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Measuring Globalization When It Is Needed the Most

A Long-Run Analysis

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Abstract

This paper studies globalization dynamics over 1965–2021. Based on the definition that refers to globalization as an extension beyond national borders of the same market forces that operate at all levels of economic activity, the paper is able to determine where the world economy stands compared to the 1960s. The results show that the world economy has not entered an era of deglobalization and that China's role as one of the globalization leaders started in the mid-1980s. Also, contrary to what the tradeto- GDP ratio suggests, it is shown that China has outperformed the world economy since then. This paper builds on recent contributions in the structural gravity literature and adopts a long-run perspective to offer an analytical toolkit for the current debate around globalization dynamics. The methodology and empirical results provide deep insights across countries and sectors, showing that country-specific events are intuitively captured and illustrating how to disentangle the role of factors like trade agreements.

Measuring Globalization When It Is Needed the Most: A Long-Run Analysis

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"When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind: it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of science, whatever the matter may be."
[Lord Kelvin, 1883]

1   Introduction and Motivation

Globalization is a complex process constantly evolving and influenced by various factors. Technological advancements like information and communication technologies (ICT) and trade policy changes like trade agreements have shaped globalization dynamics in recent decades. But trade tensions between the US and China, the COVID-19 pandemic, and the Russia-Ukraine war have contributed to the general impression that nations are retreating behind borders and that a deglobalization trend might have started. But how does one measure trade globalization? And, how can we make comparisons across countries and over time? Measuring such a complex phenomenon requires a clear definition with sound empirical applications that can guide economic policy. But there is no one accepted definition of globalization. This lack of anchoring definition makes debates around globalization somewhat confusing (Gurría, 2006), and it does not contribute to the current discussion on whether the world economy is entering a phase of slowbalization or even deglobalization. Different studies, based on various measures, arrive at very different conclusions. Some find little systematic evidence indicating that the world economy has already entered an era of deglobalization and that the slower pace is a natural consequence of the same factors behind the hyper-globalization period now running out of steam (Antràs, 2021). Others conclude that "trade openness" in some regions has recently fallen, coinciding with a slower pace of trade reforms and posing a threat to growth (IMF, 2021). Accurately measuring globalization is necessary to understand the impact of the current challenges on the world economy. This paper focuses on measuring the intensity of globalization, making comparisons across countries and over time, based on the definition that refers to it as an extension beyond national borders of the same market forces operating at all economic activity levels.

Several proxies or traditional metrics are used to measure globalization. The first is

the trade-to-GDP ratio, often called the "trade openness" ratio. As seen in figure (1a), after increases in the trade-to-GDP ratio until 2008 and reaching the 61 percent level, this indicator suffered a sudden drop to 52 percent in 2009 due to the contraction in international trade that followed the Global Financial Crisis. The trade-to-GDP ratio recovered in 2011 to 60 percent, but since then it has trended back to 52 percent. These dynamics after 2008 seem to suggest that globalization has stagnated or declined. Baldwin (2022) criticizes this "globalization has peaked" narrative for being 'simplistic' given that some countries peaked before 2008 (China), while others peaked after (US) or have not peaked yet (Spain). Antràs (2021) concludes that although the growth of international trade flows relative to that of GDP has slowed, there is little systematic evidence indicating that the world economy has already entered an era of deglobalization. More importantly, referring to the trade-to-GDP ratio as a "trade openness" measure can be misleading (OECD, 2011). A low ratio does not necessarily imply that high trade barriers exist but maybe be due to factors such as the size of the economy, geographic remoteness from potential trading partners, and the economy's structure. The dynamics of China's trade-to-GDP ratio is an example of the caveats of this ratio as a measure of globalization or "trade openness". It has trended downs since 2006, and it is now below the world average and its level when China entered the WTO in 2001. Even with the recent trade tensions with the US, it would be difficult to argue that the Chinese economy has drastically reduced its "openness", as the trade-to-GDP ratio would suggest.[1]

With Global Value Chains (GVCs) emerging as the new form of production organization, GVC participation rates have become another "natural" proxy to measure globalization. Borin et al. (2021) refined the GVC measures to more accurately capture backward and forward linkages and to assess supply chain risks. They find that these risks are complex due to the simultaneous exposure to supply and demand shocks and that disruptions may not be easily managed by unilateral policy attempts to force a reorganization of buyers-seller relationships. But while these indicators are critical in today's discussion about economic resilience and diversification, the GVC participation rate offers similar conclusions to the trade-to-GDP ratio that could be misleading if it is interpreted as a globalization measure. As figure (1b) shows, there seems to be a general decline across

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[1]The decline in the relative importance of trade with respect to GDP for China is a consequence of the expansion and changing structure of its domestic economy. Also, Chinese exports and imports have grown and more than doubled since 2008.

(a) Trade (% of GDP)   (b) GVC participation rate
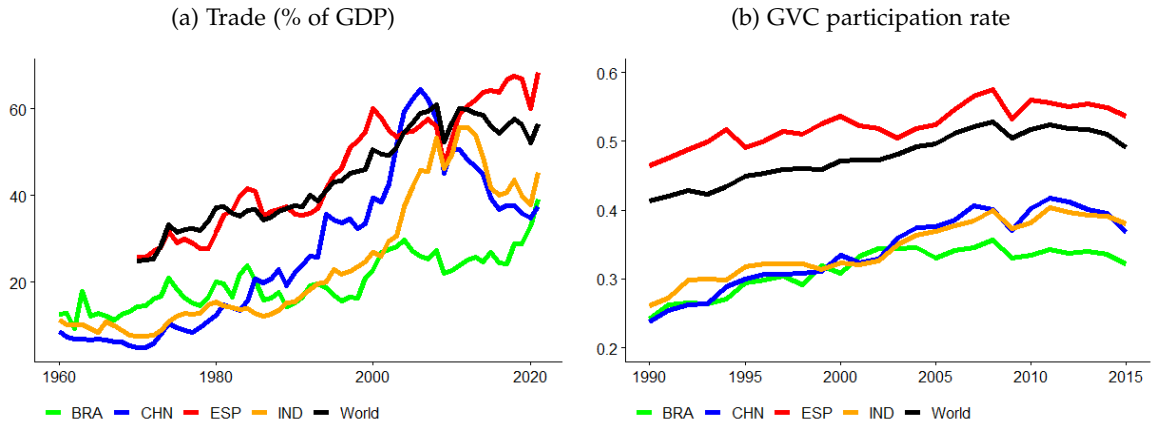
Figure 1: Globalization proxies

countries after 2008, with China being below the world average during the whole period. But the literature has shown that the GVC participation rate depends on various factors (geography, market size, endowments, and institutions) beyond trade integration efforts (Fernandes et al., 2022).[2]

While globalization is a complex phenomenon, a clear definition is necessary to understand it. The term "globalization" began to be used more commonly in the 1980s, reflecting technological advances that made it easier to complete international transactions. Now globalization is better understood by referring to itas an extension beyond national borders of the same market forces operating at all economic activity levels (IMF, 2008). This definition is well-defined and anchors the discussions around globalization. More importantly, it has the potential to offer deep and intuitive insights thanks to its empirical applications. This paper contributes to the literature by: (i) Sticking to this definition to estimate long-run globalization dynamics (1965-2021) to understand when globalization "took off" and how the world economy stands compared to that moment. (ii) Disentangling the heterogeneous dynamics across countries and the role played by trade agreements. (iii) Helping to fill the gap between economic policy, which continues to use measures like the trade-to-GDP ratio, and the recent contributions to the literature showing that this type of analysis would benefit from adhering to theory and use domestic (in addition to international) trade flows (Yotov, 2022b).

During the early 2000s, there was a common perception that the world was becoming

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[2]It is important to mention that the case of GVC measures is different from the trade-to-GDP ratio as they are well-designed indicators with clear applications as shown by Borin et al. (2021).

more integrated, but the international trade literature failed to deliver empirical support for the diminishing effects of distance on bilateral trade. This became known as the "missing globalization puzzle" (Coe et al., 2007). This paper builds on the literature that has worked on solving this puzzle. Yotov (2012) capitalized on the properties of the theoretical gravity model from Anderson and van Wincoop (2003), that show that the structural gravity system can only identify relative trade costs and that domestic trade flows are necessary according to economic theory, to evaluate the effects of bilateral distance relative to the effects of the internal distance and to reflect the effects of globalization in the empirical estimations. Later, Bergstrand et al. (2015) specified an empirical gravity model including domestic trade flows and controlling for globalization effects to estimate unbiased effects of trade agreements. While Bergstrand et al. (2015) finds that the effects of regional trade agreements (RTAs) and other policy variables may be over-predicted if the globalization trends are not properly accounted for, globalization dynamics are not the main object of interest of the study and the role played by trade agreements on globalization dynamics is not estimated. I build on the methodology of these studies and combine it with the conclusions from Baier et al. (2019) on the widely differing effects of RTAs across and within agreements to measure globalization and disentangle the RTAs' effects from the country-specific globalization dynamics. Baier et al. (2019) finds that most of the RTAs effect heterogeneity (2/3) occurs within agreements rather than across different RTAs, emphasizing the importance of taking into account the RTAs' effects at the country level.[3]

The rest of the paper is organized as follows: section 2 explains the methodology that builds on a clear definition of globalization and introduces the databases used to cover a long period and many countries. Section 3 presents the results. Section 4 concludes.

2 Methodology and Data

This section builds on the recent contributions to the structural gravity equation literature to set an empirical strategy to measure globalization dynamics from different dimensions. Once I explain the differences between this strategy and the existing literature, I introduce the databases necessary to implement it adopting a long-run perspective.

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[3]For disentangling the role played by RTAs on globalization dynamics, I focus on the case of Spain, an economy in autarky at the end of the 1950s that joined the European Union in 1986.

2.1 Structural Gravity Model and Empirical Strategy

The gravity model of trade has been the workhorse to estimate the impact of various trade policies and other determinants of trade flows, including the trade agreements effects, thanks to its theoretical foundations, empirical success Yotov (2022a), and representation of an extensive class of underlying microfoundations (Arkolakis et al., 2012). I follow the structural gravity system of equations, derived initially by Anderson (1979) and refined by Anderson and van Wincoop (2003):

$$X_{ij}^k = \frac{E_j^k Y_i^k}{Y^k} \left(\frac{t_{ij}^k}{P_j^k \Pi_i^k} \right)^{1-\sigma^k} \tag{1}$$

$$(P_j^k)^{1-\sigma^k} = \sum_i \left(\frac{t_{ij}^k}{\Pi_i^k} \right)^{1-\sigma^k} \frac{Y_i^k}{Y^k} \tag{2}$$

$$(\Pi_i^k)^{1-\sigma^k} = \sum_j \left(\frac{t_{ij}^k}{P_j^k} \right)^{1-\sigma^k} \frac{E_j^k}{Y^k} \tag{3}$$

where $X_{ij,t}^k$ denotes the value of exports from origin country i to destination country j in sector k. $X_{ij,t}^k$ includes domestic trade flows $X_{ii,t}^k$, from country i to country i. E_j denotes total expenditure on sector k at destination j, while Y_i^k denotes total output value k from country i to all destinations. Y is the total world output of goods k. σ^k is the trade elasticity of substitution across origin countries in goods k. Π_i is the outward multilateral resistance, which consistently aggregates the trade costs faced by the producers in each region i as if they ship to a uniform world market. Similarly, the inward multilateral resistance, P_j , consistently aggregates the trade costs for the consumers in each region j as if they buy from a uniform world market.

2.2 Empirical Strategy

2.2.1 Baseline Specification for Globalization Dynamics

Various ways to specify and estimate the gravity equation have been proposed (Head and Mayer, 2014), but it is now standard for the literature, when estimating the impact of RTAs, to use the following empirical strategy as an application of the structural gravity

model:

$$X_{ij,t} = \exp\{\beta_{rta}RTA_{ij,t} + \beta_{INTER}INTER_{ij} + \mu_{i,t} + \pi_{j,t} + \gamma_{ij}\} + \varepsilon_{ij,t} \qquad (4)$$

where $RTA_{ij,t}$ captures the presence of an RTA and β_{rta} estimates the world average effect of RTAs. To avoid the endogeneity bias of trade policy variables due to bilateral factors, country-pair fixed effects, γ_{ij}, are included by (Baier and Bergstrand, 2007). Including time-invariant country pair fixed effects captures all time-invariant factors that might otherwise be picked up by the $RTA_{ij,t}$ coefficient. The country of origin and destination fixed effects, $\mu_{i,t}$ and $\pi_{j,t}$, control for the multilateral resistances. Bergstrand et al. (2015) focused on obtaining precise and unbiased estimates of RTAs by controlling for the declining effects of "international borders" on world trade. Unlike Yotov (2012), their specification accounts for unobserved time-varying bilateral heterogeneity (country-pair fixed effects) and the effects of RTAs formations, which potentially biased upward Yotovs estimates of the declining effect of distance. Their strategy was to construct an exogenous dummy variable INT_{ij} that takes the value 1 if the source and destination countries are different ($i \neq j$) and the value 0 if they are the same ($i = j$), as follows:[4] Regarding the estimator used, Santos Silva and Tenreyro (2006) show that the PPML estimator consistently estimates the gravity equation for trade and is robust to different patterns of heteroskedasticity and measurement error, making it preferable to the log-linearized alternative using OLS. Fally (2015) shows that the estimated fixed effects, $\mu_{i,t}$ and $\pi_{j,t}$, in the PPML specification are consistent with the definition of outward and inward multilateral resistance indexes and the equilibrium constraints that they need to satisfy in equations (1) to (3) as in Anderson and van Wincoop (2003).

Yotov (2012) and Bergstrand et al. (2015) included $INTER_{ij}$ to make sure that the declining trade-related costs (distance) were reflected in estimates of the standard gravity model and that the RTA estimates were unbiased, respectively. Note that one of the main purposes of this paper is to capture the globalization dynamics over a long period to understand the changes in the world economy. Trade agreements are arguably an important component of the globalization process. INT_t is an exogenous variable that picks up all the relevant forces that discriminate between internal and international trade, including trade agreements. For this reason and based on the definition of globalization

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[4]This variable can be incorporated with a set of year dummies to capture the dynamics.

that refers to an extension beyond national borders of the same market forces that operate at all levels of economic activity, my base empirical strategy does not include the RTA variable and uses the variable $INTER_{ij}$ as follows:

$$X_{ij,t} = \exp\{\sum_t \beta_t INT_{ij,t} + \mu_{i,t} + \gamma_{ij} + \pi_{j,t}\} + \varepsilon_{ij,t} \tag{5}$$

where $\sum_t \beta_t INT_{ij,t}$ captures the globalization dynamics due to all economic forces.[5] Equation (5) allows to estimate globalization dynamics for the (average) world economy. I use this equation at the sector level (manufacturing, agriculture and services). In order to disentangle the globalization dynamics of different countries, I add a set of variables that interact $\sum_t \beta_t INT_{ij,t}$ with that specific country. For instance, if the country of interest is China, the specification is as follows:

$$X_{ij,t} = \exp\{\sum_t \left(\beta_t INT_{ij,t} + \beta_t^{CHN} INT_{ij,t}^{CHN} \right) + \mu_{i,t} + \gamma_{ij} + \pi_{j,t}\} + \varepsilon_{ij,t} \tag{6}$$

where $\sum_t \beta_t INT_{ij,t}$ provides the estimates of globalization dynamics for the world economy without including the dynamics of the country of interest, China, in this example.[6]

2.2.2 The Role of Trade Agreements

Trade liberalization efforts, and trade agreements in particular, have been arguably one of the driving forces of globalization. It might look like in equation (4), by controlling for RTAs, $\sum_t \beta_t INT_{ij,t}$ provides the estimates of globalization dynamics without including the effect of RTAs. Unfortunately, this is not the case. The RTA variable does capture the effect of trade agreements, but only the world average effect. The literature has shown that RTAs have widely differing effects (Baier et al., 2019). This means that including the RTA variable strips out the globalization variables from the average effect of RTAs but not from the actual effect of each of those trade agreements. Baier et al. (2019) find that most of the heterogeneity (2/3) of RTAs effects occurs within trade agreements rather

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[5]These dynamics are measured with respect to a base year that is omitted in the estimation. Omitting the first year available in the data is the most intuitive way. All years cannot be included due to multicollinearity with the country-par fixed effects.

