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## Revisiting the role of institutional and political factors on economic integration. The case of Latin America

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## REVISITING THE ROLE OF INSTITUTIONAL AND POLITICAL FACTORS ON ECONOMIC INTEGRATION. THE CASE OF LATIN AMERICA

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### Abstract

The recent conflict in Ukraine among pro-European integration groups and opponents, has increased the interest on the analysis on the determinants of regional integration. In fact, the events that are currently taking place in Europe point towards the importance that institutional and political factors play on integration processes. From a discrete choice framework, their relevance was already proven by Márquez-Ramos et al (2011), with a specific focus on the European integration dynamics. However, the related literature has not focused on the importance that these factors might also have in Latin America, where there is an increasing heterogeneity among countries. Particularly, two integration axis can be distinguished: the Pacific axis presents a continuity strategy, while the Atlantic axis presents an alternative strategy for regional integration. By focusing on both a cross-sectional and a panel data analysis for the Latin American integration process, we prove that institutional and political factors do matter. Furthermore, the role of these factors have been strengthened at the beginning of the present century due two main issues: the 11S and the "Revolución Bolivariana". Finally, our analysis also confirms that geographic, economic and trade policy aspects are key elements for the formation and enhancement of economic integration agreements in which Latin American countries are involved.

**Keywords:** regionalism, Latin America, institutional and political factors, cross section, panel data.

**JEL code:** F14, F15

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## 1-INTRODUCTION

The signing of an economic integration agreement (EIA) requires of decisions making often controversial because they generate global benefits that are usually unequally distributed between winners and losers. For example, in a recent study that examines the effect of the possible creation of a trade agreement between the European Union (EU) and the United States (US), Felbermayr et al (2013) point out that the main criticism of its creation is that it would place third countries at a disadvantage.

The delegation of power that comes from the creation of an integration agreement occurs at the expense of a loss of sovereignty of member countries and usually is accompanied by actions and commitments that might be not consistent with economic logic (Wyplosz, 2006). In this vein, it has been proved that economic integration processes might differ among regions and periods (Grugel, 2004; Florensa, Márquez-Ramos and Recalde, 2013). In the case of Latin America (LA), there have been important differences in comparison with the models of “new regionalism” followed by developed partners. Interestingly, although both the EU and the US aim to push economic liberalization, Europe is more explicitly concerned with politics and institution-building than the US and endorses a North–South model of global cooperation in which ‘the North’ assumes some responsibilities for the development of ‘the South’ (Grugel, 2004). In addition, Kohl et al (2013), building on an earlier work by Horn et al (2010), compare coverage and enforcement of 14 agreements involving the EU and 11 agreements involving the US. Kohl et al (2013) find that the EU tends to include more legally unenforceable undertakings than the US, which focuses on a more limited range of legally enforceable commitments.

The best example of a process of deep integration is the EU (Márquez-Ramos et al, 2011), as well as it is the world’s largest trade bloc and most successful regional integration scheme (Doctor, 2007). In the European context, the last international crisis, the globalization of the world economy and increasing interdependences among countries, provoked an intense discussion about the future of the European Monetary Union (EMU). This discussion culminated with the speech given by Herman Van Rompuy (2013), when he pointed out that “unlike a year ago, it is now widely recognized that the Eurozone will remain intact [...] Our partners in the world, who often underestimated in the past our political will to maintain the euro and the Union, now acknowledge this too. In a sense, as I've said since last October, the "existential crisis" of

the Eurozone is over". It is important to note that even under the "existential" crisis of the EU, Croatia became the Union's 28th member.

Recently, the events in Ukraine have made their mark and it seems that Ukrainians want to get closer to Europe. In fact, it has been stated by a senior EU official that "the reason [...] is precisely because [...] we have standards and values" (EUobserver, 2013). Also in this regard, the Nobel Peace Prize 2012 was awarded to the EU "by more than six decades of contribution to promoting peace, reconciliation, democracy and human rights in Europe".<sup>1</sup>

This paper hypothesizes that in addition to economic and geographic factors that have already been introduced as determinants of different trends in the degree of regional commitment by Latin American countries (Florensa et al, 2011 and 2012; Recalde et al, 2009 and Recalde and Florensa 2009), the political and institutional aspects should also be considered (Márquez-Ramos et al, 2011). Therefore, our main objective is to analyze the factors that influence the likelihood that pairs of countries sign an EIA with Latin American partners or engage in the deepening of existing ones, by focusing on the importance of institutional and political factors. To our knowledge, Márquez-Ramos et al (2011) was the first study to analyze empirically the determinants of different integration levels of EIAs by introducing institutional and socio-political variables as causes of their formation and enhancement in a discrete choice framework. These authors also focus on the dynamics of the EU integration process. However, there is a lack in the existing literature focusing on the case of the dynamics of the integration processes with and within LA.

Latin America is an interesting case to study as, unlike the model followed in Europe, it failed to define and consolidate a single speech to advance in regional integration negotiations (Peña, 2010). In this sense, we consider two additional political issues as two quasi-natural experiments (Wooldridge, 2009). First, as the EU and the US present a distinctive model of governance towards the developing world, and as these divergences may have been widened in the wake of the events of 11 September 2001 (Grugel, 2004), we analyze the role that these events might have had on US-Latin American EIAs. Second, we consider the role of the so-called "Revolución Bolivariana" which might be a cause of the two abovementioned strategies of

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<sup>1</sup> "The Nobel Peace Prize 2012". Nobelprize.org. 26 Oct 2012.  
[http://www.nobelprize.org/nobel\\_prizes/peace/laureates/2012/](http://www.nobelprize.org/nobel_prizes/peace/laureates/2012/)

regionalism: the strategy of continuity in Chile, Colombia, Mexico and Peru; and the alternative strategy followed in countries such as Argentina, Bolivia, Ecuador and Venezuela.

This article is divided into six parts: after the introduction, section 2 discusses the regionalism and inter-regionalism experiences in Latin American, as well as it presents the two strategies followed by different countries in the region. Section 3 presents the background on the determinants of regional integration from a discrete choice framework. Section 4 describes the methodology, data and variables. The empirical analysis is carried out in section 5. Finally, the last section concludes.

## **2-REGIONALISM AND INTER-REGIONALISM: THE TWO STRATEGIES IN LATIN AMERICA<sup>2</sup>**

Experience suggests that strategies of European and LA integration differ in that the commitment to provide deeper integration agreements in LA appears to be lower than in European countries (Schmitter, 1970). Following Delich and Peixoto (2011) and García de la Cruz and Sánchez Díez (2008) there are two different strategies of re-configuration in LA. The first with axis in the Pacific joins Chile, Colombia, Mexico and Peru that are integrating more with countries outside the region such as the US, the EU and Asia (strategy of continuity). The second shaft in the Atlantic includes countries such as Argentina, Bolivia, Ecuador and Venezuela, which seem to have less interest in the integration in a global market (alternative strategy).

The integration strategy in LA countries has changed over the last fifty years. It highlights significant events, such as the restructuring of the original Andean Group into the Andean Community of Nations (CAN); the bilateral integration process between Argentina and Brazil, with special emphasis on certain sectors such as the automobile; the creation of Mercosur; the incorporation of Mexico in the North American Free Trade Agreement (NAFTA) and the signing of bilateral preferential trade agreements with countries around the world, especially the US and the EU (Peña, 2011).

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<sup>2</sup> Although the term inter-regionalism (Doctor, 2007; Malamud, 2012) is used to refer to the integration between two regional blocs, in the present paper we assimilate it to the integration between trading blocs in the region with other countries or blocs away from LA to distinguish this type of integration of that within LA.

Although the growing number of EIAs and the coverage of policy areas in EIAs have been a global trend since the nineties (Orefice and Rocha, 2014), the recent negotiations present, at least, three features that set them apart from most existing agreements.<sup>3</sup> First, the number and size of the economies concerned. Second, they go beyond the bilateral approach and aim to create vast integrated economic spaces, i.e. Asian, transatlantic, or trans-Pacific. Finally, the thematic agenda is far more extensive and complex than has traditionally been, covering a number of areas that are not covered by the WTO agreements (Herrerros, 2014). Specifically, LA integration processes and other mega-regional trade negotiations such as the Union of South American Nations, the Latin American Economic System, the Bolivarian Alliance for the Peoples of Our America, the Pacific Alliance, and the Community of Latin America and the Caribbean are discussed in Florensa et al. (2014). In recent years, there has been a clear trend in LA in reviewing concepts, objectives and methodologies in relation to the development of regional integration. Nowadays, LA countries have multiple options in their strategies of entering the world and within their respective geographical and regional areas. In addition, there is a proliferation of institutional environments with functions and powers that, at least in appearance, seem to overlap (Peña, 2010). For example, it is worth mentioning that Argentina, Brazil, Paraguay and Uruguay are part of an incomplete Customs Union, i.e. Mercosur,<sup>4</sup> and a Preferential Trade Agreement, i.e. the Latin American Integration Association (LAIA) (for a review of regional integration agreements of LAIA members, see Florensa, Márquez-Ramos and Recalde, 2013; Florensa et al. 2014).

In addition, there is a discussion with regard to the continuity of Mercosur<sup>5</sup> and the relationship with other regional blocs such as the EU or the NAFTA.<sup>6</sup> The EU's negotiations to sign an

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<sup>3</sup> A recent “continuity” initiative underway since 2010 that encompasses twelve countries of Latin America, North America, Asia and Oceania is the Trans-Pacific Partnership (TPP). This initiative is referred in the literature as a mega-regional trade negotiation.

<sup>4</sup> Note that, with regard to Mercosur, Olarreaga and Soloaga (1998) quantified that around 30 percent of 9,119 tariff lines were subject to either external deviations from the common external tariff or internal deviations from free trade. As an important set of holes remained under the agreement, a number of authors consider Mercosur as an incomplete customs union.

<sup>5</sup> For example, Doctor (2007) states that by 2006, both Uruguay and Paraguay suggested that they might consider downgrading their participation in Mercosur.

<sup>6</sup> Other policy initiatives of regional integration can be mentioned, such as that at the Economic Policy Forum (<https://www.economic-policy-forum.org/policy-initiatives/regional-integration>), where think tanks from Brazil, Russia, India, China and South Africa (BRICS) jointly develop policy recommendations.

Association Agreement with Mercosur is an illustration of inter-regionalism<sup>7</sup> and proves that the differences on both sides forced to push back the original negotiation timetable on a number of occasions on the principle that 'no agreement is better than a bad one' (Doctor, 2007). In a multi-causal framework, Doctor (2007) distinguishes three theoretical insights that explain the process of EU-Mercosur inter-regionalism: a) the international context; b) the strategic preferences of political actors in both regions that favored the deepening of their own regionalism projects; and c) the interests of economic actors.

As a descriptive analysis, Table A.1 in Appendix lists the evolution of tariffs and imports over the period 1994-2008 in order to illustrate the heterogeneity in regional integration followed by LAIA countries. Figures 1 and 2 illustrate the tariff change by country (see also the fourth column in Table A.1) distinguishing between countries in the Pacific and in the Atlantic Axis. We can observe that Chile has undergone the most far-reaching liberalization process. Mexico has experienced greater liberalization with other EIAs that involve developed countries after becoming a member of the NAFTA and signing a free trade agreement with the EU in 2000. Meanwhile, the rest of countries (excluding Chile and Mexico) have liberalized trade with LAIA and Mercosur to a greater extent. However, countries in the Pacific Axis show a higher decrease in tariff rates for imports from world, NAFTA and the EU (this is not the case for Colombia) than countries in the Atlantic axis.

