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Catalonia's Trade Strategy: Assessing the Impact of Trade Delegations and Other Agreements

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ABSTRACT

This study investigates the determinants of Catalan trade flows by examining the impacts of Preferential Trade Agreements, Bilateral Investment Treaties, and the activities of the Catalan trade delegations, called Accio agency, using a comprehensive dataset spanning from 1995 to 2020. The find-ings reveal that both PTAs and BITs generally foster trade. Furthermore the role of Accio as a facilitator of internationalization is also particularly significant, especially for differentiated goods.

Keywords: Regional Trade, Trade policy, Gravity Equation
JEL-codes: F13; F14; R11.

1 Introduction

Trade plays a pivotal role in the economic development and growth of regions, enabling them to leverage their comparative advantages and access broader markets. In this context, trade-promoting policies are of utmost importance. In recent years, especially since the 1990s, the proliferation of both Preferential Trade Agreements (PTAs) and Bilateral Investment Treaties (BITs) has been well documented by studies such as Baier and Bergstrand (2004), Hofmann et al. (2017), Egger et al. (2023), and Egger and Masllorens (2024).

However, it is important to note that regions often lack the authority to negotiate such treaties, as these are typically established at the state or supranational level, such as through the European Union. Consequently, regional entities must rely on specific local policies to promote international trade, such as trade delegations.

Some studies have focused on the role of similar entities (embassies and consulates) in trade. For instance, Bagir (2020) examines the Turkish foreign embassy network and finds a positive and significant impact on differentiated products trade flows. Similarly, Rose (2007) finds a positive effect of embassies on trade for 22 countries in a cross-sectional sample.

The current study, however, shifts the focus to a particular region, namely Catalonia, and its extensive network of trade delegations.

Catalonia is a small, open nation keen to trade internationally. In recent decades, the region's commitment to commerce has yielded remarkable growth, with data from the early 1990s revealing a dramatic surge in Catalan international trade. Notably, in 2023 alone, Catalan exports increased by over 6% compared to the previous year. Over the past 15 years, Catalonia has consistently maintained a positive trade balance, often exceeding 10% of its Gross Domestic Product (GDP). Impressively, exports have emerged as one of the most important Catalan economic activities, accounting for nearly a third of the nation's GDP in 2023. Such figures stand out, especially when compared with neighboring countries like Spain, France, and the broader European Union.

A particularly interesting feature of Catalonia is the governmental agency *Accio*, whose primary mission is to enhance the competitiveness of Catalan firms by promoting innovation, supporting internationalization, and attracting foreign investment.

A key aspect of *Accio* is its extensive network of International Trade and Investment delegations, established in 41 foreign countries. According to the *Accio* website, the main objective of these delegations is:

> *to promote the connection of Catalan enterprises in the world and advise on setting up in new markets and discovering global business opportunities, as well as helping in the process of internationalization.*

Importantly, opening a new delegation does not change tariffs or any trading regulations; instead, they reduce other trade barriers, such as information asymmetry. The assistance provided often includes introducing new potentially beneficial business contacts, navigating the legal framework, or simply arranging meetings.

This study, therefore, examines the effect of new *Accio* delegations while also controlling for classic trade policy instruments (trade and investment agreements) negotiated at the state level. Overall, it is found that all three trade-promoting tools (PTAs, BITs, and *Accio* delegations) positively impact trade. Furthermore, when focusing on *Accio* delegations, the effect is only significant for differentiated goods.

Overall, this study contributes to the understanding of informal trade policies, such as *Accio* delegations. Moreover, it provides useful insights at the regional level, where these informal policies are particularly relevant, given that regions lack the authority to negotiate BITs or PTAs.

2 Data

This article draws on a Catalan trade dataset to analyze trade flows. In addition to the trade data, other databases are used to obtain explanatory and control variables, such as the presence of trade agreements, diplomatic relations, and country-specific economic indicators.

2.1 Catalan trade

The primary dataset for this analysis are Catalan trade flows, obtained from the statistical agency Idescat through web scraping. The final dataset is a panel covering the period from 1995 to 2020, that contains trade flows where Catalonia is either the origin (for exports) or the destination (for imports). This panel includes 186 trading partners (Spain excluded) and 1,283 products categorized at the HS 4-digit level. As is standard in gravity model literature (see Felbermayr and Yotov, 2021), the dataset incorporates zero-valued trade flows.