[6]Note that in practice, it is more efficient in terms of making comparisons across countries to run the following estimation $X_{ij,t} = \exp\{\sum_t \left(\beta_t INT_{ij,t} + \beta_t^{not\ CHN} INT_{ij,t}^{not\ CHN} \right) + \mu_{i,t} + \gamma_{ij} + \pi_{j,t}\} + \varepsilon_{ij,t}$, where $\sum_t \beta_t INT_{ij,t}$ provides the specific globalization dynamics of China or any other country of interest.

than across different RTAs. This heterogeneity in the effect of RTAs means that a sound estimation of globalization dynamics requires controlling for the country-specific effects of RTAs. An analysis that estimates the different effects of the existing RTAs in the world economy is out of the scope of this paper, but I focus on one interesting example to show how to empirically disentangle the role of RTA from the overall globalization dynamics. I use the example of Spain's integration into the European Union, going from autarky toward the end of the 1950s to the current high levels of trade integration. Taking into account that RTAs tend to have a phase-in effect over several years, the empirical strategy, in this case, is as follows:

$$X_{ij,t} = \exp\{\sum_t \left(\beta_t INT_{ij,t} + \beta_t^{ESP} INT_{ij,t}^{ESP} + \beta_{RTA,t} RTA_{ij,t}^{ESP} \right) + \mu_{i,t} + \gamma_{ij} + \pi_{j,t}\} + \varepsilon_{ij,t} \quad (7)$$

where I disentangle the globalization dynamics of the Spanish economy from the world average, and at the same time, I disentangle the dynamic effects of the RTAs signed by Spain with other countries. In equation (7), when the terms $RTA_{ij,t}^{ESP}$ are not included, the overall globalization dynamics for Spain are obtained. When the terms $RTA_{ij,t}^{ESP}$ are included, the globalization dynamics for Spain are obtained but without including the RTA's effect. Equation (7) shows how to disentangle the role played by RTAS for one specific country, but it also shows how to do the same for any other countries and economic factors of interest.

2.3 Data

One of the main objectives of this paper is to cover a period as long as possible to understand where globalization stands today. Also, as discussed in the previous sections, using both international and domestic trade flow data is key for measuring globalization. Additionally, covering most countries in the world economy is a priority to contribute to economic policy both in developing and developed economies. The best way to do this is to use international input-output tables. I use three input-output tables databases to cover an extended period, starting in 1965, and with as many countries as possible.

I use the Long-Run World Input–Output Database or long-run WIOD (Woltjer et al., 2021) to go back in time as much as possible. The long-run WIOD provides annual time series of world input-output tables covering the period 1965-2000 (Woltjer et al.,

2021), encompassing the period of rapid growth in the world economy and characterized by increasing integration of production and consumption in the world economy. This period includes the economic integration into the world economy of Japan, the Republic of Korea, and other East-Asian countries and the continuous integration of countries within the European Union. While it covers until 2000, I only use the data until 1990 since this is the year other input-output tables start covering more countries.

For the period 1990 to 2015 I use the Eora MRIO databse (Lenzen et al., 2012, 2013). Eora consists of multi-region input-output tables that cover 190 countries. The version of Eora used in this paper is the simplified version, Eora26, thanks to the 26-sector harmonized classification that allows for comparison across countries and sectors. Finally, for 2015-2021, I use the ADB-MRIO (ADB, 2022) covering 62 economies and 25 sectors. Besides covering fewer countries than the data used for previous years, the ADB MRIO nowcast the most recent years in the data. But these recent years can be used to better understand globalization dynamics up to 2021.

One final remark is that all input-output tables provide data for several sectors that I aggregate up to three aggregate industries (manufacturing, agriculture, and services). The services data tend to be of lower quality than goods data, but I include it for the completeness of the analysis and due to the importance of the services sector. Also, I tend to use the data for the whole period 1965-2021 for most analyses, but some of them, like the regional analysis, require focusing the work on the period 1990-2015, which covers more countries.

3   Results

This section presents the results, starting with a general look at globalization dynamics since 1965 across sectors and countries. I disentangle the dynamics of several countries for 1965-2021 to provide deep insights. And for a regional perspective, I estimate the globalization dynamics across World Bank regions for 1990-20215. Finally, I disentangle the effect of regional trade agreements in globalization using the specific example of Spain.

3.1 Globalization Dynamics

I start by estimating the globalization dynamics at the sector level. Figure (2) plots the results for 1965-2021. Note that these dynamics are obtained with different estimations by sector and period.[7] It shows that globalization started earlier for manufacturing, with positive dynamics already in the 1960s. Agriculture started its globalization process in the early 1980s, and services only took off in the second half of the 1990s. From figure (2) (a), we see that by 2015, international trade in manufacturing grew 314% ($[\exp(1.42) - 1] * 100\%$) with respect to domestic trade since the year 1965. This growth is equivalent to a tariff reduction of 29.97% ($[\exp(1.42/(1-5)) - 1] * 100\%$), as shown in figure (2) (b), when taking a value for the elasticity of substitution for (1) from the literature, $\sigma^k = 5$.[8] Note that the 316% growth of international trade with respect to domestic trade during 1965-2015 results from an average annual growth rate of 2.88% over 50 years or an annual equivalent tariff reduction of 0.71%.

During the same period, agriculture grew 172%, or had an equivalent tariff reduction of 22.15%. While services grew 63.3%, or had a tariff equivalent reduction of 11.5%. Note that services display a positive trend after the mid-1990s, but agriculture and manufacturing show a positive trend before the 1990, with the trend being very similar for the periods 1965-1990 and 1990-2015. These similar trends show that using the long WIOD data until 1990 and EORA after that year (as explained in the data section) allows for a smooth transition between datasets and consistently estimated dynamics for 1996-2015. Also, note that there was a stagnation period in the dynamics of agricultural products in the late 1980s. Then in the early 1990s, we observed a decline and quick recovery in this sector's globalization dynamics and subsequent continuation of the trend observed since the late 1970s. The services dynamic started improving around 1990 and accelerated in the 2000s, showing how recent globalization is in this sector compared with manufacturing and agriculture.

The Global Financial Crisis in 2007-2008 interrupted the positive globalization dynamics during the Great Trade Collapse. This event is captured in figure (2a), providing a precise magnitude of around 13% decrease in trade of all sectors between 2008 and 2009

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[7]The dynamics for the manufacturing sector during 1965-1990 and 1990-2015 are obtained in different estimations since different datasets are used.

[8]The interested reader may refer to Felbermayr et al. (2015) for a discussion of the sensitivity of the results in counterfactual gravity analysis to the choice of the elasticity of substitution.

(relative to domestic trade flows). The equivalent tariff increase of this event is 3.81%. But there was a quick recovery, getting to slightly higher levels than in 2007. After this, all sectors peaked between 2011 (agriculture) and 2014 (manufacturing and services), and the dynamics after 2015 do not show a significant trend in any of the sectors.[9] Figure (2) does not show the confidence intervals of the estimates to keep the figure as simple as possible and make the visualization easier. Table (1) shows the estimates and their standard errors.
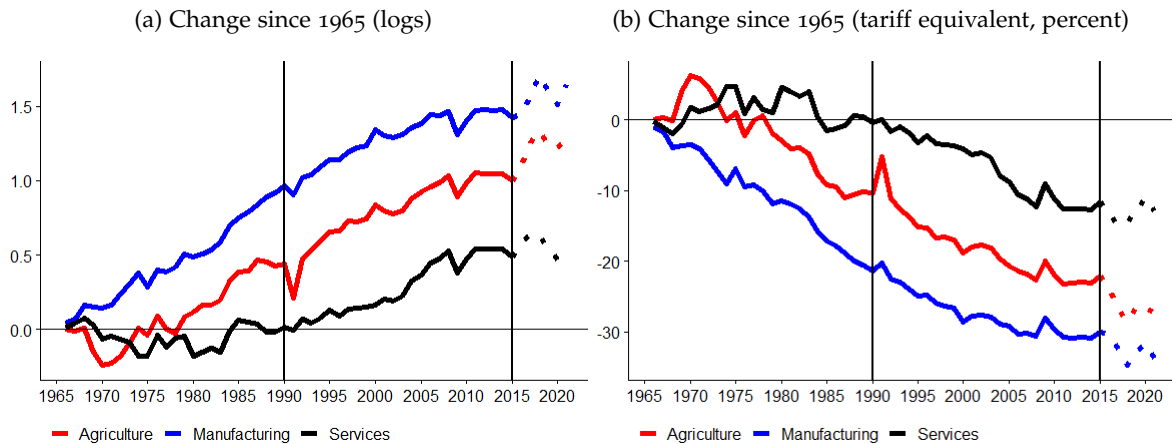
(a) Change since 1965 (logs) (b) Change since 1965 (tariff equivalent, percent)

Note: This figure plot the globalization dynamics coefficients using the three different periods covered by the databases long-run WIOD, EORA and ADB-MRIO. Coefficients and standard deviations are reported in table (1).

Figure 2: Globalization Dynamics (1965-2021)

The globalization dynamics in figure (2) are global averages. As discussed in section (2), country-specific dynamics can be estimated. Figure (3) shows the results for Brazil, Spain, Korea, China, India, and the US. The integration of the Chinese economy into the world economy had an immense impact on other countries and can serve to anchor our intuitions of globalization dynamics. Korea experienced a well-known outward-oriented growth strategy that started before many other countries and became an important trade player in Asia and the world. India and Brazil are two large emerging economies that seem to have had difficulties integrating into the global economy but found their way toward world average dynamics in the 1990s. Finally, the US is the largest economy, and Spain is a good example of the European integration process, going from autarky in the

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[9]The data used for 2015-2021, from the ADB-MRIO, is nowcasted and likely to change in the next versions of the data. Nowcasting in economics is the prediction of the very recent past and the present. The ADB-MRIO offers the most recent input-output data by estimating the most recent years based on available economic data like GDP. See ADB (2022) for more details.

Table 1: Globalization Dynamics (1965-2021)

Long WIOD				Eora				ADB MRIO			
(1)	(2)	(3)		(4)	(5)	(6)		(7)	(8)	(9)	
	Manufacturing	Agriculture	Services		Manufacturing	Agriculture	Services		Manufacturing	Agriculture	Services
$INTER_{ij,1966}$	0.04*** (0.01)	0 (0.04)	0.01 (0.01)	$INTER_{ij,1991}$	-0.06 (0.04)	-0.22*** (0.08)	-0.02 (0.03)	$INTER_{ij,2007}$	0.05 (0.03)	-0.05 (0.06)	-0.08* (0.04)
$INTER_{ij,1967}$	0.07*** (0.01)	-0.01 (0.03)	0.04** (0.02)	$INTER_{ij,1992}$	0.06* (0.03)	0.04 (0.04)	0.05 (0.03)	$INTER_{ij,2008}$	0.04 (0.03)	-0.04 (0.06)	-0.04 (0.05)
$INTER_{ij,1968}$	0.16*** (0.02)	0.01 (0.05)	0.08*** (0.02)	$INTER_{ij,1993}$	0.08** (0.03)	0.10*** (0.03)	0.02 (0.03)	$INTER_{ij,2009}$	-0.10*** (0.03)	-0.01 (0.06)	-0.12** (0.05)
$INTER_{ij,1969}$	0.15*** (0.03)	-0.16*** (0.06)	0.03 (0.04)	$INTER_{ij,1994}$	0.13*** (0.03)	0.16*** (0.03)	0.06* (0.03)	$INTER_{ij,2010}$	0.03 (0.03)	0.06 (0.06)	0 (0.04)
$INTER_{ij,1970}$	0.14*** (0.03)	-0.24*** (0.06)	-0.07* (0.04)	$INTER_{ij,1995}$	0.18*** (0.03)	0.22*** (0.03)	0.11*** (0.03)	$INTER_{ij,2011}$	0.07** (0.03)	0.15** (0.06)	0.02 (0.04)
$INTER_{ij,1971}$	0.17*** (0.04)	-0.23*** (0.07)	-0.05 (0.04)	$INTER_{ij,1996}$	0.17*** (0.03)	0.23*** (0.03)	0.07** (0.04)	$INTER_{ij,2012}$	0.06* (0.04)	0.07 (0.05)	0.02 (0.04)
$INTER_{ij,1972}$	0.23*** (0.04)	-0.18** (0.08)	-0.06 (0.04)	$INTER_{ij,1997}$	0.23*** (0.03)	0.29*** (0.03)	0.12*** (0.03)	$INTER_{ij,2013}$	0.06* (0.04)	0.05 (0.06)	0.03 (0.04)
$INTER_{ij,1973}$	0.31*** (0.03)	-0.09 (0.08)	-0.08** (0.04)	$INTER_{ij,1998}$	0.26*** (0.03)	0.29*** (0.03)	0.13*** (0.03)	$INTER_{ij,2014}$	0.04 (0.03)	0.05 (0.06)	0.01 (0.04)
$INTER_{ij,1974}$	0.38*** (0.03)	0.01 (0.09)	-0.18*** (0.04)	$INTER_{ij,1999}$	0.27*** (0.03)	0.31*** (0.02)	0.13*** (0.03)	$INTER_{ij,2015}$			
$INTER_{ij,1975}$	0.28*** (0.04)	-0.04 (0.08)	-0.18*** (0.04)	$INTER_{ij,2000}$	0.38*** (0.03)	0.40*** (0.03)	0.15*** (0.03)	$INTER_{ij,2016}$	0.02 (0.03)	0.09 (0.06)	0.09** (0.04)
$INTER_{ij,1976}$	0.40*** (0.04)	0.09 (0.08)	-0.04 (0.04)	$INTER_{ij,2001}$	0.34*** (0.03)	0.36*** (0.02)	0.19*** (0.03)	$INTER_{ij,2017}$	0.15*** (0.04)	0.26*** (0.07)	0.15*** (0.04)
$INTER_{ij,1977}$	0.39*** (0.04)	0 (0.1)	-0.12*** (0.04)	$INTER_{ij,2002}$	0.33*** (0.03)	0.34*** (0.02)	0.17*** (0.03)	$INTER_{ij,2018}$	0.28*** (0.03)	0.34*** (0.08)	0.13*** (0.05)
$INTER_{ij,1978}$	0.42*** (0.04)	-0.02 (0.11)	-0.06 (0.04)	$INTER_{ij,2003}$	0.34*** (0.03)	0.36*** (0.02)	0.20*** (0.03)	$INTER_{ij,2019}$	0.17*** (0.05)	0.23*** (0.06)	0.07 (0.06)
$INTER_{ij,1979}$	0.51*** (0.04)	0.08 (0.09)	-0.04 (0.04)	$INTER_{ij,2004}$	0.40*** (0.03)	0.44*** (0.02)	0.31*** (0.03)	$INTER_{ij,2020}$	0.09** (0.05)	0.22*** (0.06)	-0.03 (0.05)
$INTER_{ij,1980}$	0.49*** (0.04)	0.12 (0.11)	-0.18*** (0.05)	$INTER_{ij,2005}$	0.42*** (0.03)	0.49*** (0.03)	0.35*** (0.03)	$INTER_{ij,2021}$	0.22*** (0.04)	0.28*** (0.06)	0.06 (0.05)
$INTER_{ij,1981}$	0.51*** (0.04)	0.17* (0.1)	-0.16*** (0.05)	$INTER_{ij,2006}$	0.48*** (0.03)	0.52*** (0.02)	0.43*** (0.03)				
$INTER_{ij,1982}$	0.54*** (0.04)	0.16 (0.1)	-0.13** (0.06)	$INTER_{ij,2007}$	0.48*** (0.03)	0.55*** (0.02)	0.46*** (0.03)				
$INTER_{ij,1983}$	0.59*** (0.04)	0.20* (0.11)	-0.16*** (0.06)	$INTER_{ij,2008}$	0.50*** (0.03)	0.59*** (0.02)	0.51*** (0.03)				
$INTER_{ij,1984}$	0.69*** (0.04)	0.32*** (0.11)	-0.01 (0.06)	$INTER_{ij,2009}$	0.35*** (0.03)	0.45*** (0.02)	0.36*** (0.03)				
$INTER_{ij,1985}$	0.75*** (0.04)	0.39*** (0.1)	0.06 (0.05)	$INTER_{ij,2010}$	0.44*** (0.03)	0.55*** (0.02)	0.46*** (0.03)				
$INTER_{ij,1986}$	0.79*** (0.05)	0.40*** (0.1)	0.05 (0.06)	$INTER_{ij,2011}$	0.51*** (0.03)	0.62*** (0.02)	0.52*** (0.03)				
$INTER_{ij,1987}$	0.84*** (0.04)	0.47*** (0.1)	0.03 (0.06)	$INTER_{ij,2012}$	0.51*** (0.03)	0.61*** (0.02)	0.52*** (0.03)				
$INTER_{ij,1988}$	0.89*** (0.04)	0.45*** (0.1)	-0.02 (0.06)	$INTER_{ij,2013}$	0.51*** (0.03)	0.61*** (0.02)	0.52*** (0.03)				
$INTER_{ij,1989}$	0.92*** (0.04)	0.43*** (0.12)	-0.02 (0.06)	$INTER_{ij,2014}$	0.52*** (0.03)	0.61*** (0.02)	0.53*** (0.03)				
$INTER_{ij,1990}$	0.96*** (0.04)	0.44*** (0.12)	0.02 (0.06)	$INTER_{ij,2015}$	0.46*** (0.03)	0.56*** (0.02)	0.47*** (0.03)				
$INTER_{ij,1991}$	1.02*** (0.04)	0.56*** (0.11)	0.04 (0.06)								
$INTER_{ij,1992}$	1.02*** (0.04)	0.50*** (0.11)	0.03 (0.06)								
$INTER_{ij,1993}$	1.06*** (0.05)	0.50*** (0.11)	0.10* (0.06)								
$INTER_{ij,1994}$	1.17*** (0.04)	0.59*** (0.11)	0.20*** (0.06)								
$INTER_{ij,1995}$	1.23*** (0.04)	0.65*** (0.11)	0.15** (0.06)								
$INTER_{ij,1996}$	1.28*** (0.05)	0.64*** (0.11)	0.17*** (0.06)								
$INTER_{ij,1997}$	1.35*** (0.05)	0.71*** (0.11)	0.26*** (0.06)								
$INTER_{ij,1998}$	1.40*** (0.05)	0.75*** (0.11)	0.32*** (0.06)								
$INTER_{ij,1999}$	1.43*** (0.05)	0.75*** (0.11)	0.31*** (0.06)								
$INTER_{ij,2000}$	1.51*** (0.05)	0.80*** (0.11)	0.36*** (0.06)								
Observations	22500	22500	22500	Observations	933660	933660	933660	Observations	59445	58335	59535