These two strategies (continuity and alternative) might reflect different objectives in terms of, for example, the "trilemma of global politics".<sup>8</sup> On the one hand, countries following the "continuity" strategy might be more advanced in the process of trade integration and tariff concessions worldwide. On the other hand, countries involved in the "alternative" strategy might be less ambitious in terms of trade integration, being more in favor of their own national policies and of tariff concessions to natural partners. It is important to highlight that it has been previously obtained in related research (Kohl et al, 2013) that agreements among developed countries or developed and developing countries are more extensive than those of developing countries, and this fact might explain that EIAs of LA with developed countries have a greater effect on

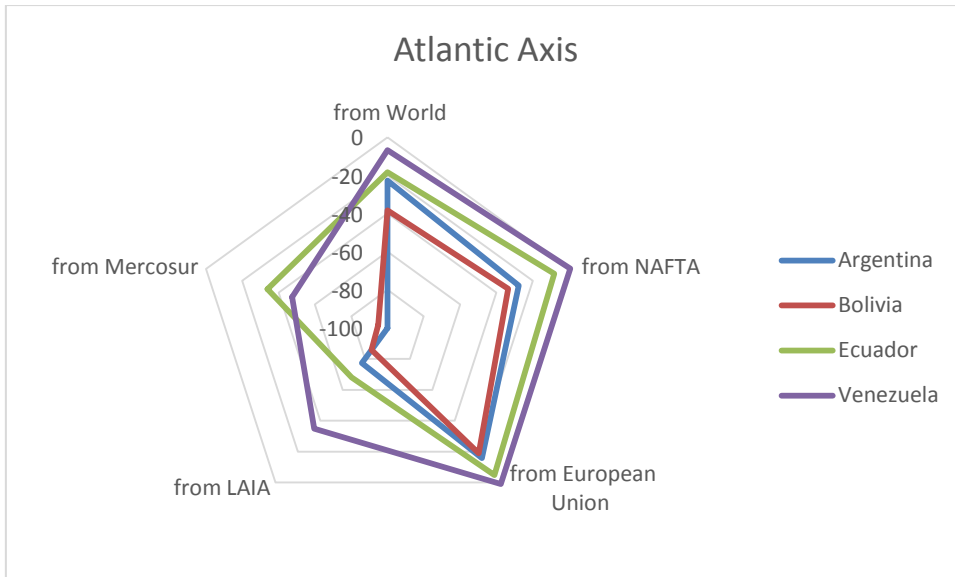
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<sup>7</sup> Inter-regionalism might be defined as institutionalized closer relations between two regional blocs (Doctor, 2007).

<sup>8</sup> See Vígvári (2011) for an application in the EU.

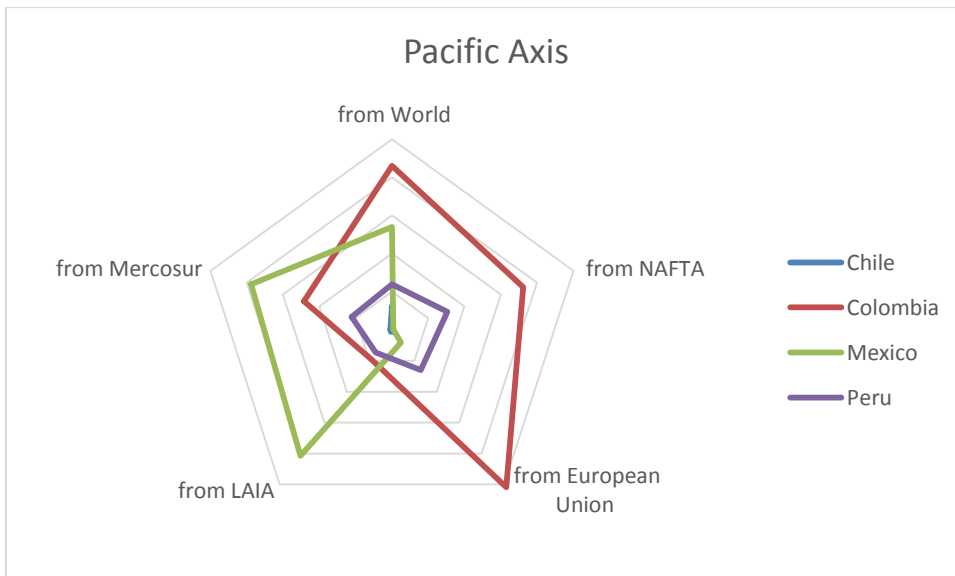
trade in specific sectors, as they have increased coverage and legal enforceability (see, for example, Table 3 in Florensa et al, 2014).

Figure 1. Illustration of higher tariff reductions for imports from Mercosur and LAIA in the Atlantic Axis



Source: own elaboration with data from WITS

Figure 2. Illustration of higher tariff reductions for imports from developed countries in other regions (the EU and North America) in the Pacific Axis



Source: own elaboration with data from WITS



### **3- ON THE DETERMINANTS OF REGIONAL INTEGRATION**

Baier and Berstrand (2004) provide one of the first empirical analysis of the determinants of free trade agreements between a large number of country pairs using a qualitative choice model. Magee (2003) uses a gravity model to show that countries are more likely to sign an EIA if they have significant bilateral trade, similar capital-labor ratios and are both democracies. An important contribution of Magee (2003) was to provide an estimate when preferential trade agreements formation is modeled as an endogenous choice. The estimates show, however, that the results are highly sensitive to the year used in the cross section, the variables included in the model and the estimation technique.

Mansfield et al. (2002) demonstrated that the most democratic countries are more likely to conclude an EIA. These authors tested the following hypothesis: the probability of two countries to sign an integration agreement is greater if both of them are democracies and is lower if both are autocratic countries. They analyze how the international cooperation involved in an integration agreement is affected by the control that voters exert over political leaders. This factor varies between democracies and autocracies. To measure each country's regime type, they calculated Jagers and Gurr (1995) index. This index considers five main factors that capture the institutional differences between democracies and autocracies and takes a value from -10 for a highly autocratic state to 10 for a highly democratic country.

An interesting point about the importance of the institutions in the EU, is developed by Wyplosz (2006). This author suggests that the EU can be considered a blue print but it does not imply that its organization is perfect and people hold misgivings about the way it is being conducted. The institutions could be working in a bad way because they could be poorly designed or misused by national governments. Wyplosz (2006) argues that the European blueprint never existed; on the contrary, the current situation is the result of politicians' decisions to further the integration process as a deeper integration process implies a loss in national sovereignty that combine an ambitious political vision and economic defensive motivations of integration.

Vicard (2008) analyzes that trade and institutional security issues interact in the formation of EIAs. His results show that countries more open to countries disputes and trade, are more likely to create deepest regional agreements. Malamud and Schmitter (2006) analyze different theories of integration considered useful to explain European integration and the integration

processes elsewhere in the world. These authors reflect critically on the possible application of the lessons learned from the EU to other economic integration and, in particular, in the Mercosur. Among some of the lessons that they consider possible to be transferred, we can include: a) the integration process requires that member countries are democratic, b) regional integration arises from the convergence of interests and not by the creation of an identity; c) integration encompasses nations of different size, levels of development and power but requires leadership, d) integration can be peaceful and voluntary but not without conflict, e) integration should start with a small number of member countries but be open to other additions; f) integration may experience excessive institutionalization or institutional deficit.

Capannelli and Filippini (2009) compare the economic integration processes of the European Union and the East Asian nations in order to learn on the possible reciprocal lessons. They considered that regionalism in Asia has developed rather differently because it has been driven more by markets than by governments. Another aspect to remark is that Asian countries have more disparities in economic development and political systems.

It might be argued that policies might be structured towards similar objectives of development in developing economies (see point b above). Nonetheless, it is important to note here the regional integration experience of Brazil with the rest of Mercosur members. Brazil includes some elements that damage the rest of Latin American partners. Moncarz et al. (2011) proved that Mercosur preferences obtained by Brazilian exporters have led, on the one hand, to an increase in exports of relatively sophisticated products in which Brazil does not enjoy a global comparative advantage. On the other hand, smaller members of Mercosur export to the region products in which they have strong comparative advantages and with relatively low levels of sophistication. This suggests that Mercosur has helped Brazil to achieve its industrialization objectives, but has not contributed to the industrialization of its smaller members. This argument is in line of that stated in Doctor (2007), who points out that “a factor of considerable importance was the strategic view Brazil took of regional integration and inter-regionalism as a means of enhancing its power and influence in international fora as well as in the region (this factor gained even more importance after 2003, when Luiz Inácio da Silva became president of Brazil)” (page 292). In addition, not symmetrical relations and interdependencies co-exist that predict difficulties in formalizing inter-regionalism agreements (Doctor, 2007). Therefore,

although LA countries are natural partners, we have already pointed out that they are very heterogeneous and follow different trade integration strategies. Then, opposite to the Asian experience, we hypothesize that regional integration processes with and within LA might be driven more by governments and hence by political and institutional factors.

Recently, Kohl et al. (2013) develop several indices, which are publicly available, to measure trade agreements' heterogeneity. They find that when most participants in an agreement share a common border, they have less extensive provisions, compared to the situation when the majority of participants are not contiguous. Similarly, agreements in which the majority of participants have a language in common tend to be less extensive. Along these lines, we would expect that within LA integration process to be less extensive than the integration of LA countries with countries outside the region, although this effect might differ among countries in the Atlantic and the Pacific Axis. In addition, Kohl et al. (2013) analyze the determinants of trade agreements' heterogeneity, finding that countries with a limited export package are expected to have a lower interest in negotiating "full-fledged" trade agreements than countries that have more balanced export structures. This result in combination of that remark by Márquez-Ramos et al (2011) that state that previous trade flows are expected to have a positive sign on EIAs formation and enhancement,<sup>9</sup> might be related to new trade theories (Melitz, 2003) determining whether an increase in a country's exports is due to maintaining and enhancing trade relations over time (intensive margin of trade, or IM) or to the appearance of new products (extensive margins of trade, or EM). Therefore, we might expect that an increasing IM over time leads to lower concessions in regional integration agreements, while we hypothesize that greater export diversification might be manifested on formation and enhancement of EIAs, and then the effect of the (lagged) EM is expected to be positive.

Márquez-Ramos et al. (2011) is probably the most closely related paper to our investigation, as they studied the determinants of EIA by considering geographical, economic and socio-political variables as the main causes of their formation and enhancement. According to their results, while economic and geographical variables seem to be the most important determinants in the formation of shallower EIA, institutional and socio-political factors are relatively more important

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<sup>9</sup> Note that more trade between countries indicates a strong relationship and dependence, and a reason to sign an EIA. This remark is in line of Magee (2003), who provided one of the first assessments of the hypothesis that two countries are more likely to form a trade agreement if they are already major trading partners.

in explaining deeper integration processes. These authors also find that countries in the same continent are more likely to establish a higher level of economic integration. As an example, they compare the case of country-pairs in LA and Europe in year 1999. They find that when trading partners are Argentina and Paraguay, it is likely that these countries form a single market (members of Mercosur since 1995), and while in the example for EU members (they focus on Spain and France) they also show that the highest probability was that of forming a single market; the probability of the existence of a monetary union increases when institutional and socio-political variables are taken into account. Therefore, the model is more accurate when these factors are included in the regressions explaining the formation and deepening of EIA, which helps to determine the desirability of studying this issue in the context of LA.