After filling in the missing trade flows with zero values, the dataset contains 474,710 observations per year, resulting in a total of 12,342,460 observations. Of these, 10,354,315 are zero-valued flows, reflecting the sparsity typical in international trade data. A typical observation in this dataset is represented as $X_{ijk,t}$, where i refers to the origin (exporter country), j to the destination (importer country), k to the product, and t to the year.

2.2 Other data

Given that the primary objective of this study is to explore the determinants of Catalan trade, several additional datasets are incorporated into the analysis. These datasets provide essential explanatory and control variables that help to account for the various factors influencing trade flows.

Preferential Trade Agreements

Preferential Trade Agreements (PTAs) are one of the central tools available to governments for promoting international trade. In this study, data on PTAs is sourced from the CEPII gravity database, and every PTA in which Spain is a signatory (of-ten through its membership in the European Union) is also attributed to Catalonia. PTAs are represented as a binary variable:

$$PTA_{ij,t} = \begin{cases} 1 \text{ if a PTA is in force between i and j at year t,} \\ 0 \text{ otherwise.} \end{cases}$$

It is important to note that, due to the fixed effects structure described in section 3, the analysis only captures the effects of PTAs that came into force during the period under study (1995-2020). For Catalonia, this includes 59 new PTAs that were implemented during this time frame. Table A1 in the Appendix lists the countries with which Catalonia established a new PTA, as well as the year in which each agreement was enacted.

Bilateral Investment Treaties

Bilateral Investment Treaties (BITs) are agreements primarily aimed at enhancing investment between the signatory countries or jurisdictions. However, recent research has shown that BITs can also have significant effects on trade flows (see Heid and Vozzo, 2020), making them relevant for inclusion as explanatory variables in this study.

The data on BITs is sourced from the United Nations Conference of Trade and Development (UNCTAD) Investment Policy Hub. Similar to the treatment of PTAs, a BIT is considered to include Catalonia as a signatory if Spain is a signatory. BITs are also modeled as binary variables:

$$BIT_{ij,t} = \begin{cases} 1 \text{ if a BIT is in force between i and j at year t,} \\ 0 \text{ otherwise.} \end{cases}$$

It is important to emphasize that the empirical specification used in this study only captures the effects of Bilateral Investment Treaties (BITs) that came into force during the analysis period (1995–2020). For Catalonia, this includes 48 BITs. A detailed list of the countries that entered into new BITs with Catalonia, along with the year each agreement came into force, is provided in Table A2 in the Appendix.

A potential concern when including both PTAs and BITs as explanatory variables is the possibility of overlap between the two. In fact, for 22 countries, both a PTA and a BIT with Catalonia came into force during the sample period. However, it is worth noting that for none of these cases did the PTA and BIT come into effect in the same year. This temporal separation helps to mitigate concerns about confounding effects, allowing the study to more accurately isolate the impact of each type of agreement on trade flows.

Accio

Accio is a Catalan governmental agency whose primary mission is to enhance the competitiveness of Catalan firms by promoting innovation, supporting internationalization, and attracting foreign investment.

For the purposes of this study, the presence of *Accio* delegations will be captured using a binary variable:

$$Accio_{ij,t} = \begin{cases} 1 \text{ if a Accio is in force between i and j at year t,} \\ 0 \text{ otherwise.} \end{cases}$$

Of the full network of 41 *Accio* delegations, this study is only able to estimate the impact of 13 delegations that were opened during the analysis period (1995–2020). These newly established delegations allow for a before-and-after comparison, helping to isolate the effect of *Accio* on trade flows. A complete list of the countries where new *Accio* delegations opened, along with the corresponding years, is provided in Table A3 in the Appendix.

Gravity and other controls

The gravity dataset is sourced from CEPII, a widely-used resource for obtaining key gravity model controls such as distance between trading partners, GDP and diplomatic disagreement. These variables are mainly used as controls.

In addition, OECD membership is included as a proxy for distinguishing between developed and developing countries, allowing for an examination of the heterogeneity in trade effects based on the level of economic development. Furthermore, the product classification system from Rauch (1999) is used to differentiate between homogeneous and differentiated goods.

