Trade Potential in Southern Cone Countries

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TRADE POTENTIAL IN SOUTHERN CONE COUNTRIES

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March 2018

Abstract

A trade gravity model is used to calculate the bilateral export potential of Southern Cone countries (Argentina, Brazil, Chile, Paraguay, and Uruguay) and identify patterns of weak performance across destinations and productive sectors. After controlling for key trade fundamentals and country and time effects, we find that exports to large advanced economies like the United States and the European Union fall short of expected levels. Potential trade with the rest of Latin America shows a high degree of heterogeneity across sectors and countries. Exports within the Southern Cone are generally above the predicted value, but there is still space for higher flows, particularly regarding Chile-MERCOSUR relations. (JEL F14*)*

Southern Cone (SC) countries (Argentina, Brazil, Chile, Paraguay, and Uruguay) significantly expanded their exports since early 2000s, but export growth has slowdown in recent years. During that time, trade with Latin America remained low compared to levels of intra-regional trade within other developing country regions and has recently decelerated as well. This slowdown in export activity coincided with significant changes to the global economic landscape that affected international trade, such as the end of the commodity super cycle, economic transformations in China, the unwinding of global macroeconomic imbalances, and pathbreaking technological shifts. These developments are bound to continue, raising challenges and opportunities for SC integration with the rest of the world.

In this context, tapping the full trade potential of SC countries requires a redesign of the regional policy framework supported by country-specific development strategies. That, of course, is no easy task; policy design is complex, and implementation is difficult. Given these challenges, the entire process benefits from well informed policy debate, based on sound theoretical and empirical foundations.

Our goal here is to contribute to the debate with a simple empirical note that studies the trade potential of SC economies at the bilateral and sectoral level. We do so by means of a gravity model of international trade which controls for geographical, cultural, trade policy, and country-level factors, in a panel of over 180 countries between 1991 and 2015. Bilateral export potential is calculated as the difference between predicted and observed export values.

Our findings suggest that SC countries export below the expected level to large markets in advanced economies, specially the U.S. and the European Union (EU). At the same time, exports to other Latin American countries outside the region, particularly Mexico, fall below the predicted level. Finally, even though at the aggregate level bilateral trade within SC economies is higher than expected, results from disaggregated trade flows suggest that there are sectors with scope for deeper integration at the bilateral and regional level. Particularly, trade intensity between MERCOSUR and Chile, and bilateral trade between Argentina and Uruguay are below the predicted norm.

The rest of the note is organized as follows. Section I presents the model and methodology, Section II reports the results, and Section III concludes.

I. Evaluating bilateral trade: methodological aspects

We use an augmented trade gravity model to develop a metric for assessing whether bilateral trade flows are above or below a theoretical norm based on trade fundamentals.[1] The model works on the premise that exports between two countries are proportional to the sizes of their economies and are inversely related to the distance between them. The basic model is augmented with several other variables like cultural factors and trade policy indicators.

We include a set of bilateral geographic and cultural variables: distance, contiguity of territory, common language, and colonial ties that could capture "natural" barriers between trading partners. We also control for the existence of free trade agreements (FTAs) between countries. Our specification includes time-varying exporter and importer fixed effects that account for country-specific characteristics.[2] The equation to be estimated is:

$$T_{ijt} = \exp\left[\beta_1 \log(DIST_{ij}) + \beta_2 CONT_{ij} + \beta_3 LANG_{ij} + \beta_4 COL_{ij} + \beta_5 FTA_{ijt} + \theta_{it} d_{it} + \theta_{jt} d_{jt}\right] \varepsilon_{ijt} \tag{1}$$

where T_{ijt} is the value of exports from country *i* to country *j* in year *t* in current U.S. dollars; $DIST_{ij}$ is the distance in kilometers between the most populated cities in countries *i* and *j*; $CONT_{ij}$ is a dummy variable defined as 1 if countries *i* and *j* are contiguous, and 0 otherwise; $LANG_{ij}$ is a dummy variable defined as 1 if countries *i* and *j* share their official languages, and 0 otherwise; COL_{ij} is a dummy variable defined as 1 if countries *i* and *j* have colonial ties, and 0 otherwise; FTA_{ijt} is a dummy variable defined as 1 if there is a FTA between countries *i* and *j* in year *t*, and 0 otherwise; d_{it} is the exporter-year fixed effect; d_{jt} is the importer-year fixed effect; and ε_{ijt} is the error term assumed to be statistically independent of the regressors.