#### **4-METHODOLOGY, DATA AND VARIABLES**

In this research, we follow the same methodology as in Márquez-Ramos et al (2011) and we estimate an ordered logit where the dependent variable is the level of economic integration among countries. Specifically, we focus on the integration achieved by the eleven LAIA countries (excluding Cuba) with its trading partners.<sup>10</sup>

When a country enters into a bilateral trade agreement, the next decision is whether or not going a step forward and sign a deeper level of integration. Therefore, the aim is to model a series of binary decisions, each decision is to accept or not the current integration level or to advance to a higher integration level.

The econometric model is constructed as follows. An ordinal variable  $Y$  is a function of an unobserved continuous variable  $Y^*$ , which has a number of threshold points that determine the values the discrete observable variable  $Y$  can assume.

Following Florensa et al (2013 and 2014) and Florensa, Márquez-Ramos and Recalde (2013), we distinguish four types of bilateral trade agreements: Non-Preferential Trade Agreements (NPTA), Preferential Trade Agreements (PTA), Free Trade Agreements (FTA) and Customs Unions (CU). Therefore, there must be four values of threshold points and where  $i = 1, 2, 3, 4$ , have to be estimated. Threshold 1 implies that a pair of countries engages in a NRPTA, threshold 2 implies a PTA, threshold 3 implies an FTA and, finally, threshold 4 represents a CU.

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<sup>10</sup> Florensa, Márquez-Ramos and Recalde (2013) and Florensa et al. (2014) list those EIA involving countries in Latin America, as well as the level of economic integration achieved until the year 2009.

$$Y_i = 0 \text{ if } Y_i^* \leq \delta_1; Y_i = 1 \text{ if } \delta_1 \leq Y_i^* \leq \delta_2; Y_i = 2 \text{ if } \delta_2 \leq Y_i^* \leq \delta_3;$$

$$Y_i = 3 \text{ if } \delta_3 \leq Y_i^* \leq \delta_4; Y_i = 4 \text{ if } Y_i^* \geq \delta_4$$

The probability model assumes that  $Y_i^*$  follows:

$$Y_i^* = \sum_{k=1}^r \beta_k X_{ik} + \varepsilon_i$$

where  $X_{ik}$   $k = 1, \dots, r$  are the covariates and  $\varepsilon_i$  is the random term with logistic distribution.

We use the same dataset as in Florensa, Márquez-Ramos and Recalde (2013) and Florensa et al (2014) for bilateral trade and EIAs from 1962 to 2009, which additionally includes the IM and the EM trade margins.<sup>11</sup> This dataset includes exports from 11 LA countries to 161 destination countries. To this dataset, a number of variables are added. In particular, we take into account geographical (distance, remoteness, adjacency, landlocked status), economic (income, and K/L differential) and political and institutional factors (language, democracy, political rights and civil liberties) for the whole of the eleven LAIA countries. Table A.4 presents the average and dispersion, as well as the simple correlation coefficients between the variables used in the empirical analysis in 2009. The data and variables used in this research come from different statistical sources, which are listed in the Appendix (Table A.5).

The economic variables are:

- a)  $RGDP_{ijt}$ , the sum of the logs of real GDPs of the exporter and the importer country in year t. We expect a positive estimated coefficient for this variable, as net welfare gain from an EIA between a pair of countries increases the larger are their economic sizes.
- b)  $DRGDP_{ijt}$ , the absolute value of the difference between the logs of real GDPs in the exporter and the importer country in year t. We expect a negative estimated coefficient, as a greater difference in country size reduce the chance of signing an EIA by making it less attractive for the larger country.
- c)  $DKL_{ijt}$ , the absolute value of the difference between the ratio of capital per worker in the exporter and the importer country in year t. As traditional trade models suggest that the

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<sup>11</sup> The construction of trade margins is based on the methodology introduced by Hummels and Klenow (2005).

benefits of an EIA increase the wider their relative factor endowments, DKL is expected to be positive related to EIA.

The geographical variables are:

- d)  $NATURAL_{ij}$  , the log of the inverse of the great circle distances between trading partner country capitals (km). We expect a positive estimated coefficient as a pair of countries will be more likely to form or enhance an EIA if the distance between them is smaller.
- e)  $REMOTE_{ij}$  , the relative distance of a pair of continental trading partners from the rest of the world.<sup>12</sup> The likelihood to form or enhance an EIA increases for two continental trading partners as their remoteness from the rest of the world increases.
- f)  $LAND_{ij}$  , a dummy variable equal to 1 if the country is landlocked, 0 otherwise. As interior countries (landlocked) have a higher probability of engaging in an EIA, it is expected to be positive signed (Márquez-Ramos et al, 2011).
- g)  $ADJ_{ij}$  , a dummy variable equal to 1 if the trading partners share a border, 0 otherwise. Neighboring countries (adjacency) have a higher probability of engaging in an EIA and then, it is expected to be positive signed (Márquez-Ramos et al, 2011).

The institutional and political variables are:

- h)  $LANG_{ij}$  , a dummy variable equal to 1 if the trading partners share the same official language, 0 otherwise. The estimated coefficient is expected to be positive signed, as a pair of countries is more likely to form or enhance an EIA if they speak a common language (Márquez-Ramos et al, 2011).
- i)  $POLITICAL RIGHTS (PR)^{13}$  , ranges from 1 to 7 beginning with free and fair elections, competitive parties, and when the opposition plays an important role and the minority

<sup>12</sup> The equation used to compute  $REMOTE_{ij}$  by Baier and Bergstrand (2004) is:

$$REMOTE_{ij} = DCONT_{ij} \times \left\{ \frac{\log\left(\sum_{k=1, k \neq j}^N \frac{DIST_{ik}}{N-1}\right) + \log\left(\sum_{k=1, k \neq i}^N \frac{DIST_{ik}}{N-1}\right)}{2} \right\}$$

where  $DCONT_{ij}$  is a dummy variable assuming the value 1 if both countries are on the same continent and 0 otherwise.

<sup>13</sup>  $P\_rights_{ijt}$  is the product of the values of PR variable for exporter and importer country in year t. Furthermore, an additional variable has been taken into account, this being CIVIL LIBERTIES ( $C\_lib$ ),

groups have reasonable self-government (value of 1); to lack of political rights as a result of the extremely oppressive nature of the regime, sometimes in combination with civil war (value of 7). This variable was obtained from the Freedom House Organization (see Appendix for details). Given the way this variable was built, we expect a negative estimated coefficient for it.

- j) POLITY2:<sup>14</sup>, was taken from Marshall and Jaggers (2002) and varies between 10 (countries strongly democratic) to -10 (highly autocratic).<sup>15</sup> As stated by Mansfield et al (2002), countries that are more democratic are expected to form or enhance an EIA more likely than other countries. Then, it is expected to be positive.

Finally, we also include the following trade policy variables:

- j)  $EM_{ijt}$  measures the extensive margin of trade. The greater export diversification, the more likely is to form and/or enhance EIAs, and then the effect of the EM is expected to be positive.
- k)  $IM_{ijt}$  measures the intensive margin of trade. We expect a negative estimated coefficient, as we expect that an increasing IM over time leads to lower concessions in regional integration.
- l)  $TRADE_{ijt}$  measures bilateral exports from  $i$  (LA country) to  $j$ . It is expected that two countries that are major trading partners are more likely to form or enhance a trade agreement (Magee, 2003).
- m) The lagged dependent variable included as a regressor is expected to be positive, as it takes into account the fact that the probability of reaching an integration level depends on the point of departure and then, the probability of reaching a deeper integration level is higher if the countries already participate in an EIA (Márquez-Ramos et al, 2011).

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which include the freedom to develop opinions and personal autonomy without interference from the state. It is an index that ranges from 1 to 7, where 1 represents the highest level of economic freedom and equal opportunity; 7 indicates virtually no freedom and justified fear of repression. This variable was excluded of regressions to avoid multicollineality, as it is highly correlated with PR (see Table A.4, Appendix).

<sup>14</sup> POLITY2:<sub>ijt</sub> is the sum of the values of POLITY2 variable for exporter and importer country in year  $t$ .

<sup>15</sup> See the Appendix for details.

In the empirical analysis, we first perform a cross-section analysis for years 1998 and 2009. In a second step, we focus on the dynamics of LA regional integration and then, we take into account the entire period, i.e. 1962 onwards. Thirdly, we compare the effect of the RHS variables included in our preferred specification by estimating the marginal effects. Finally, we introduce the indexes computed by Kohl et al (2013) to analyze the determinants of coverage and enforcement of provisions of LA integration agreements.

## **5- EMPIRICAL ANALYSIS**

### **5.1-CROSS-SECTIONAL ANALYSIS**

In this section, we perform a cross-sectional analysis for year 1998 and year 2009. The issue of year selection warrants further discussion. Doctor (2007) states that there was a positive investment climate at the start of EU-Mercosur inter-regional negotiations, whereas there was a change in investment climate due to economic crises at beginning of the new century, potential for political instability and uncertain property rights, which exacerbated the downward trend. In fact, it was in the mid-1990s that states began to consider engaging with other regions as an effective means of applying open regionalism strategies to a wider area as a means to respond to the challenge of deeper integration into the global economy, ameliorate the impacts of globalization and cooperate in creating a more secure multilateral order (Doctor, 2007). Therefore, the two cross-sections in which we focus are taken as to represent the period before the intensification of the Latin American integration processes took place (i.e. year 1998) and after the Latin American crises (i.e. year 2009).

Ordered logit estimates are presented in Tables 1 and 2 for years 1998 and 2009, respectively.

In both years, we reject the null that the four cut-points are equal.<sup>16</sup>

We ran five different specifications that differ in the trade policy variables that include (models 1-5). Specifically, Model 1 shows the results when we take into account the economic, geographical and political variables; while Models 2 to 5 include several lagged variables related to trade policy in a sequentially way (EM, IM, Trade and EIA).

Economic and geographical variables present the expected sign and are statistically significant, excluding the variable REMOTE in the cross section for the year 2009. In both Tables 1 and 2,

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<sup>16</sup> In 1998: Statistics (p-value) = 260.33 (0.000); in 2009: Statistics (p-value) = 265.51 (0.000).



little variability is observed in the estimated coefficients for the different models. Therefore, the estimates are robust to different specifications.

Concerning institutional variables, polity rights has the expected sign but it is not statistically significant for 1998 (excluding the case of Model 5). However, this variable is significant in the

Table 1. Cross-section 1998

| Variable               | Model 1     | Model 2     | Model 3     | Model 4    | Model 5     |
|------------------------|-------------|-------------|-------------|------------|-------------|
| Rgdp (lagged)          | 0.535***    | 0.476***    | 0.548***    | 0.435***   | 0.507***    |
| Drgdp (lagged)         | -0.432***   | -0.443***   | -0.456***   | -0.449***  | -0.422***   |
| Dkl (lagged)           | 2.69e-05*** | 2.53e-05*** | 2.57e-05*** | 2.27e-05** | 3.25e-05*** |
| Natural                | 0.973***    | 0.856**     | 1.093***    | 0.790**    | 1.076***    |
| Remote                 | 0.120***    | 0.119***    | 0.109***    | 0.127***   | 0.076*      |
| Land                   | 2.642***    | 2.734***    | 2.572***    | 2.797***   | 2.482***    |
| Adj                    | 2.584***    | 2.552***    | 2.640***    | 2.544***   | 2.311***    |
| Lang                   | 1.001***    | 0.969***    | 1.026***    | 1.022***   | 0.922***    |
| P_rights               | -0.013      | -0.006      | -0.027      | 0.006      | -0.150**    |
| Polity2                | 0.141**     | 0.146**     | 0.128**     | 0.152**    | 0.069       |
| Log (EM) (lagged)      |             | 0.118       |             |            | -0.015      |
| Log (IM) (lagged)      |             |             | -0.167**    |            | -0.138**    |
| Log (trade) (lagged)   |             |             |             | 0.111**    |             |
| EIA (lagged)           |             |             |             |            | 1.406***    |
| Cut 1                  | 19.363      | 17.205      | 19.153      | 17.077     | 15.922      |
| Cut 2                  | 22.302      | 20.156      | 22.115      | 20.056     | 19.177      |
| Cut 3                  | 23.790      | 21.648      | 23.636      | 21.537     | 20.862      |
| Cut 4                  | 24.838      | 22.691      | 24.698      | 22.573     | 21.920      |
| Pseudo R2              | 0.304       | 0.306       | 0.310       | 0.308      | 0.344       |
| Log likelihood         | -366.606    | -365.620    | -363.343    | -364.462   | -338.950    |
| Number of observations | 401         | 401         | 401         | 401        | 391         |

Notes: \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10%, respectively. The dependent variable is a discrete variable that takes the value of 1, 2, 3 and 4 when a LAIA member was integrated respectively into a NRPTA, PTA, FTA and CU in 1998 and 0 otherwise. To avoid endogeneity biases, RGDP, DRGDP, the log of the EM, the IM and trade, as well as EIA were used for the year 1962, while DKL was used for 1980 due to data availability.

year 2009. This means that the level of economic freedom has recently become an important factor when two countries decide to set up or enhance an EIA that involves LA countries.

