of cases like this, this doesn’t seem to be the trend in the data. Secondly, it could be that
the effects of differentiation are more acute in issue areas where nonexcludability reigns.
While Gilligan argues that his hypothesis should hold for all issue areas, Gilligan’s
hypothesis relies on the assumption of nonexcludability. When this assumption does not
hold, the difference in the depth level of agreements with and without differentiation
could be lower. In this sense, it could be that the tests conducted in this chapter are a
harder test of H4 as they rely on trade agreements. Results could be different over a set of
environmental agreements. Finally, the results demonstrate that past historical experience
with integration significantly increases the chances of observing deeper agreements. Most
of the agreements in Africa have liberalized quickly exactly for this reason even if their
agreements contain no differentiation.
1. Conclusions of the Dissertation

This dissertation started out with the idea that current studies that examine the effects of enlargement on deepening have several weaknesses that could be remedied. These studies mainly examine the enlargement process of the EU without controlling for several potential factors that affect its speed of integration. Moreover, they have a tendency to examine what takes place in post-enlargement periods without considering the pace of integration in earlier periods. In this dissertation, I tried to remedy these weaknesses by conducting the first large-N analysis that systematically examines the effects of enlargement in RTAs established during the post 1950 era.

The results of this large-N analysis suggested that enlargement has negative effects on the likelihood of deepening in the trade dimension. Therefore, for this area, the results give support to the claims of EU scholars who have always speculated on this possibility. On the other hand, Pahre(1995) or Downs, Rocke and Barsoom (1998)’s views on the effects of increases in membership size do not receive support based on the analysis. While the dissertation sheds light on the empirical relationship between membership size and integration, it does not examine the causal dynamics behind this negative relationship in further detail. For instance, it could be that the negative relationship arises due to the heterogeneity in preferences and the use of stringent voting rules (such as unanimity) in RTAs. In fact, this is the dominant trend for most RTAs in the dataset as they continue to use unaninimity voting after periods of enlargement. Or, it could be the case that the
extent of redistribution that needs to be made from the richer to the poorer states after enlargement is the main cause behind the negative result. I conducted a test of the second idea using data on economic divergence for the enlargement years. The data does not lend support to the conjecture. Future studies could extend this analysis and examine which causal processes lead to the negative relationship between membership size and deepening in the trade dimension.

The negative results on the trade dimension suggest that policy makers should pay extra attention when they are admitting new members. They could follow several strategies in order to minimize the negative effects of enlargement: First of all, they could try to move ahead with integration before engaging in any type of enlargement. This would also give the time for non-members to advance their economies or make the necessary adjustments in their domestic systems before becoming members. Or, they could prepare themselves for enlargement by reforming their voting rules to more flexible ones, by using differentiated obligations at different stages of their integration process and by being selective on which candidates to admit.

On the other hand, the results suggest that enlargement is not associated with deepening when it is measured for three different dimensions together. This tends to give support to Downs, Rocke and Barsoom (1998)'s assertions who argue that enlargement will either not be associated with deepening or it will increase the chances of deepening in the future. One reason for the divergence in the results with the trade dimension could be the following: It could be that some of the new members to RTAs are not profitable
economically and therefore cause a reduction in the probability of integration on trade issues. Yet, they may have benefits on defense/security matters to the RTA due to their geographic location, army etc. This possibility is not captured by the analysis that concerns trade issues.

While the dissertation points towards a negative relationship between enlargement and deepening based on the first definition, it suggests that no relationship exists between enlargement and changes in trade volumes and that there is no support for the conventional wisdom when we examine expected outcomes. This suggests that there is a divergence in the results based on different definitions. There could be several reasons behind this divergence: It could be that my definition of changes in depth is a conservative one that biases the results towards a negative relationship. For instance, I have not coded an RTA as a common market unless it has finished agreeing upon legislation concerning free movement of labor, capital and services. However, my definitions are commensurate with those used in the literature and that it is problematic to code an RTA as having moved to the next step if the main requirements of that step are not fulfilled. The other reason behind the divergence in the results could be that the positive effect of changes in trade volumes could last for long periods of time even if an RTA does not agree upon new initiatives of deepening. In other words, the previous integration attempts could have their effects felt during periods when the RTA is not deepening based on the first definition. Future research could examine more carefully which of these might be causing the divergence.
The analyses also reveal other strong trends between several factors that affect deepening: The presence of differentiation (in the sense used by Gilligan (2004)) increases chances of deepening based on the results of the first chapter. On the other hand, economic recessions also operate as a factor dampening the likelihood of integration suggesting the importance of the economic situation in trade integration. Finally, the results suggest that the previous depth level of an RTA has no effect on the likelihood of deepening.