Note: All regression include exporter-year, country-pair and importer-year fixed effects. The three databases are used to estimate a continuous of globalization dynamics for the period 1965-2021, for this the references years are 1995 for Long-WIOD, 1990 for Eora-MRIO and 2015 for ADB-MRIO Robust standard errors, clustered at the country-pair level, are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

late 1950s to joining the European Union (EU) in 1985.[10]

Figure (3) shows interesting dynamics at the country level. It captures the early integration of Korea into the global economy. In the case of manufacturing, the growth of international trade with respect to domestic trade was 5176.9% or an equivalent tariff reduction of 62.89%. It also shows that the globalization process started later for China, around 1986.[11] But by 2015, China overtook Korea with a 6004.3% growth, or a tariff equivalent reduction of 64.2%, of international trade relative to domestic trade in the manufacturing sector since 1965. While China and Korea show similar globalization dynamics, it is important to take into account that the integration of each of these countries into the world economy had very different implications due to the size of their population and their total production capacity for the world economy, with China becoming one of the largest manufacturing hubs.

In India and Brazil, two large economies in their respective regions, globalization seems to have started late. Significant declines in trade growth are observed in the case of India across all sectors. Brazil's manufacturing had a positive episode in the 1970s of integration into the world economy, but it reverted and only took off again in the 1990s, getting very close to the world average in 2015. Integration had a poor performance in agriculture in both countries, and services grew rapidly for India in the 2000s, managing to outperform the world average by 2015.[12]

Figure (3) shows a unique decline for the US manufacturing sector since 2000. These negative dynamics are in line with the evidence available in the literature. For instance, Autor et al. (2019) study the large-scale labor demand shocks stemming from rising international manufacturing competition during 1990–2014 and its consequences. Among their conclusions, they find that this trade shock significantly reduced employment and earnings of young adult males. Recent research has also found that trade reforms can reduce exports of advanced economies when they reduce the fixed costs of foreign direct investment (FDI) significantly more than trade barriers (Baek and Hayakawa, 2022).

Another worth mentioning case is Spain. The Spanish economy went from autarky at

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[10]Spain requested accession to the EU on 26 July 1977.

[11]Note that 1986 seems to be the year globalization dynamics took off in China. But these dynamics were impulse by previous reforms in the Chinese economy. These reforms started in 1978 in the agricultural sectors, followed in 1984 with reforms in urban areas and industrial sectors. See Prasad (2004) for an overview of the key aspects of developments in China's macroeconomy and economic structure.

[12]As discussed in the data section, the trade data on services tend to be of lower quality than goods data, but these results are intuitive and a solid based for an analysis for countries like India.

the end of the 1950s to starting a deep integration process into the European and global economy at the end of the 1970s and early 1980s. Spain outperformed the world average in all sectors by 2015 thanks to its integration with its European partners. This particular case of going from autarky to deep integration will serve as a good case to disentangle the role of RTAs in globalization dynamics later in this paper.

While the global economy has globalized in the last decades, these dynamics have differed across regions. In figure (4), I study the heterogeneous globalization dynamics across World Bank regions.[13] To cover all the countries within each region, the data is restricted to the period 1990-2015.[14] The results show that South Asia and Latin America and the Caribbean (LAC) come on top, while North America has a declining trend during the 2000s in manufacturing. The dynamics in North America are driven by the US and these were discussed above. The case of South Asia, while surprising at first sight, is driven by India and in line with the results in figure (3). After underperforming the world economy and having serious difficulties, India made rapid progress (starting around 1990) in integrating into the global economy and recovered the lost ground to a large extent. The case of LAC might also look surprising since this region is known for lagging in trade integration. To understand what explains these results, figure (5) carries out a more granular estimation, across LAC countries, in the manufacturing sector. It shows that Brazil, Mexico, and Argentina were the best performers during this period. The case of Mexico is intuitive thanks to its well-known integration efforts with the US and Canada, and Brazil's dynamics were discussed above. To understand the dynamics of Argentina, it is necessary to take into account two things. First, the globalization dynamics are measured with respect to a base year, in this case 1990.[15] Second, Argentina started from a low level of trade integration and despite a fragile economic situation in the 2000s, its exports grew significantly. According to the World Bank's WDI data, Argentina experienced a period of sustained export growth in which exports grew from US$27 billion to US$97 billion between 2003 and 2011. Albornoz et al. (2018) studies the period 2003-2011 and explains that while the currency depreciated with the economic crisis

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[13]See table (A5) for details on World Bank's regions classification.

[14]The data section discusses the data in more detail.

[15]The empirical strategy presented in this paper, in line with the literature, is very demanding in terms of fixed effects and does not allow estimating international trade integration in levels since all the years cannot be included due to multicollinearity issues. See Bergstrand et al. (2015), Baier et al. (2019) and Yotov (2022a) for more details on this issue.
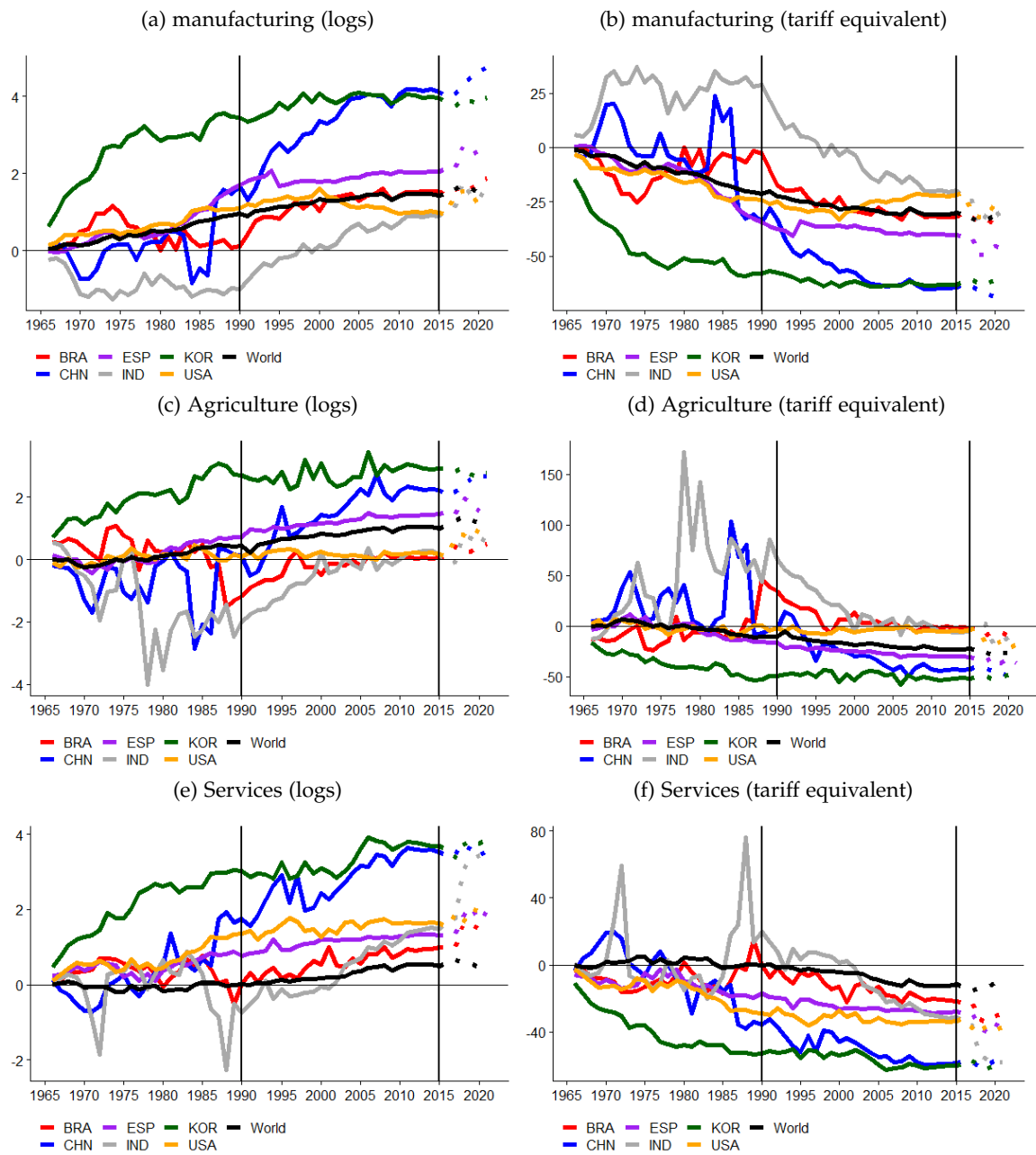
(a) manufacturing (logs)

(b) manufacturing (tariff equivalent)

(c) Agriculture (logs)

(d) Agriculture (tariff equivalent)

(e) Services (logs)

(f) Services (tariff equivalent)

Note: This figure plot the globalization dynamics coefficients using the three different periods covered by the databases long-run WIOD, EORA and ADB-MRIO. Coefficients and standard deviations are reported in tables (A1) to (A3).

Figure 3: Globalization dynamics by selected country and sector

in 2001, the intensive margin explained most of the export growth, whereas the extensive margin became the main source of export growth once the currency appreciated.

3.2   The Role of Trade Agreements

Trade agreements arguably played an important role in helping countries integrate into the global economy and are key to understanding globalization dynamics. Baier et al. (2019) show that trade agreements effects are heterogeneous, not only between agreements but mostly within agreements. In columns 1 and 2, table (2) provides the results of estimating globalization dynamics for the period 1965-2000. It shows a total effect in 2000 of $[\exp(1.51) - 1] \times 100 = 352\%$ when RTAs effects are not controlled and an effect of $[\exp(1.43) - 1] \times 100 = 318\%$ growth if the RTA variable is included.[16] While there is a 34% difference, this is small compared to the total magnitude of globalization during this period. Also, these results control for the average RTA effect, assuming that all RTAs have the same effect on bilateral trade. This is a strong assumption as shown by Baier et al. (2019). For this reason, to disentangle the role played by RTAs in globalization dynamics, one needs to consider the country-specific effects of trade agreements. I use the case of Spain as an example. Spain is a particular case captured in the data used in this paper, going from autarky to a deep trade integration process into the global and European economy since the 1970s. Spain requested to access the EU on 26 July 1977. These aspirations came to fruition on 12 June 1985. I use this event to disentangle the effect of Spanish RTAs on its globalization dynamics.

Columns 3 to 6 of table (2) show the results of estimating the globalization dynamics of the Spanish economy.[17] Figure (6) plots these results. It shows how while Spain did not sign any trade agreement, the globalization dynamics controlling and not controlling for RTAs effects are the same, as expected. These dynamics started differing as soon as the Spanish accessed the European Communities in 1986. The globalization dynamics that omit RTA effects (the RTA variable is included in the regression) have the same trend along the period. But the slope of the dynamics that include the effect of RTAs (the

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[16]Note that the world average effect of globalization by 2000 is different to the one shown before. In this case, I only use the Long-WIOD data. Results in figure (2a) are a more robust world average estimating since they cover many more countries.

[17]Column 3 does not include the RTA variable, column 4 includes the average world effect of RTAs, column 5 considers the specific effect of RTAs for Spain, and column 6 allows this specific RTA effect for Spain to evolve over time.

(a) manufacturing (logs)

(b) manufacturing (tariff equivalent)

(c) Agriculture (logs)

(d) Agriculture (tariff equivalent)

(e) Services (logs)

(f) Services (tariff equivalent)
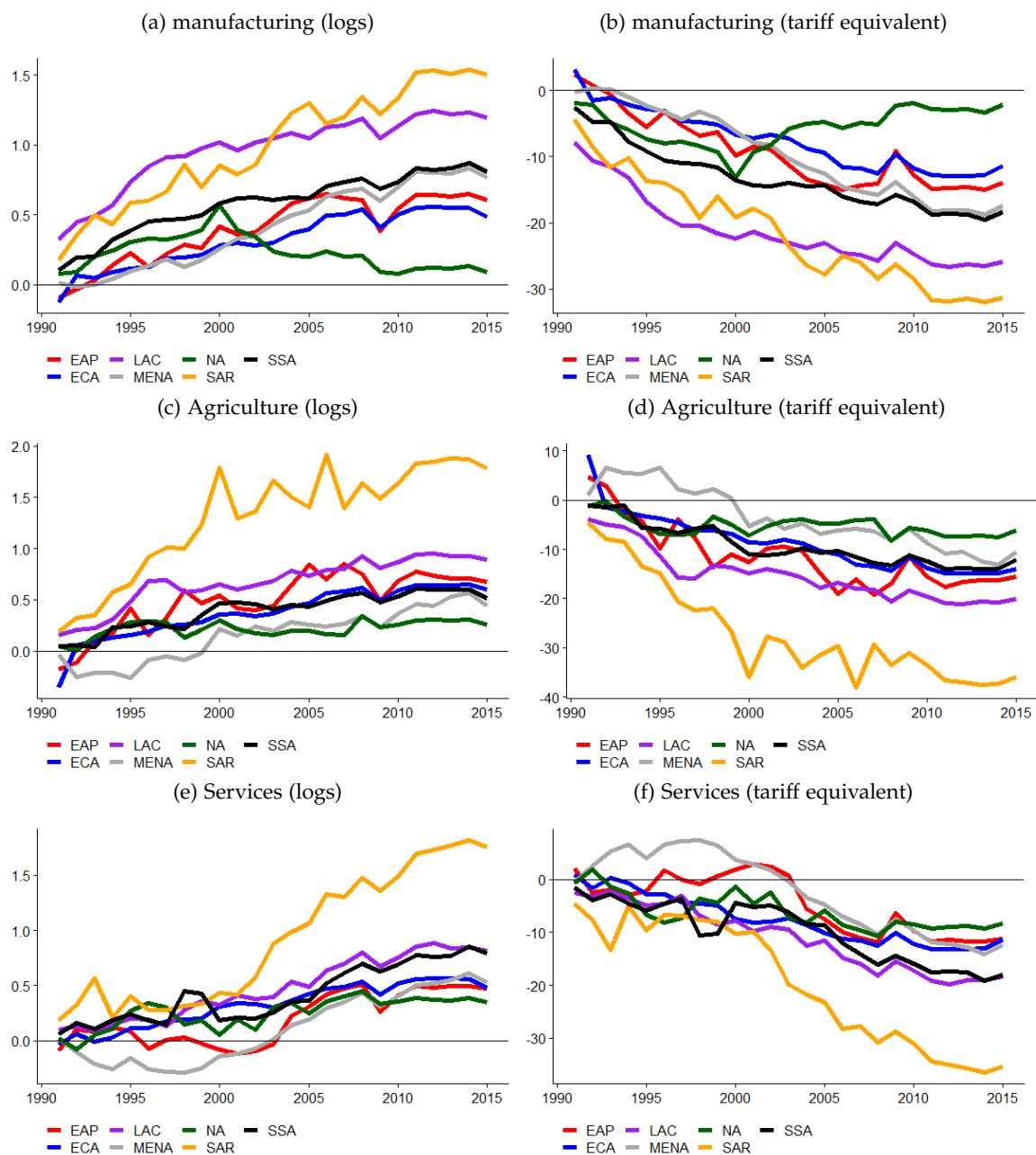
Note: This figure plot the globalization dynamics coefficients using the three different periods covered by the databases long-run WIOD, EORA and ADB-MRIO. Coefficients and standard deviations are reported in table (A4). See table (A5) for the countries in each region.

