Do Ambassadors Matter? The effect of ambassadors on trade promotion.

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Abstract

This paper examines the impact of ambassadors on trade promotion, utilizing the 2012 Paraguayan political crisis as a natural experiment. Using highly disaggregated customs data and a difference-in-differences approach, I analyse how the unexpected withdrawal of Argentina's ambassador affected bilateral trade patterns. My findings reveal that the ambassador's absence led to a significant decrease in Paraguay's imports from Argentina, primarily driven by reductions in the extensive margin of trade. I observed a 3% decline in the number of suppliers and a 5% decrease in the number of imported products. To elucidate the mechanisms, I analyse data on commercial and specific actions undertaken by the Argentine embassy in Paraguay. Results indicate that the ambassador's absence corresponded with a substantial decrease in both major trade events and smaller, targeted activities, despite no change in the embassy's budget allocation. The analysis is robust to various specifications, including different regional samples and trade volume thresholds. This research contributes to the literature on economic diplomacy by providing causal evidence of ambassadors' role in facilitating international trade, particularly in establishing new trade relationships.

Keywords: International Trade, Economic Diplomacy, Trade Promotion, Ambassadorial Impact, Extensive Margin of Trade, Natural Experiment, Diplomatic Relations, Export Diversification, Trade Policy, Bilateral Trade, Developing Economies, Difference-in-Differences.

Códigos JEL: F10, F13, F14, F51, F55, F59, O19, O24

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"And above all, an ambassador must be ingenious in acquiring a reputation, which is acquired by giving of himself examples of a good man, and be considered liberal, whole, and not greedy and double, and not be regarded as one who believes one thing and says another."

Machiavelli, N. (1522). Letter to Rafael Girolami.

Section I. Introduction

Ambassadors have played a crucial role in the history of diplomacy and the history of international relations in general (Kissinger, 2014). Initially carried out by clerics, the institutionalization of the ambassadorship took place well into the 15th century, when the Italian city-states began to systematically exchange messages, envoys, and ambassadors in order to survive in a politically unstable European context (Kissinger, 2014; García Jurado, 2016). The nascent Renaissance states needed permanent representatives to other powers to ensure continued interaction and to establish a diplomatic presence that recognized the full existence of different states (García Jurado, 2016; Black, 2014).

With the increase in international interactions, countries now send entire diplomatic corps, led by ambassadors, who are responsible for representing the interests of the sending country in the receiving country, working to promote economic, cultural, and scientific relations, among other things (Black, 2014; Galluccio, 2015). Although consuls are also part of these diplomatic missions, their functions are devoted to the protection of the nationals of the sending State in the receiving State, the provision of aid and assistance to nationals, the issue of passports, travel documents, and visas, the performance of notarial and civil registry duties and, in general, the exercise of certain administrative functions (United Nations, 1963; Feltham, 2004).

Ambassadors have a broader and crucial purpose (Kissinger, 2014). In developing this work, in-depth interviews were conducted with a number of ambassadors and diplomatic staff whose perceptions and experiences were fundamental to understanding the scope and depth of the functions performed by diplomatic missions. According to the interviews, ambassadors are not only responsible for protecting the interests of the sending State and its citizens under international law but also play a crucial role in negotiating with host governments and in investigating and reporting on conditions and developments in the receiving State. Beyond consular representation, countries, through their embassies, actively seek new market opportunities for their companies and products abroad and work closely with key institutions that can facilitate trade and economic relations. This extensive role of ambassadors underlines their integral role in economic diplomacy and the promotion of national economic interests in a global context (Barston, 2019).

In this context, trade promotion emerges as an essential component of economic diplomacy, which not only focuses on strengthening trade ties but also on

facilitating cultural and scientific exchange between nations (Barston, 2019). The task of ambassadors in trade promotion involves a series of initiatives that go beyond the mere promotion of free trade or the negotiation of preferential agreements. Depending on the type of background they possess (contacts, political and economic experience, years of service), ambassadors aim at connecting potential suppliers and importers, coordinating tasks together with trade promotion agencies, developing knowledge about foreign consumer preferences and specific entry regulations, as well as promoting the culture of the country of origin (Feltham, 2004; Galluccio, 2015).

This paper aims to explore the economic impact that ambassadors have on the facilitation of international trade, with a particular focus on how these diplomatic figures promote the insertion of new products and new partners. Using a quasi-experimental research design, this paper seeks to identify and quantify the actual effect of diplomacy on trade promotion, thus contributing to a deeper understanding of economic diplomacy as a foreign policy tool. Our main hypothesis, derived from interviews with former ambassadors, is that ambassadors influence the extensive margin of trade, i.e., the creation of new economic relationships between countries. By combining Paraguayan trade data with embassy activity data and with interviews with diplomats and key international trade actors, this study will highlight the critical importance of ambassadors in the economic sphere.

Our main results suggest that ambassadors play an important role in the extensive margin of exports. In contrast, results are less clear for the intensive margin or the general performance of trade. In this sense, my approach suggests that the effect of ambassadors is important when I look at the number of suppliers and the number of products that are involved in the commercial relationship between two countries. When I look at why this happens, our analysis of mechanisms suggests that the number of trade actions drops in the absence of an ambassador, both in terms of trade fairs or major events and in terms of market reports and small actions that may affect countries' trade performance, even though the budget allocated to the embassy does not change in the absence of the ambassador.

This paper is structured as follows. Section II does a literature review; Section III discusses our empirical approach and the natural experiment. Section IV presents the data sources and descriptive evidence, while Section V specifies the econometric approach. Section VI presents the results and explores the mechanisms and robustness checks. Finally, Section VII draws some conclusions.

Section II. Literature Review

Establishing if diplomacy has a real impact on home country producers has been at the eye of the economic literature over the last 20 years, mainly because of their potential effects on information barriers. Information barriers are an important

obstacle to trade because it is costly to learn about market conditions abroad (Allen, 2014), principally due to search frictions and challenges in establishing trust with foreign partners (Startz, 2021; Carballo et al., 2022). While contract enforcement can play a role, recent literature suggests that facilitating the search for information about foreign markets can significantly affect the volume and benefits of trade, potentially leading to welfare gains (Startz, 2021). Moreover, this external information can facilitate exposure to business practices in developing countries that can be successfully introduced domestically, which could help the emergence of "export pioneers". Artopoulos, Friel, and Hallak (2013) argue that knowledge of foreign markets, rather than production experience, is a major constraint for developing country firms seeking to establish a consistent presence in developed markets.

New technologies, online platforms, face-to-face travel, government subsidization of investment, and institutions, in general, can mitigate these problems and their impact on well-being (Jensen, 2007; Carballo et al., 2022; Startz, 2021; Hausmann & Rodrik, 2002). One particular type of institution that has grown in number and importance is Export Promotion Agencies (EPA). Empirical evidence generally points to the positive effects of EPAs on exports, increasing both the intensive and extensive margins of trade (Cruz et al., 2018). However, the size and significance of these effects vary across countries and firm sizes (Volpe Martincus & Carballo, 2008; 2010)[1].

Trade promotion activities aimed at reducing information gaps should have a causal effect on exports. If so, the impact of ambassadors and diplomacy in general should be consistent with the effects of EPAs. Volpe Martincus et al. (2011) explore this hypothesis and assess the role played by both diplomatic missions and offices of export promotion agencies abroad in shaping the bilateral exports of Latin American and Caribbean countries along the intensive and extensive margins. They find a positive impact on both institutions, which is large in the case of EPAs.

Depending on the type of goods that countries export, the impact of diplomacy could be different. Volpe Martincus et al. (2010) investigate the role of export promotion institutions and diplomacy in shaping the extensive margin of Latin American and Caribbean countries' exports from 1995 to 2004. They find that EPAs significantly increase the number of differentiated goods exported. In contrast, a larger number of diplomatic representations in importer countries are

[1] This type of institution is inextricably linked to the bureaucracy's ability to assess the objectives of the agency. While measuring the capacity of the bureaucracy is complex, it is strongly associated with economic development (Besley et al., 2022) and, in particular, with export promotion as a mechanism of industrial policy success (Barteska & Lee, 2024). In line with this, Nitsch (2023) highlights that individual differences of ambassadors can partially explain patterns of trade.

associated with an increase in exports of a larger number of homogeneous goods. This difference is attributed to the specific roles these institutions play; EPAs are more effective in addressing complex information issues related to exporting differentiated goods, while embassies and consulates, often lacking commercial sections, are more likely to facilitate exports of homogeneous products, which face weaker informational barriers and require less marketing expertise.