1 Note that by definition, either i or j is always Catalonia

2.3 Descriptive Statistics

This section presents the summary statistics of the dependent variable and the explanatory variables, as shown in Table 1.

The dependent variable, the trade flows between country i and j[1], in sector k at year t, denoted as $X_{ijk,t}$, has an average value of 222 thousand euros. However, it exhibits a large variance due to the significant number of zero trade flows in many observations. This high proportion of zero flows justifies the use of a count-data model for the analysis.

The main variables of interest, $PTA_{ij,t}$, $BIT_{ij,t}$ and $Accio_{ij,t}$, are binary. Their mean values are 0.30, 0.32, and 0.16, respectively, reflecting the proportion of observations where these policies are in place.

Table 1: Summary Statistics

Variable	Mean	Std. Dev.
Trade fl ws ($X_{ijk,t}$)	222.447	6658.136
Diplomatic Disagreement$_{ij,t}$	1.275	0.747
$PTA_{ij,t}$	0.309	0.462
$BIT_{ij,t}$	0.322	0.467
$Accio_{ij,t}$	0.165	0.371
$GDP_{i,t}$	724,000,000	1,050,000,000
$OECD_i$	0.089	0.285

Note: $PTA_{ij,t}$, $BIT_{ij,t}$, Accio*ij,t*, $OECD_i$ and Differentiated Product$_k$ are binary variables; $GDP_{i,t}$ is expressed in thousands of US dollars; Tradeflows ($X_{ijk,t}$) is expressed in thousands of euros.

3 Empirical analysis

The main empirical specification is based on the structural gravity model as described in Anderson and Van Wincoop (2003). A key aspect to highlight is that the dependent variable, representing trade flows, is a count variable. Consequently, the estimation employs a Pseudo-Poisson model to account for the

nature of the data. Additionally, given the high-dimensional index structure of the dependent variable, the model includes fixed effects to control for unobserved heterogeneity across countries and products.

The baseline regression is specified as follows:

$$X_{ijk,t}=exp(PTA_{ij,t}\beta_{PTA}+BIT_{ij,t}\beta_{BIT}+Accio_{ij,t}\beta_{Accio}+Diplomatic_{ij,t}\beta_{Diplomatic}+\beta_X X_{i,t}+\beta_z Z_{j,t}+\eta_i+\gamma_j+\nu_k+\epsilon_{ijk,t}),$$

where $X_{ijk,t}$ are trade flows from country i to country j in sector k at year t. The variables $PTA_{ij,t}$, $BIT_{ij,t}$, $Accio_{ij,t}$ and $Diplomatic_{ij,t}$ represent the main policy variables of interest, which are expected to influence trade flows. $X_{i,t}$ and $Z_{j,t}$ capture control variables that account for country-specific characteristics that may vary over time.

All parameters β are regression coefficients reflecting the impact of the respective variables. The model incorporates fixed effects denoted by η_i for the origin country, γ_j for the destination country, and ν_k for the product-specific effects. Finally, $\epsilon_{ijk,t}$ is an idiosyncratic disturbance term.

It is important to remark that the current study examines trade flows exclusively from a single country perspective, specifically focusing on Catalonia as the origin for exports and the destination for imports. This unique framework implies that some of the traditional gravity based fixed effects either cannot be included or are already nested in the fixed effects of equation 1.

For instance, when conducting a regression on Catalan exports, it holds that *i* = Catalonia for all *i*. This implies the following: (1) it is not necessary to include *i*-specific fixed effects; (2) it is impossible to include destination-time fixed effects and, at the same time, obtain coefficients on the variables of interest; (3) the country-pair fixed effect that is often used in the literature is equivalent to the inclusion of *j*-specific fixed effects.

Given these structural characteristics, the parameters β in equation 1 capture the time variation of the variables of interest. In other words, this translates to a before-and-after comparison within the same destination country (for Catalan exports) or origin country (for Catalan imports).

4 Results

This section presents the key findings of the study. It begins with the baseline results, which provide an overall view of the effectiveness of the trade-promoting tools under consideration. Following this, some results related to country and product heterogeneities are introduced, offering deeper insights into how these tools perform across different contexts.