Otherwise, a greater degree of democracy does not change the likelihood of formation of EIAs in the most recent period, but it is found to be significant in 1998.

As in Márquez-Ramos et al (2011), we estimate a generalised ordered logit for our preferred specification (Model 5), which shows that institutional and political variables (LANG, PR, POLITY2, EM, IM and lagged EIA) gain importance at higher levels of integration. Additionally, we report the results obtained for the marginal effects, which are computed with the covariates

fixed at their means,<sup>17</sup> and confirm that the effect of the RHS variables differ across different levels of integration (see Tables A.5 and A.6 in the Appendix).

Table 2. Cross-section 2009

| Variable               | Model 1    | Model 2    | Model 3    | Model 4    | Model 5    |
|------------------------|------------|------------|------------|------------|------------|
| Rgdp (lagged)          | 0.476***   | 0.452***   | 0.486***   | 0.476***   | 0.454***   |
| Drgdp (lagged)         | -0.380***  | -0.383***  | -0.401***  | -0.380***  | -0.353***  |
| Dkl (lagged)           | 3.3e-05*** | 3.3e-05*** | 3.3e-05*** | 3.3e-05*** | 3.4e-05*** |
| Natural                | 1.237***   | 1.183***   | 1.380***   | 1.239***   | 1.326***   |
| Remote                 | 0.056      | 0.055      | 0.042      | 0.056      | 0.022      |
| Land                   | 1.979***   | 2.009***   | 1.890***   | 1.978***   | 1.800***   |
| Adj                    | 2.643***   | 2.639***   | 2.651***   | 2.643***   | 2.577***   |
| Lang                   | 1.224***   | 1.208***   | 1.234***   | 1.224***   | 1.144***   |
| P_rights               | -0.229***  | -0.224***  | -0.233***  | -0.229***  | -0.223***  |
| Polity2                | -0.025     | -0.024     | -0.026     | -0.026     | -0.040     |
| Log (EM) (lagged)      |            | 0.048      |            |            | -0.004     |
| Log (IM) (lagged)      |            |            | -0.149**   |            | -0.123**   |
| Log (trade) (lagged)   |            |            |            | -0.001     |            |
| EIA (lagged)           |            |            |            |            | 0.462**    |
| Cut 1                  | 10.513     | 9.697      | 10.141     | 10.523     | 8.866      |
| Cut 2                  | 12.739     | 11.925     | 12.381     | 12.749     | 11.143     |
| Cut 3                  | 13.118     | 12.304     | 12.765     | 13.128     | 11.535     |
| Cut 4                  | 15.919     | 15.107     | 15.596     | 15.929     | 14.426     |
| Pseudo R2              | 0.276      | 0.277      | 0.282      | 0.276      | 0.275      |
| Log likelihood         | -419.685   | -419.508   | -416.734   | -419.685   | -410.922   |
| Number of observations | 413        | 413        | 413        | 413        | 401        |

Notes: \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10%, respectively. The dependent variable is a discrete variable that takes the value of 1, 2, 3 and 4 when a LAIA member was integrated respectively into a NRPTA, PTA, FTA and CU in 2009 and 0 otherwise. To avoid endogeneity biases, RGDP, DRGDP, the log of the EM, the IM and trade, as well as EIA were used for the year 1962, while DKL was used for 1980.

Finally, when we obtain the probabilities depending of the level of integration, which we order from the lowest probability to the highest probability, we obtain:

In 1998:

$$\Pr(\text{Cu or 4}) = 0.027; \Pr(\text{FTA or 3}) = 0.031; \Pr(\text{PTA or 2}) = 0.107; \Pr(\text{NRPTA or 1}) = 0.536$$

In 2009:

$$\Pr(\text{Cu or 4}) = 0.027; \Pr(\text{FTA or 3}) = 0.178; \Pr(\text{PTA or 2}) = 0.060; \Pr(\text{NRPTA or 1}) = 0.461$$

<sup>17</sup> Following Márquez-Ramos et al, 2011, we exclude dummy variables and the lagged dependent variable from the list of regressors to compute the marginal effects.

According to these results, the most likely type of EIA of LA countries with the 161 trading partners considered in the empirical analysis is a NRPTA. Interestingly, from 1998 to 2009, the predicted probability has decreased in the case of NRPTAs (from 53% to 46%) and increased for FTAs (from 3% to 17.8%).

## **5.2-THE DYNAMICS OF REGIONAL INTEGRATION IN LATIN AMERICA (1962-2009)**

In addition to geographical, economic, institutional and political factors, we consider two additional (political) issues as determinants of EIAs formation and enhancement. First, as the EU and the US present a distinctive model of governance towards the developing world, and as these divergences may have been widened in the wake of the events of 11 September 2001 (Grugel, 2004), we analyze the role that these events might have had on US-Latin American EIAs (dummy “11S”).<sup>18</sup>

Second, we consider the role of the so-called “Revolución Bolivariana” which might play a role on two abovementioned strategies of regionalism: the strategy of continuity in Chile, Colombia, Mexico and Peru; and the alternative strategy followed in countries such as Argentina, Bolivia, Ecuador and Venezuela. Therefore, we introduce four additional dummies. One for Argentina from 2005,<sup>19</sup> one for Bolivia from 2006,<sup>20</sup> one for Ecuador from 2007,<sup>21</sup> and one for Venezuela from 1999 onwards.<sup>22</sup>

Ordered logit estimates (pooled) are presented in Table 3 for the period 1962-2009. We ran seven specifications (models 6-12), which alternatively include the trade policy variables, as done in the previous section, as well as the dummies that capture the effect of the 11-September and the “Revolución Bolivariana”.

Model 6 shows the results when we take into account the economic, geographical and political variables; in Models 7 to 9 we add several trade policy (lagged) variables in a sequentially way

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<sup>18</sup> Takes the value of one if the trading partner is the US from year 2001 onwards.

<sup>19</sup> Néstor Kirchner and Hugo Chavez narrowed bilateral relations in July 2004, whose previous governments of both countries were almost non-existent.

<sup>20</sup> Since Evo Morales was elected president, an important approach is perceived in the Bolivian-Venezuelan relations. Evo Morales became president 2006.

<sup>21</sup> There is a closeness and identification of the President of Ecuador Rafael Correa with the Bolivarian Revolution and the Venezuelan government. Rafael Correa was elected president of Ecuador of (late November) 2006.

<sup>22</sup> The Bolivarian Revolution is the name given in Venezuela by Hugo Chavez and his supporters, the ideological and social project that began in 1999, with the election of Chavez as president.

(EM, IM and Trade). Models 10–12 show the most complete specifications that include, in addition to the variables considered in previous models, the dummy “11S” (Model 10), the dummies for Argentina, Bolivia, Ecuador and Venezuela (Model 11) and finally, these dummy variables are included in the same regression (Model 12).

As in the former cross-section analysis, economic and geographical variables have the expected sign and are statistically significant.<sup>23</sup>

Table 3. Panel estimation (pooled ordered logit)

| Variable                  | Model 6    | Model7     | Model8     | Model9     | Model10    | Model11    | Model12    |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|
| Rgdp (lagged)             | 0.403***   | 0.360***   | 0.398***   | 0.261***   | 0.235***   | 0.238***   | 0.247***   |
| Drgdp (lagged)            | -0.184***  | -0.195***  | -0.194***  | -0.210***  | -0.105***  | -0.131***  | -0.125***  |
| Natural                   | 0.563***   | 0.488***   | 0.627***   | 0.350***   | 0.447***   | 0.392***   | 0.395***   |
| Remote                    | 0.128***   | 0.125***   | 0.125***   | 0.127***   | 0.023***   | 0.021***   | 0.026***   |
| Land                      | 2.163***   | 2.205***   | 2.105***   | 2.274***   | 1.341***   | 1.302***   | 1.313***   |
| Adj                       | 1.894***   | 1.854***   | 1.947***   | 1.798***   | 0.563***   | 0.606***   | 0.596***   |
| Lang                      | 1.021***   | 0.985***   | 1.037***   | 1.062***   | 0.404***   | 0.428***   | 0.411***   |
| P_rights                  | -0.060***  | -0.058***  | -0.059***  | -0.051***  | -0.062***  | -0.066***  | -0.066***  |
| Polity2                   | 0.051***   | 0.051***   | 0.049***   | 0.049***   | 0.043***   | 0.034***   | 0.034***   |
| Log (EM) (lagged)         |            | 0.097***   |            |            | 0.046***   | 0.078***   | 0.076***   |
| Log (IM) (lagged)         |            |            | -0.101***  |            | 0.006      | 0.027**    | 0.024**    |
| Log (trade) (lagged)      |            |            |            | 0.192***   |            |            |            |
| EIA (lagged)              |            |            |            |            | 3.308***   | 3.299***   | 3.297***   |
| Year dummies              | Yes        | Yes        | Yes        | Yes        | Yes        | Yes        | Yes        |
| Quasi-natural experiments |            |            |            |            |            |            |            |
| Dummy 11S                 |            |            |            |            | -1.349***  |            | -1.380***  |
| Dummy Argentina from 2005 |            |            |            |            |            | -0.341***  | -0.335***  |
| Dummy Bolivia from 2006   |            |            |            |            |            | 0.549***   | 0.547***   |
| Dummy Ecuador from 2007   |            |            |            |            |            | 0.731***   | 0.739***   |
| Dummy Venezuela from 1999 |            |            |            |            |            | -0.086     | -0.084     |
| Cut 1                     | 15.479     | 13.649     | 14.953     | 12.084     | 8.979      | 10.068     | 10.528     |
| Cut 2                     | 17.888     | 16.061     | 17.370     | 14.540     | 13.053     | 14.171     | 14.631     |
| Cut 3                     | 19.791     | 17.968     | 19.273     | 16.451     | 16.094     | 17.229     | 17.701     |
| Cut 4                     | 21.333     | 19.516     | 20.816     | 18.015     | 18.215     | 19.372     | 19.843     |
| Pseudo R2                 | 0.257      | 0.259      | 0.259      | 0.269      | 0.488      | 0.492      | 0.492      |
| Log likelihood            | -19737.099 | -19698.521 | -19680.878 | -19433.112 | -13592.958 | -13490.338 | -13475.230 |
| Number of observations    | 22212      | 22212      | 22212      | 22212      | 22155      | 22155      | 22155      |

Notes: \*\*\*, \*\*, \* indicate significance at 1%, 5% and 10%, respectively. The dependent variable is a discrete variable that takes the value of 1, 2, 3 and 4 when a LAIA member was integrated respectively into a NRPTA, PTA, FTA and CU over the period 1962-2009 and 0 otherwise. To avoid endogeneity biases, the 10th lag of RGDP, DRGDP, the log of the EM, the IM and trade, as well as EIA were used.