More in line with the scope of the present paper, there is a strand of literature assessing the specific impact of diplomatic representation (embassies and consulates) on exports. Rose (2007) found that bilateral exports increased between 6 and 10% for every additional consulate and that this effect was even more significant for the creation of an additional embassy. Yakop and van Bergeijk (2009) focus on the role of diplomacy as a facilitator of trade, concluding that diplomacy could reduce search costs, especially for developing countries. Head and Ries (2010) examine the efficacy of Canadian commercial missions in stimulating international trade. Using bilateral trade data between 1993 and 2003, they conclude that, despite the greater amount of trade that Canada has with countries to which they send commercial missions, missions per se do not have a significant impact on trade.

Despite technological advances that reduce transport costs and formal trade barriers, informal barriers, such as cultural and institutional differences, continue to hinder international economic flows. In this regard, Moons and Van Bergeij (2017) argue that economic diplomacy is recognized as a tool for overcoming these intangible barriers to trade and investment. Economic diplomacy includes the activities of national governments through their international networks, embassies, consulates, and other public-sector business support facilities.

Ahmed and Slaski (2022) highlight the significant role of ambassadors in trade promotion, particularly in weaker institutional environments. Using data from United States ambassadorial assignments and an instrumental variables strategy, they show that vacancies in ambassadorial positions can reduce monthly US exports, especially in countries with lower governance quality. This finding underscores the importance of continued diplomatic presence in maintaining and enhancing trade relations.

More recently, Visser (2019) also investigated the impact of diplomatic representation on international trade. With a panel dataset covering 100 countries between 1985 and 2005, the paper expands the understanding of the effect of diplomatic missions on the extensive and intensive margins of trade, finding that diplomatic representation has a significant effect on the extensive margin of trade rather than on the intensive margin but still significantly boosts exports, especially of differentiated goods, which is somewhat in contradiction to the results of Volpe Martincus et al. (2010).

Despite these previous findings, the literature has yet to manage to provide accurate estimations on the causal effect of diplomacy on economic activity as it has not been able to solve endogeneity and reverse causality concerns. Most studies use gravity equations to estimate the impact of ambassadors on exports (Volpe Martincus & Carballo, 2008; Jordana et al., 2010; Volpe Martincus et al., 2011). While useful, these studies could be affected by the omitted variable bias problem. Other studies, such as Head and Ries (2010), try to assess the impact of diplomacy using panel data, introducing multiple fixed effects and controls to purge the error term. Supposing that this strategy solves the omitted variable bias problem, this does not ensure that the issue of reverse causality has been properly addressed, where ambassadorial missions go to places where exports are already high. In this context, using IV, as in Ahmed and Slaski (2022), could be a solution, but it seems difficult for the instrument complies with the exogeneity condition. The present paper aims to address this gap by studying the phenomenon of economic diplomacy through the lens of a natural experiment and thus revisiting the role of diplomacy on the intensive and extensive margin of international trade.

Section III. Context

In 2012, a serious political crisis hit Paraguay. On 22 June, after a brief impeachment trial against the then president Fernando Lugo, Congress accused the elected president of misconduct and voted to remove him from office, following political accusations of failure to take responsibility for a series of events and the break-up of the ruling coalition Patriotic Alliance for Change, which included the Authentic Radical Liberal Party (PLRA), one of Paraguay's most traditional groupings, and other minor parties.

Beyond the internal discussions involving Paraguayan procedural law, the international community responded in different ways, with rejection and condemnation from neighboring Latin American countries predominating. In this context, the other full members of Mercosur (Argentina, Brazil, and Uruguay), as well as several other countries in the region (such as Venezuela, Bolivia, Ecuador, and Nicaragua), expressed their opposition to Lugo's removal from office.

On 22 June 2012, Brazil suggested expelling Paraguay from the bloc. Although expulsion was never achieved, the other full members of Mercosur voted on 28 June to suspend Paraguay from interfering in the bloc's political decisions until the democratic elections scheduled for April 2013 were held. Despite this, it is worth noting that Paraguay's suspension from political decisions did not mean any change in economic or tariff policy in relation to the bloc or the bloc's relations with Paraguay.

However, both Argentina and Venezuela decided to go further and deepen their rejection. In the first case, on Saturday, 23 June, through press report 208/12 from

the Ministry of Foreign Affairs of Argentina, the Argentine government ordered the withdrawal of its ambassador in Asunción, Rafael Romá. After this, the embassy would not return to normal operations until 4 September 2014, with the appointment of Ana Corradi, leaving more than two years in which the diplomatic representation was left without the highest diplomatic representation.

This case is particularly important because Romá was a political ambassador (former vice-governor of the province of Buenos Aires) who maintained fluid contacts with members of local politics. His tenure, which lasted more than five years, is notable for its length and his active commercial agenda. The number of major commercial actions (trade missions, fairs, product presentations, business meetings, among others) increased from 4 in 2007 (the year he took office) to 14 in 2012, with an average of almost nine actions per year. Following his departure, the number of commercial actions did not recover until 2015, when they reached 12. A similar trend is observed in the so-called "specific actions," which include the creation of market reports, the dissemination of trade opportunities among local chambers of commerce, and collaboration with business clusters to promote their products. This issue will be further discussed in section 6.

In the second case, on Sunday, 24 June, Venezuela followed in Argentina's footsteps. It withdrew its ambassador, José Arrúe de Pablo, until 11 October 2013, when Alfredo Murga took over the Venezuelan embassy in Asunción. Unlike Argentina, however, its ambassador had been in office for less than two years and was not in the country at the time Venezuela announced its withdrawal. Even after the announcement, Paraguay also decided to recall its ambassador to Venezuela, claiming that the Venezuelan government was trying to meddle in Paraguay's internal affairs.[2].

Despite the interconnected nature of diplomacy and trade, the decision by both Argentina and Venezuela to withdraw their ambassadors from Paraguay was driven by political rather than economic motives. As their foreign ministries publicly stated, both ambassador removals were a political response to what was seen as an "attack against democratic institutions." Thus, their actions were more indicative of measures of political solidarity than of a commercial strategy. Moreover, the Paraguayan political crisis that ended with the lack of President Fernando Lugo was fast and unexpected, shaking regional politics. For these reasons, this crisis serves as a natural experiment that caused an exogenous variation in the presence of the ambassadors of both countries in Paraguay.[3].

[2] Media coverage of the time even shows a tense relationship between Paraguay and Venezuela, a relationship that has been maintained until recent years. This imposes some challenges to the identification strategy, which I will address in the following section.

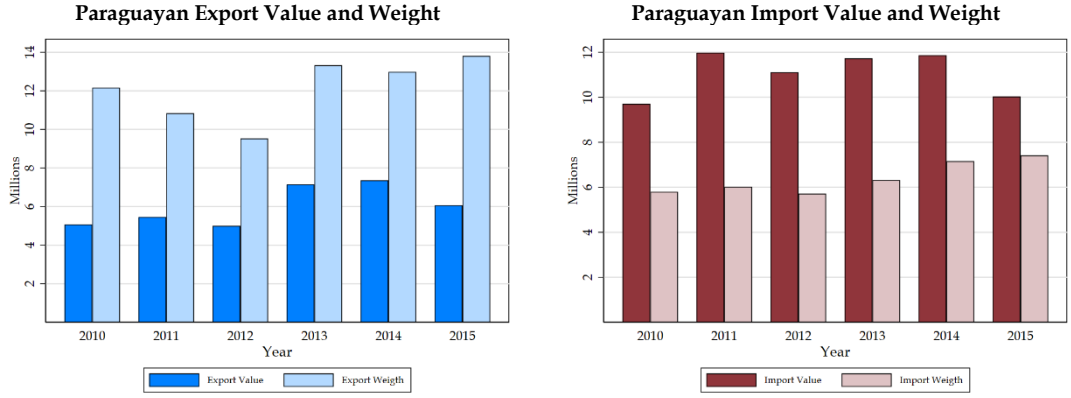
[3] Section 6 on mechanisms will also show that the budget allocated to the embassy remained the same. This helps to dispel doubts about an implicit Argentine attitude in its trade policy that could have affected trade with Paraguay in any way other than through its ambassador.

Section IV. Data and descriptive statistics

Paraguayan customs have highly disaggregated data on all trade flows at the origin-importer-supplier-product-destination level by day of transaction (both officialization and cancellation). In addition to value or quantity data (FOB value and kilograms), it has other data such as type of purchase contract, freight costs, and insurance, among others, as well as data that can be calculated, such as days of financing or unit value. The level of disaggregation of the products is 12 digits of the Harmonized System (HS), and data are available from 2010 to 2015 inclusive.