Figure 4: Globalization dynamics by region and sector

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	(a) manufacturing (logs)	(b) manufacturing (tariff equivalent)
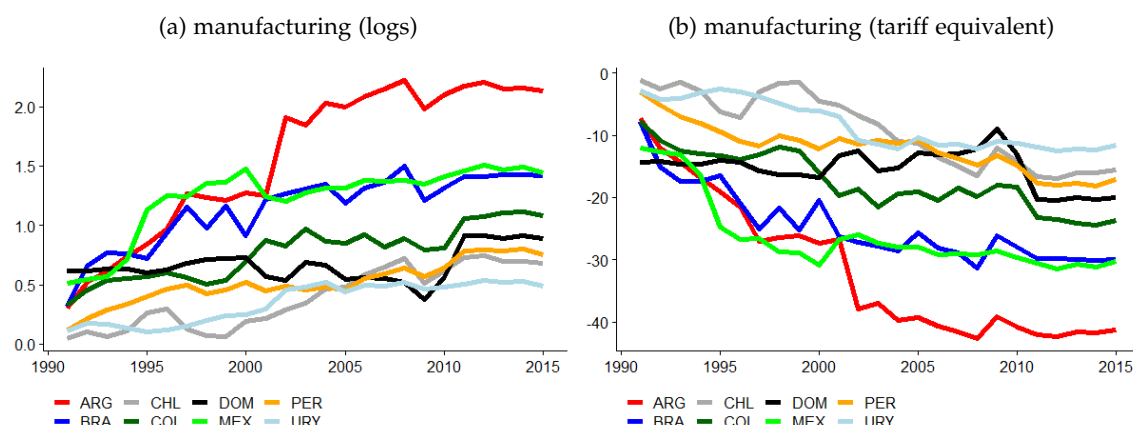
Note: This figure plot the globalization dynamics coefficients using EORA for the period 1990-2015. The results are with respect to 1990. Coefficients and standard deviations are reported in table (A3).

Figure 5: Globalization dynamics in Manufacturing for LAC countries (1990-2015)

Table 2: The role of RTAs in globalization Dynamics in the Manufacturing for Spain (1960-2000)

	(1) Manuf	(2) Manuf		(3) Manuf	(4) Manuf	(5) Manuf	(6) Manuf
RTA		0.21*** (0.01)			0.19*** (0.01)	0.17*** (0.01)	0.17*** (0.01)
RTA × Spain						0.36*** (0.04)	0.59*** (0.08)
$INTER_{2000}$	1.51*** (0.05)	1.43*** (0.04)					
$INTER_{2000}$ × Spain				2.75*** (0.22)	2.50*** (0.21)	1.93*** (0.19)	1.55*** (0.22)
Observations	22500	22500		22500	22500	22500	22500

Note: All regression include exporter-year, country-pair and importer-year fixed effects. The data used is Long-WIOD for the manufacturing sector, covering the period 1995-2000. Column 3 does not include the RTA variable, column 4 includes the average world effect of RTAs, column 5 considers the specific effect of RTAs for Spain, and column 6 allows this specific RTA effect for Spain to evolve over time (phase-in effect of RTAs). Globalization dynamics are only reported at the end of the period (total cumulative effect), the year 2000. Robust standard errors, clustered at the country-pair level, are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

RTA variable is not included in the regression) is significantly higher. With these results, we can conclude that by 2000, Spanish international trade grew 1459.2%, to which trade agreements contributed with a 1087.9%.[18] The equivalent tariff reduction is 49.67% for the total globalization dynamics and 32.13% when RTA dynamics are controlled for. Also, note that when controlling for the RTA effects, it is key to allow for the phase-in effects of RTAs. If these effects are allowed, the globalization dynamics with and without RTAs start differing smoothly. If they are not allowed, both dynamics display a constant difference over time that starts with a jump in the year the RTA enters into force, as shown by figure (6). The case of Spain is very likely among the most successful free trade agreements. Spain had low levels of trade integration, and in a short period of time, it opened to trade and joined one of the deepest trade agreements. Baier et al. (2019) finds widely heterogeneous effects across trade agreements. This calls for studying the role of RTAs in globalization dynamics case by case, as done here for the example of Spain.

(a) Globalization dynamics (log change)	(b) Globalization dynamics (tariff equivalent)
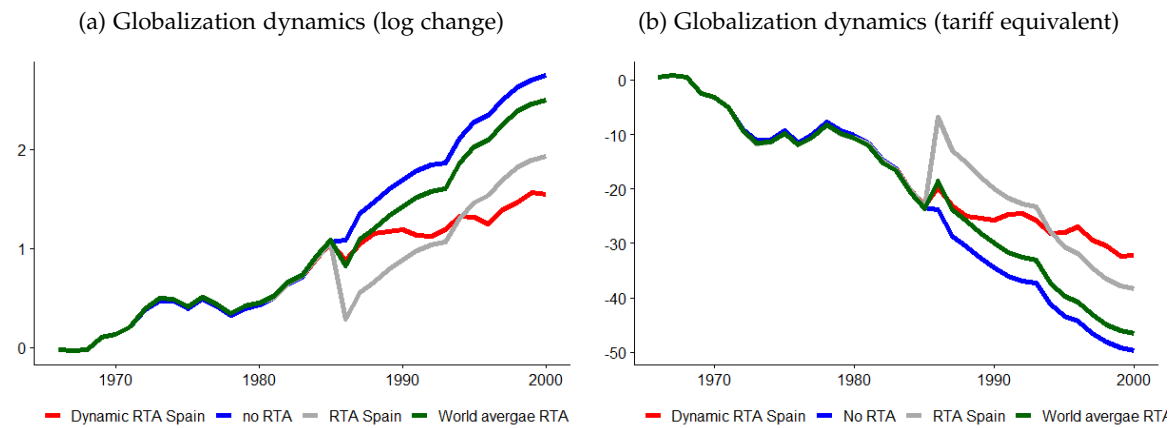
Note: Estimations obtained using the Long-run WIOD database covering the period 1965-2000.

Figure 6: Globalization Dynamics in Manufacturing for Spain (1960-2000)

This example of the Spanish economy shows how to empirically disentangle the role played by RTAS for one specific country, but at the same time it intuitively explains how to do the same for any other countries and economic factors of interest.

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[18]The globalization dynamics when dynamics RTAs are controlled for show that international trade for Spain with respect to domestic trade grew 371.2%. This is why the difference 1459.2%-371.2%=1087.9% shows us the effect of RTAs by the end of the period.

4 Conclusions

What seems to be a slowdown in globalization with the recent trade tensions between the US and China, the COVID-19 pandemic, and the Russian Federation-Ukraine war call for a better measure of globalization, allowing us to capture and understand its dynamics. The lack of a practical definition makes debates around globalization somewhat confusing. This paper focuses on measuring the intensity of the globalization process and evaluating globalization dynamics across countries and over time to inform economic policy.

Several proxies or traditional globalization metrics are now part of a standard economic toolkit. The trade-to-GDP ratio is one of the most common ones. But its use as a globalization measure has several caveats, including the fact that it offers a "globalization has peaked" narrative that looks simplistic (Baldwin, 2022), depicting the Chinese economy at a persistently lower level than the world average, and omitting the fact that factors such as the size of the economy, geographic remoteness from potential trading partners, and the evolving structure of the economy affects its dynamics (OECD, 2011). The term "globalization" began to be used more commonly in the 1980s, and it is now better defined as the extension beyond national borders of the same market forces that operate all levels of economic activity (IMF, 2008). This paper estimates the globalization dynamics for 1965-2021 based on this definition. The results show no sign of a deglobalization trend, and the trade-to-GDP ratio can distort globalization dynamics. Sectoral dynamics show that while manufacturing globalization was already strong in the 1960s, agricultural and services globalization took off in the late 1970s and 1990s, respectively. Country-specific dynamics provide deeper insights and capture important economic episodes. For instance, globalization dynamics for the Chinese economy show that it has outperformed the world economy since it started integrating into the global economy in the late 1980s, contrary to what the trade-to-GDP ratio would suggest. This paper also shows how to disentangle the role played by RTAs in globalization dynamics and the implications for understanding globalization dynamics across countries.

The current debate on globalization uses different terms to refer to what might be happening to the world economy. Slowbalization, deglobalization, and reglobalization refer to the world economy changing in very different ways and with different impli-

cations. This paper contributes to these debates by offering a globalization toolkit to understand where the world economy stands today with measures also ready to capture future dynamics.

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Appendix

Table A1: Globalization Dynamics by selected countries (1965-1990)