<sup>23</sup> Variable Dkl was not included in pool ordered logit specifications due to data availability.

The coefficient of the dummy “11S” is negative and statistically significant (Models 10 and 12); this means that the terrorist attack on US soil negatively affected the likelihood of establishing or deepening EIAs between the US and LA countries. Models 11 and 12 show that “Atlantic Axis” countries do not follow a unique pattern of integration strategy.

In this sense, while the estimated coefficient for the Argentina dummy is negative and significant, for Bolivia and Ecuador are positive and significant. Only for Venezuela, the coefficient is not statistically significant. According to these results, only Argentina has effectively implemented economic policies that have negatively affected the probability of signing and enhancing EIAs with third countries.

Regarding institutional and political variables, political rights and the variable POLITY2 have the expected sign and are statistically significant. This means that both, the level of economic freedom and the extent of democratic practices have positively affected the chance of signing or enhancing EIAs in the period.

### **5.3- TAKING INTO ACCOUNT COVERAGE AND ENFORCEMENT OF TRADE AGREEMENTS**

Following Kohl et al (2013), we are interested in answering what determines higher coverage and enforcement of provisions in LA regional integration. Therefore, we append to our cross-section for 1998 and 2009<sup>24</sup> three variables that are provided in their dataset: IIQ, which reflects an agreement's institutional quality and takes the values between 0 (low institutional quality) and 1 (high institutional quality),<sup>25</sup> IC (unweighted average of index WTO+, index WTOx and IIQ with provisions that are covered) and IE (unweighted average of index WTO+, index WTOx and IIQ with provisions that are covered and legally enforceable).<sup>26</sup>

It is important to highlight that the database of Kohl et al (2013) contains a listing of 296 agreements (43 with LAIA countries), providing a set of indices for each of them. Having some pairs of countries more than a signed agreement between them; for example, Argentina and Bolivia have signed three agreements: they are LAIA members since 1981 with an index IE of 0.20 (0 is less integration, 1 is maximum integration), Bolivia signed a treaty with Mercosur in 1997 with an index IE of 0.39, and another as a member of the Andean Community in 1998

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<sup>24</sup> By taking into account the trade agreements that were enforced until 1998 and 2009, respectively.

<sup>25</sup> Note that the minimum value of this index is 0.111 in their sample of 296 trade agreements, therefore it is able to distinguish an agreement with low institutional quality of the inexistence of agreement.

<sup>26</sup> See Kohl et al. (2013) for details.

(with an index of 0.27). We take the view that if a pair of countries are involved in more than an agreement, we take the further integration.

Our results in Tables 4 and 5 show that if there was a regional agreement between a pair of countries in 1962, the institutional quality of agreements and provisions which are covered and legally enforceable increase in both 1998 and 2009. Trade margins are found to be not significant.

Table 4. Cross-section 1998. OLS regression with IIQ, IC and IE

| Variable               | Model 18  | Model 19  | Model 20  |
|------------------------|-----------|-----------|-----------|
| Rgdp (lagged)          | 0.024**   | 0.016     | 0.017*    |
|                        | 1.988     | 1.463     | 1.866     |
| Drgdp (lagged)         | -0.037*** | -0.021**  | -0.019**  |
|                        | -3.333    | -2.284    | -2.453    |
| Dkl (lagged)           | 0         | 0         | 0.000*    |
|                        | 1.611     | 1.522     | 1.78      |
| Natural                | -0.027    | -0.029    | -0.018    |
|                        | -0.642    | -0.878    | -0.652    |
| Remote                 | 0.013**   | 0.008     | 0.008*    |
|                        | 2.142     | 1.399     | 1.671     |
| Land                   | 0.041     | 0.001     | 0.002     |
|                        | 0.744     | 0.031     | 0.048     |
| Adj                    | 0.451***  | 0.356***  | 0.280***  |
|                        | 4.802     | 4.321     | 4.311     |
| Lang                   | 0.147***  | 0.086*    | 0.070**   |
|                        | 2.741     | 1.947     | 2.016     |
| P_rights               | 0.003     | 0.001     | 0.001     |
|                        | 0.597     | 0.144     | 0.222     |
| Polity2                | 0.009     | 0.006     | 0.005     |
|                        | 1.318     | 1.088     | 1.087     |
| Log (EM) (lagged)      | -0.003    | 0.001     | -0.001    |
|                        | -0.252    | 0.092     | -0.174    |
| Log (IM) (lagged)      | -0.006    | 0.001     | 0         |
|                        | -0.707    | 0.087     | -0.039    |
| EIA (lagged)           | 0.114***  | 0.037     | 0.055**   |
|                        | 2.991     | 1.207     | 2.133     |
| Constant term          | -1.500*** | -1.054**  | -1.015**  |
|                        | -2.657    | -2.188    | -2.466    |
| Number of observations | 328       | 328       | 328       |
| R2                     | 0.313127  | 0.1940709 | 0.2349961 |
| AIC                    | 134.073   | 30.18003  | -117.2622 |
| RMSE                   | 0.2907093 | 0.2481294 | 0.198183  |

Notes: \*\*\*, \*\*, \* indicate significance at 1, 5 and 10 per cent, respectively. T-statistics are provided below every coefficient. The dependent variable is equal to zero when there is not agreement and takes the value of the indexes provided by Kohl et al. (2013), i.e. IIQ, IC and IE, respectively. To avoid endogeneity biases, RGDP, DRGDP, the log of the EM, the IM and trade, as well as EIA were used for the year 1962, while DKL was used for 1980.

The variable POLITY2 is positive and significant in 2009, making that best political quality significantly increases provisions that are covered and legally enforceable, but not the institutional quality of agreements. Finally, our results provide evidence in line with the fact that economic and geographic variables as well as language are significant in both years.

Nonetheless, the natural variable is not significant neither for the institutional quality of agreements, nor for the provisions that are covered or/and legally enforceable.

Table 5. Cross-section 2009. OLS regression with IIQ, IC and IE

| Variable               | Model 21  | Model 22  | Model 23  |
|------------------------|-----------|-----------|-----------|
| Rgdp (lagged)          | 0.028**   | 0.020**   | 0.019**   |
|                        | 2.421     | 1.97      | 2.326     |
| Drgdp (lagged)         | -0.037*** | -0.023**  | -0.020*** |
|                        | -3.461    | -2.514    | -2.651    |
| Dkl (lagged)           | 0.000*    | 0.000**   | 0.000**   |
|                        | 1.827     | 1.988     | 2.175     |
| Natural                | -0.002    | 0.004     | 0.005     |
|                        | -0.056    | 0.135     | 0.172     |
| Remote                 | 0.013**   | 0.006     | 0.007     |
|                        | 2.013     | 1.214     | 1.536     |
| Land                   | 0.033     | -0.006    | -0.004    |
|                        | 0.593     | -0.126    | -0.119    |
| Adj                    | 0.444***  | 0.341***  | 0.271***  |
|                        | 4.773     | 4.353     | 4.286     |
| Lang                   | 0.142***  | 0.081*    | 0.066*    |
|                        | 2.636     | 1.863     | 1.911     |
| P_rights               | -0.002    | -0.001    | -0.001    |
|                        | -0.404    | -0.24     | -0.403    |
| Polity2                | 0.006     | 0.010**   | 0.007**   |
|                        | 1.272     | 2.542     | 1.981     |
| Log (EM) (lagged)      | -0.005    | -0.002    | -0.003    |
|                        | -0.49     | -0.207    | -0.467    |
| Log (IM) (lagged)      | -0.007    | -0.001    | -0.002    |
|                        | -0.946    | -0.182    | -0.327    |
| EIA (lagged)           | 0.103***  | 0.019     | 0.042*    |
|                        | 2.757     | 0.648     | 1.683     |
| Constant term          | -1.405**  | -0.995**  | -0.948**  |
|                        | -2.581    | -2.107    | -2.354    |
| Number of observations | 336       | 336       | 336       |
| R2                     | 0.3187657 | 0.2152782 | 0.2513436 |
| AIC                    | 127.9841  | 14.99977  | -134.1979 |
| RMSE                   | 0.2868279 | 0.2424392 | 0.1941693 |

Notes: \*\*\*, \*\*, \* indicate significance at 1, 5 and 10 per cent, respectively. T-statistics are provided below every coefficient. The dependent variable is equal to zero when there is not agreement and takes the value of the indexes provided by Kohl et al. (2013), i.e. IIQ, IC and IE, respectively. To avoid endogeneity biases, RGDP, DRGDP, the log of the EM, the IM and trade, as well as EIA were used for the year 1962, while DKL was used for 1980.

## 6-CONCLUSIONS

In this paper, we argue that, in addition to economic and geographic factors; political and institutional aspects should be considered as determinants of the different trends in the degree of regional integration. Specifically, we have focused on the role that these factors play on the likelihood of signing an EIA or engaging in further integration.

By focusing on both a cross-sectional and a panel data analysis for the Latin American integration process, we prove that institutional and political factors do matter. Furthermore, the role of these factors might have been strengthened at the beginning of the present century due two main issues that affected the way of dealing with foreign affairs in a number of countries: the terrorist attack of the 11 of September 2001 and the “Revolución Bolivariana”.

Our empirical analysis confirms not only that geographic, economic, institutional and political aspects are key elements for the formation and enhancement of EIAs in which LA countries are involved, but also determine the coverage and enforcement of the provisions of the agreements.

## REFERENCES

- Baier SL, Bergstrand JH (2004):** “Economic determinants of free trade agreements”. *JIntEcon* 64(2004): 29-63.
- Baier,SL., Dwyer,G. and Tamura,R. (2004):**” Does opening a stock market increase economic growth?”. *Journal of International Economics and Finance*, vol.23, Nº 3: 311-331.
- Capannelli, G. and Filippini, C. (2009):** “East Asian and European Economic Integration: A Comparative Analysis”. Working Paper Series on Regional Economic Integration Nº29, May. Asian Development Bank.
- Delich, V. y Peixoto, J. (2011).** “La agenda de integración regional de la Argentina post-2001”. FLACSO-Argentina.
- Doctor, M. (2007):** “Why Bother With Inter-Regionalism? Negotiations for a European Union-Mercosur Agreement”. *Journal of Common Market Studies* 45(2), 281-314.
- EUobserver (2013):** “EU battle for Ukraine ends in truncheons and tear gas”. 30 December 2013, <http://euobserver.com/news/122321>
- Felbermayr, G., Larch, M., Flach, L., Yalcin, E. and Benz, S. (2013):** “Dimensions and Effects of a Transatlantic Free Trade Agreement between the EU and US”. Study commissioned by German Federal Ministry of Economics and Technology. Ifo Institut, Germany.
- Florensa, L.M., Márquez-Ramos, L., Martínez-Zarzoso, I. and Recalde, M.L. (2011).** “Trade in intermediate goods and regional production networks. An application for Latin America”, paper presented in the ETSG 2011, Copenhagen, Denmark.
- Florensa, L.M., Márquez-Ramos, L., Recalde, M.L. (2013):** “Is the effects of economic integration on trade margins period sensitive? Sectoral evidence from Latin America”. Paper presented in the ETSG2013, Birmingham, UK.
- Florensa, L.M., Márquez-Ramos, L., Recalde, M.L. and Barone, M. V. (2012).** “The effects of Latin American economic integration on intensive and extensive margins”. Publicado en *Actas de XLVII Reunión Anual de la Asociación Argentina de Economía Política*. Trelew, 14 al 16 de noviembre de 2012. [www.aaep.org.ar](http://www.aaep.org.ar)
- Florensa, L.M., Márquez-Ramos, L., Recalde, M.L. and Barone, M. V. (2013):** “Acuerdos de integración económica en Latinoamérica: Efectos sobre los márgenes de comercio”. *Revista de Economía* 20(1): 71-107. Banco Central del Uruguay.
- Florensa, L.M., Márquez-Ramos, L., Recalde, M.L. and Barone, M. V. (2014):** “Does economic integration increase trade margins?”. Empirical evidence from LAIA countries”. Working Papers 2014/05. Universitat Jaume I, Economics Department, Castellón, Spain.