Paraguay's export dynamics are highly volatile, mainly due to the preponderance of agricultural and livestock products in its export basket. These goods, intrinsically subject to exogenous factors such as fluctuations in global market prices and adverse weather conditions, among others, give the country a certain economic susceptibility. Figure 1 (left side) shows this dynamic, in value and weight, for our sample, where two periods can be visualized: one up to 2012, with a fall, influenced by poor harvests and adverse weather conditions; and another, from 2013 onwards, with a marked recovery due to better weather conditions boosted by good international prices.

Figure 1. Evolution of the Paraguayan Exports and Imports (2010-2015)

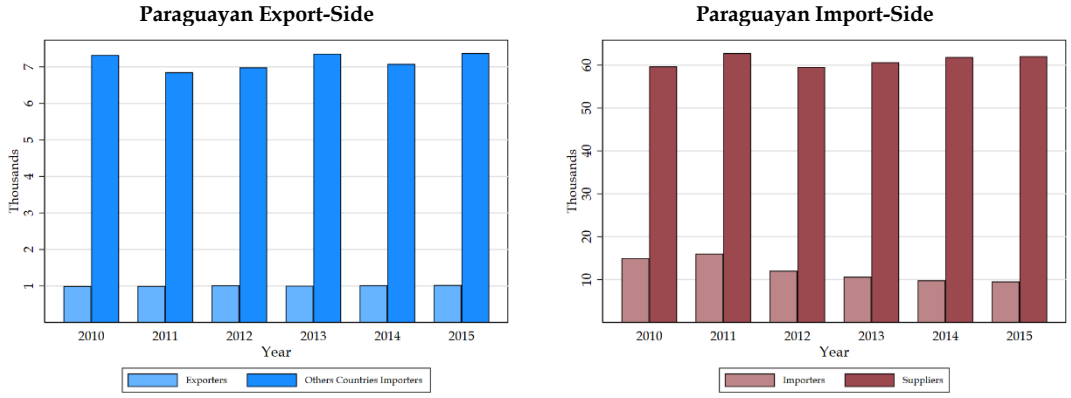


Source: Own elaboration using data from Paraguayan Customs.

Figure 1 (right side) also shows the evolution of Paraguayan imports. It can be seen that the import value, represented by the darker shaded bars, exhibits a slight increase over the period, with a peak in 2013 followed by a significant decrease in 2015. On the other hand, the import quantity, illustrated by the lighter shaded bars, shows a general trend of growth, with less pronounced variations compared to the import value. The higher unit values presented by these imports (we can say that the import value is higher than the quantities for these imports) are mainly due to the import of capital goods dedicated to agriculture, such as machinery, equipment, and electrical appliances, which represent about one-third of Paraguayan imports.

While this accounts for total values, Figure 2 shows the number of importers and suppliers, both on the export side and the import side. What can be seen is that while the number of exporters has remained stable, the number of importers has decreased. However, the most salient point concerns the large difference between the number of exporters and recipients from other countries and between the number of importers and suppliers, giving the intuition that, on average, both importers and exporters trade with many counterparts.

Figure 2. Evolution of the Paraguayan Trade Agents (2010-2015)



Source: Own elaboration using data from Paraguayan Customs

Table 1 provides a comprehensive overview of Paraguay's international trade dynamics from 2010 to 2015. Paraguay's import market shows remarkable diversity, sourcing from an average of 160 countries and encompassing 4,000 distinct products annually. This breadth of import sources and product types underscores the complexity of Paraguay's international trade relationships. In contrast, Paraguay's export market, while still substantial, is more concentrated. On average, exports reach 150 countries and comprise 1,600 products per year. This overview of Paraguayan trade provides the basis for understanding the environment in which Paraguay's diplomatic and commercial relations developed.

Table 1. Sample Summary Statistics.

Year	Exporters	Destinations	Other Countries Importers	Exported Products	Importers	Origins	Suppliers	Imported Products
2010	999	143	7,324	1,209	15,002	125	59,685	3,989
2011	1,001	144	6,852	1,216	16,063	134	62,784	3,995
2012	1,018	141	6,985	1,239	12,056	132	59,589	3,992
2013	1,006	138	7,361	1,277	10,658	142	60,664	3,998
2014	1,019	151	7,079	1,308	9,814	147	61,863	4,001
2015	1,025	161	7,376	1,442	9,564	153	62,074	4,008

Source: Own elaboration using data from Paraguayan Customs

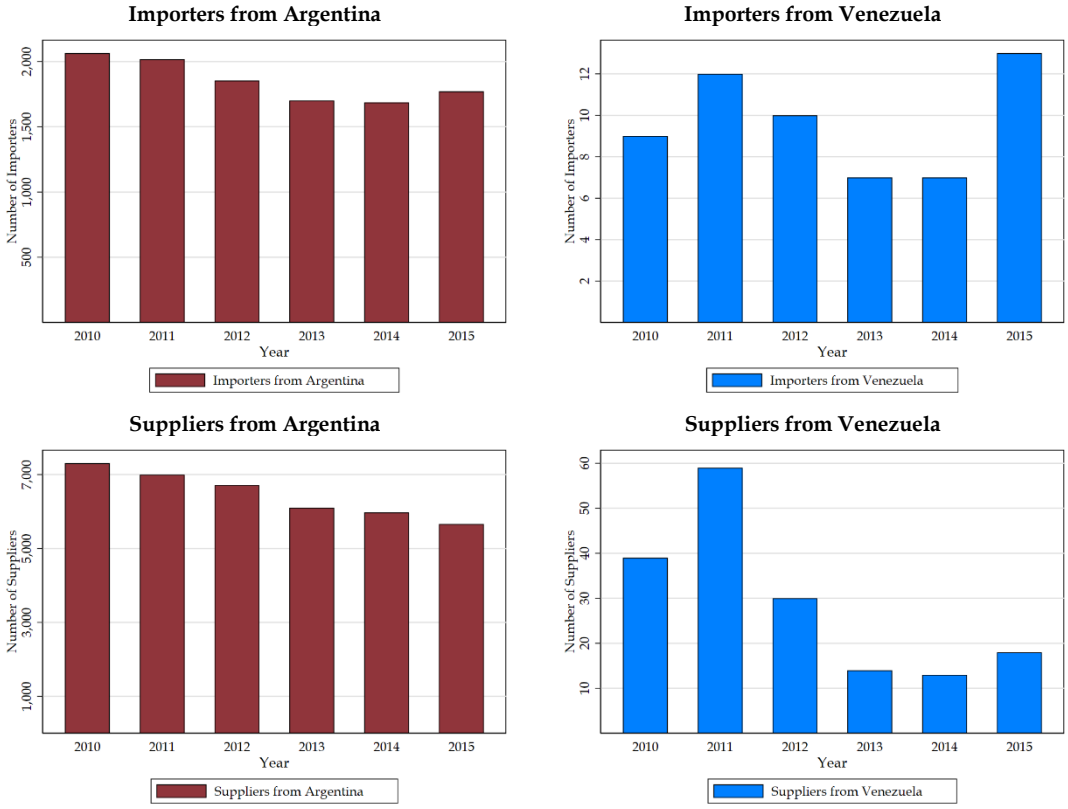
The relationship with Argentina and Venezuela

There are big differences in the type of international trade that Paraguay has with Argentina and Venezuela. In our sample, Argentina was one of the top 3

countries for Paraguayan imports, while Venezuela was in 12th place. However, more importantly, Paraguay's import performance with Venezuela is only in one type of product: fuels. 98.9% of Paraguay's imports from Venezuela come from Chapter 27, which is dedicated to "fuels and other petroleum products." On the other hand, Argentina is not only the third country with which Paraguay imports the most in terms of value but also the fourth country that brings in the greatest number of products into the country during our period of analysis.

The evolution of the number of products and the number of importers and suppliers for each of these countries is important for our hypothesis on the extensive ambassadorial margin. Figure 3 summarises the evolution of the number of importers and suppliers for each country. As can be seen, the number of importers from Argentina far exceeds the number of importers from Venezuela. The same applies to the number of suppliers from both countries.