	(1) Manuf BRA	(2) Agri BRA	(3) ServBRA	(4) Manuf CHN	(5) Agri CHN	(6) ServCHN	(7) Manuf ESP	(8) Agri ESP	(9) ServESP	(10) Manuf IND	(11) Agri IND	(12) ServIND	(13) Manuf KOR	(14) Agri KOR	(15) ServKOR	(16) Manuf USA	(17) Agri USA	(18) ServUSA
$INTER_{ij,1966}$	0.04 (0.18)	0.54 (0.46)	0.13 (0.39)	0.13 (0.89)	-0.2 (0.8)	0.14 (1.06)	-0.02 (0.29)	0.14 (0.33)	0.24 (0.28)	-0.24 (0.29)	0.56 (0.67)	-0.03 (0.39)	0.64 (0.64)	0.72 (0.57)	0.47 (0.6)	0.13 (0.17)	-0.09 (0.5)	0.1 (0.33)
$INTER_{ij,1967}$	-0.02 (0.16)	0.54 (0.4)	0.12 (0.38)	0.18 (0.87)	-0.23 (0.84)	-0.15 (1.06)	-0.03 (0.32)	0.07 (0.32)	0.28 (0.27)	-0.2 (0.3)	0.48 (0.65)	0.17 (0.38)	0.96 (0.64)	1.01* (0.6)	0.74 (0.62)	0.2 (0.17)	-0.22 (0.48)	0.27 (0.34)
$INTER_{ij,1968}$	0.15 (0.15)	0.66 (0.4)	0.29 (0.38)	0.1 (0.89)	-0.26 (0.78)	-0.26 (1.07)	-0.02 (0.35)	-0.02 (0.35)	0.33 (0.31)	-0.33 (0.67)	0.17 (0.38)	0.25 (0.61)	1.38** (0.6)	1.30** (0.6)	1.04* (0.59)	0.40** (0.17)	0.03 (0.46)	0.43 (0.33)
$INTER_{ij,1969}$	0.21 (0.17)	0.59 (0.41)	0.32 (0.36)	-0.3 (0.91)	-0.55 (0.77)	-0.5 (1.08)	0.1 (0.33)	0.01 (0.38)	0.49* (0.27)	-0.68** (0.31)	-0.39 (0.72)	0.19 (0.38)	1.59** (0.62)	1.32** (0.62)	1.21** (0.58)	0.40** (0.16)	-0.25 (0.44)	0.59* (0.36)
$INTER_{ij,1970}$	0.50*** (0.18)	0.37 (0.45)	0.36 (0.35)	-0.72 (0.91)	-1.28 (0.8)	-0.7 (1.09)	0.13 (0.33)	-0.28 (0.36)	0.37 (0.27)	-1.12*** (0.32)	-0.51 (0.68)	-0.14 (0.38)	1.73** (0.59)	1.12** (0.56)	1.28** (0.58)	0.43*** (0.16)	-0.21 (0.42)	0.55 (0.36)
$INTER_{ij,1971}$	0.57*** (0.17)	0.17 (0.45)	0.41 (0.35)	-0.73 (0.9)	-1.71 (1.07)	-0.72 (1.09)	0.21 (0.3)	-0.44 (0.38)	0.46* (0.26)	-1.20*** (0.3)	-0.86 (0.69)	-0.92*** (0.35)	1.84*** (0.56)	1.33** (0.54)	1.32** (0.57)	0.39** (0.16)	-0.12 (0.45)	0.54 (0.36)
$INTER_{ij,1972}$	0.96*** (0.2)	-0.01 (0.43)	0.70** (0.34)	-0.5 (0.86)	-1.04 (0.79)	-0.59 (1.05)	0.38 (0.33)	-0.2 (0.44)	0.61** (0.27)	-1.03*** (0.28)	-1.94*** (0.64)	-0.34 (0.34)	2.11*** (0.57)	1.38** (0.54)	1.45*** (0.56)	0.47*** (0.17)	-0.18 (0.41)	0.63* (0.33)
$INTER_{ij,1973}$	0.95*** (0.2)	1.00** (0.4)	0.69** (0.34)	-0.03 (0.84)	-0.23 (0.67)	-0.03 (1.02)	0.47 (0.31)	-0.33 (0.41)	0.56** (0.26)	-1.05*** (0.28)	-1.05 (0.65)	0.26 (0.33)	2.66*** (0.57)	1.78*** (0.52)	1.90*** (0.59)	0.52*** (0.16)	0.11 (0.43)	0.55* (0.31)
$INTER_{ij,1974}$	1.16*** (0.16)	1.08* (0.65)	0.67** (0.33)	0.14 (0.85)	-0.28 (0.62)	0.1 (1.03)	0.47** (0.28)	0.04 (0.37)	0.51* (0.26)	-1.26*** (0.29)	-0.98 (0.6)	0.37 (0.35)	2.71*** (0.57)	1.50*** (0.5)	1.78*** (0.57)	0.51*** (0.15)	0.03 (0.42)	0.33 (0.34)
$INTER_{ij,1975}$	0.97*** (0.18)	0.79* (0.4)	0.55* (0.33)	0.17 (0.81)	-1.05 (0.74)	0.27 (1.06)	0.39 (0.29)	-0.06 (0.39)	0.19 (0.26)	-1.05*** (0.28)	0.07 (0.6)	0.36 (0.33)	2.69*** (0.54)	1.84*** (0.49)	1.78*** (0.52)	0.42*** (0.16)	0.12 (0.46)	0.39 (0.33)
$INTER_{ij,1976}$	0.65*** (0.18)	0.64 (0.49)	0.47 (0.33)	0.17 (0.81)	-1.25 (0.85)	-0.1 (1.06)	0.49** (0.28)	0.07 (0.37)	0.32 (0.26)	-1.15*** (0.27)	0.34 (0.58)	0.60** (0.35)	2.95*** (0.54)	2.01*** (0.54)	2.03*** (0.54)	0.50*** (0.16)	0.37 (0.41)	0.68** (0.33)
$INTER_{ij,1977}$	0.60*** (0.17)	-0.33 (0.7)	0.37 (0.32)	-0.24 (0.83)	-0.83 (0.82)	-0.3 (1.05)	0.42** (0.25)	-0.02 (0.25)	0.11 (0.25)	-1.02*** (0.27)	-1.21** (0.6)	0.44 (0.33)	3.06*** (0.54)	2.13*** (0.53)	2.43*** (0.53)	0.49*** (0.15)	0.18 (0.38)	0.45 (0.3)
$INTER_{ij,1978}$	0.44** (0.17)	0.62 (0.44)	0.51 (0.32)	0.15 (0.8)	-1.36* (0.78)	-0.01 (1.03)	0.32 (0.26)	-0.1 (0.43)	0.29 (0.25)	-0.59** (0.25)	-3.99*** (0.66)	-0.12 (0.3)	3.23*** (0.52)	2.12*** (0.49)	2.54*** (0.52)	0.55*** (0.14)	0.12 (0.39)	0.55* (0.31)
$INTER_{ij,1979}$	0.50*** (0.16)	0.28 (0.36)	0.27 (0.31)	0.23 (0.73)	-0.22 (0.62)	0.32 (1)	0.39 (0.24)	-0.07 (0.4)	0.11 (0.22)	-0.90*** (0.26)	-2.24*** (0.57)	0.28 (0.31)	3.04*** (0.51)	2.06*** (0.49)	2.68*** (0.49)	0.64*** (0.15)	0.01 (0.38)	0.4 (0.3)
$INTER_{ij,1980}$	-0.01 (0.17)	0.26 (0.41)	-0.05 (0.32)	0.23 (0.7)	-0.06 (0.62)	0.5 (0.99)	0.43* (0.24)	0.22 (0.42)	0.39* (0.23)	-0.65*** (0.25)	-3.54*** (0.9)	0.64** (0.3)	2.86*** (0.49)	2.16*** (0.51)	2.61*** (0.54)	0.70*** (0.14)	0.17 (0.36)	0.45 (0.3)
$INTER_{ij,1981}$	0.35** (0.17)	0.19 (0.42)	0.18 (0.32)	0.49 (0.69)	0.26 (0.63)	1.36 (0.97)	0.50** (0.25)	0.39 (0.45)	0.47** (0.24)	-0.80*** (0.27)	-2.27*** (0.59)	0.33 (0.3)	2.95*** (0.47)	2.22*** (0.51)	2.69*** (0.44)	0.69*** (0.14)	0.16 (0.37)	0.61** (0.3)
$INTER_{ij,1982}$	0.02 (0.17)	0.23 (0.46)	0.35 (0.32)	0.49 (0.67)	-0.22 (0.61)	0.59 (0.89)	0.64*** (0.24)	0.34 (0.49)	0.61** (0.24)	-0.98*** (0.29)	-1.75*** (0.66)	0.27 (0.31)	2.94*** (0.49)	1.83*** (0.53)	2.45*** (0.44)	0.65*** (0.15)	0.16 (0.36)	0.66** (0.3)
$INTER_{ij,1983}$	0.54*** (0.19)	0.52 (0.43)	0.68** (0.32)	0.41 (0.67)	-0.37 (0.75)	0.53 (0.88)	0.71*** (0.24)	0.52 (0.42)	0.52** (0.23)	-0.94*** (0.29)	-1.66*** (0.57)	0.89*** (0.31)	2.98*** (0.5)	1.99*** (0.54)	2.58*** (0.47)	0.76*** (0.14)	0.01 (0.4)	0.86** (0.29)
$INTER_{ij,1984}$	0.27 (0.17)	0.24 (0.45)	0.51 (0.31)	-0.85 (0.95)	-2.84** (1.28)	0.39 (1.04)	0.89*** (0.24)	0.59 (0.43)	0.63*** (0.23)	-1.21*** (0.24)	-2.48*** (0.58)	0.64** (0.31)	3.02*** (0.48)	2.68*** (0.49)	2.58*** (0.43)	1.02*** (0.15)	0.48 (0.35)	0.88*** (0.29)
$INTER_{ij,1985}$	0.11 (0.18)	0.47 (0.36)	0.76** (0.31)	-0.45 (1.06)	-2.09* (1.26)	0.68 (1.06)	1.05*** (0.24)	0.62 (0.41)	0.72*** (0.23)	-1.08*** (0.24)	-2.24*** (0.64)	0.64** (0.31)	2.87*** (0.47)	2.58*** (0.51)	2.60*** (0.43)	1.06*** (0.15)	0.32 (0.35)	0.9*** (0.3)
$INTER_{ij,1986}$	0.16 (0.17)	-0.24 (0.37)	0.43 (0.31)	-0.65 (1.05)	-2.36* (1.24)	0.51 (1.04)	1.07*** (0.23)	0.55* (0.33)	0.83*** (0.22)	-1.03*** (0.24)	-1.72*** (0.74)	-0.3 (0.3)	3.33*** (0.47)	2.94*** (0.5)	2.96*** (0.44)	1.12*** (0.15)	0.18 (0.35)	1.28*** (0.27)
$INTER_{ij,1987}$	0.21 (0.18)	-0.17 (0.37)	0.03 (0.31)	1.31** (0.65)	0.37 (0.65)	1.74** (0.81)	1.35*** (0.22)	0.70** (0.28)	0.79*** (0.21)	-1.05*** (0.24)	-2.01*** (0.73)	-0.85*** (0.29)	3.52*** (0.47)	3.08*** (0.5)	2.97*** (0.43)	1.05*** (0.14)	-0.03 (0.35)	1.25*** (0.26)
$INTER_{ij,1988}$	0.27 (0.18)	-1.52*** (0.35)	0.11 (0.31)	1.59** (0.66)	0.3 (0.66)	1.93** (0.83)	1.46*** (0.22)	0.66** (0.28)	0.80*** (0.21)	-1.12*** (0.28)	-1.46*** (0.55)	-2.26*** (0.29)	3.57*** (0.46)	2.99*** (0.5)	2.99*** (0.42)	1.07*** (0.14)	-0.01 (0.35)	1.24*** (0.26)
$INTER_{ij,1989}$	0.06 (0.15)	-1.31*** (0.34)	-0.54 (0.35)	1.46** (0.67)	0.16 (0.63)	1.65** (0.81)	1.58*** (0.22)	0.73*** (0.26)	0.88*** (0.22)	-0.98*** (0.28)	-2.47*** (0.69)	-0.52* (0.29)	3.47*** (0.46)	2.71*** (0.49)	3.05*** (0.42)	1.07*** (0.14)	0.18 (0.35)	1.34*** (0.26)
$INTER_{ij,1990}$	0.11 (0.15)	-1.18*** (0.34)	0.01 (0.33)	1.67** (0.69)	0.13 (0.62)	1.74** (0.83)	1.69*** (0.22)	0.73*** (0.26)	0.76*** (0.22)	-1.01*** (0.27)	-2.01** (0.81)	-0.73** (0.29)	3.45*** (0.46)	2.70*** (0.49)	3.02*** (0.41)	1.10*** (0.14)	0.1 (0.35)	1.35*** (0.25)
$INTER_{ij,1991}$	0.60*** (0.16)	-0.98** (0.34)	0.22 (0.32)	1.86*** (0.68)	0.41 (0.61)	1.63* (0.84)	1.78*** (0.22)	1.01*** (0.26)	0.59*** (0.21)	-0.87*** (0.25)	-2.58*** (0.68)	0.44 (0.28)	3.44*** (0.45)	2.79*** (0.51)	3.01*** (0.41)	1.12*** (0.14)	0.01 (0.35)	1.41*** (0.25)
$INTER_{ij,1992}$	0.71*** (0.16)	-1.05*** (0.36)	0.27 (0.31)	2.01*** (0.68)	0.4 (0.63)	1.60* (0.84)	1.84*** (0.22)	1.01*** (0.26)	0.69*** (0.21)	-0.71*** (0.25)	-1.77** (0.74)	-0.09 (0.29)	3.23*** (0.45)	2.59*** (0.53)	2.95*** (0.41)	1.15*** (0.13)	-0.15 (0.34)	1.23*** (0.27)
$INTER_{ij,1993}$	0.89*** (0.15)	-0.28 (0.42)	0.22 (0.32)	2.15*** (0.65)	0.36 (0.62)	1.32 (0.82)	1.86*** (0.21)	1.06*** (0.27)	0.66*** (0.21)	-0.45* (0.25)	-2.05*** (0.66)	0.24 (0.29)	3.26*** (0.45)	2.47*** (0.54)	3.03*** (0.42)	1.27*** (0.13)	-0.07 (0.34)	1.35*** (0.27)
$INTER_{ij,1994}$	1.06*** (0.15)	-0.21 (0.39)	0.82*** (0.31)	2.64*** (0.65)	0.48 (0.62)	2.05** (0.82)	2.11*** (0.22)	1.34*** (0.28)	0.70*** (0.21)	-0.36 (0.24)	-1.86*** (0.69)	0.35 (0.28)	3.41*** (0.45)	2.41*** (0.53)	3.20*** (0.42)	1.32*** (0.13)	-0.1 (0.35)	1.27*** (0.27)
$INTER_{ij,1995}$	1.10*** (0.15)	-0.60* (0.34)	0.97*** (0.31)	2.61*** (0.65)	0.12 (0.63)	2.34*** (0.82)	2.26*** (0.22)	1.58*** (0.26)	-0.37* (0.21)	-0.22 (0.23)	-1.72*** (0.59)	0.58** (0.28)	3.60*** (0.45)	2.47*** (0.49)	3.48*** (0.42)	1.37*** (0.13)	0.15 (0.34)	1.35*** (0.27)
$INTER_{ij,1996}$	1.02*** (0.14)	-0.18 (0.37)	0.64** (0.31)	2.80*** (0.65)	-0.11 (0.6)	2.07** (0.82)	2.33*** (0.22)	1.49*** (0.26)	-0.14 (0.24)	-0.12 (0.24)	-1.48* (0.81)	0.57** (0.28)	3.61*** (0.46)	2.39*** (0.48)	3.49*** (0.42)	1.41*** (0.13)	0.22 (0.35)	1.3*** (0.26)
$INTER_{ij,1997}$	1.17*** (0.14)	0.11 (0.37)	0.39 (0.31)	3.00*** (0.65)	-0.17 (0.62)	2.97*** (0.79)	2.49*** (0.22)	1.69*** (0.27)	0.04 (0.21)	-0.17 (0.24)	-1.06 (0.84)	1.03*** (0.28)	3.68*** (0.47)	2.21*** (0.5)	3.69*** (0.42)	1.42*** (0.14)	0.13 (0.35)	1.47*** (0.25)
$INTER_{ij,1998}$	1.21*** (0.14)	-0.31 (0.36)	0.54* (0.3)	3.05*** (0.65)	-0.36 (0.65)	2.89*** (0.79)	2.62*** (0.22)	1.76*** (0.27)	0.31 (0.21)	-0.12 (0.25)	-0.91 (0.85)	1.69*** (0.28)	3.58*** (0.48)	2.25*** (0.51)	3.71*** (0.42)	1.49*** (0.14)	0.06 (0.36)	1.62*** (0.25)
$INTER_{ij,1999}$	1.40*** (0.14)	-0.5 (0.42)	0.52* (0.3)	3.17*** (0.65)	-0.21 (0.61)	3.05*** (0.8)	2.70*** (0.22)	1.75*** (0.27)	0.52** (0.21)	-0.25 (0.25)	-1.21* (0.68)	1.42*** (0.29)	3.60*** (0.47)	2.15*** (0.53)	3.54*** (0.41)	1.52*** (0.15)	0.03 (0.35)	1.67*** (0.25)
$INTER_{ij,2000}$	1.37*** (0.14)	-0.65 (0.43)	0.65** (0.3)	3.39*** (0.65)	0.22 (0.63)	3.08*** (0.79)	2.74*** (0.23)	1.70*** (0.29)	1.02*** (0.21)	-0.34 (0.25)	-1.40** (0.68)	1.77*** (0.29)	3.80*** (0.47)	2.12*** (0.63)	3.73*** (0.4)	1.55*** (0.15)	0.05 (0.36)	1.65*** (0.25)
Observations	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500	22500

Note: In the columns names "M-", "A-", and "S-" stand for manufacturing, agriculture and services respectively. All regression include exporter-year, country-pair and importer-year fixed effects. Long-WIOD is used to estimate globalization dynamics for the period 1965-1990. Robust standard errors, clustered at the country-pair level, are in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A2: Globalization Dynamics by selected countries (1990-2015)