In the fourth chapter of the dissertation, I examined whether sequential development is a panacea to observing deeper agreements. We learned that sequential development does not significantly affect depth and that agreements that enlarge over time are not necessarily deeper than those that are established inclusively in the beginning. I suggested that one reason for this could be that the liberalization of states’ preferences over time is simply not observed enough to create positive benefits before or after enlargement periods. Future research could also examine other potential reasons such as the effect of uncertainty on the integration process of an RTA. It could be that states do not have enough information about the preferences of candidates when they get admitted and this has effects on the integration process later on by causing delays in bargaining. On the other hand, it could also be the case that candidates experience a change in preferences due to exogenous factors such as changes in leadership after becoming admitted to the RTA. Therefore, future research could examine which of these patterns is leading to the results presented in this chapter.
In the fifth chapter, I examined whether changes in membership size follow in the years after changes in deepening in RTAs. I found partial support for this as the results suggest that deepening can only explain substantial increases in membership size in RTAs. One of the reasons for this result could be that demand for membership in an RTA by candidates is not necessarily followed by their actual membership in the RTA. In fact, there is some evidence that various RTAs impose restrictions on membership based on geography and the human rights record of candidates. Future studies could further examine this relation between demand for membership and actual membership into an RTA. This chapter also discussed that the results concerning membership and deepening is robust as the previous analyses already control for potential temporal dependence in the data.

In the sixth chapter, I examined whether free trade agreements with differentiated obligations are deeper than those without such obligations. The results suggested that differentiation is not significantly affecting depth and that agreements with differentiation are not necessarily deeper than the others. One reason for this could be that in issue areas with excludable benefits, such as in trade, the effects of differentiation could be much lower than those areas where the benefits are nonexcludable. Therefore, the tests conducted in this chapter could be a hard one for this hypothesis. It is also worth noting that the results of this chapter concern only free trade agreements. The results from the first chapter suggest that differentiation does have positive effects on deepening when we examine the changes in depth longitudinally over the lifetime of RTAs. Therefore, the potential positive effects of differentiation should not be put aside based on the results of
this chapter. The fact that differentiation has no effect on the depth of one set of agreements does not mean that it can have no effect on the deepening of an RTA (pace of integration) or that it does not have any effect on the depth of other types of agreements. More empirical analysis on other types of agreements (e.g. environmental agreements) would be helpful in the future.

In the next section, I discuss the main policy implications of the dissertation.

2. Main Lessons for Policy Makers

As mentioned earlier, one of the goals of this dissertation is to provide policy advice to practitioners working in different RTAs and to enable them make better decisions concerning issues of enlargement. Overall, the dissertation negates the general expectation that enlargement should always be pursued by a slow down in deepening. The results suggest that enlargement does NOT lead to such slow downs when different issue areas are considered together. Therefore, the belief that enlargement always leads to a slow down in deepening is a fallacy that should be avoided. Through enlargement, the existing members can benefit from the larger markets and increased security that new members can provide to the RTA. On the other hand, the results also suggest that the negative effects of enlargement could be observed in individual issue areas and therefore they are contextual. For instance, on the trade dimension, such effects were clearly observed. This suggests that if integration on the trade dimension is central for policy makers, then enlargement should be undertaken carefully and perhaps delayed until candidates liberalize completely on this dimension. Meanwhile, some type of a privileged
partnership agreement could be signed with the candidates until they liberalize. Such agreements would enable the existing members to reap the benefits from economies of scale due to access to the markets of the candidates or the increased security that the candidates can provide to the RTA. On the other hand, such agreements would also prevent the negative effects of incoming members by not granting them the right to vote in the RTA. In this sense, the existing members could prevent the potential negative effects of enlargement without forgoing the other benefits, which is unlike the case if they delayed enlargement without signing privileged partnership agreements. For the candidate states, such agreements would be worse than full membership. However, they could still benefit from access to the markets of the RTA members.