Figure 3. Paraguayan Importers and Suppliers from Argentina (2010-2015)



Source: Own elaboration using data from Paraguayan Customs

The rich dataset of Paraguay's customs data allows for the disaggregation and granular analysis of Paraguay's foreign trade and, in particular, the bilateral relationship with Argentina and Venezuela. In this sense, the period under analysis presents major differences between these bilateral relations. While Argentina is one of Paraguay's main trading partners, Venezuela presents itself purely and exclusively as an exporter of oil. This situation hints at two challenges to our estimation. First, it challenges our identification strategy because oil production and export in Venezuela are mainly public, and Venezuela's

institutions are widely recognized to have high levels of corruption (Di John, 2015; Hammond, 2011) or to be extractive (Acemoglu & Robinson, 2010).

Second, the oil trade has been shown to have problems with registration by customs, which has led many studies to exclude Chapter 27 from the estimates (see Bortoluzzi et al. (2015) and Cebeci et al. (2012)). If we were to make this exclusion, the number of observations we have to identify the effect of the Paraguayan ambassador's withdrawal would be close to zero.[4] These two reasons, coupled with the tense relationship between Paraguay and Venezuela that prevailed between the two countries, impose important challenges to the estimation strategy. For these reasons, our approach will exclude the trade relationship between Paraguay and Venezuela from both the treatment and control groups.

It is crucial to highlight that this exclusion is not due to the results themselves but to the challenges mentioned above. The results remain robust even when including Venezuela, which is shown in the appendix. In this sense, and as I show in section 6, I will estimate the effect of the Argentinean ambassador's absence on the rest of the countries that trade with Paraguay.

Section V. Empirical Specification

Empirical Approach

I will follow an approach similar to Bernard et al. (2012) to decompose aggregate exports into their components, with the aim of analyzing how these components change over time. Cross-sectional aggregate bilateral trade between any two countries can be decomposed into the extensive margin of the number of firms and products involved and the intensive margin of the average firm-product exports. In the case of imports, this is summarised as follows:

$$M_{ic} = F_{ic} \cdot P_{ic} \cdot \bar{m}_{ic} \quad (1)$$

Where subindex i denotes the importer country, and c represents the origin of that import. M_{ic} is the total imports, F_{ic} is the number of firms, P_{ic} is the number of products, and $\bar{m}_{ic}$ is the average firm-product imports. Note that $\bar{m}_{ic} = M_{ic}/(F_{ic} \cdot P_{ic})$, and the identity is guaranteed.

I will adapt this general framework in two ways. First, since this is a cross-sectional framework, a natural extension should include the time dimension. Second, I have data that can be used on the firm dimension and suppliers' data that can be used to analyze how this number changed over time. If we want to

[4] Even more, such low diversification would imply very little chance of obtaining accurate results about ambassadors' influence on an extensive margin, i.e., in the generation of new economic relationships between two countries.

explain the extensive and intensive margin of a firm importing from a foreign country, equation (1) can be expressed as

$$M_{fict} = S_{fict} \cdot P_{fict} \cdot \bar{m}_{fict} \qquad (2)$$

Where M_{fict} are the total imports of firm *f* of country *i* from country *c* at time *t*. Then S_{fict} is the number of suppliers, P_{fict} is the number of products that the firm imports, and $\bar{m}_{fijt}$ is the average imports per supplier-product. Again, note that $\bar{m}_{fict} = M_{fict}/(S_{fict} \cdot P_{fict})$ and the identity is completed. Then, to explore the dynamics of each component, we can take the natural logarithm on both sides and then we have

$$\ln(M_{fict}) = \ln(S_{fict}) + \ln(P_{fict}) + \ln(\bar{m}_{fict})$$

Each of the three components is regressed in the two-way fixed effects setting, which I will explain in the next subsections, in order to analyze the effect of the unexpected absence of the ambassador. Note that since country *i* is just one country (Paraguay), I will omit this subindex from the following notation, then resulting in

$$\ln(M_{fct}) = \ln(S_{fct}) + \ln(P_{fct}) + \ln(\bar{m}_{fct}) \qquad (3)$$

Database Construction

To build our database, I use detailed information provided by Paraguayan customs on all import transactions at the origin-importer-supplier-supplier-product-destination level, with daily data from 2010 to 2015. This rich data source allows us to observe not only aggregate import values but also the number of suppliers, the number of products, and the average value per transaction.

Initially, I consolidated the daily data into monthly observations for each importer-origin-product combination. This aggregation allows me to capture the monthly dynamics of trade while maintaining a sufficient level of detail for our analysis. Then, I compute the following key variables for each monthly observation:

1. The total value of imports by importing firm-origin-time (M_{fct}).
2. Number of unique suppliers per importing firm-origin-time (S_{fct}).
3. Number of unique products per importing firm-origin-time (P_{fct}).
4. Average value per supplier-product for each importing firm-origin-time ($\bar{m}_{fct}$).

Where *f* represents the importing firm, *c* is the country of origin, and *t* is the month. After applying these criteria, our final sample consists of more than 439 thousand observations, covering more than 150 countries of origin, 16 thousand importing firms, 62 thousand suppliers, and 4 thousand unique products. While Table 1 in the Data and Descriptive Statistics section provides a comprehensive

overview of our dataset, Table 2 is presented here to focus specifically on the import data that are crucial for our empirical analysis:

Table 2. Database Statistics.

Year	Importers	Origins	Suppliers	Imported Products
2010	15,002	125	59,685	3,989
2011	16,063	134	62,784	3,995
2012	12,056	132	59,589	3,992
2013	10,658	142	60,664	3,998
2014	9,814	147	61,863	4,001
2015	9,564	153	62,074	4,008

Source: Own elaboration using data from Paraguayan Customs

It is important to note that, although Venezuela was initially considered in our research design, I decided to exclude it from both the treatment and control groups due to the particular nature of its exports to Paraguay (98.9% corresponding to fuels) and the tense diplomatic relationship between the two countries during the study period. This decision was taken to avoid potential biases in our estimates. The final result is a sample with 438,085 observations.

Econometric Specification

As explained before, Paraguayan customs has highly disaggregated data that will be used to achieve our goal. In this sense, I propose to use the import data provided by Paraguayan customs at the origin-importer-product level to estimate the following two-way fixed effects model:

$$\ln(Z_{fct}) = \beta \cdot \mathbb{I}(\text{AmbassadorOut})_{ct} + \delta_{fc} + \delta_{c-month} + \delta_{ft} + \varepsilon_{fct} \quad (4)$$

Where *f* represents each importing firm, *c* the country of origin and *t* the point in time (grouped at month level). Z_{fct} is an outcome at the importing firm-origin-time level that will be used in natural logs consistent with equation 3[5]In this sense, Z_{fct} will be each of the four characteristics that I described in the last subsection: the number of suppliers S_{fct}, the number of products P_{fct}, and the average import per supplier-product $\bar{m}_{fct}$.

On the other hand, $\mathbb{I}(\text{AmbassadorOut})_{ct}$ is a dummy that takes value 1 for importer *f* with origin in Argentina (*c* = Argentina) since June 2012 till May 2014[6], leaving the sample with 23 treated months. Observations of the importer in the same period that are imported from other origins will take value 0. δ_{fc} is an importer-origin fixed effect, and δ_{ft} is an importer-time fixed effect. Finally, since each origin country shows seasonal trends in the imports from Paraguay,

[5] Since I have only one origin country and all importer firms correspond to that country, an importer-country-origin-time outcome is equal to an importer-origin-time outcome ($Z_{fict} = Z_{fct}$).
[6] In the case shown in Appendix 3, where Venezuela is kept under the sample, the variable also takes value 1 for importer-origin (*fc*) with origin in Venezuela (*c* = Venezuela) from June 2012 till November 2013, leaving us with 18 treated months for this country of origin.

$\delta_{c-month}$ is an origin-month fixed effect. This fixed effect groups each month from each origin, capturing those seasonal trends related to import origins. The inclusion of these fixed effects ensures that the estimates are purged of biases that could arise from time-invariant differences between imports of the same import origin, as well as from common temporal shocks to the origin of imports.

Following Abadie et al. (2023), it is crucial to delineate the sampling generation process to accurately quantify the uncertainty of parameter estimates, as this helps to account for any potential biases and ensures the robustness of the econometric analysis. In this study, I have access to the complete population of Paraguayan imports for a period of six years (2010 to 2015, inclusive). This dataset is not randomly selected, which is a common characteristic in the international trade literature where samples often need to be more balanced due to periodic selection by firms in international markets.