The analysis of country and product-level heterogeneities helps to unravel the underlying mechanisms of the trade-promoting policies. By understanding how these tools vary in effectiveness depending on the characteristics of the trading partner (such as their level of development) and the nature of the products (differentiated or homogeneous), the study provides a better understanding of the mechanisms behind these policies.

4.1 Baseline

This section presents the baseline results derived from estimating equation 1. Table 2 is organized into three columns. The first column reports results for all trade flows (Catalan

2 In the imports column, only the country of origin fixed effect is included, as adding destination fixed effects would be redundant since Catalonia is the sole destination. Similarly, in the exports column, only destination fixed effects are used.

imports and exports combined), while the second and third columns focus exclusively on Catalan imports and exports, respectively. Furthermore it incorporates fixed effects for both the country of origin and destination[2] as well as product fixed effects.

Table 2: Catalan trade determinants with fixed effects

Trade flows ($X_{ijk,t}$)	All	Imports	Exports
Diplomatic Disagreement$_{ij,t}$	-0.202*** (0.045)	-0.244*** (0.068)	-0.086* (0.048)
PTA$_{ij,t}$	0.466*** (0.038)	0.242*** (0.065)	0.486*** (0.036)
Accio$_{ij,t}$	0.139*** (0.043)	0.002 (0.062)	0.226*** (0.043)
BIT$_{ij,t}$	0.318*** (0.060)	0.135 (0.087)	0.257*** (0.033)
GDP controls	✓	✓	✓
Origin-Country FE	✓	✓	
Destination-Country FE	✓		✓
Product FE	✓	✓	✓
Obs.	10,961,768	5,463,716	5,472,300
R^2	0.721	0.701	0.806

Robust standard errors are reported in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

In Table 2, the focus is on time-variant trade policies, with the results suggesting that PTAs positively impact overall trade, particularly Catalan exports. This is evident from the positive and highly significant PTA coefficients, with the coefficient in the exports column being larger than that in the imports column, indicating that PTAs have a stronger effect on exports. Similar patterns are observed for BITs and new *Accio* delegations, which also show positive effects on trade flows.

The coefficients in this table should be understood in a before-and-after context, comparing the impact of these policies over time. Since all variables are binary indicators, the coefficients can be directly interpreted as semi-elasticities. For instance, the 0.226 coefficient for *Accio* in the exports column suggests that opening a new *Accio* delegation in a specific country is associated with a 22.6% increase in exports to that country. A similar interpretation applies to the coefficients for PTAs and BITs.

Interestingly, the magnitudes of the coefficients for traditional trade and investment policy instruments (PTAs and BITs) align with those found in previous studies that report global averages (see Heid and Vozzo, 2020; Nagengast and Yotov, 2023). This consistency reinforces the validity of the findings and suggests that these policies have a comparable effect on trade in the Catalan context.

Overall, Table 2 suggests that PTAs, BITs, and *Accio* delegations all have a positive effect on trade. The results highlight their effectiveness in promoting both imports and exports, with a particularly strong impact on Catalan exports.

In the next two sections, country and product heterogeneities are examined to better understand the mechanisms behind the success of these treaties and delegations. By exploring how these tools perform differently depending on the characteristics of the trading partner and the nature of the goods being traded, the analysis will provide deeper insights into why and how these policies work.

4.2 Country heterogenties

This section investigates country-level heterogeneities, examining how the three trade-promoting tools (PTAs, *Accio* delegations, and BITs) may have varying effects depending on the level of development of the trading partner. The main idea is that these tools could influence trade differently depending on whether the

trading partner is more or less developed. To capture this, the level of development is measured by whether the trading partner is a member of the OECD.