The coefficients obtained from the estimation of equation (1) are used to create a predicted measure of bilateral trade flows ($\widehat{T_{ijt}}$) based on the underlying fundamentals. We then create a metric (TP_{ijt}) which is the difference between predicted and observed trade flows:

$$TP_{ijt} = \widehat{T_{ijt}} - T_{ijt} \tag{2}$$

A positive value for TP_{ijt} suggests that country *i* is exporting less to country *j* in year *t* than what fundamentals command. In a narrow sense, this underperformance with respect to the estimated norm can be interpreted as untapped export potential. However, caution is warranted in interpreting this metric since it does not imply that a higher bilateral trade flow can be easily achieved, it does not offer a multi-dimensional assessment of trade performance, and it does not provide direct information on why the trade between two countries is below the expected norm.[3]

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[1] There is an extensive literature using this approach, Brülhart and Kelly (1999), Al-Atrash and Yousef (2000), Nugent (2002), Martínez-Zarzoso and Nowak-Lehmann (2003), De Benedictis and Vicarelli (2005), Boughanmi (2008), and Gul and Yasin (2011).

[2] Anderson and van Wincoop (2003) suggest controlling for multilateral resistance (the barriers to trade between a country and all its trading partners) to have a well-specified gravity model. Including time-varying exporter and importer fixed effects in the specification allow us also to control for multilateral resistance (Hummels, 1999; Feenstra, 2004; Baldwin and Taglioni, 2007; Olivero and Yotov, 2012, 2016). Other studies also incorporate time-invariant pair fixed effects to account for the endogeneity of trade policy variables and unobservable bilateral barriers to trade (Baier and Bergstrand, 2007; Egger and Nigai, 2015; Agnosteva et al., 2014). Our specification excludes pair fixed effects due to computational challenges. High-dimensional fixed effects generate numerical instability to the PPML estimator, the one we use in this analysis, which fails to converge (Bratti et al. 2014; Dutt et al., 2014; Henn and McDonald, 2014; Kareem, 2014; Glick and Rose, 2016; Sauve and Roy, 2016; Magerman et al., 2016). Furthermore, including pair fixed effects precludes the identification of time-invariant bilateral determinants (e.g. geographic factors).

[3] Egger (2002) has also criticized this approach arguing that large systematic differences between the observed and predicted trade values may indicate problems of misspecification of the model rather than genuine trade opportunities.

Regarding estimation, a common approach is to apply ordinary least squares on a log-linearized version of the gravity equation. This practice, however, tends to render inconsistent estimates. Another issue with the log-linear specification is the existence of zero-trade observations (e.g. pairs of countries that do not trade with each other) which the econometrician is obliged to discard. However, zero-trade observations are not random occurrences because there are specific instances in which trade partners choose not to trade with each other because of fundamental reasons like policy changes, shifts in productive and trade patterns, and increases in natural and non-natural barriers to international commerce, among others. Hence, dropping such observations from the dataset generates a sample selection bias. To overcome these issues, we adopt the Poisson Pseudo-Maximum Likelihood (PPML) estimator proposed by Santos Silva and Tenreyro (2006) commonly used in the literature.[4]

The model is estimated as a panel for 192 countries and territories between 1991 and 2015.[5] We run the regression for different dependent variables: total bilateral exports of goods, manufacturing exports, and exports at the broad economic categories (BEC): food and beverages (BEC 1), industrial supplies (BEC 2), fuel and lubricants (BEC 3), capital goods and their parts and accessories (BEC 4), transport goods and accessories (BEC 5), and consumer goods (BEC 6).

The trade flow between any two countries is measured as exports from reporting country *i* to partner country *j* in nominal U.S. dollars. The primary source of data is the UN COMTRADE database. The series of manufactured good exports is constructed using the SITC classification revision 2 (sections 5 to 8 excluding division 68 -non-ferrous metals- and group 891 -arms and ammunition-). The SITC classification is not sufficiently disaggregated to allow for BEC disaggregation. Hence, we use the BEC series available at COMTRADE from 1998 onwards, which is built using the HS classification. The dyadic variables included in the gravity model are from CEPII except for FTAs. The definition of FTA is based on Giordano et al. (2012), which considers only agreements that intend to eliminate tariffs on at least 80 percent of tariff lines; and the database on FTAs was constructed from INTradeBID and WTO.