- Freedom House. (2005):** <http://www.freedomhouse.org/report/freedom-world-2003/methodology>
- García de la Cruz, J. M. and Sánchez Díez, A. (2008):** “América Latina: ¿Volver a empezar?”. *Revista de Economía Mundial* 18, 93-103.
- Grugel, J. B. (2004):** “New Regionalism and Modes of Governance -- Comparing US and EU Strategies in Latin America”, *European Journal of International Relations* 10: 603.
- Herman Van Rompuy (2013):** Speech by President of the European Council at the Annual Conference of EU Heads of Delegation, Brussels, 4 September 2013, EUCO 178/13
- Herreros, S. (2014):** “Mega-regional trade negotiations: What is at stake for Latin America?” Paper presented at the Economic Policy Forum: BRICS and their Neighbors-Inclusive Regional Economic Relations, Rio de Janeiro, 12-14 March 2014.
- Horn, H., Mavroidis, P.C. and Sapir, A. (2010):** “Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements,” *The World Economy* 33(11), 1565-1588.
- Hummels, D. and Klenow P. (2005):** “The Variety and Quality of a Nation’s Exports”, *American Economic Review*, 95, 3, 704-723.
- Jagers, K. and T.R.Gurr (1995):** “Tracking Democracy’s Third Wave with the Polity III Data”. *Journal of Peace Research* 32: 469-82.
- Kohl, T., Brakman S. and Garretsen, H. (2013):** “Do Trade Agreements Stimulate International Trade Differently? Evidence from 296 Trade Agreements,” CESifo Working Paper Series 4243, CESifo Group Munich.
- Magee, C. (2003):** “Endogenous Preferential Trade Agreements: An Empirical Analysis”. *Contributions to Economic Analysis & Policy*, Vol 2, Issue 1, Article 15.
- Malamud, A. and Schmitter, P. (2006).** “La experiencia de integración europea y el potencial de integración del Mercosur”. *Desarrollo Económico*, Vol 46, N°181(abril-junio).
- Mansfield ED, Milner HV, Rosendorff BP (2002)** “Why democracies cooperate more: electoral control and international trade agreements”. *Int Organ* 56:477–51.
- Márquez-Ramos, L., Martínez-Zarzoso, I. and Suárez-Burguet, C. (2011):** Determinants of Deep Integration: Examining Socio-political Factors.” *Open Economies Review*. 22:479-500.
- Marshall, M. and Jagers, K.(2002)** “Polity IV Project: Dataset Users’ Manual” pp 15-16.
- Melitz, M. (2003):** “The Impact of Trade in Intra-industry Reallocations and Aggregate Industry Productivity”. *Econometrica* 71, 6, 1695-1725.
- Moncarz, P., Olarreaga, M. and Vaillant, M. (2011):** “Regionalism as Industrial Policy. Evidence from MERCOSUR.” *Review of Development Economics*, forthcoming.
- Olarreaga, M. and Soloaga, I. (1998):** “Endogenous tariff formation: the case of Mercosur”. *The World Bank Economic Review* 12(2), 297-320.
- Orefice, G., and Rocha, N. (2014):** “Deep Integration and Production Networks: An Empirical Analysis”. *The World Economy* 37(1), 106-136.
- Peña, Félix. (2010):** “Es posible una visión realista pero positiva de la integración latinoamericana y del Mercosur ?”. <http://www.felixpena.com.ar>
- Peña, Félix. (2011):** “Integración regional e inserción internacional de América Latina en un mundo de múltiples opciones”. <http://www.felixpena.com.ar>
- Recalde, M.L. and Florensa, L. M. (2009):** “Impacto del Mercosur en el comercio Internacional de Argentina y Brasil: ecuación gravitatoria y Filtro de Kalman”. Montevideo, 5-6 October 2009. XXIV Jornadas Anuales de Economía 2009 del Banco Central de Uruguay.
- Recalde, M.L., Florensa, L.M. and Iturralde, I.(2009):** “Latin American exports: ¿has Brazil displaced them ?. 9th Arnoldshain Seminar: “Internacional Crisis and Development- Private and Public Responses. Universidad de la República, Montevideo-Punta del Este, Uruguay, 5-9 October 2009.
- Schmitter, P (1970):** “Central American Integration: Spill-Over, Spill-Around or Encapsulation ?. *Journal of Common Market Studies* 9, N°1, 1-48.
- Vicard, Vincent (2008):** “Trade, Conflicts and Political Integration: Explaining the Heterogeneity of Regional Trade Agreements” CES Working Papers. Documents de Travail du Centre d’Économie de la Sorbone, N° 22.
- Vigvári, G. (2011):** “Governance in the European Union - Applying the "trilemma of global politics”. *Global Business & Economics Anthology* (2), 541-552.
- Wooldridge, J.M. (2009):** *Introductory Econometrics: A Modern Approach*. Cengage Learning, 4th edition.
- Wyplosz, C. (2006):** “Deep Economic Integration: is Europe a Blueprint?” *Asian Econ Pol Rev* 1:259–279.

## APPENDIX

Table A.1. Percentage change of tariffs and imports in LAIA countries

|                            | Total goods |       |          |             |              |          |
|----------------------------|-------------|-------|----------|-------------|--------------|----------|
|                            | Tariffs     |       |          | Imports     |              |          |
|                            | 1994        | 2008  | % change | 1994        | 2008         | % change |
| <b>Argentina</b>           |             |       |          |             |              |          |
| <i>from World</i>          | 12.70       | 9.82  | -22.68   | 20114508.61 | 40146335.81  | 99.59    |
| <i>from NAFTA</i>          | 13.13       | 9.49  | -27.72   | 4855371.24  | 5966331.63   | 22.88    |
| <i>from European Union</i> | 13.37       | 11.26 | -15.78   | 6138946.93  | 7052486.61   | 14.88    |
| <i>from LAIA</i>           | 6.79        | 1.54  | -77.32   | 5857754.17  | 16807679.76  | 186.93   |
| <i>from Mercosur</i>       | 12.62       | 0.00  | -100.00  | 4208511.13  | 14871369.55  | 253.36   |
| <b>Bolivia</b>             |             |       |          |             |              |          |
| <i>from World</i>          | 9.96        | 6.14  | -38.35   | 1196107.65  | 3260252.65   | 172.57   |
| <i>from NAFTA</i>          | 9.97        | 6.63  | -33.50   | 262178.70   | 460142.36    | 75.51    |
| <i>from European Union</i> | 9.95        | 8.08  | -18.79   | 174586.15   | 288787.72    | 65.41    |
| <i>from LAIA</i>           | 9.95        | 1.41  | -85.83   | 514603.94   | 1913926.45   | 271.92   |
| <i>from Mercosur</i>       | 9.97        | 0.51  | -94.88   | 301237.71   | 1283053.13   | 325.93   |
| <b>Brazil</b>              |             |       |          |             |              |          |
| <i>from World</i>          | 14.46       | 13.15 | -9.06    | 35505230.17 | 159349889.15 | 348.81   |
| <i>from NAFTA</i>          | 13.81       | 12.43 | -9.99    | 9457627.84  | 30440543.81  | 221.86   |
| <i>from European Union</i> | 14.11       | 13.80 | -2.20    | 9969570.61  | 34156499.38  | 242.61   |
| <i>from LAIA</i>           | 13.91       | 2.31  | -83.39   | 6766975.49  | 26606444.44  | 293.18   |
| <i>from Mercosur</i>       | 14.30       | 0.05  | -99.65   | 4897950.55  | 14535662.85  | 196.77   |
| <b>Chile</b>               |             |       |          |             |              |          |
| <i>from World</i>          | 10.99       | 1.39  | -87.35   | 10987128.57 | 39766249.10  | 261.93   |
| <i>from NAFTA</i>          | 10.98       | 0.08  | -99.27   | 3158018.53  | 8692861.94   | 175.26   |
| <i>from European Union</i> | 10.99       | 0.14  | -98.73   | 2352489.63  | 5596712.67   | 137.91   |
| <i>from LAIA</i>           | 10.99       | 0.11  | -99.00   | 2878262.66  | 13256218.48  | 360.56   |
| <i>from Mercosur</i>       | 10.99       | 0.08  | -99.27   | 2049262.48  | 8842339.97   | 331.49   |
| <b>Colombia</b>            |             |       |          |             |              |          |
| <i>from World</i>          | 12.48       | 10.74 | -13.94   | 11277084.97 | 29444210.75  | 161.10   |
| <i>from NAFTA</i>          | 12.30       | 8.91  | -27.56   | 4543593.06  | 11067433.54  | 143.58   |
| <i>from European Union</i> | 11.87       | 12.09 | 1.85     | 2429606.99  | 3697611.25   | 52.19    |
| <i>from LAIA</i>           | 12.83       | 2.41  | -81.22   | 2658670.17  | 8547920.54   | 221.51   |
| <i>from Mercosur</i>       | 11.61       | 5.63  | -51.51   | 629678.29   | 2894532.52   | 359.68   |
| <b>Ecuador</b>             |             |       |          |             |              |          |
| <i>from World</i>          | 11.91       | 9.72  | -18.39   | 3621131.23  | 15929164.22  | 339.89   |
| <i>from NAFTA</i>          | 11.87       | 10.91 | -8.09    | 1154419.97  | 3212920.74   | 178.31   |
| <i>from European Union</i> | 10.43       | 9.94  | -4.70    | 634585.66   | 1324909.12   | 108.78   |
| <i>from LAIA</i>           | 12.06       | 3.85  | -68.08   | 1009656.26  | 4857263.45   | 381.08   |
| <i>from Mercosur</i>       | 10.58       | 6.99  | -33.93   | 281867.53   | 1260252.20   | 347.11   |
| <b>Mexico</b>              |             |       |          |             |              |          |
| <i>from World</i>          | 12.36       | 6.66  | -46.12   | 67495877.01 | 269987263.73 | 300.01   |
| <i>from NAFTA</i>          | 6.23        | 0.05  | -99.20   | 51832465.00 | 150663323.64 | 190.67   |
| <i>from European Union</i> | 13.00       | 1.05  | -91.92   | 6368431.00  | 36792872.19  | 477.74   |
| <i>from LAIA</i>           | 11.38       | 9.27  | -18.54   | 1369050.00  | 10869869.05  | 693.97   |
| <i>from Mercosur</i>       | 12.89       | 9.99  | -22.50   | 735345.00   | 6252592.94   | 750.29   |
| <b>Paraguay</b>            |             |       |          |             |              |          |
| <i>from World</i>          | 8.75        | 8.42  | -3.77    | 2423905.55  | 5033053.19   | 107.64   |