	(1) Manuf BRA	(2) Agri BRA	(3) ServBRA	(4) Manuf CHN	(5) Agri CHN	(6) ServCHN	(7) Manuf ESP	(8) Agri ESP	(9) ServESP	(10) Manuf IND	(11) Agri IND	(12) ServIND	(13) Manuf KOR	(14) Agri KOR	(15) ServKOR	(16) Manuf USA	(17) Agri USA	(18) ServUSA
$INTER_{ij,1991}$	0.32	0.28	0.3	-0.36*	-0.65**	-0.17	0.12	0.24**	0.09	0.22	0.26	0.22	-0.12	-0.12	-0.14	0.11	0.13	0.07
	-0.23	-0.28	-0.29	-0.21	-0.27	-0.22	-0.1	-0.11	-0.1	-0.15	-0.3	-0.32	-0.24	-0.35	-0.21	-0.14	-0.1	-0.15
$INTER_{ij,1992}$	0.65***	0.4	0.07	-0.06	-0.50*	0.11	0.19*	0.21**	0.1	0.46***	0.41	0.43	-0.04	-0.18	-0.07	0.05	-0.07	-0.15
	-0.22	-0.33	-0.25	-0.21	-0.27	-0.21	-0.1	-0.1	-0.12	-0.14	-0.36	-0.31	-0.24	-0.41	-0.2	-0.13	-0.1	-0.19
$INTER_{ij,1993}$	0.77***	0.53*	0.29	0.53***	0.08	0.50**	0.24*	0.19*	0.15	0.67***	0.44	0.85**	0.07	-0.06	-0.09	0.2	0.12	0.03
	-0.22	-0.29	-0.22	-0.18	-0.2	-0.23	-0.13	-0.1	-0.16	-0.15	-0.36	-0.35	-0.23	-0.17	-0.14	-0.09	-0.09	-0.15
$INTER_{ij,1994}$	0.76***	0.53*	0.44*	0.92***	0.54***	0.90***	0.39**	0.32***	0.44	0.61***	0.71**	0.37	0.15	-0.26	-0.2	0.21	0.18**	0.07
	-0.22	-0.31	-0.24	-0.17	-0.19	-0.23	-0.16	-0.1	-0.29	-0.14	-0.32	-0.36	-0.22	-0.36	-0.24	-0.13	-0.09	-0.16
$INTER_{ij,1995}$	0.72***	0.66**	0.17	1.11***	1.56***	1.18***	-0.02	0.25**	0.16	0.80***	0.80**	0.60*	0.38*	0.11	0.23	0.24**	0.20**	0.26**
	-0.21	-0.28	-0.2	-0.17	-0.5	-0.22	-0.08	-0.1	-0.11	-0.13	-0.39	-0.31	-0.22	-0.34	-0.19	-0.12	-0.09	-0.13
$INTER_{ij,1996}$	0.94***	1.21***	0.25	0.90***	0.63***	0.44*	0.04	0.30***	0.18	0.82***	1.13***	0.43	0.23	-0.44	-0.19	0.30**	0.25***	0.43***
	-0.26	-0.4	-0.22	-0.17	-0.21	-0.25	-0.08	-0.09	-0.15	-0.14	-0.31	-0.38	-0.23	-0.33	-0.26	-0.13	-0.07	-0.15
$INTER_{ij,1997}$	1.15***	1.46***	0.15	1.07***	0.73***	1.14***	0.1	0.37***	0.26*	0.90***	1.24***	0.44	0.39*	-0.33	-0.13	0.25**	0.18**	0.32**
	-0.31	-0.46	-0.2	-0.17	-0.21	-0.39	-0.08	-0.09	-0.15	-0.13	-0.32	-0.38	-0.23	-0.34	-0.27	-0.12	-0.08	-0.15
$INTER_{ij,1998}$	0.98***	0.93***	0.42	1.33***	0.97***	0.24	0.11	0.38***	0.33***	1.16***	1.25***	0.51	0.62***	0.5	0.23	0.26**	-0.03	0.08
	-0.27	-0.31	-0.31	-0.17	-0.22	-0.21	-0.08	-0.09	-0.11	-0.15	-0.32	-0.32	-0.16	-0.42	-0.16	-0.13	-0.09	-0.14
$INTER_{ij,1999}$	1.16***	0.94***	0.62**	1.38***	1.05***	0.29	0.12	0.40***	0.35***	0.97***	1.53***	0.55*	0.40*	-0.12	-0.05	0.31***	0.06	0.12
	-0.25	-0.25	-0.3	-0.17	-0.2	-0.22	-0.08	-0.09	-0.11	-0.13	-0.26	-0.31	-0.23	-0.28	-0.19	-0.12	-0.07	-0.13
$INTER_{ij,2000}$	0.92***	0.68***	0.53**	1.70***	1.30***	0.69***	0.1	0.42***	0.45***	1.15***	2.23***	0.68***	0.61***	0.38	0.08	0.51***	0.15*	-0.08
	-0.24	-0.34	-0.25	-0.19	-0.19	-0.21	-0.09	-0.09	-0.11	-0.13	-0.37	-0.28	-0.24	-0.36	-0.17	-0.12	-0.08	-0.14
$INTER_{ij,2001}$	1.22***	1.06***	0.98***	1.63***	1.27***	0.54**	0.13	0.46***	0.44***	1.06***	1.58***	0.64**	0.46**	-0.16	-0.03	0.30**	0.08	0.13
	-0.2	-0.26	-0.34	-0.17	-0.19	-0.21	-0.08	-0.09	-0.1	-0.13	-0.25	-0.3	-0.23	-0.29	-0.18	-0.12	-0.09	-0.13
$INTER_{ij,2002}$	1.27***	1.04***	0.51***	1.76***	1.31***	0.76***	0.1	0.42***	0.42***	1.16***	1.67***	0.81***	0.38*	-0.36	-0.17	0.26**	0.05	0.01
	-0.2	-0.32	-0.2	-0.17	-0.21	-0.2	-0.08	-0.09	-0.09	-0.13	-0.24	-0.29	-0.22	-0.34	-0.21	-0.12	-0.1	-0.13
$INTER_{ij,2003}$	1.31***	0.99***	0.46*	2.06***	1.57***	0.99***	0.17**	0.50***	0.45***	1.43***	2.06***	1.25***	0.48**	-0.27	0.01	0.12	0.02	0.32**
	-0.18	-0.28	-0.26	-0.17	-0.2	-0.22	-0.08	-0.09	-0.1	-0.13	-0.3	-0.3	-0.23	-0.33	-0.2	-0.12	-0.07	-0.15
$INTER_{ij,2004}$	1.35***	1.15***	0.69***	2.27***	1.85***	1.24***	0.20**	0.55***	0.44***	1.60***	1.85***	1.34***	0.60***	-0.06	0.24	0.05	0.03	0.32**
	-0.18	-0.24	-0.21	-0.16	-0.18	-0.21	-0.08	-0.09	-0.09	-0.13	-0.24	-0.31	-0.21	-0.31	-0.19	-0.12	-0.06	-0.13
$INTER_{ij,2005}$	1.19***	0.99***	0.55**	2.30***	2.14***	1.43***	0.21**	0.56***	0.44***	1.70***	1.72***	1.44***	0.64***	-0.07	0.60*	0.03	0.02	0.16
	-0.2	-0.28	-0.23	-0.16	-0.21	-0.21	-0.08	-0.09	-0.1	-0.13	-0.33	-0.31	-0.24	-0.33	-0.31	-0.12	-0.07	-0.14
$INTER_{ij,2006}$	1.32***	1.27***	0.80***	2.39***	1.94***	1.40***	0.31***	0.75***	0.52***	1.50***	2.37***	1.73***	0.59**	0.73	0.89**	0.06	-0.04	0.30**
	-0.18	-0.24	-0.18	-0.16	-0.22	-0.2	-0.08	-0.11	-0.08	-0.12	-0.31	-0.29	-0.24	-0.47	-0.36	-0.14	-0.08	-0.13
$INTER_{ij,2007}$	1.36***	1.22***	0.80***	2.36***	2.61***	1.72***	0.32***	0.65***	0.50***	1.56***	1.70***	1.69***	0.59***	-0.02	0.82***	0.01	-0.09	0.35***
	-0.18	-0.26	-0.19	-0.16	-0.34	-0.19	-0.08	-0.09	-0.09	-0.13	-0.33	-0.3	-0.23	-0.41	-0.22	-0.11	-0.09	-0.13
$INTER_{ij,2008}$	1.50***	1.40***	0.99***	2.31***	2.00***	1.67***	0.34***	0.66***	0.50***	1.72***	2.00***	1.89***	0.58**	0.32	0.75***	0.01	0.16***	0.40***
	-0.18	-0.25	-0.18	-0.16	-0.19	-0.2	-0.08	-0.09	-0.09	-0.13	-0.24	-0.3	-0.23	-0.33	-0.17	-0.11	-0.06	-0.13
$INTER_{ij,2009}$	1.21***	1.23***	0.72***	2.08***	1.77***	1.42***	0.30***	0.63***	0.48***	1.58***	1.85***	1.76***	0.37	0.13	0.57***	-0.07	0.09	0.29**
	-0.19	-0.26	-0.19	-0.16	-0.19	-0.2	-0.08	-0.09	-0.09	-0.13	-0.25	-0.29	-0.23	-0.32	-0.17	-0.13	-0.07	-0.13
$INTER_{ij,2010}$	1.32***	1.21***	0.81***	2.37***	2.08***	1.73***	0.36***	0.69***	0.53***	1.72***	2.03***	1.91***	0.47**	0.26	0.67***	-0.13	0.08	0.29**
	-0.18	-0.24	-0.18	-0.16	-0.18	-0.19	-0.08	-0.09	-0.09	-0.13	-0.24	-0.29	-0.23	-0.31	-0.17	-0.12	-0.06	-0.13
$INTER_{ij,2011}$	1.42***	1.26***	0.93***	2.52***	2.23***	1.89***	0.35***	0.68***	0.53***	1.90***	2.22***	2.11***	0.59**	0.36	0.78***	-0.11	0.11*	0.31**
	-0.19	-0.24	-0.19	-0.16	-0.18	-0.19	-0.08	-0.09	-0.09	-0.13	-0.23	-0.29	-0.23	-0.31	-0.17	-0.12	-0.06	-0.13
$INTER_{ij,2012}$	1.41***	1.21***	0.89***	2.51***	2.17***	1.87***	0.35***	0.68***	0.59***	1.91***	2.24***	2.15***	0.59**	0.29	0.76***	-0.1	0.12*	0.29**
	-0.18	-0.23	-0.19	-0.16	-0.19	-0.19	-0.08	-0.09	-0.1	-0.13	-0.23	-0.29	-0.23	-0.32	-0.17	-0.12	-0.06	-0.13
$INTER_{ij,2013}$	1.43***	1.25***	0.93***	2.47***	2.12***	1.83***	0.35***	0.69***	0.58***	1.88***	2.29***	2.21***	0.52**	0.23	0.71***	-0.11	0.1	0.28**
	-0.19	-0.24	-0.19	-0.16	-0.19	-0.19	-0.08	-0.09	-0.1	-0.13	-0.24	-0.31	-0.23	-0.32	-0.17	-0.12	-0.06	-0.13
$INTER_{ij,2014}$	1.43***	1.22***	0.93***	2.51***	2.13***	1.85***	0.37***	0.71***	0.59***	1.92***	2.28***	2.26***	0.54**	0.2	0.67***	-0.08	0.12*	0.31**
	-0.19	-0.24	-0.2	-0.16	-0.2	-0.19	-0.08	-0.09	-0.1	-0.13	-0.24	-0.31	-0.24	-0.33	-0.17	-0.12	-0.07	-0.13
$INTER_{ij,2015}$	1.42***	1.25***	0.98***	2.44***	2.11***	1.78***	0.36***	0.74***	0.54***	1.89***	2.20***	2.21***	0.51**	0.22	0.67***	-0.11	0.06	0.28**
	-0.19	-0.24	-0.19	-0.16	-0.19	-0.19	-0.09	-0.09	-0.09	-0.13	-0.23	-0.29	-0.24	-0.32	-0.18	-0.12	-0.07	-0.13
Observations	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660

Note: In the columns names "M-", "A-", and "S-" stand for manufacturing, agriculture and services respectively. All regression include exporter-year, country-pair and importer-year fixed effects. Eora is used to estimate globalization dynamics for the period 1990-2015. Robust standard errors, clustered at the country-pair level, are in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Globalization Dynamics by selected countries (2015-2021)

	(1) Manuf BRA	(2) Agri BRA	(3) ServBRA	(4) Manuf CHN	(5) Agri CHN	(6) ServCHN	(7) Manuf ESP	(8) Agri ESP	(9) ServESP	(10) Manuf IND	(11) Agri IND	(12) ServIND	(13) Manuf KOR	(14) Agri KOR	(15) ServKOR	(16) Manuf USA	(17) Agri USA	(18) ServUSA
$INTER_{ij,2007}$	0	0.15	0.01	0.39**	0.27	0.15	-0.25***	-0.17	0.76***	-0.03	0.34	1.57***	-0.33**	-0.3	0.13	0	0.13	-0.12
	-0.16	-0.51	-0.59	-0.16	-0.38	-0.2	-0.08	-0.2	-0.2	-0.14	-0.31	-0.29	-0.17	-0.34	-0.24	-0.12	-0.2	-0.23
$INTER_{ij,2008}$	0.16	-0.04	0.39	0.27*	0.01	0.28	-0.32***	-0.12	0.68***	-0.01	-0.03	1.21***	0.01	0.12	-0.09	-0.03	0.15	-0.06
	-0.16	-0.45	-0.59	-0.15	-0.36	-0.21	-0.09	-0.22	-0.19	-0.15	-0.27	-0.3	-0.16	-0.29	-0.3	-0.12	-0.18	-0.25
$INTER_{ij,2009}$	0.04	-0.04	0.2	0.07	0.29	0.22	-0.28***	-0.1	0.29	0.09	0.06	0.98***	-0.01	0.08	-0.60**	-0.11	0.06	-0.06
	-0.16	-0.49	-0.53	-0.14	-0.37	-0.2	-0.08	-0.2	-0.18	-0.16	-0.23	-0.27	-0.17	-0.27	-0.29	-0.11	-0.22	-0.24
$INTER_{ij,2010}$	0.15	-0.08	0.32	0.29*	0.17	0.29	-0.13*	-0.12	0.03	0.22	0	1.38***	0	0.17	-0.27	-0.05	0.12	-0.07
	-0.19	-0.44	-0.54	-0.16	-0.38	-0.21	-0.08	-0.2	-0.19	-0.16	-0.29	-0.29	-0.17	-0.26	-0.29	-0.11	-0.22	-0.24
$INTER_{ij,2011}$	0.67**	1.13**	1.13*	0.23	0.19	0.3	-0.08	-0.22	0.09	0.17	-0.02	1.13***	0.18	0.17	-0.35	-0.08	0.16	-0.05
	-0.3	-0.55	-0.67	-0.17	-0.39	-0.22	-0.08	-0.19	-0.19	-0.15	-0.33	-0.28	-0.17	-0.26	-0.26	-0.12	-0.2	-0.22
$INTER_{ij,2012}$	0.37**	0.24	0.52	0.15	0.07	0.3	-0.09	0.01	0.01	0.29**	0.53**	0.72**	0.14	0.3	-0.18	-0.07	-0.02	-0.02
	-0.15	-0.49	-0.51	-0.18	-0.39	-0.22	-0.09	-0.21	-0.2	-0.15	-0.24	-0.17	-0.17	-0.26	-0.26	-0.12	-0.18	-0.22
$INTER_{ij,2013}$	0.41**	0.41	0.52	0.16	0.13	0.11	-0.02	-0.07	-0.07	0.38**	0.67***	0.36	0.08	0.16	-0.21	-0.08	-0.09	-0.07
	-0.16	-0.37	-0.51	-0.18	-0.39	-0.23	-0.09	-0.22	-0.22	-0.15	-0.23	-0.25	-0.16	-0.31	-0.27	-0.11	-0.17	-0.24
$INTER_{ij,2014}$	0.34**	0.24	0.32	0.13	0.08	0.1	0.06	0.07	0.05	0.22	0.35	0.26	0.01	0.01	0	-0.06	-0.08	-0.03
	-0.14	-0.39	-0.54	-0.16	-0.39	-0.24	-0.07	-0.2	-0.25	-0.16	-0.27	-0.27	-0.15	-0.3	-0.26	-0.11	-0.18	-0.22
$INTER_{ij,2015}$																		
$INTER_{ij,2016}$	-0.11	0.08	0.01	-0.13	-0.19	-0.1	0.07	0.08	0.02	0.19	-0.31	0.21	-0.14	-0.03	-0.08	-0.05	-0.06	-0.09
	-0.14	-0.42	-0.57	-0.15	-0.45	-0.26	-0.08	-0.2	-0.27	-0.16	-0.4	-0.29	-0.16	-0.35	-0.27	-0.11	-0.18	-0.21
$INTER_{ij,2017}$	0.04	0.36	0.02	-0.05	-0.07	-0.04	0.08	-0.02	0.05	0.23	-0.26	0.29	-0.25	-0.1	-0.29	0.46*	0.58**	0.26
	-0.14	-0.47	-0.59	-0.19	-0.41	-0.22	-0.08	-0.18	-0.23	-0.17	-0.33	-0.26	-0.16	-0.35	-0.26	-0.25	-0.26	-0.24
$INTER_{ij,2018}$	0.13	0.16	0.57	0.16	0.09	0.21	0.66***	0.52**	0.50**	0.89***	0.6	1.56***	-0.03	0.01	0.02	0.55***	0.65***	0.04
	-0.18	-0.4	-0.5	-0.14	-0.36	-0.23	-0.08	-0.21	-0.22	-0.17	-0.42	-0.25	-0.2	-0.34	-0.24	-0.12	-0.21	-0.28
$INTER_{ij,2019}$	0.06	0.2	0.67	0.38**	0.34	0.07	0.66***	0.37	0.77***	0.53***	0.50*	1.83***	-0.1	-0.19	0.16	0.52***	0.52**	0.39
	-0.28	-0.43	-0.69	-0.19	-0.36	-0.35	-0.11	-0.26	-0.25	-0.18	-0.3	-0.32	-0.22	-0.35	-0.35	-0.14	-0.21	-0.31
$INTER_{ij,2020}$	0.22	0.36	0.47	0.51***	0.41	-0.11	0.37**	0.06	0.4	0.46**	0.3	1.95***	-0.17	-0.26	0.08	0.19	0.85***	0.31
	-0.27	-0.43	-0.65	-0.16	-0.33	-0.36	-0.16	-0.25	-0.26	-0.18	-0.26	-0.32	-0.23	-0.35	-0.37	-0.18	-0.19	-0.27
$INTER_{ij,2021}$	0.33	0.43	0.44	0.65***	0.42	0.05	0.45***	0.35	0.64***	0.79***	0.61**	2.00***	-0.01	-0.16	0.16	0.2	0.65***	0.25
	-0.24	-0.48	-0.6	-0.13	-0.33	-0.32	-0.11	-0.23	-0.22	-0.15	-0.29	-0.35	-0.21	-0.32	-0.3	-0.16	-0.18	-0.25
Observations	59445	58335	59535	59445	58335	59535	59445	58335	59535	59445	58335	59535	59445	58335	59535	59445	58335	59535

Note: In the columns names "M-", "A-", and "S-" stand for manufacturing, agriculture and services respectively. All regression include exporter-year, country-pair and importer-year fixed effects. ADB-MRIO is used to estimate globalization dynamics for the period 2015-2021. Robust standard errors, clustered at the country-pair level, are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Globalization Dynamics by region and sector (1990-2015)