II. Results

Table 1 reports the results. All dyadic variables are statistically significant and have the expected signs. Once equation (1) is estimated, one can calculate the difference between predicted and actual bilateral exports as in equation (2) to obtain the export potential metric. We report the results for the 2002-2015 period and the metric is calculated as the period average.[6]

[4] Fally (2015) shows that estimating gravity equations using the PPML with fixed effects is theoretically compatible with the idea of accounting for the multilateral resistance terms of Anderson and van Wincoop (2003). Additionally, the PPML estimator does not suffer from the incidental parameters problem, an important concern whenever fixed effects are used (Fernández-Val and Weidner, 2016).

[5] The period span for BEC categories is 1998-2015 due to data availability.

[6] We divide the time span into two periods: before and after 2002. The results reported in this section focused on the most recent period after China's accession to the WTO in December 2001. The exporter-year and importer-year fixed effects included in equation (1) control for China's impact on global trade. Following De Benedictis and Vicarelli (2005), results showing signs that are not consistent throughout the period are reported since trade potential may be asymmetrically distributed across the period and average indicators may hide this pattern.

TABLE 1: RESULTS OF THE GRAVITY EQUATION

Dependent	Contiguity	Common Language	Colonial ties	Distance	FTA
Total exports	0.514***	0.191***	0.264***	-0.636***	0.490***
	(0.02)	*(0.02)*	*(0.02)*	*(0.01)*	*(0.02)*
Manufacturing exports	0.483***	0.249***	0.217***	-0.628***	0.546***
	(0.02)	*(0.02)*	*(0.02)*	*(0.01)*	*(0.02)*
BEC 1 exports	0.584***	0.237***	0.560***	-0.762***	0.527***
	(0.03)	*(0.02)*	*(0.03)*	*(0.01)*	*(0.02)*
BEC 2 exports	0.467***	0.033	0.491***	-0.716***	0.477***
	(0.02)	*(0.03)*	*(0.03)*	*(0.01)*	*(0.02)*
BEC 3 exports	0.527***	0.132***	0.254***	-1.082***	0.206***
	(0.04)	*(0.05)*	*(0.05)*	*(0.02)*	*(0.04)*
BEC 4 exports	0.483***	0.235***	0.175***	-0.561***	0.490***
	(0.03)	*(0.02)*	*(0.02)*	*(0.01)*	*(0.02)*
BEC 5 exports	0.718***	0.101***	-0.028	-0.474***	0.841***
	(0.03)	*(0.03)*	*(0.03)*	*(0.01)*	*(0.02)*
BEC 6 exports	0.413***	0.277***	0.318***	-0.632***	0.457***
	(0.02)	*(0.03)*	*(0.03)*	*(0.01)*	*(0.02)*

Note: *** means statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, standard errors in parentheses. BEC exports: food and beverages (BEC 1), industrial supplies (BEC 2), fuel and lubricants (BEC 3), capital goods and their parts and accessories (BEC 4), transport goods and accessories (BEC 5), and consumer goods (BEC 6).

A. Trade potential with the rest of the world

On average, in markets where commodity trade is significant like China, SC exports are above the expected norm (Figure 1). In fact, looking at bilateral trade with China, SC countries export intensity is larger than expected only for commodity and primary goods (e.g. food and beverage, industrial supplies such as copper and iron ore, and fuel and lubricants) (Figure 2).

In contrast, exports fall below the level predicted by the model in most advanced economy markets (Figure 1). For instance, the U.S. and EU are among the major destinations of Southern Cone exports along with China, but the results suggest that exports to such markets could be even higher.

Looking at the evolution of trade potential over time, in the case of China and the U.S., the sign of the metric is consistent throughout the whole period, while exports to the EU were above the expected value until 2008 and dropped below the norm afterwards (Figure 3).

Focusing on SC bilateral manufacture exports, these are above-norm for most Latin American destinations, while exports to almost any other country fall below the predicted value.