Table 3: Catalan trade determinants: Trading partner OECD membership

Trade flows ($X_{ijk,t}$)	All	Imports	Exports
Diplomatic Disagreement$_{ij,t}$	-0.210*** (0.045)	-0.254*** (0.068)	-0.089* (0.048)
PTA$_{ij,t}$	0.799*** (0.040)	0.740*** (0.074)	0.590*** (0.034)
PTA$_{ij,t}$ x Exporter OECD$_i$	-0.830*** (0.109)	-0.852*** (0.131)	
PTA$_{ij,t}$ x Importer OECD$_i$	-0.269*** (0.074)		-0.197*** (0.073)
Accio$_{ij,t}$	0.252*** (0.071)	0.277** (0.139)	0.090 (0.059)
Accio$_{ij,t}$ x Exporter OECD$_i$	-0.163* (0.097)	-0.245 (0.154)	
Accio$_{ij,t}$ x Importer OECD$_i$	0.077 (0.089)		0.179** (0.079)
BIT$_{ij,t}$	0.279*** (0.069)	0.088 (0.097)	0.288*** (0.036)
BIT$_{ij,t}$ x Exporter OECD$_i$	0.234 (0.159)	0.278 (0.171)	
BIT$_{ij,t}$ x Importer OECD$_i$	0.004 (0.105)		-0.136* (0.080)
GDP controls	✓	✓	✓
Origin-Country FE	✓	✓	
Destination-Country FE	✓		✓
Product FE	✓	✓	✓
Obs.	10,961,768	5,463,716	5,472,300
R^2	0.721	0.701	0.806

Robust standard errors are reported in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3 presents the heterogeneous effects of the trade-promoting tools by interacting each tool with the OECD membership of the trading partner. The most critical components of Table 3 are, therefore, these interaction terms, which should be interpreted relative to the excluded category, i.e., non-OECD members.

For PTAs, the results reveal a negative and highly significant coefficient, indicating that PTAs are more effective in boosting trade when the trading partner is not an OECD member. In other words, PTAs appear to generate a larger increase in trade with non-OECD countries.

As for BITs, the results do not show any significant heterogeneity based on the development level of the trading partner, suggesting that BITs have a uniform effect regardless of whether the partner is an OECD member or not.

Finally, the *Accio* delegations exhibit a notable asymmetry: they have a stronger effect in promoting Catalan exports to OECD countries, while they have a greater impact on imports from non-OECD countries. This suggests that *Accio* delegations are particularly useful for facilitating exports to developed countries, but they play a different role when it comes to imports.

4.3 Product heterogenties

This section explores product-level heterogeneities, focusing on how the three trade-promoting tools, namely, PTAs, *Accio* delegations, and BITs, may exert varying effects depending on certain product characteristics. The central premise is that these tools may influence trade differently based on whether a product is differentiated or homogeneous.

Table 4: Catalan trade determinants: Differentiated products

Trade flows ($X_{ijk,t}$)	All	Imports	Exports
Diplomatic disagreement$_{ij,t}$	-0.202***	-0.254***	-0.086*
	(0.045)	(0.066)	(0.048)
PTA$_{ij,t}$	0.268***	0.070	0.360***
	(0.043)	0.070	(0.045)
PTA$_{ij,t}$ × Differentiated Product$_k$	0.304***	0.279***	0.173***
	(0.037)	(0.051)	(0.038)
Accio$_{ij,t}$	-0.291***	-0.618***	0.198***
	(0.047)	(0.065)	(0.058)
Accio$_{ij,t}$ × Differentiated Product$_k$	0.653***	1.020***	0.038
	(0.038)	(0.050)	(0.051)
BIT$_{ij,t}$	0.300***	0.110	0.260***
	(0.069)	(0.097)	(0.042)
BIT$_{ij,t}$ × Differentiated Product$_k$	0.030	0.051	-0.004
	(0.036)	(0.052)	(0.033)
GDP controls	✓	✓	✓
Origin-Country FE	✓	✓	
Destination-Country FE	✓		✓
Product FE	✓	✓	✓
Obs.	10,961,768	5,463,716	5,472,300
R^2	0.723	0.706	0.806

Robust standard errors are reported in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Specifically, the product differentiation classification proposed by Rauch (1999) is employed to distinguish between differentiated and non-differentiated products. The underlying idea is that differentiated products possess unique characteristics, which complicate the assessment of their quality or fair prices. In contrast, homogeneous products are those with established reference prices or those traded on organized exchanges, making their evaluation straightforward.

Table 4 presents the results for this exercise by means of interaction terms. The interaction terms are particularly interesting and a close examination reveals that both PTAs and *Accio* delegations show positive and significant coefficients. This indicates that these two tools play a crucial role in enhancing trade, especially for differentiated goods.