The dissertation also suggests several other ways that policy makers could prevent the trade off in the trade dimension if they do wanted to undertake enlargement. There is some evidence that flexibility in the form of allowing differentiation in new initiatives in the RTA could facilitate the deepening of an RTA. If the RTA members allow different members to undertake different obligations, then this increases the pace of integration in the trade dimension after years of enlargement. Therefore, flexibility is an important facilitating condition for deepening. The results also suggest that the years in which there is no decline in the economic status of RTA members are the most prone to deepening. Economic deterioration is an inhibitor of deepening on trade issues. These findings confirm the expectations of many policy makers in the EU.
There is also some preliminary evidence that the negative effects of enlargement on deepening on the trade dimension are not necessarily related to the economic status of the incoming states. The results suggested that as long as the RTA has existing members that have the resources to minimize the divergences among different members, the poorer members may not necessarily be an obstacle for further integration. This confirms the importance of the establishment of funds/budget in RTAs that transfer resources from richer to poorer states. Many RTAs have established these funds to minimize the differences between the economies of member states but also between those of the potential members and the existing members before their admission to the RTA. The results give some preliminary support to the importance of such funds in minimizing the negative effects of enlargement.

Overall, this dissertation makes a contribution to our empirical understanding of RTAs. It conducts the first large-N analysis in the literature that studies the effects of membership size over the RTAs of the post 1950 era. Through this, it attempts to address the policy making community that largely believes that a trade off exists and the scholarly community that have come up with competing theories on the presence of a trade off. For scholars, the results of the dissertation suggest new areas of research as this dissertation does not elaborate on the causal reasons between membership size and deepening. Future research should try to study this question within the context of why RTAs are formed and why they deepen. On the other hand, for practitioners, the dissertation warns them of the harmful effects of enlargement in certain issue areas; encourages them to make institutional reforms in their decision making; use more flexibility in their integration
process through the use of differentiation; and obtain more information about the candidates’ economies, leadership before admitting them to the RTA. The lesson is that enlargement is a difficult process for RTAs and necessary precautions need to be taken carefully in order to prevent its negative repercussions on integration in certain areas such as commerce. On the other hand, its negative effects should not be exaggerated either as they seem to disappear when we examine the integration process of an RTA in several different areas.
Bibliography


Appendix A

1. List of Cases:

European Union (EU)
European Free Trade Agreement (EFTA)
Central European Free Trade Agreement (CEFTA)
European Economic Agreement (EEA)
Baltic Free Trade Agreement
East African Community (EAC)
Economic Community of Central African States (ECCAS)
Economic and Monetary Community of Central Africa (CEMAC)
Customs and Economic Union of Central Africa (UDEAC)
South African Development Community (SADC)
South African Customs Union (SACU)
Agadir Agreement
Economic Community of West African States (ECOWAS)
West African Economic Community (CEAO)
West African Economic and Monetary Union (WAEUM)
Arab Maghreb Union (UMA)
Intergovernmental Authority of Development (IGAD)
Common Market of East and South African States (COMESA)
Community of Sahel-Saharan States (CENSAD)
Economic Community of the Great Lakes Countries (ECGLC)
Mano River Union (MRU)
Gulf Cooperation Council (GCC)
Economic Cooperation Organization (ECOSEC)
Arab League
Central American Common Market (CACM)
Andean Community
Mercosur
Central American Free Trade Agreement (CAFTA)
Caribbean Community (CARICOM)
Latin American Free Trade Agreement (LAFTA)
Latin American Integration Association (LAIA)
Association of Caribbean States (ACS)
NAFTA
G3
Northern Triangle
Association of South East Asian Nations (ASEAN)
Asia-Pacific Economic Cooperation (APEC)
Commonwealth of Independent States (CIS)
South Asian Association for Regional Cooperation (SAARC)
Black Sea Economic Cooperation (BSEC)
Indian Ocean Commission (IOC)
Bangkok Agreement  
Melanesian Spearhead Group (MSG)

<table>
<thead>
<tr>
<th></th>
<th>Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min and Max Value</th>
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<tbody>
<tr>
<td>Membership Size</td>
<td>868</td>
<td>8.58</td>
<td>5.51</td>
<td>3 and 25</td>
</tr>
<tr>
<td>Economic Decline</td>
<td>868</td>
<td>0.59</td>
<td>0.49</td>
<td>0 and 1</td>
</tr>
<tr>
<td>Differentiation in Trade (Subset)</td>
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<td>0.13</td>
<td>0.33</td>
<td>0 and 1</td>
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<tr>
<td>Differentiation (Trade)</td>
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<td>0.27</td>
<td>0.44</td>
<td>0 and 1</td>
</tr>
<tr>
<td>Voting Rule</td>
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<td>0.08</td>
<td>0.28</td>
<td>0 and 1</td>
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<tr>
<td>Previous Depth Level (Trade)</td>
<td>868</td>
<td>1.91</td>
<td>1.58</td>
<td>0 and 6</td>
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</table>
2. Results of the Gravity Models

All standard errors are robust standard errors.