	Manufacturing							Agriculture							Services						
	(1) EAP	(2) ECA	(3) LAC	(4) MENA	(5) NAM	(6) SAR	(7) SSA	(8) EAP	(9) ECA	(10) LAC	(11) MENA	(12) NAM	(13) SAR	(14) SSA	(15) EAP	(16) ECA	(17) LAC	(18) MENA	(19) NAM	(20) SAR	(21) SSA
$INTER_{ij,1991}$	0.16 (0.13)	0.10 (0.12)	0.01 (0.14)	-0.04 (0.26)	0.02 (0.20)	0.08 (0.12)	0.05 (0.08)	-0.09 (0.12)	-0.18 (0.16)	-0.09 (0.08)	-0.12** (0.05)	-0.35** (0.14)	-0.04 (0.03)	0.33*** (0.10)	0.03 (0.11)	0.18 (0.13)	0.19 (0.25)	0.19 (0.26)	0.11 (0.10)	0.05 (0.11)	0.06 (0.15)
$INTER_{ij,1992}$	0.20* (0.11)	0.13 (0.11)	-0.01 (0.11)	-0.26 (0.21)	-0.10 (0.17)	0.09 (0.10)	0.01 (0.06)	-0.03 (0.11)	-0.11 (0.17)	0.10 (0.09)	0.06** (0.03)	0.06 (0.06)	0.06* (0.03)	0.45*** (0.10)	-0.08 (0.13)	0.36*** (0.12)	0.33 (0.30)	0.32 (0.25)	0.20** (0.09)	0.06 (0.11)	0.16 (0.16)
$INTER_{ij,1993}$	0.22** (0.11)	0.09 (0.11)	-0.00 (0.12)	-0.21 (0.20)	-0.21 (0.20)	0.20* (0.11)	0.14** (0.07)	0.03 (0.10)	0.10 (0.13)	0.08 (0.10)	0.05** (0.02)	0.09*** (0.03)	-0.01 (0.03)	0.49*** (0.10)	0.05 (0.10)	0.49*** (0.12)	0.35 (0.31)	0.57** (0.27)	0.20** (0.09)	0.04 (0.10)	0.11 (0.17)
$INTER_{ij,1994}$	0.30*** (0.11)	0.14 (0.11)	0.04 (0.11)	-0.21 (0.19)	-0.26 (0.19)	0.24** (0.10)	0.21*** (0.07)	0.14 (0.10)	0.18 (0.13)	0.12 (0.09)	0.09*** (0.02)	0.13*** (0.03)	0.03 (0.03)	0.57*** (0.10)	0.11 (0.10)	0.43*** (0.12)	0.58** (0.27)	0.21 (0.28)	0.32*** (0.08)	0.23** (0.09)	0.19 (0.15)
$INTER_{ij,1995}$	0.49*** (0.11)	0.20** (0.10)	0.09 (0.11)	-0.26 (0.19)	-0.16 (0.17)	0.31*** (0.09)	0.28*** (0.06)	0.23** (0.10)	0.41*** (0.15)	0.09 (0.07)	0.12*** (0.02)	0.15*** (0.03)	0.11*** (0.03)	0.73*** (0.10)	0.27*** (0.09)	0.59*** (0.11)	0.65** (0.33)	0.40 (0.25)	0.39*** (0.08)	0.24** (0.10)	0.24* (0.14)
$INTER_{ij,1996}$	0.68*** (0.13)	0.19* (0.11)	0.13 (0.11)	-0.09 (0.19)	-0.26 (0.19)	0.33*** (0.10)	0.29*** (0.06)	0.13 (0.10)	0.16 (0.12)	-0.07 (0.08)	0.13*** (0.02)	0.19*** (0.03)	0.11*** (0.03)	0.84*** (0.11)	0.34*** (0.11)	0.60*** (0.12)	0.92*** (0.25)	0.28 (0.30)	0.45*** (0.08)	0.28*** (0.10)	0.18 (0.16)
$INTER_{ij,1997}$	0.69*** (0.14)	0.13 (0.11)	0.18* (0.11)	-0.05 (0.17)	-0.28 (0.19)	0.33*** (0.09)	0.28*** (0.06)	0.22** (0.10)	0.32** (0.13)	0.00 (0.08)	0.19*** (0.02)	0.25*** (0.03)	0.17*** (0.03)	0.91*** (0.11)	0.30*** (0.10)	0.67*** (0.11)	1.01*** (0.26)	0.28 (0.30)	0.46*** (0.08)	0.24** (0.10)	0.15 (0.16)
$INTER_{ij,1998}$	0.57*** (0.11)	0.28** (0.11)	0.13 (0.11)	-0.09 (0.18)	-0.28* (0.17)	0.35*** (0.09)	0.13** (0.06)	0.28*** (0.10)	0.59*** (0.15)	0.03 (0.08)	0.20*** (0.02)	0.25*** (0.03)	0.19*** (0.03)	0.92*** (0.11)	0.15 (0.09)	0.85*** (0.16)	1.00*** (0.26)	0.32 (0.25)	0.47*** (0.08)	0.21** (0.10)	0.45** (0.21)
$INTER_{ij,1999}$	0.59*** (0.11)	0.35*** (0.11)	0.17* (0.11)	-0.02 (0.17)	-0.25 (0.16)	0.39*** (0.09)	0.20*** (0.05)	0.26*** (0.09)	0.47*** (0.13)	-0.02 (0.08)	0.21*** (0.02)	0.28*** (0.03)	0.20*** (0.03)	0.97*** (0.10)	0.18** (0.09)	0.70*** (0.11)	1.23*** (0.22)	0.33 (0.25)	0.50*** (0.08)	0.35*** (0.09)	0.43** (0.22)
$INTER_{ij,2000}$	0.65*** (0.11)	0.33*** (0.11)	0.26** (0.11)	0.22 (0.18)	-0.14 (0.16)	0.57*** (0.09)	0.30*** (0.06)	0.42*** (0.10)	0.54*** (0.12)	-0.08 (0.07)	0.28*** (0.02)	0.36*** (0.03)	0.31*** (0.03)	1.01*** (0.11)	0.05 (0.10)	0.85*** (0.12)	1.79*** (0.29)	0.44* (0.23)	0.58*** (0.08)	0.47*** (0.10)	0.18 (0.13)
$INTER_{ij,2001}$	0.60*** (0.11)	0.41*** (0.12)	0.33*** (0.11)	0.15 (0.18)	-0.12 (0.17)	0.39*** (0.09)	0.22*** (0.06)	0.36*** (0.09)	0.42*** (0.11)	-0.11 (0.08)	0.30*** (0.02)	0.36*** (0.03)	0.34*** (0.04)	0.96*** (0.09)	0.19** (0.09)	0.79*** (0.11)	1.30*** (0.21)	0.41* (0.24)	0.62*** (0.08)	0.48*** (0.09)	0.21 (0.13)
$INTER_{ij,2002}$	0.64*** (0.11)	0.38*** (0.10)	0.35*** (0.10)	0.24 (0.17)	-0.07 (0.17)	0.34*** (0.09)	0.17** (0.07)	0.37*** (0.09)	0.40*** (0.11)	-0.10 (0.07)	0.28*** (0.02)	0.34*** (0.03)	0.33*** (0.03)	1.01*** (0.09)	0.10 (0.09)	0.86*** (0.11)	1.36*** (0.21)	0.57** (0.23)	0.62*** (0.08)	0.46*** (0.09)	0.20 (0.14)
$INTER_{ij,2003}$	0.69*** (0.10)	0.39*** (0.11)	0.44*** (0.10)	0.20 (0.17)	0.01 (0.15)	0.24*** (0.09)	0.16*** (0.06)	0.48*** (0.09)	0.44*** (0.11)	-0.03 (0.08)	0.30*** (0.02)	0.37*** (0.03)	0.30*** (0.03)	1.05*** (0.09)	0.30*** (0.10)	1.07*** (0.11)	1.66*** (0.24)	0.88*** (0.24)	0.60*** (0.08)	0.41*** (0.09)	0.26* (0.14)
$INTER_{ij,2004}$	0.78*** (0.10)	0.54*** (0.10)	0.50*** (0.10)	0.28* (0.16)	0.14 (0.15)	0.21** (0.09)	0.19*** (0.05)	0.58*** (0.09)	0.64*** (0.11)	0.23*** (0.07)	0.37*** (0.02)	0.43*** (0.03)	0.36*** (0.03)	1.09*** (0.09)	0.34*** (0.09)	1.22*** (0.11)	1.50*** (0.20)	0.98*** (0.25)	0.62*** (0.08)	0.45*** (0.09)	0.35*** (0.13)
$INTER_{ij,2005}$	0.73*** (0.11)	0.49*** (0.10)	0.53*** (0.10)	0.26 (0.17)	0.19 (0.15)	0.20** (0.09)	0.19*** (0.05)	0.62*** (0.09)	0.85*** (0.13)	0.31*** (0.07)	0.40*** (0.02)	0.47*** (0.03)	0.42*** (0.03)	1.05*** (0.10)	0.24*** (0.09)	1.30*** (0.11)	1.40*** (0.28)	1.06*** (0.25)	0.62*** (0.08)	0.44*** (0.09)	0.36*** (0.13)
$INTER_{ij,2006}$	0.79*** (0.11)	0.64*** (0.09)	0.63*** (0.10)	0.24 (0.17)	0.29*** (0.15)	0.24*** (0.09)	0.16*** (0.06)	0.65*** (0.09)	0.70*** (0.12)	0.42*** (0.07)	0.49*** (0.02)	0.56*** (0.03)	0.47*** (0.03)	1.13*** (0.09)	0.36*** (0.09)	1.15*** (0.11)	1.91*** (0.25)	1.33*** (0.23)	0.70*** (0.08)	0.49*** (0.09)	0.52*** (0.13)
$INTER_{ij,2007}$	0.80*** (0.10)	0.70*** (0.09)	0.66*** (0.10)	0.26 (0.18)	0.35** (0.15)	0.20** (0.09)	0.16** (0.07)	0.62*** (0.09)	0.85*** (0.13)	0.47*** (0.07)	0.50*** (0.02)	0.58*** (0.03)	0.49*** (0.03)	1.14*** (0.09)	0.40*** (0.09)	1.20*** (0.11)	1.39*** (0.27)	1.30*** (0.24)	0.74*** (0.08)	0.54*** (0.09)	0.61*** (0.13)
$INTER_{ij,2008}$	0.93*** (0.10)	0.80*** (0.09)	0.69*** (0.10)	0.34** (0.16)	0.44*** (0.15)	0.21** (0.09)	0.34*** (0.05)	0.61*** (0.09)	0.75*** (0.11)	0.51*** (0.07)	0.54*** (0.02)	0.62*** (0.03)	0.54*** (0.03)	1.19*** (0.09)	0.45*** (0.09)	1.34*** (0.11)	1.63*** (0.20)	1.48*** (0.24)	0.76*** (0.08)	0.57*** (0.09)	0.70*** (0.13)
$INTER_{ij,2009}$	0.81*** (0.10)	0.67*** (0.09)	0.60*** (0.10)	0.24 (0.17)	0.31*** (0.15)	0.09 (0.09)	0.23*** (0.05)	0.38*** (0.09)	0.49*** (0.11)	0.26*** (0.07)	0.41*** (0.02)	0.49*** (0.03)	0.42*** (0.03)	1.05*** (0.09)	0.33*** (0.09)	1.22*** (0.11)	1.49*** (0.21)	1.36*** (0.23)	0.69*** (0.08)	0.47*** (0.09)	0.63*** (0.13)
$INTER_{ij,2010}$	0.87*** (0.10)	0.75*** (0.09)	0.70*** (0.10)	0.37** (0.17)	0.40*** (0.15)	0.08 (0.09)	0.25*** (0.05)	0.55*** (0.09)	0.68*** (0.10)	0.41*** (0.07)	0.50*** (0.02)	0.59*** (0.03)	0.52*** (0.03)	1.13*** (0.09)	0.36*** (0.09)	1.34*** (0.11)	1.64*** (0.20)	1.49*** (0.23)	0.74*** (0.08)	0.53*** (0.09)	0.69*** (0.13)
$INTER_{ij,2011}$	0.94*** (0.10)	0.85*** (0.09)	0.81*** (0.10)	0.46*** (0.17)	0.50*** (0.15)	0.11 (0.09)	0.30*** (0.05)	0.64*** (0.09)	0.78*** (0.11)	0.50*** (0.07)	0.55*** (0.02)	0.64*** (0.03)	0.56*** (0.03)	1.22*** (0.09)	0.39*** (0.09)	1.52*** (0.11)	1.83*** (0.20)	1.60*** (0.23)	0.83*** (0.08)	0.60*** (0.09)	0.77*** (0.13)
$INTER_{ij,2012}$	0.95*** (0.10)	0.88*** (0.11)	0.80*** (0.10)	0.44*** (0.17)	0.52*** (0.15)	0.12 (0.09)	0.31*** (0.05)	0.64*** (0.09)	0.73*** (0.11)	0.48*** (0.07)	0.56*** (0.02)	0.64*** (0.03)	0.57*** (0.03)	1.24*** (0.09)	0.37*** (0.09)	1.53*** (0.11)	1.85*** (0.20)	1.73*** (0.23)	0.82*** (0.08)	0.60*** (0.09)	0.76*** (0.13)
$INTER_{ij,2013}$	0.93*** (0.10)	0.84*** (0.09)	0.80*** (0.10)	0.53*** (0.17)	0.55*** (0.15)	0.12 (0.09)	0.29*** (0.05)	0.63*** (0.09)	0.71*** (0.11)	0.50*** (0.07)	0.55*** (0.02)	0.64*** (0.03)	0.57*** (0.03)	1.22*** (0.09)	0.37*** (0.09)	1.51*** (0.11)	1.88*** (0.20)	1.77*** (0.25)	0.83*** (0.08)	0.60*** (0.09)	0.77*** (0.13)
$INTER_{ij,2014}$	0.93*** (0.10)	0.84*** (0.09)	0.83*** (0.11)	0.57*** (0.17)	0.61*** (0.16)	0.13 (0.09)	0.31*** (0.05)	0.65*** (0.09)	0.71*** (0.11)	0.50*** (0.07)	0.55*** (0.02)	0.65*** (0.03)	0.56*** (0.03)	1.23*** (0.09)	0.39*** (0.09)	1.54*** (0.11)	1.87*** (0.20)	1.81*** (0.25)	0.87*** (0.08)	0.60*** (0.09)	0.85*** (0.14)
$INTER_{ij,2015}$	0.90*** (0.10)	0.81*** (0.09)	0.76*** (0.10)	0.44*** (0.18)	0.53*** (0.15)	0.09 (0.09)	0.25*** (0.05)	0.60*** (0.09)	0.68*** (0.11)	0.47*** (0.07)	0.48*** (0.02)	0.60*** (0.03)	0.48*** (0.03)	1.19*** (0.09)	0.35*** (0.09)	1.50*** (0.11)	1.78*** (0.20)	1.75*** (0.23)	0.81*** (0.08)	0.52*** (0.09)	0.79*** (0.14)
Observations	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660

Note: See table (A5) for the countries in each region. All regression include exporter-year, country-pair and importer-year fixed effects. The Eora-MRIO database is used to cover the period 1990-2015. Robust standard errors, clustered at the country-pair level, are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5: World Bank regions