Interestingly, the coefficients related to new *Accio* delegations are substantially larger than those for PTAs. This could be explained by the nature of *Accio* delegations, which, unlike PTAs, do not modify tariffs or introduce new trading regulations. Instead, they function as key providers of information. As a result, their influence is particularly pronounced in the trade of differentiated goods, where access to detailed information is essential.

Lastly, Table 4 shows no significant heterogeneity in the effects of BITs based on product characteristics, suggesting that BITs do not exhibit a differentiated impact across various types of goods.

4.4 Robustness

This section presents robustness tests for the empirical specification, focusing on the results displayed in Table 4. Specifically, it examines whether these results hold when modifying the fixed effects structure. Table 5 incorporates time fixed effects across all columns to account for unobserved time-specific factors that may influence trade flows.

A detailed examination of the results in Table 5 demonstrates that the findings remain consistent and robust to the inclusion of time fixed effects. This reinforces the reliability of the estimated effects of PTAs, BITs, and *Accio* delegations, as well as their differentiated impact on trade in differentiated goods.

Table 5: Catalan trade determinants: Robustness with different fixed effect specification

Trade flows ($X_{ijk,t}$)	All	Imports	Exports
Diplomatic disagreement$_{ij,t}$	-0.109**	-0.136*	−0.052
	(0.049)	(0.072)	(0.050)
PTA$_{ij,t}$	-0.007	-0.024	0.160***
	(0.045)	(0.071)	(0.046)
PTA$_{ij,t}$ ×Differentiated Product$_k$	0.306***	0.280***	0.173***
	(0.037)	(0.051)	(0.038)
Accio$_{ij,t}$	-0.517***	-0.738**	-0.032
	(0.048)	(0.069)	(0.056)
Accio$_{ij,t}$ ×Differentiated product$_k$	0.654***	1.021***	0.038
	(0.038)	(0.050)	(0.051)
BIT$_{ij,t}$	0.088	0.066	0.170***
	(0.069)	(0.097)	(0.042)
BIT$_{ij,t}$ ×Differentiated Product$_k$	0.037	0.054	-0.003
	(0.036)	(0.052)	(0.033)
GDP controls	✓	✓	✓
Origin-Country FE	✓	✓	
Destination-Country FE	✓		✓
Product FE	✓	✓	✓
Year FE	✓	✓	✓
Obs.	10,961,768	5,463,716	5,472,300
R^2	0.728	0.709	0.810

Robust standard errors are reported in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

5 Conclusions

This study provides valuable insights into the effectiveness of trade-promoting tools such as Preferential Trade Agreements (PTAs), Bilateral Investment Treaties (BITs), and Accio delegations for the Catalan economy. The results indicate that all three instruments have a positive impact on trade flows.

The study's findings are consistent with gravity theory and prior research, reinforcing the validity of the results and the relevance of trade-promoting tools in contemporary economic interactions. The coefficients associated with PTAs and BITs align closely with global averages reported in previous studies, suggesting that the Catalan context reflects broader trends observed in international trade.

Moreover, the exploration of product and country-level heterogeneities shows the mechanisms underlying the effectiveness of these trade policies. The findings suggest that PTAs are particularly beneficial when engaging with non-OECD countries, highlighting their role in reducing trade barriers in less developed contexts. Conversely, *Accio* delegations appear to significantly enhance exports to OECD countries.

Furthermore, the analysis of differentiated goods reveals critical insights into how trade-promoting tools function in relation to product characteristics. The results indicate that PTAs and *Accio* delegations have a more pronounced effect on trade flows for differentiated products compared to homogeneous ones. This is particularly important, as differentiated goods often present challenges in terms of quality assessment and pricing, making the provision of information and reduced trade barriers essential for successful market entry.

In summary, this research highlights the significant role of PTAs, BITs, and *Accio* delegations in enhancing trade. By understanding how these tools function across different contexts, policymakers can better design and implement trade agreements and initiatives that effectively boost economic activity. Future research could expand on these findings by exploring additional variables or contexts, further enriching the discourse on international trade policy.

6 References

Anderson, James E and Eric Van Wincoop, "Gravity with gravitas: A solution to the border puzzle," *American economic review*, 2003, 93 (1), 170–192.

Bagir, Yusuf Kenan, "Impact of the presence of embassies on trade: Evidence from Turkey," *World Trade Review*, 2020, 19 (1), 51–60.