Since the treatment varies by country of origin and time, estimating the variance using clusters at the country-of-origin level would be a natural treatment of the standard errors. However, clustering only at the origin level would likely underestimate the estimator's variance because of the problem of a few heterogeneous clusters[7] (Carter, Schnepel, & Steigerwald, 2017; Cameron & Miller, 2015) and the existence of only one treated cluster (Conley & Taber, 2011; Cameron & Miller, 2015)[8]. Given these issues, I propose to use clusters at the treatment level, i.e., at the origin-month level. This approach aligns with the recommendations from Cameron and Miller (2015), as well as Carter, Schnepel, and Steigerwald (2017). The differences in variance and the underestimation of variance with origin-level clustering can be observed in Appendix 1.

To ensure the consistency of our estimates in relation to the selection of the sample of countries of origin of Paraguay's imports, a first robustness check proposes to estimate with the base reduced to Latin American countries to see if there was a differential causal effect within the continent and to avoid that the effect exists only because imports from other countries are very low. In this sense, the following section shows the results for the full sample, and the following subsections explore some mechanisms behind this finding and show different robustness exercises.

[7] Despite the fact that the sample has 189 countries in total (countries that interacted at least once with Paraguayan imports), the list of balanced countries, i.e., those that appear during all the months of the sample, is only 50. Moreover, these 50 countries have high degrees of intra-cluster heterogeneity, with average values imported by Paraguay ranging from 10 thousand dollars in origins, such as Romania or Hungary, to an average of 350 thousand dollars imported from China.

[8] Imbens and Kolesar (2016) discuss methods such as the use of bias-corrected robust standard errors, while MacKinnon and Webb (2017) propose the use of wild cluster bootstrap techniques to address the problem of a few heterogeneous treated clusters.

This study also incorporated a qualitative component to complement our quantitative analysis and gain a deeper understanding of the underlying mechanisms. Four semi-structured interviews were conducted with former ambassadors and people from the diplomatic arena between June 2023 and March 2024. These interviews lasted an average of 30 minutes each. The insights gained from these interviews were used to inform the interpretation of our econometric results and to provide additional context to our quantitative findings.

Section VI. Results

Table 3 reports the results of the estimation of the two-way fixed effects models for equation (4) regarding the extensive and intensive margins of exports, as explained in the previous sections. These results show that during the episodes in which Argentina withdrew its ambassador, there was a discernible effect of a 4% decrease in the value of Paraguay's imports and an 8% decrease in quantities. Both effects are statistically significant at the 10% level, suggesting a moderate level of confidence that warrants a cautious interpretation of these results.

Table 3: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
$\mathbb{I}$(Ambassador Out)$_{ct}$	-0.0488*	-0.0792*	-0.0365**	-0.0495***	0.0371**	0.00681
S. E. Clustered by						
Origin-Month	(0.0296)	(0.0408)	(0.0150)	(0.0189)	(0.0164)	(0.0224)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Full	Full	Full	Full	Full	Full
Observations	438,085	438,085	438,085	438,085	438,085	438,085

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

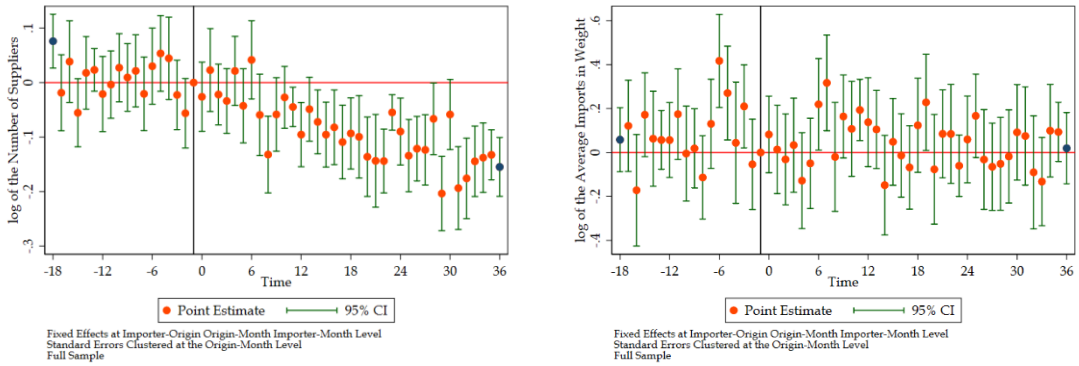
Source: Own elaboration based on Paraguayan customs' data.

The estimates underlying these declines are further explored in columns 3 to 6. Consistent with most of the existing literature, the effects are mainly due to a contraction in the extensive margin of exports. This contraction is evidenced by a decline of more than 3% in the number of suppliers and a decline of about 5% in the number of products. However, an interesting divergence is observed in column (5), which shows a marginal increase in the value of the intensive margin, in stark contrast to the null effect on quantities outlined in column (6). This dichotomy suggests a possible change in the composition of goods traded by firms or a price dynamic that compensates for the reduction in the volume of imports. In comparison with the previous columns, this evidence suggests that the absence of the ambassador had a more pronounced effect on the extensive margin than on the intensive margin, which needs to be clearly affected.

The history recorded in these results is consistent with the results of the four interviews conducted with former ambassadors and people from the diplomatic environment. The same notion always emerged from them: ambassadors *may have* an effect on the insertion of products abroad or on the generation of economic relations but not an effect on the deepening of those economic relations since deepening pre-existing relations is separate from their tasks.

With this in mind, Figure 4 shows the number of suppliers and average quantities imported as a difference-in-differences model (Appendix 2 shows the results for all variables). These graphs support the results shown in Table 3. The extensive margin, measured in this case with the number of suppliers, shows a drop mainly seven months after the departure of the Argentine ambassador. These results are consistent with the change of year, i.e., in 2013, when the ambassador no longer had any influence on the companies' results. I will explore this argument further in the mechanisms section, but since the activities are planned, this would be indicative evidence that the activities planned by the ambassador, even though he is not present, continued to affect the firms' results.

Figure 4: Effect over the number of suppliers and the mean quantity



Source: Own elaboration based on Paraguayan customs' data.

Overall, this suggests that the suggestions formulated by former ambassadors about their work find some empirical support. There is no evidence of a deepening of existing economic relationships, but as a consequence of their absence, there is a decrease in the number of new economic relationships, which ultimately has a negative effect on their country's imports. In the following subsections, hypotheses about the mechanisms behind these results are developed and tested, and some robustness exercises are performed.

Mechanisms

There are several ways in which the effect of the ambassador's absence can take place. To explore these possible mechanisms behind the effects observed in the quantitative results, I complemented the analysis with in-depth interviews. The insights gained from these interviews suggest several potential mechanisms through which ambassadors could influence trade relations:

1. Facilitating connections: Ambassadors could play a role in linking companies from their country with potential buyers in the host country. For example, one former ambassador commented:

   > "*Argentine companies would contact me by phone, and I would organize visits and fairs. Local companies would also contact me, and I would get them suppliers from Argentina. Once the contact was made, I did not interfere anymore, and the negotiation became exclusively private.*".

2. Organizing trade events: Despite the fact that some participants in the diplomatic environment proved to be "skeptical" about the influence of trade fairs, organizing trade fairs and networking events could help businesses showcase their products and make new contacts. A participant in the diplomatic arena said:

   > *"I am skeptical about the effect of trade fairs in particular, but the overall effect and the role of ambassadors in informing companies from other countries about products from the country of origin is very important. Especially if they* (ambassadors') *have lobbying power.".*

3. Information provision: The ambassadors prepare market reports, commercial promotions (marketing), and sponsorships, among other things. Due to new technologies, a former ambassador also suggested campaigns with local influencers to promote specific products.

Although customs data provide us with limited information on the specific mechanisms of ambassadorial influence, the Ministry of International Relations of Argentina provided additional data on the commercial actions of the Argentine embassy in Paraguay for the period 2005-2015. These data are presented in two distinct sets, each with unique characteristics that allow us to analyze different aspects of commercial and diplomatic activity.