*** Significant at 0.01 level  
**  Significant at 0.05 level  
*  Significant at 0.10 level

Table A2. Gravity Model for the EU

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
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<tbody>
<tr>
<td>Membership Size</td>
<td>-0.01(0.002)***</td>
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<tr>
<td>Change in Income</td>
<td>0.52(0.10)***</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-2.66 (1.12)**</td>
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<tr>
<td>Change in Exchange Rate</td>
<td>0.40 (0.02)***</td>
</tr>
<tr>
<td>Constant</td>
<td>0.14(0.04)***</td>
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<td>N</td>
<td>1564</td>
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</table>

Table A3. Gravity Model for the CEAO

<table>
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<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
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</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.24 (0.14)*</td>
</tr>
<tr>
<td>Change in Income</td>
<td>-1.55 (0.72)**</td>
</tr>
<tr>
<td>Change in Population</td>
<td>7.60 (14.38)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
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<td>Constant</td>
<td>1.46 (1.50)</td>
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<td>N</td>
<td>227</td>
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</table>

Table A4. Gravity Model for the CEFTA

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<tr>
<th>Variables</th>
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<tr>
<td>Membership Size</td>
<td>-0.06 (0.01)***</td>
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<tr>
<td>Change in Income</td>
<td>1.34 (0.77)*</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-13.43 (7.16)*</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.37 (0.16)**</td>
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Table A5. Gravity Model for the LAFTA

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<th>Variables</th>
<th>Coefficient(Standard Error)</th>
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<tbody>
<tr>
<td>Membership Size</td>
<td>-0.08 (0.02) ***</td>
</tr>
<tr>
<td>Change in Income</td>
<td>1.60 (0.23) ***</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-0.41 (1.64)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.74 (0.24) ***</td>
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Table A6. Gravity Model for the ECOSEC

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</tr>
<tr>
<td>Change in Population</td>
<td>2.90 (2.35)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
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<tr>
<td>Constant</td>
<td>-0.16 (0.21)</td>
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Table A7. Gravity Model for the ANDEAN

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<td>Membership Size</td>
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<tr>
<td>Change in Income</td>
<td>1.26 (0.36) ***</td>
</tr>
<tr>
<td>Change in Population</td>
<td>4.56 (6.28)</td>
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<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.44 (0.51)</td>
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Table A8. Gravity Model for the Arab League

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<tbody>
<tr>
<td>Membership Size</td>
<td>0.005 (0.006)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>0.390 (0.24)</td>
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<td>Change in Population</td>
<td>0.47 (1.41)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.07 (0.16)</td>
</tr>
<tr>
<td>N</td>
<td>1170</td>
</tr>
</tbody>
</table>
Table A9. Gravity Model for the CARICOM

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.002 (0.01)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>0.52 (0.21)***</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-2.53 (1.45)*</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.01 (0.26)</td>
</tr>
<tr>
<td>N</td>
<td>945</td>
</tr>
</tbody>
</table>

Table A10. Gravity Model for the MRU

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.06 (0.18)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>1.97 (0.91)**</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-12.83 (5.62)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.60 (0.61)</td>
</tr>
<tr>
<td>N</td>
<td>55</td>
</tr>
</tbody>
</table>

Table A11. Gravity Model for the APEC

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.003 (0.002)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>1.09 (0.12)**</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-0.63 (0.72)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.04 (0.05)</td>
</tr>
<tr>
<td>N</td>
<td>1097</td>
</tr>
</tbody>
</table>

Table A12. Gravity Model for the ASEAN

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.016 (0.025)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>-0.13 (0.52)</td>
</tr>
<tr>
<td>Change in Population</td>
<td>0.17 (0.60)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.25 (0.23)</td>
</tr>
<tr>
<td>N</td>
<td>300</td>
</tr>
</tbody>
</table>
### Table A13. Gravity Model for the IGAD