FIGURE 1. SOUTHERN CONE EXPORT POTENTIAL
(blue: exports above theoretical norm, red: exports below theoretical norm, grey: NA, average 2002-2015)

a. Total exports *b. Manufacturing exports*

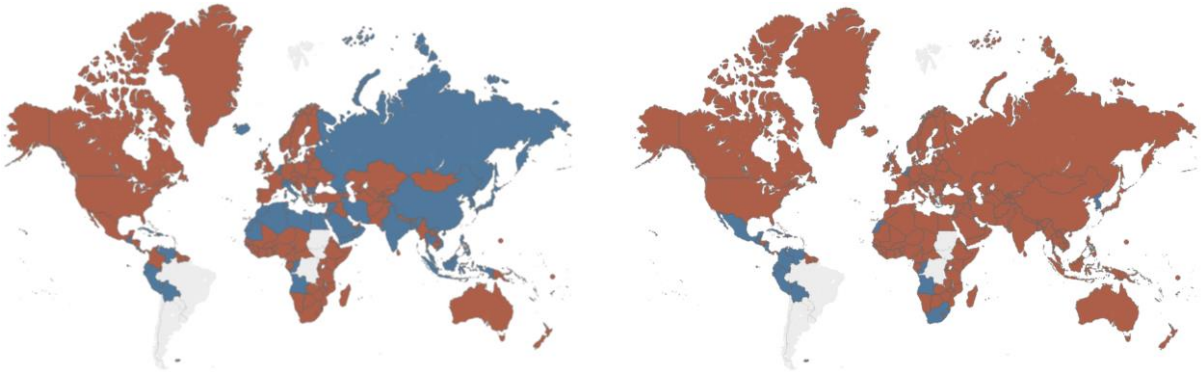
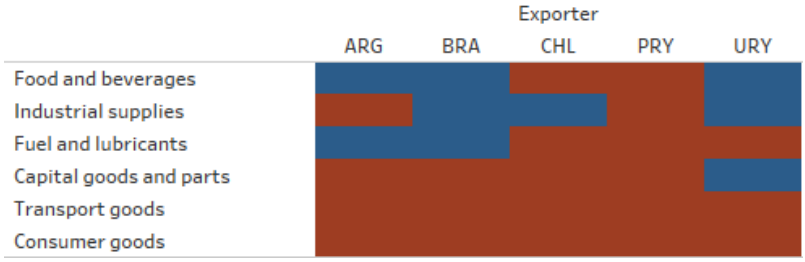
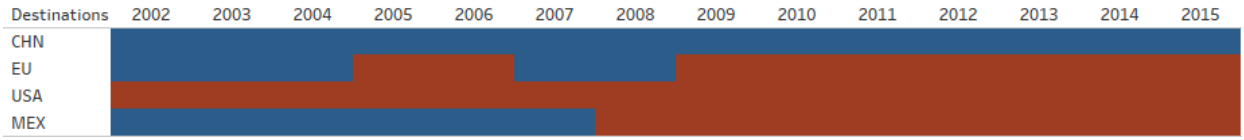


FIGURE 2. SOUTHERN CONE COUNTRIES EXPORTS TO CHINA BY ECONOMIC CATEGORY
(blue: exports above theoretical norm, red: exports below theoretical norm, average 2002-2015)



Note: Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY).

FIGURE 3. EVOLUTION OF SOUTHERN CONE EXPORT POTENTIAL TO SELECTED DESTINATIONS
(blue: exports above theoretical norm, red: exports below theoretical norm)



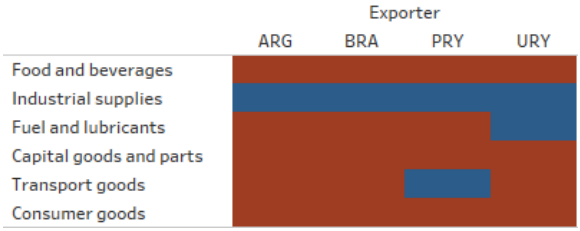
Note: China (CHN), European Union (EU), United States (USA), Mexico (MEX).