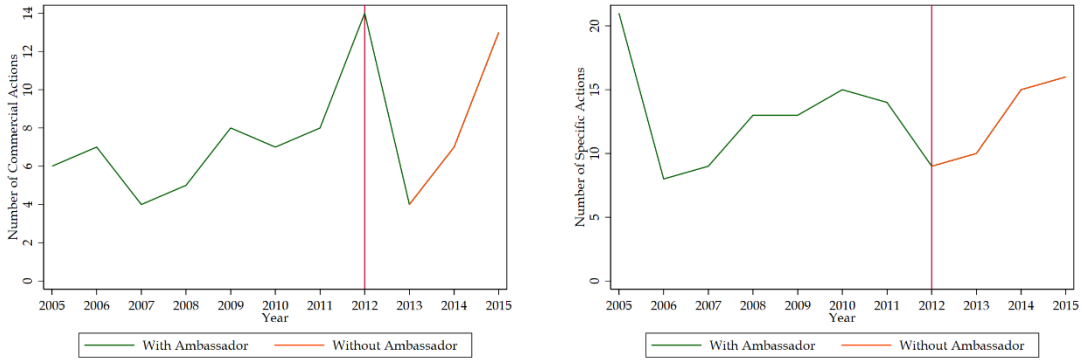
The first dataset, entitled 'Commercial Actions,' contains detailed information on 72 specific trade actions carried out during the study period. Each entry includes the year of the activity, a description of the action, how it was carried out, and, in many cases, the number of participating companies. These actions cover a wide range of activities, from trade missions and participation in fairs to business meetings and product presentations. For example, in 2005, an 'Argentine-Paraguayan Business Meeting' was recorded with the participation of 80 companies, while in 2015, a 'Multi-sector Trade Mission to the city of Asunción' was organized involving 36 companies.

The second dataset, 'Specific Actions', provides a more granular view of the embassy's activities. This dataset contains 127 entries detailing actions such as market profiling, organization of technology supply workshops, and collaboration in international fairs. Each entry includes information on the

objective of the action, its status (fulfilled or reported), its priority (ranging from normal to maximum), and the allocated budget. For example, in 2015, a 'Workshop on Technological Offer of Capital Goods of the Naval Sector' was organized with a budget of 4000 US Dollars.

It is important to note the different nature of these two datasets. Commercial actions tend to be larger, pre-planned events, such as international trade fairs or trade missions, which require considerable organization and are usually planned a year in advance. For this reason, and due to the lack of monthly data, I consider 2013 to be the beginning of the processing period for this dataset, assuming that the ambassador's influence on activities in that year would be minimal. On the other hand, 'specific actions' tend to be smaller and more flexible activities, such as producing market reports or organizing workshops, which can be planned and implemented more quickly. For this dataset, I set the start of the processing period to June 2012, coinciding with the ambassador's departure.

Figure 5: Evolution of the number of Commercial (left) and Specific Actions (right).



Source: Own elaboration based on Argentina Embassy in Paraguay data.

With this data, I will test 3 hypotheses. The first two are related to the number of commercial and specific actions, i.e., I want to see if the absence of the ambassador in Paraguay decreases the number of commercial actions (direct influence) and the number of specific actions (indirect influence). Then, a third hypothesis will test whether the allocated budget changed. In this sense, if I am right that all the change comes from a different organization of activities during the period when the ambassador was absent, I would expect to find that the budget did not change (which could indicate changes in Argentina's trade strategy with Paraguay).

Then, with the first dataset, I estimate the following before-and-after equation, using a type of commercial action and the number of firms as controls (X_t):

$$\ln(CommercialActions_t) = \beta \cdot \mathbb{I}(\text{AmbassadorOut})_t + X_t + \varepsilon_t$$

The results presented in Table 4 show a decrease in the number of commercial actions in the absence of the ambassador. Column 1 shows the effect on the logarithm of trading stocks controlling for stock type. The coefficient of -0.0882

suggests a decrease of 8.82% in trading shares, although this result is not statistically significant. Column 2 includes the number of firms as a control. The coefficient of -0.386 indicates a 38.6% decrease in trade shares when controlling for the number of firms. This result is statistically significant at the 10% level. Columns 3 and 4 repeat the analysis of columns 1 and 2 but using only data from 2010 onwards. The coefficients of -0.121 and -0.354 suggest declines of 12.1% and 35.4%, respectively, although they are not statistically significant.

This result suggests that diplomatic presence may play an important a role in facilitating business interactions and could potentially be important in maintaining visibility and access to vital information for firms seeking to explore or consolidate their presence in foreign markets. While the findings are not statistically highly significant, the observed magnitude indicates a possible trend supporting the hypothesis that ambassadors might contribute to increased commercial actions. This, in turn, could potentially serve as a bridge for firms, especially in environments with significant informational and cultural barriers.

Table 4: Ambassador absence effect over Number of Commercial Actions

	Ln. Commercial Actions	Ln. Commercial Actions	Ln. Commercial Actions	Ln. Commercial Actions
$\mathbb{I}$(Ambassador Out)$_t$	-0.0882	-0.386*	-0.121	-0.354
	(0.137)	(0.224)	(0.175)	(0.299)
Controls				
Type	Yes	Yes	Yes	Yes
Firms	No	Yes	No	Yes
Sample	Full	Full	2010 Onwards	2010 Onwards
Observations	82	82	52	52

*Robust standard-errors in parentheses. Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Argentina Embassy in Paraguay data.

To analyse the second dataset, 'Specific Actions', I employ a similar econometric model to that used with the first dataset. In this case, I include additional controls to capture the unique characteristics of these actions. Specifically, I use the priority assigned to each action (which varies from Normal to Maximum) and the topic or issue of the action as control variables. In addition, I incorporate a linear trend in the model to account for any gradual growth in the embassy's budget over the years (see Appendix 5):

$$\ln(Y_t) = \beta \cdot \mathbb{I}(\text{AmbassadorOut})_t + Priority_t + Subject_t + \theta_t + \varepsilon_t$$

Where Y_t represents the dependent variable (number of specific actions or budget cost), $\mathbb{I}(\text{AmbassadorOut})_t$ is our treatment indicator, $Priority_t$ and $Subject_t$ are our control variables, and θ_t is the linear trend.

Table 5 presents the results of the effect of the ambassador's absence on the number of specific actions and the budgetary cost. Columns 1 and 3 show the effect on the logarithm of specific actions. The coefficients of -0.711 and -0.618 indicate decreases of 71.1% and 61.8%, respectively, in the number of specific

actions. Both results are statistically significant at the 5% level. Meanwhile, columns 2 and 4 present the effect on the logarithm of the budget cost. The coefficients of -0.00676 and -0.0600 suggest minimal changes in the budget (-0.68% and -6% respectively), and neither of these results is statistically significant.

The decline observed in Table 5 in specific actions during the ambassador's absence reflects how micro-trade promotion strategies can be significantly affected by changes in diplomatic representation. This analysis could be suggesting that planned activities can only be sustained at their optimal level with the coordination and momentum provided by an active ambassador, thus highlighting the importance of continuity in diplomatic representation for the success of international trade relations. Equally important, Table 3 shows that the budget allocated for the embassy remained the same despite the ambassador's absence. This suggests that while Argentina actively withdrew its ambassador, it passively maintained the embassy's financial structure. This maintenance of the budget, coupled with the decrease in specific actions, underscores the importance of having an ambassador to direct and guide these resources effectively. It also dispels concerns about a broader change in Argentina's trade strategy towards Paraguay, as the financial commitment remained constant.[9].

Table 5: Ambassador absence effect over Number of Specific Actions

	Ln. Specific Actions	Ln. Budget Cost	Ln. Specific Actions	Ln. Budget Cost
𝕀(Ambassador Out)$_t$	-0.711**	-0.00676	-0.618**	-0.0600
	(0.342)	(0.0145)	(0.298)	(0.0101)
Controls				
Priority	Yes	Yes	Yes	Yes
Subject	Yes	Yes	Yes	Yes
Linear-Trend	No	Yes	No	Yes
Sample	Full	Full	2010 Onwards	2010 Onwards
Observations	143	143	79	79

*Robust standard-errors in parentheses. Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Argentina Embassy in Paraguay data.

One possible criticism of these results lies in the data-generating process mentioned above. Since I have two time series that describes the evolution of the Argentine embassy in Paraguay, I cannot rule out the possibility that, as a result of this internal turbulence in Paraguay, the other countries have also reduced the number of commercial activities carried out in Paraguay, and that therefore this lower number of commercial actions is part of a trend common to all countries and not due to the absence of the Argentine ambassador in Paraguay. Although I do not have panel data that would allow us to test this hypothesis correctly, two considerations can be made in this regard. First, the budget result helps to

[9] A change in the total budget allocated to the embassy could raise doubts about our identification strategy, as it could show that Argentina decided to decrease its level of trade promotion in the neighboring country after withdrawing its ambassador.

mitigate this criticism. If it were true that this was not due to the ambassador's departure, the budget approved for the embassy would also have decreased, which, as mentioned above, did not happen.