|                            |       |       |        |             |             |        |
|----------------------------|-------|-------|--------|-------------|-------------|--------|
| <i>from NAFTA</i>          | 9.16  | 10.78 | 17.69  | 323287.36   | 271986.38   | -15.87 |
| <i>from European Union</i> | 7.83  | 10.28 | 31.29  | 298524.03   | 276463.48   | -7.39  |
| <i>from LAIA</i>           | 8.40  | 2.28  | -72.86 | 1093246.40  | 2770117.80  | 153.38 |
| <i>from Mercosur</i>       | 7.87  | 0.14  | -98.22 | 979239.50   | 2478130.80  | 153.07 |
| <b>Peru</b>                |       |       |        |             |             |        |
| <i>from World</i>          | 16.24 | 3.90  | -75.99 | 7583564.34  | 21524237.15 | 183.83 |
| <i>from NAFTA</i>          | 16.31 | 5.00  | -69.34 | 2305461.51  | 6810117.20  | 195.39 |
| <i>from European Union</i> | 15.68 | 4.06  | -74.11 | 1389840.12  | 2585209.80  | 86.01  |
| <i>from LAIA</i>           | 16.25 | 2.37  | -85.42 | 2529854.26  | 8602821.22  | 240.05 |
| <i>from Mercosur</i>       | 15.79 | 3.50  | -77.83 | 813534.67   | 3660908.63  | 350.00 |
| <b>Uruguay</b>             |       |       |        |             |             |        |
| <i>from World</i>          | 12.65 | 9.54  | -24.58 | 2864291.00  | 5169735.14  | 80.49  |
| <i>from NAFTA</i>          | 12.16 | 9.04  | -25.66 | 343724.00   | 433833.85   | 26.22  |
| <i>from European Union</i> | 11.77 | 11.87 | 0.85   | 612070.00   | 539036.31   | -11.93 |
| <i>from LAIA</i>           | 12.52 | 0.43  | -96.57 | 1468270.00  | 3201103.41  | 118.02 |
| <i>from Mercosur</i>       | 12.04 | 0.06  | -99.50 | 1319728.00  | 2426536.17  | 83.87  |
| <b>Venezuela</b>           |       |       |        |             |             |        |
| <i>from World</i>          | 12.80 | 11.93 | -6.80  | 10790864.62 | 30887628.17 | 186.24 |
| <i>from NAFTA</i>          | 13.21 | 13.31 | 0.76   | 5403361.53  | 10405144.44 | 92.57  |
| <i>from European Union</i> | 13.42 | 13.56 | 1.04   | 1955884.37  | 3803555.88  | 94.47  |
| <i>from LAIA</i>           | 7.01  | 4.57  | -34.81 | 2290584.43  | 10865637.42 | 374.36 |
| <i>from Mercosur</i>       | 13.19 | 6.93  | -47.46 | 803540.57   | 4106391.48  | 411.04 |

Notes: The table includes effectively applied tariffs (simple averages) and imports of total goods (value in 1000 US dollars) coming from the world, NAFTA, EU, LAIA and Mercosur to reporting countries (LAIA members) in year 1994 and 2008. The % change is higher than 0 if there is an increase and lower than 0 if there is a decrease. The last year considered for trade data in Argentina, Bolivia, Chile, Colombia, Paraguay, Uruguay and Venezuela is 2007 due to data availability. Due to data availability, the starting year considered for Mexico, Peru, Uruguay and Venezuela is 1995, whereas is 1993 for the case of imports from Mercosur to Argentina. UNCTAD and the World Bank have computed ad valorem equivalents (AVEs) of non ad valorem tariffs, which are included when average tariff rates are computed. Source: own elaboration with WITS (2011) tariff rates and trade data.

### **VARIABLE “POLITY2” - POLITY IV PROJECT Marshall, M. and Jagers, K. (2002)**

The Polity2 variable is a modified version of the variable Polity constructed in Marshall and Jagers (2002). This last variable includes the variable AUTOC (scores from 0 to 10 according to the level of autocracy of the country, where 10 is the highest degree) and DEMOC (score from 0 to 10 according to the degree of democracy). The POLITY score is computed by subtracting the AUTOC score from the DEMOC score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).

In order to use the variable in time series analyses the authors modifies the combined annual polity score by applying a simple treatment to convert instances of “standardized authority scores” to conventional polity scores.

## **VARIABLES “Civil Liberties” and “Political Rights” FREEDOM HOUSE**

The ratings process is based on a checklist of 10 political rights questions and 15 civil liberties questions. The political rights questions are grouped into three subcategories: Electoral Process (3 questions), Political Pluralism and Participation (4 questions), and Functioning of Government (3 questions).

The civil liberties questions are grouped into four subcategories: Freedom of Expression and Belief (4 questions), Associational and Organizational Rights (3 questions), Rule of Law (4 questions), and Personal Autonomy and Individual Rights (4 questions).

Scores are awarded to each of these questions on a scale of 0 to 4, where a score of 0 represents the smallest degree and 4 the greatest degree of rights or liberties present. The highest score that can be awarded to the political rights checklist is 40 (or a total score of 4 for each of the 10 questions). The highest score that can be awarded to the civil liberties checklist is 60 (or a total score of 4 for each of the 15 questions).

Table A.2: Freedom House’s checklist.

| <b>Sub - Categories</b>                           | <b>Number of questions</b> |
|---|----------------------------|
| <b>Political Rights (PR)</b>                      | 10                         |
| <b>A:</b> Electoral Process                       | 3                          |
| <b>B:</b> Political Pluralism and Participation   | 4                          |
| <b>C:</b> Functioning of Government               | 3                          |
| <b>Civil Liberties (CL)</b>                       | 15                         |
| <b>D:</b> Freedom of Expression and Belief        | 4                          |
| <b>E:</b> Associational and Organizational Rights | 3                          |
| <b>F:</b> Rule of Law                             | 4                          |
| <b>G:</b> Personal Autonomy and Individual Rights | 4                          |

Source: Own elaboration based on Freedom House Organization

Table A.3: Freedom House's ratings.

| <b>Total points in A, B<br/>and C categories</b> | <b>PR Rating</b> | <b>Total points in D, E,<br/>F and G categories</b> | <b>CL Rating</b> |
|--|------------------|---|------------------|
| 36a40  | 1                | 53a60   | 1                |
| 30a35  | 2                | 44a52   | 2                |
| 24a29  | 3                | 35a43   | 3                |
| 18a23  | 4                | 26a34   | 4                |
| 12a17  | 5                | 17a25   | 5                |
| 6a11   | 6                | 8a16  | 6                |
| 0a5  | 7                | 0a7   | 7                |

Source: Own elaboration based on Freedom House Organization

Table A.4. Descriptive statistics and correlation matrix in 2009

| Variable      | Obs  | Mean      | Std. Dev. | Min       | Max        |
|---------------|------|-----------|-----------|-----------|------------|
| (1) eia       | 1450 | 0.6668966 | 1.069726  | 0         | 4          |
| (2) rgdp      | 1235 | 49.88501  | 2.506649  | 42.21507  | 57.82258   |
| (3) drgdp     | 1235 | 2.378084  | 1.713954  | 0.0029373 | 9.208311   |
| (4) natural   | 1423 | -9.062332 | 0.6431805 | -9.894045 | -5.370985  |
| (5) remote    | 1423 | 2.060563  | 3.834719  | 0         | 9.280634   |
| (6) land      | 1423 | 0.2677442 | 0.4429392 | 0         | 1          |
| (7) adj       | 1423 | 0.0316233 | 0.1750567 | 0         | 1          |
| (8) lang      | 1423 | 0.1426564 | 0.349845  | 0         | 1          |
| (9) c_lib     | 1320 | 8.267424  | 5.702413  | 1         | 28         |
| (10) p_rights | 1320 | 7.906061  | 6.308733  | 1         | 35         |
| (11) polity2  | 1299 | 11.55889  | 6.93533   | -13       | 20         |
| (12) lem      | 1450 | -2.889078 | 2.119931  | -12.10938 | -0.0016933 |
| (13) lim      | 1449 | -5.044475 | 2.005515  | -14.41002 | 0          |
| (14) ltrade   | 1449 | 8.632462  | 3.513787  | -6.214608 | 18.99486   |

|               | eia     | rgdp    | drgdp   | natural | remote  | land    | adj     | lang    | c_lib   | p_rights | polity2 | lem    | lim    | ltrade |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|--------|--------|--------|
| (1) eia       | 1       |         |         |         |         |         |         |         |         |          |         |        |        |        |
| (2) rgdp      | 0.2806  | 1       |         |         |         |         |         |         |         |          |         |        |        |        |
| (3) drgdp     | -0.0745 | -0.0467 | 1       |         |         |         |         |         |         |          |         |        |        |        |
| (4) natural   | 0.4376  | -0.1504 | 0.0491  | 1       |         |         |         |         |         |          |         |        |        |        |
| (5) remote    | 0.434   | -0.0742 | 0.0271  | 0.8236  | 1       |         |         |         |         |          |         |        |        |        |
| (6) land      | 0.0024  | -0.3498 | 0.1179  | -0.044  | -0.0377 | 1       |         |         |         |          |         |        |        |        |
| (7) adj       | 0.3832  | 0.0456  | 0.0102  | 0.4407  | 0.3442  | 0.0019  | 1       |         |         |          |         |        |        |        |
| (8) lang      | 0.3882  | -0.0918 | -0.1109 | 0.6405  | 0.6822  | 0.0088  | 0.1922  | 1       |         |          |         |        |        |        |
| (9) c_lib     | -0.3482 | -0.1115 | 0.0211  | -0.0764 | -0.0986 | 0.029   | -0.0203 | 0       | 1       |          |         |        |        |        |
| (10) p_rights | -0.3409 | -0.1397 | -0.0466 | -0.1109 | -0.1396 | 0.062   | -0.0489 | -0.0427 | 0.894   | 1        |         |        |        |        |
| (11) polity2  | 0.3475  | 0.0688  | 0.0589  | 0.1463  | 0.1804  | 0.0343  | 0.0654  | 0.0967  | -0.7332 | -0.8263  | 1       |        |        |        |
| (12) lem      | 0.4158  | 0.5619  | 0.0545  | 0.3696  | 0.3899  | -0.3231 | 0.2064  | 0.2939  | -0.2765 | -0.3109  | 0.2652  | 1      |        |        |
| (13) lim      | 0.0685  | -0.118  | 0.1358  | 0.2664  | 0.2174  | -0.1085 | 0.186   | 0.1489  | -0.0047 | -0.0679  | 0.0626  | 0.0353 | 1      |        |
| (14) ltrade   | 0.4444  | 0.6073  | 0.0159  | 0.289   | 0.3202  | -0.2927 | 0.2263  | 0.2115  | -0.3152 | -0.3465  | 0.2979  | 0.8038 | 0.4309 | 1      |

Note: c\_lib refer to civil liberties.