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.08 (0.11)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>-0.62 (0.77)</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-0.80 (0.95)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.37 (0.75)</td>
</tr>
<tr>
<td>N</td>
<td>175</td>
</tr>
</tbody>
</table>

### Table A14. Gravity Model for the SADC

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.01 (0.01)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>0.50 (0.19)**</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-2.48 (1.69)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.33 (0.25)</td>
</tr>
<tr>
<td>N</td>
<td>460</td>
</tr>
</tbody>
</table>

### Table A15. Gravity Model for the WAEMU

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.07 (0.10)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>-0.72 (0.64)</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-6.77 (8.82)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>-0.00 (0.00)**</td>
</tr>
<tr>
<td>Constant</td>
<td>1.20 (0.90)</td>
</tr>
<tr>
<td>N</td>
<td>99</td>
</tr>
</tbody>
</table>

### Table A16. Gravity Model for the UDEAC

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient (Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>-0.08 (0.16)</td>
</tr>
<tr>
<td>Change in Income</td>
<td>0.83 (1.14)</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-2.00 (2.31)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>0.00 (0.00)**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.48 (0.93)</td>
</tr>
<tr>
<td>N</td>
<td>121</td>
</tr>
</tbody>
</table>
Table A17. Gravity Model for the COMESA

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient(Standard Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership Size</td>
<td>0.02(0.01)**</td>
</tr>
<tr>
<td>Change in Income</td>
<td>-0.05(0.26)</td>
</tr>
<tr>
<td>Change in Population</td>
<td>-0.13 (1.06)</td>
</tr>
<tr>
<td>Change in Exchange Rate</td>
<td>0.00 (0.00)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.37(0.25)</td>
</tr>
<tr>
<td>N</td>
<td>927</td>
</tr>
</tbody>
</table>
### Appendix B

**Table B1. Substantive Effects for Table 4.1**

<table>
<thead>
<tr>
<th></th>
<th>Sequential (from 0 to 1)</th>
<th>Age (from min to max)</th>
<th>Membership (from min to max)</th>
<th>Average GDP (from min to max)</th>
<th>Difference in the GDP (from min to max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Cooperation</td>
<td>-2%</td>
<td>-28%</td>
<td>15%</td>
<td>-37%</td>
<td>15%</td>
</tr>
<tr>
<td>PTA</td>
<td>-1%</td>
<td>-14%</td>
<td>4%</td>
<td>-12%</td>
<td>8%</td>
</tr>
<tr>
<td>FTA</td>
<td>-0%</td>
<td>-15%</td>
<td>-0%</td>
<td>-5%</td>
<td>10%</td>
</tr>
<tr>
<td>Advanced FTA</td>
<td>0%</td>
<td>-1%</td>
<td>-5%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Customs Union</td>
<td>2%</td>
<td>28%</td>
<td>-11%</td>
<td>32%</td>
<td>-17%</td>
</tr>
<tr>
<td>Common Market</td>
<td>0%</td>
<td>10%</td>
<td>-1%</td>
<td>6%</td>
<td>-6%</td>
</tr>
<tr>
<td>Economic and Monetary Union</td>
<td>0%</td>
<td>20%</td>
<td>-1%</td>
<td>9%</td>
<td>-11%</td>
</tr>
</tbody>
</table>
Appendix C

Table C1. Substantive Effects for the Depth of Free Trade Agreements

<table>
<thead>
<tr>
<th></th>
<th>Presence of Differentiation</th>
<th>Presence of Previous Experience with Integration</th>
<th>Membership Size</th>
<th>Presence of other Forms of Differentiation</th>
<th>Average Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability of a Deep Agreement</td>
<td>-8%</td>
<td>44%</td>
<td>-9%</td>
<td>-8%</td>
<td>-9%</td>
</tr>
<tr>
<td>Probability of a Moderately Deep Agreement</td>
<td>0%</td>
<td>-28%</td>
<td>-8%</td>
<td>-8%</td>
<td>3%</td>
</tr>
<tr>
<td>Probability of an Agreement of Low Depth</td>
<td>8%</td>
<td>-15%</td>
<td>17%</td>
<td>16%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table C2. Frequency Table for the Depth of Free Trade Agreements

<table>
<thead>
<tr>
<th>Depth Score</th>
<th>No. of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>