Secondly, it is well known in the diplomatic arena that commercial actions are indicative of the proactivity of countries and ambassadors in their commercial strategy. To claim a change in countries' proactivity in their trade strategy would imply that their trade strategy was affected by a political, internal, and non-belligerent conflict. This could be reflected in reports, news, or reports from other embassies in at least the region, but this has not been found. In conclusion, while the empirical strategy of these mechanisms remains a time series, it is solid statistical evidence that the observed changes in commercial actions and specific actions are due to the departure of the ambassador present during the previous years.

Robustness Checks

As mentioned before, a natural extension of this analysis suggests that I should look at what happened within Latin America, South America, and even Mercosur. Suppose the results seen above are robust and do not occur because of possible spillovers between countries or even to eliminate the hypothesis of unacknowledged sanctions against Argentina. In that case, the South American and Mercosur countries should serve as more specific controls for factors that may have affected the region and are mitigated when using the full sample.

Table 6 presents the results for the sample reduced to Latin America, where it becomes clearer that the effect on imports from Paraguay primarily stems from a significant decrease in the number of suppliers by more than 3%. While the effect on the number of products is no longer statistically significant in this sample, it remains negative, aligning with the previously mentioned hypotheses. The intensive margin shows no statistically significant effect. Importantly, despite variations in statistical significance across different sample sizes, the coefficients remain largely similar, suggesting a consistent underlying trend. This consistency is further observed in Appendix 4, which extends the analysis to South America and Mercosur samples. Although the results generally hold in these subsamples, they exhibit lower levels of statistical significance, particularly for the Mercosur sample, yet the magnitude and direction of the coefficients remain comparable, reinforcing the robustness of the observed patterns.

Table 6: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$	-0.0267	-0.0835**	-0.0321**	-0.0271	0.0326	-0.0242
	(0.0271)	(0.0396)	(0.0144)	(0.0176)	(0.0199)	(0.0266)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	LAC Partners	LAC Partners	LAC Partners	LAC Partners	LAC Partners	LAC Partners
Observations	156,744	156,744	156,744	156,744	156,744	156,744

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

A similar situation could be considered with respect to the number of transactions from each origin. Since they are a very important indication of the frequency with which two countries trade, our results should not be guided by countries with which Paraguay transacts very little and thus bias the controls downwards, which can be very important mainly for the extensive margin where I am observing new trade transactions. Table 7 shows the results for a reduced sample of countries that traded more than 1000 times with Paraguay. As can be seen, the results hold, and I can draw conclusions that are very similar to the previous cases. Two alternative specifications are included in Appendix 4, where instead of 1000 transactions, I cut the sample to 100 transactions or 10 thousand transactions.

Table 7: Effect over the extensive and intensive margin

	(1) Ln. Value	(2) Ln. Weight	(3) Ln. Number of Suppliers	(4) Ln. Number of Products	(5) Ln. Mean Value	(6) Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$	-0.0488*	-0.0826**	-0.0358**	-0.0482**	0.0352**	0.00137
S. E. Clustered by						
Origin-Month	(0.0294)	(0.0406)	(0.0150)	(0.0190)	(0.0168)	(0.0226)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Partners with more than 1000 observations	Partners with more than 1000 observations	Partners with more than 1000 observations	Partners with more than 1000 observations	Partners with more than 1000 observations	Partners with more than 1000 observations
Observations	421,641	421,641	421,641	421,641	421,641	421,641

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

These alternative specifications allow us to be more confident when analyzing the robustness of the results. The conclusion is very similar in all of them.

Ambassadors mainly affect the extensive margin, where they have more scope for action; however, they have little influence on the intensive margin, where intrinsic company dynamics prevail and are not affected by the presence or absence of an ambassador.

Section VII. Conclusions

This paper examines the impact of ambassadors on trade promotion, using the 2012 political crisis in Paraguay as a natural experiment. The findings are consistent with the existing literature on economic diplomacy and trade promotion, highlighting the role of diplomats in facilitating international trade. These findings underscore the importance of diplomatic relations in promoting economic ties, suggesting that ambassadors play not only a political role but are also important economic actors.

Our analysis shows that ambassadors play a significant role in trade facilitation, especially at an extensive margin, i.e., in establishing new trade relations between the home country and abroad. However, this role is not crucial for the overall development of bilateral trade, nor at the intensive margin, i.e., in the development of existing bilateral trade relations. Behind this effect, our mechanism suggests that in the absence of an ambassador, the number of commercial actions (that are directly under the scope of ambassadors) and the number of specific actions also decreases (indirectly under the scope of ambassadors), never mind the fact that the budget did not change, which mean a worse allocation of resources (at least under the eye of the extensive margin).

These results are robust for different specifications and have important policy implications. Countries could benefit from investing in skilled and well-connected ambassadors to promote trade, especially in markets where they are seeking to expand their presence. This is particularly relevant for developing countries seeking to diversify and strengthen their trade portfolios. However, the study has its limitations. The reliance on a single geopolitical event as a natural experiment may limit the generalizability of the findings. Future research could explore similar dynamics in different geopolitical contexts or examine the role of other diplomatic figures in trade promotion.

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APPENDIX

Appendix 1. Alternative Clustering

Table A1: Effect over the extensive and intensive margin

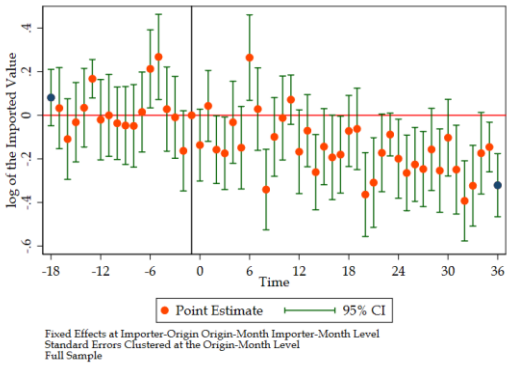
	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$	-0.0488	-0.0792	-0.0365	-0.0495	0.0371	0.00681
S. E. Clustered by						
Robust	(0.0187)***	(0.0260)***	(0.00650)***	(0.00968)***	(0.0173)**	(0.0244)
Origin	(0.0133)***	(0.0136)***	(0.00488)***	(0.00959)***	(0.00782)***	(0.0125)**
Origin-Month	(0.0296)*	(0.0408)*	(0.0150)**	(0.0189)**	(0.0164)**	(0.0224)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Observations	438,085	438,085	438,085	438,085	438,085	438,085

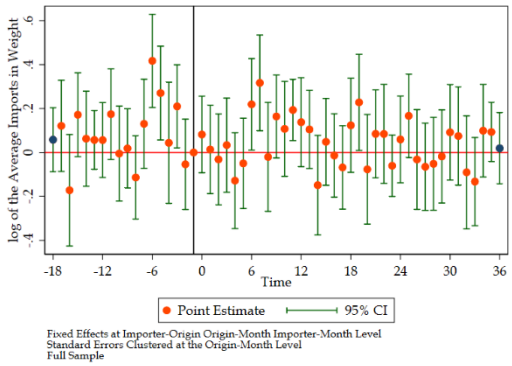
*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

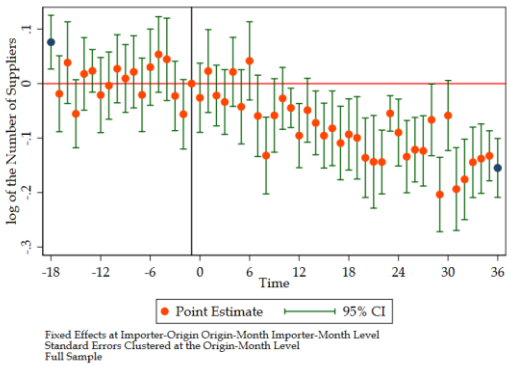
Source: Own elaboration based on Paraguayan customs' data.