East Asia & Pacific	Europe & Central Asia	Latin America & Caribbean	Middle East & North Africa	North America	South Asia	Sub-Saharan Africa
American Samoa	Albania	Aruba	United Arab Emirates	Bermuda	Bangladesh	Angola
Australia	Andorra	Argentina	Bahrain	Canada	Bhutan	Burundi
Brunei Darussalam	Armenia	Antigua and Barbuda	Djibouti	United States	India	Benin
China	Austria	Bahamas, The	Algeria	Afghanistan	Sri Lanka	Burkina Faso
Fiji	Azerbaijan	Belize	Egypt, Arab Rep.		Maldives	Botswana
Micronesia, Fed. Sts.	Belgium	Bolivia	Iran, Islamic Rep.		Nepal	Central African Republic
Guam	Bulgaria	Brazil	Iraq		Pakistan	Côte d'Ivoire
Hong Kong SAR, China	Bosnia and Herzegovina	Barbados	Israel			Cameroon
Indonesia	Belarus	Chile	Jordan			Congo, Dem. Rep.
Japan	Switzerland	Colombia	Kuwait			Congo, Rep.
Cambodia	Channel Islands	Costa Rica	Lebanon			Comoros
Kiribati	Cyprus	Cuba	Libya			Cabo Verde
Korea, Rep.	Czech Republic	Curaçao	Morocco			Eritrea
Lao PDR	Germany	Cayman Islands	Malta			Ethiopia
Macao SAR, China	Denmark	Dominica	Oman			Gabon
Marshall Islands	Spain	Dominican Republic	West Bank and Gaza			Ghana
Myanmar	Estonia	Ecuador	Qatar			Guinea
Mongolia	Finland	Grenada	Saudi Arabia			Gambia, The
Northern Mariana Islands	France	Guatemala	Syrian Arab Republic			Guinea-Bissau
Malaysia	Faroe Islands	Guyana	Tunisia			Equatorial Guinea
New Caledonia	United Kingdom	Honduras	Yemen, Rep.			Kenya
Nauru	Georgia	Haiti				Liberia
New Zealand	Gibraltar	Jamaica				Lesotho
Philippines	Greece	St. Kitts and Nevis				Madagascar
Palau	Greenland	St. Lucia				Mali
Papua New Guinea	Croatia	St. Martin (French part)				Mozambique
Korea, Dem. People's Rep.	Hungary	Mexico				Mauritania
French Polynesia	Isle of Man	Nicaragua				Mauritius
Singapore	Ireland	Panama				Malawi
Solomon Islands	Iceland	Peru				Namibia
Thailand	Italy	Puerto Rico				Niger
Timor-Leste	Kazakhstan	Paraguay				Nigeria
Tonga	Kyrgyz Republic	El Salvador				Rwanda
Tuvalu	Liechtenstein	Suriname				Sudan
Taiwan, China	Lithuania	Sint Maarten (Dutch part)				Senegal
Vietnam	Luxembourg	Turks and Caicos Islands				Sierra Leone
Vanuatu	Latvia	Trinidad and Tobago				Somalia
Samoa	Monaco	Uruguay				South Sudan
	Moldova	St. Vincent and the Grenadines				São Tomé and Príncipe
	North Macedonia	Venezuela, RB				Eswatini
	Montenegro	British Virgin Islands				Seychelles
	Netherlands	Virgin Islands (U.S.)				Chad
	Norway					Togo
	Poland					Tanzania
	Portugal					Uganda
	Romania					South Africa
	Russian Federation					Zambia
	San Marino					Zimbabwe
	Serbia					
	Slovak Republic					
	Slovenia					
	Sweden					
	Tajikistan					
	Turkmenistan					
	Türkiye					
	Ukraine					
	Uzbekistan					
	Kosovo					

Table A6: Globalization Dynamics for LAC countries in manufacturing (1990-2015)

	(1) ARG	(2) BHS	(3) BRA	(9) CHL	(10) COL	(11) CRI	(12) CUB	(14) DOM	(15) ECU	(17) GUY	(18) HND	(20) JAM	(21) MEX	(23) PAN	(24) PER	(28) TTO	(29) URY	(30) VEN
$INTER_{ij,1991}$	0.30	0.03	0.32	0.05	0.33*	0.63***	-0.89	0.62	0.28	0.79	0.61*	0.25	0.52***	0.14	0.12	0.35	0.11	0.24
	(0.24)	(0.91)	(0.23)	(0.32)	(0.19)	(0.22)	(0.55)	(0.39)	(0.29)	(1.14)	(0.37)	(0.34)	(0.18)	(0.43)	(0.18)	(0.48)	(0.27)	(0.28)
$INTER_{ij,1992}$	0.52**	0.02	0.65***	0.10	0.46**	0.76***	-1.13**	0.61	0.41	2.36**	0.63*	0.48	0.54***	0.14	0.22	0.49	0.17	0.26
	(0.23)	(0.92)	(0.22)	(0.31)	(0.19)	(0.21)	(0.52)	(0.38)	(0.27)	(0.92)	(0.36)	(0.34)	(0.17)	(0.43)	(0.18)	(0.45)	(0.26)	(0.28)
$INTER_{ij,1993}$	0.62***	-0.01	0.77***	0.06	0.53***	0.81***	-1.31**	0.64	0.21	1.95**	0.75**	0.29	0.57***	0.07	0.29	0.48	0.17	0.22
	(0.22)	(0.91)	(0.22)	(0.30)	(0.20)	(0.22)	(0.51)	(0.39)	(0.28)	(0.93)	(0.36)	(0.33)	(0.17)	(0.42)	(0.18)	(0.42)	(0.24)	(0.28)
$INTER_{ij,1994}$	0.73***	-0.04	0.76***	0.11	0.56***	0.82***	-1.29**	0.63*	0.28	1.95**	0.81**	0.34	0.71***	0.02	0.33*	0.57	0.13	0.24
	(0.23)	(0.91)	(0.22)	(0.30)	(0.19)	(0.22)	(0.52)	(0.38)	(0.28)	(0.95)	(0.35)	(0.34)	(0.17)	(0.43)	(0.18)	(0.43)	(0.24)	(0.28)
$INTER_{ij,1995}$	0.84***	0.03	0.72***	0.26	0.57***	0.93***	-1.18**	0.60	0.44	2.32**	0.88***	0.21	1.13***	0.06	0.40**	0.68	0.11	0.25
	(0.23)	(0.93)	(0.21)	(0.29)	(0.18)	(0.21)	(0.53)	(0.37)	(0.29)	(0.91)	(0.34)	(0.34)	(0.18)	(0.42)	(0.17)	(0.43)	(0.23)	(0.28)
$INTER_{ij,1996}$	0.97***	0.14	0.94***	0.30	0.60***	1.08***	-0.94*	0.62*	0.52*	2.36**	0.98***	0.11	1.25***	0.15	0.47***	0.72*	0.12	0.35
	(0.23)	(0.96)	(0.26)	(0.28)	(0.18)	(0.20)	(0.50)	(0.37)	(0.28)	(0.95)	(0.34)	(0.34)	(0.18)	(0.43)	(0.17)	(0.43)	(0.23)	(0.28)
$INTER_{ij,1997}$	1.26***	0.09	1.15***	0.12	0.56***	1.13***	-0.95*	0.68**	0.58**	2.35***	0.96***	-0.02	1.24***	-0.05	0.50***	0.72*	0.15	0.36
	(0.23)	(0.97)	(0.31)	(0.28)	(0.18)	(0.18)	(0.50)	(0.33)	(0.27)	(0.90)	(0.33)	(0.34)	(0.17)	(0.44)	(0.16)	(0.43)	(0.23)	(0.26)
$INTER_{ij,1998}$	1.23***	0.06	0.98***	0.07	0.51***	1.32***	-1.08**	0.72**	0.57**	2.34**	0.99***	-0.02	1.35***	0.01	0.42**	0.70*	0.20	0.28
	(0.23)	(0.98)	(0.27)	(0.28)	(0.17)	(0.18)	(0.49)	(0.32)	(0.27)	(0.92)	(0.34)	(0.34)	(0.16)	(0.45)	(0.17)	(0.41)	(0.22)	(0.25)
$INTER_{ij,1999}$	1.21***	0.02	1.16***	0.06	0.54***	1.37***	-1.08**	0.72**	0.71***	3.06***	0.95***	-0.02	1.36***	0.01	0.46***	0.71*	0.24	0.27
	(0.22)	(0.98)	(0.25)	(0.28)	(0.17)	(0.18)	(0.50)	(0.32)	(0.28)	(0.93)	(0.33)	(0.34)	(0.16)	(0.45)	(0.17)	(0.41)	(0.23)	(0.25)
$INTER_{ij,2000}$	1.27***	0.12	0.92***	0.19	0.70***	1.35***	-1.11**	0.73**	1.14***	2.75***	0.99***	0.02	1.47***	0.15	0.52***	0.57	0.25	0.33
	(0.22)	(0.97)	(0.24)	(0.29)	(0.17)	(0.20)	(0.49)	(0.32)	(0.29)	(0.94)	(0.34)	(0.34)	(0.17)	(0.46)	(0.18)	(0.49)	(0.23)	(0.25)
$INTER_{ij,2001}$	1.25***	-0.07	1.22***	0.21	0.88***	1.22***	-1.18**	0.57*	0.90***	2.97***	0.73**	-0.03	1.24***	0.01	0.45***	0.78*	0.29	0.26
	(0.21)	(0.98)	(0.20)	(0.28)	(0.17)	(0.18)	(0.47)	(0.31)	(0.27)	(0.92)	(0.33)	(0.34)	(0.16)	(0.46)	(0.16)	(0.41)	(0.22)	(0.24)
$INTER_{ij,2002}$	1.91***	-0.10	1.27***	0.29	0.82***	1.23***	-1.35***	0.54*	0.82***	3.26***	0.69**	-0.04	1.21***	0.02	0.49***	0.80*	0.46**	0.34
	(0.21)	(0.98)	(0.20)	(0.28)	(0.17)	(0.18)	(0.47)	(0.32)	(0.26)	(0.89)	(0.33)	(0.34)	(0.16)	(0.46)	(0.16)	(0.41)	(0.21)	(0.24)
$INTER_{ij,2003}$	1.85***	-0.17	1.31***	0.35	0.97***	1.24***	-1.32***	0.69**	0.87***	2.67***	0.64*	-0.12	1.28***	-0.18	0.46***	0.75*	0.48**	0.29
	(0.21)	(0.98)	(0.18)	(0.28)	(0.18)	(0.17)	(0.45)	(0.32)	(0.28)	(0.90)	(0.33)	(0.31)	(0.16)	(0.45)	(0.15)	(0.39)	(0.21)	(0.24)
$INTER_{ij,2004}$	2.03***	-0.20	1.35***	0.46*	0.87***	1.27***	-1.18***	0.67**	0.92***	2.14**	0.67**	-0.15	1.32***	-0.21	0.48***	0.84**	0.52**	0.26
	(0.21)	(0.98)	(0.18)	(0.28)	(0.18)	(0.16)	(0.45)	(0.33)	(0.28)	(0.94)	(0.33)	(0.31)	(0.17)	(0.45)	(0.15)	(0.38)	(0.21)	(0.25)
$INTER_{ij,2005}$	2.00***	-0.15	1.19***	0.48*	0.85***	1.28***	-0.92**	0.55*	0.92***	0.41	0.65*	-0.19	1.32***	-0.25	0.46***	0.70*	0.44**	0.24
	(0.20)	(0.98)	(0.20)	(0.28)	(0.18)	(0.17)	(0.44)	(0.31)	(0.25)	(1.27)	(0.33)	(0.31)	(0.17)	(0.44)	(0.16)	(0.38)	(0.21)	(0.25)
$INTER_{ij,2006}$	2.09***	-0.11	1.32***	0.58**	0.92***	1.33***	-0.97**	0.56	1.04***	0.97	0.68**	-0.07	1.38***	-0.23	0.55***	0.71*	0.49**	0.24
	(0.21)	(0.98)	(0.18)	(0.27)	(0.18)	(0.17)	(0.44)	(0.35)	(0.26)	(1.04)	(0.34)	(0.31)	(0.17)	(0.44)	(0.15)	(0.38)	(0.21)	(0.25)
$INTER_{ij,2007}$	2.15***	-0.09	1.36***	0.65**	0.82***	1.31***	-0.93**	0.56	1.01***	1.23	0.68**	-0.11	1.37***	-0.23	0.59***	0.81**	0.49**	0.21
	(0.21)	(0.98)	(0.18)	(0.27)	(0.18)	(0.17)	(0.45)	(0.36)	(0.25)	(0.93)	(0.34)	(0.32)	(0.18)	(0.43)	(0.15)	(0.39)	(0.21)	(0.26)
$INTER_{ij,2008}$	2.22***	-0.22	1.50***	0.72***	0.89***	1.30***	-0.80*	0.52	1.04***	1.13	0.69**	-0.12	1.38***	-0.25	0.64***	0.79**	0.52**	0.09
	(0.21)	(0.97)	(0.18)	(0.27)	(0.18)	(0.17)	(0.46)	(0.37)	(0.24)	(0.93)	(0.35)	(0.33)	(0.18)	(0.42)	(0.16)	(0.39)	(0.21)	(0.27)
$INTER_{ij,2009}$	1.98***	-0.25	1.21***	0.51*	0.80***	1.18***	-1.03**	0.38	0.78***	1.15	0.47	-0.29	1.35***	-0.20	0.57***	0.86**	0.47**	0.07
	(0.20)	(0.97)	(0.19)	(0.27)	(0.19)	(0.18)	(0.46)	(0.38)	(0.24)	(0.94)	(0.36)	(0.32)	(0.18)	(0.42)	(0.16)	(0.39)	(0.21)	(0.27)
$INTER_{ij,2010}$	2.10***	-0.26	1.32***	0.62**	0.81***	1.16***	-0.73	0.56	0.96***	2.27**	0.53	-0.37	1.41***	-0.21	0.64***	0.95**	0.48**	0.05
	(0.20)	(0.97)	(0.18)	(0.27)	(0.19)	(0.18)	(0.47)	(0.37)	(0.24)	(0.99)	(0.36)	(0.33)	(0.19)	(0.42)	(0.16)	(0.40)	(0.21)	(0.27)
$INTER_{ij,2011}$	2.18***	-0.20	1.42***	0.73***	1.06***	1.18***	-0.71	0.91**	1.11***	2.33**	0.63*	-0.35	1.46***	-0.18	0.78***	0.99**	0.51**	0.16
	(0.20)	(0.96)	(0.19)	(0.27)	(0.19)	(0.18)	(0.48)	(0.37)	(0.24)	(0.99)	(0.36)	(0.33)	(0.19)	(0.41)	(0.16)	(0.40)	(0.21)	(0.28)
$INTER_{ij,2012}$	2.21***	-0.19	1.41***	0.74***	1.08***	1.19***	-0.70	0.91**	1.10***	2.62***	0.64*	-0.35	1.51***	-0.16	0.79***	1.03**	0.53**	0.18
	(0.21)	(0.97)	(0.18)	(0.27)	(0.19)	(0.18)	(0.47)	(0.37)	(0.24)	(0.93)	(0.37)	(0.33)	(0.19)	(0.41)	(0.16)	(0.42)	(0.21)	(0.28)
$INTER_{ij,2013}$	2.15***	-0.24	1.43***	0.70***	1.11***	1.13***	-0.65	0.89**	1.08***	2.01**	0.60	-0.35	1.46***	-0.12	0.78***	0.98**	0.52**	0.20
	(0.20)	(0.97)	(0.19)	(0.27)	(0.19)	(0.18)	(0.47)	(0.37)	(0.24)	(0.91)	(0.37)	(0.33)	(0.19)	(0.41)	(0.16)	(0.40)	(0.21)	(0.28)
$INTER_{ij,2014}$	2.16***	-0.23	1.43***	0.70***	1.12***	1.15***	-0.64	0.91**	1.08***	1.47	0.61*	-0.35	1.49***	-0.16	0.80***	0.95**	0.53**	0.20
	(0.20)	(0.97)	(0.19)	(0.27)	(0.19)	(0.18)	(0.48)	(0.36)	(0.24)	(0.91)	(0.37)	(0.33)	(0.19)	(0.41)	(0.16)	(0.40)	(0.21)	(0.27)
$INTER_{ij,2015}$	2.14***	-0.25	1.42***	0.68**	1.08***	1.11***	-0.65	0.89**	1.04***	0.95	0.59	-0.41	1.44***	-0.24	0.75***	0.92**	0.49**	0.14
	(0.21)	(0.97)	(0.19)	(0.27)	(0.18)	(0.18)	(0.48)	(0.37)	(0.24)	(1.02)	(0.37)	(0.32)	(0.19)	(0.41)	(0.16)	(0.40)	(0.21)	(0.27)
Observations	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660	933660

Note: All regression include exporter-year, country-pair and importer-year fixed effects. Eora-MRIO is used to cover the period 1990-2015. Robust standard errors, clustered at the country-pair level, are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$