Table A.5. Variables and data sources used

| Variable                               | Description  | Source  |
|--|--|---|
| EIA                                    | Discrete variable that takes the value 0 when there is no agreement between trading partners, 1 when the agreement is asymmetrical or one-way, 2 when there is a two-way preferential trade agreement, 3 when there is a free trade agreement and 4 when there is a customs union.   | Florensa, Márquez-Ramos and Recalde (2013); Florensa et al. (2014)  |
| IM: Intensive Margin                   | Growth in exports due to major exporting quantities of a particular good   | Florensa, Márquez-Ramos and Recalde (2013); Florensa et al. (2014)  |
| EM: Extensive Margin                   | Growth in exports due to a wider range of exported goods   | Florensa, Márquez-Ramos and Recalde, (2013); Florensa et al. (2014) |
| RGDP: Exporter's and importer's income | Measures the sum of the logs of real GDPs of the exporter and the importer countries (constant 2005 US\$)  | World Development Indicators, World Bank                            |
| DRGDP                                  | Absolute value of the difference between the logs of real GDPs in the exporter and the importer countries (constant 2005 US\$)   | World Development Indicators, World Bank                            |
| DKL                                    | Absolute value of the difference between capital stock per worker in the exporter and the importer countries (1985 international prices)   | Baier, Dwyer and Tamura (2004)<br>Authors' calculations             |
| NATURAL                                | Log of the inverse of the great circle distances between trading partner country capitals (km)   | CEPII   |
| REMOTE                                 | Relative distance of a pair of continental trading partners from the rest of the world   | CEPII   |
| ADJ                                    | Adjacency dummy  | CEPII   |
| LAND                                   | Landlocked dummy; =1 if at least one trading partner is landlocked.  | CEPII   |
| LANG                                   | Language dummy   | CEPII   |
| POLITY2                                | Varies between 10 (countries strongly democratic) and -10 (highly autocratic)  | Marshall and Jagers (2002)  |
| PR: Political Rights                   | Ranges from 1 to 7, beginning with free and fair elections, competitive parties, the opposition plays an important role and the minority groups have reasonable self-government (value of 1); to lack of political rights as a result of the extremely oppressive nature of the regime sometimes in combination with civil war (value of 7). | Freedom House Organization  |
| IIQ                                    | Index that reflects an agreement's institutional quality. Varies between 0 and 1.  | Kohl, Brakman and Garretsen (2013)                                  |
| INDEX_C (IC)                           | Index of trade agreement heterogeneity measured by the number of WTO provisions covered by an agreement. Varies between 0 and 1.   | Kohl, Brakman and Garretsen (2013)                                  |
| INDEX_E (IE)                           | Index of trade agreement heterogeneity measured by the number of WTO provisions legally enforceable of an agreement. Varies between 0 and 1.   | Kohl, Brakman and Garretsen (2013)                                  |

Table A.6. Marginal effects for 1998

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| <b>Variable</b>   | <b>dy/dx</b> | <b>z-statistics</b> | <b>95% Confidence Interval</b> |        |
|-------------------|--------------|---------------------|--------------------------------|--------|
| EIA = 0           |              |                     |                                |        |
| Rgdp (lagged)     | -0.083       | -5.68               | -0.111                         | -0.054 |
| Drgdp (lagged)    | 0.050        | 3.28                | 0.020                          | 0.079  |
| Dkl (lagged)      | -0.000       | -2.71               | -0.000                         | -0.000 |
| Natural           | -0.384       | -6.04               | -0.509                         | -0.259 |
| Remote            | -0.009       | -1.13               | -0.025                         | 0.007  |
| P_rights          | -0.005       | -0.36               | -0.033                         | 0.023  |
| Polity2           | -0.030       | -2.23               | -0.056                         | -0.004 |
| Log (EM) (lagged) | -0.001       | -0.07               | -0.036                         | 0.034  |
| Log (IM) (lagged) | 0.040        | 2.92                | 0.013                          | 0.066  |
| EIA = 1           |              |                     |                                |        |
| Rgdp (lagged)     | 0.028        | 2.50                | 0.006                          | 0.050  |
| Drgdp (lagged)    | -0.017       | -2.11               | -0.032                         | -0.001 |
| Dkl (lagged)      | 0.000        | 1.83                | -0.000                         | 0.000  |
| Natural           | 0.130        | 3.28                | 0.052                          | 0.207  |
| Remote            | 0.003        | 1.04                | -0.003                         | 0.009  |
| P_rights          | 0.002        | 0.35                | -0.008                         | 0.011  |
| Polity2           | 0.010        | 1.73                | -0.001                         | 0.022  |
| Log (EM) (lagged) | 0.000        | 0.07                | -0.011                         | 0.012  |
| Log (IM) (lagged) | -0.013       | -2.09               | -0.026                         | -0.001 |

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Table A.6. Marginal effects for 1998 (cont.)

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|                   |        |       |        |        |
|-------------------|--------|-------|--------|--------|
| EIA = 2           |        |       |        |        |
| Rgdp (lagged)     | 0.033  | 4.94  | 0.020  | 0.046  |
| Drgdp (lagged)    | -0.020 | -3.00 | -0.033 | -0.007 |
| Dkl (lagged)      | 0.000  | 2.80  | 0.000  | 0.000  |
| Natural           | 0.152  | 3.74  | 0.072  | 0.232  |
| Remote            | 0.004  | 1.10  | -0.003 | 0.010  |
| P_rights          | 0.002  | 0.36  | -0.009 | 0.013  |
| Polity2           | 0.012  | 2.13  | 0.001  | 0.023  |
| Log (EM) (lagged) | 0.001  | 0.07  | -0.013 | 0.014  |
| Log (IM) (lagged) | -0.016 | -2.69 | -0.027 | -0.004 |
| EIA = 3           |        |       |        |        |
| Rgdp (lagged)     | 0.011  | 3.84  | 0.006  | 0.017  |
| Drgdp (lagged)    | -0.007 | -3.03 | -0.011 | -0.002 |
| Dkl (lagged)      | 0.000  | 2.54  | 0.000  | 0.000  |
| Natural           | 0.052  | 3.06  | 0.019  | 0.086  |
| Remote            | 0.001  | 1.16  | -0.001 | 0.003  |
| P_rights          | 0.001  | 0.36  | -0.003 | 0.004  |
| Polity2           | 0.004  | 2.09  | 0.000  | 0.008  |
| Log (EM) (lagged) | 0.000  | 0.07  | -0.005 | 0.005  |
| Log (IM) (lagged) | -0.005 | -2.49 | -0.010 | -0.001 |

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Table A.6. Marginal effects for 1998 (cont.)

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|                   |        |       |        |        |
|-------------------|--------|-------|--------|--------|
| EIA = 4           |        |       |        |        |
| Rgdp (lagged)     | 0.011  | 3.91  | 0.005  | 0.016  |
| Drgdp(lagged)     | -0.006 | -2.09 | -0.011 | -0.002 |
| Dkl(lagged)       | 0.000  | 2.49  | 0.000  | 0.000  |
| Natural           | 0.049  | 3.60  | 0.022  | 0.076  |
| Remote            | 0.001  | 1.13  | -0.001 | 0.003  |
| P_rights          | 0.001  | 0.36  | -0.003 | 0.004  |
| Polity2           | 0.004  | 2.20  | 0.000  | 0.008  |
| Log (EM) (lagged) | 0.000  | 0.07  | -0.004 | 0.005  |
| Log (IM) (lagged) | -0.005 | -2.53 | -0.009 | -0.001 |

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Table A.7. Marginal effects for 2009

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| <b>Variable</b>   | <b>dy/dx</b> | <b>z-statistics</b> | <b>95% Confidence Interval</b> |        |
|-------------------|--------------|---------------------|--------------------------------|--------|
| EIA = 0           |              |                     |                                |        |
| Rgdp (lagged)     | -0.083       | -5.68               | -0.111                         | -0.054 |
| Drgdp (lagged)    | 0.057        | 4.59                | 0.033                          | 0.081  |
| Dkl (lagged)      | -0.000       | -3.73               | -0.000                         | -0.000 |
| Natural           | -0.428       | -6.91               | -0.549                         | -0.306 |
| Remote            | -0.004       | -0.49               | -0.018                         | 0.011  |
| P_rights          | 0.033        | 2.94                | 0.011                          | 0.054  |
| Polity2           | -0.006       | -0.82               | -0.021                         | 0.008  |
| Log (EM) (lagged) | 0.009        | 0.60                | -0.020                         | 0.039  |
| Log (IM) (lagged) | 0.039        | 3.22                | 0.015                          | 0.063  |
| EIA = 1           |              |                     |                                |        |
| Rgdp (lagged)     | 0.001        | 0.13                | -0.017                         | 0.019  |
| Drgdp (lagged)    | -0.001       | -0.13               | -0.013                         | 0.012  |
| Dkl (lagged)      | 0.000        | 0.13                | -0.000                         | 0.000  |
| Natural           | 0.006        | 0.13                | -0.086                         | 0.099  |
| Remote            | 0.000        | 0.13                | -0.007                         | 0.001  |
| P_rights          | -0.000       | -0.13               | -0.008                         | 0.007  |
| Polity2           | 0.000        | 0.13                | -0.001                         | 0.001  |
| Log (EM) (lagged) | -0.000       | -0.13               | -0.002                         | 0.002  |
| Log (IM) (lagged) | -0.001       | -0.13               | -0.009                         | 0.008  |

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Table A.7. Marginal effects for 2009 (cont.)

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|                   |        |       |        |        |
|-------------------|--------|-------|--------|--------|
| EIA = 2           |        |       |        |        |
| Rgdp (lagged)     | 0.013  | 3.56  | 0.006  | 0.021  |
| Drgdp (lagged)    | -0.009 | -3.15 | -0.015 | -0.003 |
| Dkl (lagged)      | 0.000  | 2.96  | 0.000  | 0.000  |
| Natural           | 0.068  | 3.62  | 0.031  | 0.105  |
| Remote            | 0.001  | 0.48  | -0.002 | 0.003  |
| P_rights          | -0.005 | -2.54 | -0.009 | -0.001 |
| Polity2           | 0.001  | 0.80  | -0.001 | 0.003  |
| Log (EM) (lagged) | -0.001 | -0.59 | -0.006 | 0.003  |
| Log (IM) (lagged) | -0.006 | -2.51 | -0.011 | -0.001 |
| EIA = 3           |        |       |        |        |
| Rgdp (lagged)     | 0.057  | 5.83  | 0.038  | 0.076  |
| Drgdp (lagged)    | -0.039 | -4.20 | -0.058 | -0.021 |
| Dkl (lagged)      | 0.000  | 3.73  | 0.000  | 0.000  |
| Natural           | 0.295  | 5.37  | 0.187  | 0.402  |
| Remote            | 0.002  | 0.49  | -0.008 | 0.013  |
| P_rights          | -0.022 | -3.01 | -0.037 | -0.007 |
| Polity2           | 0.004  | 0.82  | -0.006 | 0.014  |
| Log (EM) (lagged) | -0.006 | -0.60 | -0.027 | 0.014  |
| Log (IM) (lagged) | -0.027 | -3.17 | -0.044 | -0.010 |

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Table A.7. Marginal effects for 2009 (cont.)

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|                   |        |       |        |        |
|-------------------|--------|-------|--------|--------|
| EIA = 4           |        |       |        |        |
| Rgdp (lagged)     | 0.011  | 4.07  | 0.006  | 0.017  |
| Drgdp (lagged)    | -0.008 | -3.51 | -0.012 | -0.003 |
| Dkl (lagged)      | 0.000  | 2.99  | 0.000  | 0.000  |
| Natural           | 0.058  | 3.93  | 0.029  | 0.087  |
| Remote            | 0.000  | 0.49  | -0.001 | 0.002  |
| P_rights          | -0.004 | -2.97 | -0.007 | -0.002 |
| Polity2           | 0.000  | 0.81  | -0.001 | 0.003  |
| Log (EM) (lagged) | -0.001 | -0.59 | -0.005 | 0.003  |
| Log (IM) (lagged) | -0.005 | -2.70 | -0.009 | -0.001 |

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