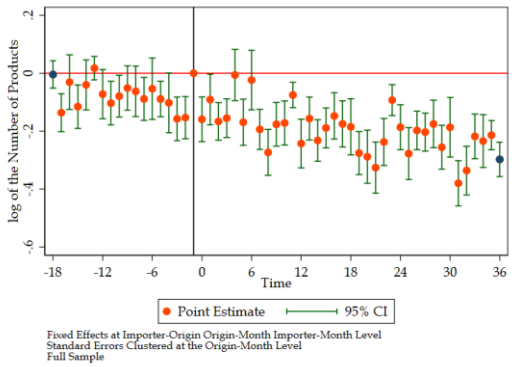
Appendix 2. Events Studies

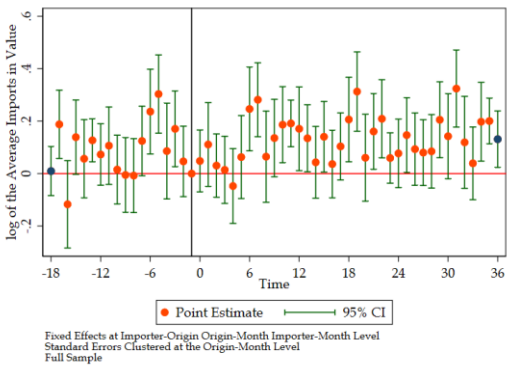
Figure A1: Effect in the diff-in-diff setting

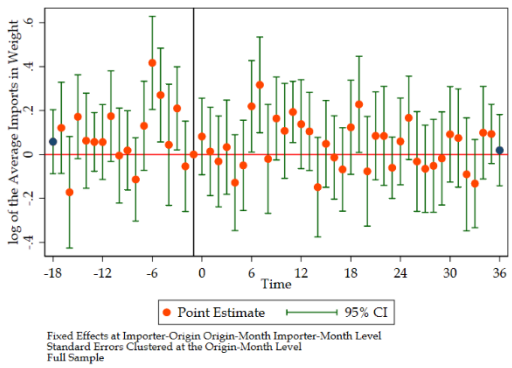












Appendix 3. Including Venezuela

This appendix presents the results of our analysis, including Venezuela in the sample, as mentioned in Section IV. Table A2 shows the effects on the extensive and intensive margins of trade when Venezuela is included in the analysis. As can be seen, the results are consistent with those presented in the main text (Table 2), both in magnitude and statistical significance. The inclusion of Venezuela remains the same as our main conclusions. The negative effect on the extensive margin (number of suppliers and number of products) remains significant, while the effect on the intensive margin (average value) remains positive and significant.

Table A2: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
$\mathbb{I}$(Ambassador Out)$_{ct}$	-0.0488*	-0.0792*	-0.0365**	-0.0495***	0.0371**	0.00681
S. E. Clustered by						
Origin-Month	(0.0296)	(0.0408)	(0.0150)	(0.0189)	(0.0164)	(0.0224)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Full	Full	Full	Full	Full	Full
Observations	439,166	439,166	439,166	439,166	439,166	439,166

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

These results reinforce our decision to exclude Venezuela from the main analysis. Although its inclusion does not fundamentally change our findings, its exclusion allows us to avoid potential biases due to the particular nature of its trade with Paraguay and the diplomatic tension that existed during the study period.

Appendix 4. Reduced Samples

Table A3: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$	-0.0176	-0.0742*	-0.0299**	-0.0237	0.0360*	-0.0206
	(0.0264)	(0.0399)	(0.0148)	(0.0179)	(0.0209)	(0.0276)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	SA Partners	SA Partners	SA Partners	SA Partners	SA Partners	SA Partners
Observations	147,707	147,707	147,707	147,707	147,707	147,707
	Ln. Value	**Ln. Weight**	**Ln. Number of Suppliers**	**Ln. Number of Products**	**Ln. Mean Value**	**Ln. Mean Weight**
𝕀(Ambassador Out)$_{ct}$	-0.00660	-0.0732*	-0.0239	-0.0150	0.0323	-0.0343
	(0.0273)	(0.0430)	(0.0160)	(0.0190)	(0.0223)	(0.0301)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Mercosur Partners	Mercosur Partners	Mercosur Partners	Mercosur Partners	Mercosur Partners	Mercosur Partners
Observations	132,951	132,951	132,951	132,951	132,951	132,951

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

Table A4: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$	-0.0486*	-0.0786*	-0.0364**	-0.0492***	0.0370**	0.00696
S. E. Clustered by						
Origin-Month	(0.0295)	(0.0407)	(0.0150)	(0.0189)	(0.0165)	(0.0223)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Partners with more than 100 observations	Partners with more than 100 observations	Partners with more than 100 observations	Partners with more than 100 observations	Partners with more than 100 observations	Partners with more than 100 observations
Observations	436,191	436,191	436,191	436,191	436,191	436,191
	Ln. Value	**Ln. Weight**	**Ln. Number of Suppliers**	**Ln. Number of Products**	**Ln. Mean Value**	**Ln. Mean Weight**
𝕀(Ambassador Out)$_{ct}$	-0.00660	-0.0732*	-0.0239	-0.0150	0.0323	-0.0343
S. E. Clustered by	(0.0273)	(0.0430)	(0.0160)	(0.0190)	(0.0223)	(0.0301)
Origin-Month						
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Partners with more than 10000 observations	Partners with more than 10000 observations	Partners with more than 10000 observations	Partners with more than 10000 observations	Partners with more than 10000 observations	Partners with more than 10000 observations
Observations	329,886	329,886	329,886	329,886	329,886	329,886

*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

Appendix 5. General equilibrium analysis

A natural question suggested by these results is about what type of trade relations the presence or absence of an ambassador might be most relevant for. Since I do not have information on exporting firms, I can approximate the question with importing firms and their relationship with the different countries. To do so, I divided the sample between the trade relations of importers that were present as active during the entire pre-treatment period and those that were not. That is, if a firm imported from Argentina (or any country) during all the months prior to the ambassador's departure, then it is defined as a continuous trade relationship. In the opposite case, I define discontinued trading relationships.

This is also a general equilibrium test since continuous trade relations generate distinct ties that may even benefit from the non-existence of mechanisms for lowering information barriers. That is, for a continuous economic relationship, imports may increase because there is a reordering of suppliers that allows them to increase their imports by achieving economic relationships that, in the presence of the ambassador, would have been made with another importer.

Table A5: Effect over the extensive and intensive margin

	Ln. Value	Ln. Weight	Ln. Number of Suppliers	Ln. Number of Products	Ln. Mean Value	Ln. Mean Weight
𝕀(Ambassador Out)$_{ct}$ ×						
Continued Relationship	0.118**	0.109*	0.0809***	0.0450	-0.00781	-0.0173
	(0.0516)	(0.0651)	(0.0275)	(0.0358)	(0.0426)	(0.0459)
Discontinued Relationship	-0.0601**	-0.0919**	-0.0444***	-0.0559***	0.0402**	0.00844
	(0.0285)	(0.0403)	(0.0141)	(0.0182)	(0.0163)	(0.0229)
Fixed Effects						
Importer-Origin	Yes	Yes	Yes	Yes	Yes	Yes
Origin-Month	Yes	Yes	Yes	Yes	Yes	Yes
Importer-Year	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Full	Full	Full	Full	Full	Full
Observations	115,587	115,587	115,587	115,587	115,587	115,587

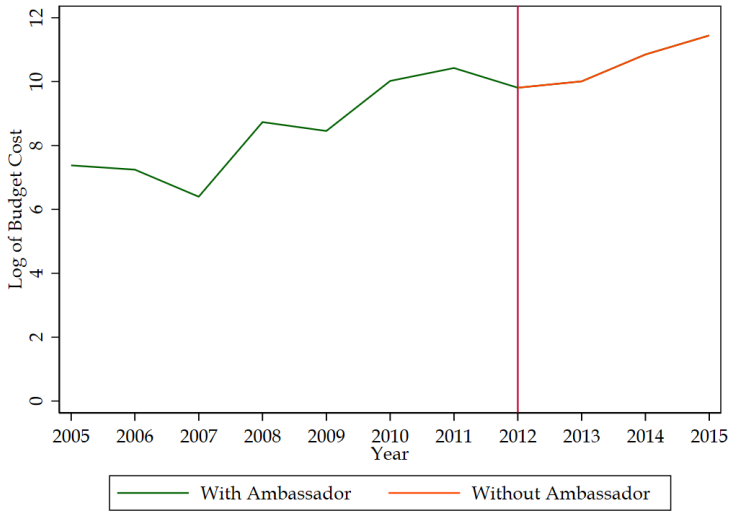
*Significance Codes: ***: 0.01, **: 0.05, *: 0.1.*

Source: Own elaboration based on Paraguayan customs' data.

As we can see, the results of the table show that business relationships that were defined as "continuous" prior to treatment had a positive impact on the ambassador's departure. These results suggest that trade relations are affected heterogeneously by being able to take advantage of finding suppliers that otherwise would have found different importers at fairs, meetings, and exhibitions, among other activities carried out by the ambassadors. On the other hand, "discontinuous" economic relations show the largest drop, again due to the drop in the number of suppliers and products, i.e., the extensive margin.

Appendix 6. Embassy Budget Cost

Figure A2: Embassy Budget Cost.



Source: Own elaboration based on Argentina Embassy in Paraguay data.