Baier, Scott L and Jeffrey H Bergstrand, "Determinants of free trade agreements," *Journal of international Economics*, 2004, 64 (1), 29–63.

Egger, Peter H and Gerard Masllorens, "Deep Trade Agreements and Firm Ownership in GVCs," *The World Bank Economic Review*, 2024, p. lhae003.

Felbermayr, Gabriel and Yoto V. Yotov, "From theory to policy with gravitas: A solution to the mystery of the excess trade balances," European Economic Review, 2021, 139, 103875.

Heid, Benedikt and Isaac Vozzo, "The international trade effects of bilateral investment treaties," *Economics Letters*, 2020, 196, 109569.

Hofmann, Claudia, Alberto Osnago, and Michele Ruta, "Horizontal depth: a new database on the content of preferential trade agreements," *World Bank Policy Research Working Paper*, 2017, (7981).

Nagengast, Arne and Yoto V Yotov, "Staggered difference-in-differences in gravity settings: Revisiting the effects of trade agreements," 2023.

Rauch, James E, "Networks versus markets in international trade," *Journal of international Economics*, 1999, 48 (1), 7–35.

Rose, Andrew K, "The foreign service and foreign trade: embassies as export promotion," *World Economy*, 2007, 30 (1), 22–38.

Appendix

A Data Tables

Table A1: New PTAs with Catalonia during 1995-2020 by country

Year	Country	Year	Country
1996	Andorra	2009	Saint Lucia
1996	Turkey	2009	Trinidad and Tobago
1997	Faeroe Islands	2009	Saint Vincent and the Grenadines
1998	Tunisia	2010	Fiji
1999	Slovenia	2010	Papua New Guinea
2000	Israel	2012	South Korea
2000	Morocco	2013	Colombia
2000	South Africa	2013	Peru
2001	Mexico	2014	Ukraine
2001	Macedonia	2015	Cameroon
2002	Croatia	2015	Costa Rica
2002	Jordan	2015	Georgia
2002	San Marino	2015	Guatemala
2003	Chile	2015	Honduras
2003	Lebanon	2015	Moldova
2004	Cyprus	2015	Nicaragua
2004	Egypt	2015	Panama
2004	Malta	2015	El Salvador
2007	Albania	2017	Ecuador
2009	Antigua and Barbuda	2018	Armenia
2009	Bahamas	2018	Canada
2009	Bosnia and Herzegovina	2018	Romania
2009	Belize	2019	Comoros
2009	Barbados	2019	Japan
2009	Cote d'Ivoire	2019	Madagascar
2009	Dominica	2019	Mauritius
2009	Grenada	2019	Seychelles
2009	Guyana	2019	Zimbabwe
2009	Jamaica	2020	Singapore
2009	Saint Kitts and Nevis		

Table A2: New BITs with Catalonia during 1995-2020 by country

Year	Country	Year	Country
1996	Honduras	2000	Slovenia
1996	Indonesia	2001	Gabon
1996	Peru	2002	Jamaica
1996	Mexico	2003	Bosnia and Herzegovina
1996	Malaysia	2003	Uzbekistan
1996	Pakistan	2004	Guatemala
1996	Algeria	2004	Iran
1996	El Salvador	2004	Syria
1996	Dominican Republic	2004	Albania
1996	Paraguay	2004	Trinidad and Tobago
1997	Latvia	2004	Namibia
1997	Lebanon	2006	Nigeria
1997	Ecuador	2007	Macedonia
1997	Venezuela	2007	Colombia
1998	Panama	2007	Moldova
1998	Croatia	2008	Kuwait
1998	Estonia	2009	Equatorial Guinea
1998	Turkey	2009	Libya
1998	Bulgaria	2011	Senegal
1998	India	2011	Vietnam
1999	Costa Rica	2013	Bolivia*
1999	South Africa	2014	Bahrain
2000	Jordan	2016	Mauritania
2000	Ukraine	2016	Saudi Arabia

*Note: For Bolivia in 2013 there is a change in BIT status from existing to not existing.

Table A3: New Accio offices during 1995-2020 by country

Year	Country
1999	Brazil
2000	Canada
2003	Egypt
2012	Colombia
2012	South Korea
2014	Ghana
2014	Peru
2015	Israel

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