BOX 1. MERCOSUR-EUROPEAN UNION

The EU is the first export destination for MERCOSUR countries (Argentina, Brazil, Paraguay, and Uruguay) when considered together, accounting for nearly 20% of the bloc's total exports. MERCOSUR's exports to the EU, however, are below the norm in most product categories except for industrial supplies (Figure B1.1). In fact, with the exception of the industrial supplies category, the EU is almost invariably among the five major destinations with highest untapped export potential for MERCOSUR countries (Table B1.1).

Our results also indicate that among those categories with exports below the norm, food and beverages and fuel and lubricants account for nearly one half and one fifth of potential gains respectively (Figure B1.2). Then, advancement in current negotiations with the EU on trade agreements covering agricultural products and other commodities may be crucial for exploiting MERCOSUR's exporting capabilities. Our model indicates that the effect of FTAs is heterogeneous across economic categories, with food and beverages being one of the most sensitive groups; the presence of a bilateral FTA could increase agricultural exports by as much as 70% (Table 1).

FIGURE B1.1. MERCOSUR BILATERAL EXPORT POTENTIAL WITH THE EU BY ECONOMIC CATEGORY
(blue/red: exports above/below the theoretical norm, 2015)



Note: Argentina (ARG), Brazil (BRA), Paraguay (PRY), and Uruguay (URY).

FIGURE B1.2. DISTRIBUTION OF MERCOSUR UNTAPPED EXPORT POTENTIAL WITH THE EU BY ECONOMIC CATEGORY, 2015

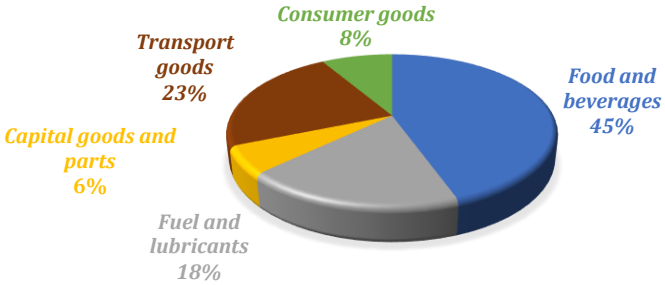


TABLE B1.1. MERCOSUR'S TOP 5 UNTAPPED EXPORT POTENTIAL DESTINATIONS BY CATEGORY AND COUNTRY

(2002-2015 average)

	Argentina	***Brazil***	***Paraguay***	***Uruguay***
Food and beverages (BEC 1)	USA EU Japan Mexico Uruguay	USA Japan Mexico EU Australia	USA China Japan EU Australia	Japan Argentina EU USA Australia
Industrial supplies (BEC 2)	Brazil USA China India Mexico	USA India Mexico Australia Hong Kong	USA China Mexico Japan India	USA Argentina Japan Australia India
Fuel and lubricants (BEC 3)	EU Japan Uruguay Brazil Australia	EU Japan Argentina Australia Mexico	USA EU Chile Japan Mexico	EU Chile Japan Argentina Brazil
Capital goods and parts (BEC 4)	USA EU China Hong Kong Japan	USA China Hong Kong Japan EU	USA EU China Mexico Japan	USA EU Japan Hong Kong Mexico
Transport goods and parts (BEC 5)	USA EU China Japan Canada	USA EU Japan Australia Russia	USA Argentina China Mexico Canada	USA EU Mexico Australia UK
Consumer goods (BEC 6)	USA EU Japan Australia UAE	USA EU Japan UAE Australia	USA EU Japan Australia Canada	USA EU Japan Australia UAE

B. Trade potential with Latin America

There is a large degree of heterogeneity on the pattern of bilateral trade within Latin America (Figure 4). Bilateral exports within sub-regions (Southern Cone, Andean Countries, and Central America and Mexico) tend to be above the theoretical norm. In contrast, trade between countries belonging to different sub-regions presents a more mixed picture.[7] Southern Cone exports to Andean Countries are above the norm in most cases, while the opposite is true for exports to Central America and Mexico.[8] Until 2007, the SC exported above the norm to Mexico but since 2008 the actual exports fell below the predicted value (Figure 3).

[7] World Bank (2017) finds similar results by sub-region.

[8] These results are consistent with the findings of IDB (2017) which suggest that two of the major trade missing links in the Latin American integration policy framework correspond to MERCOSUR-Mexico and Central America-South America trade.

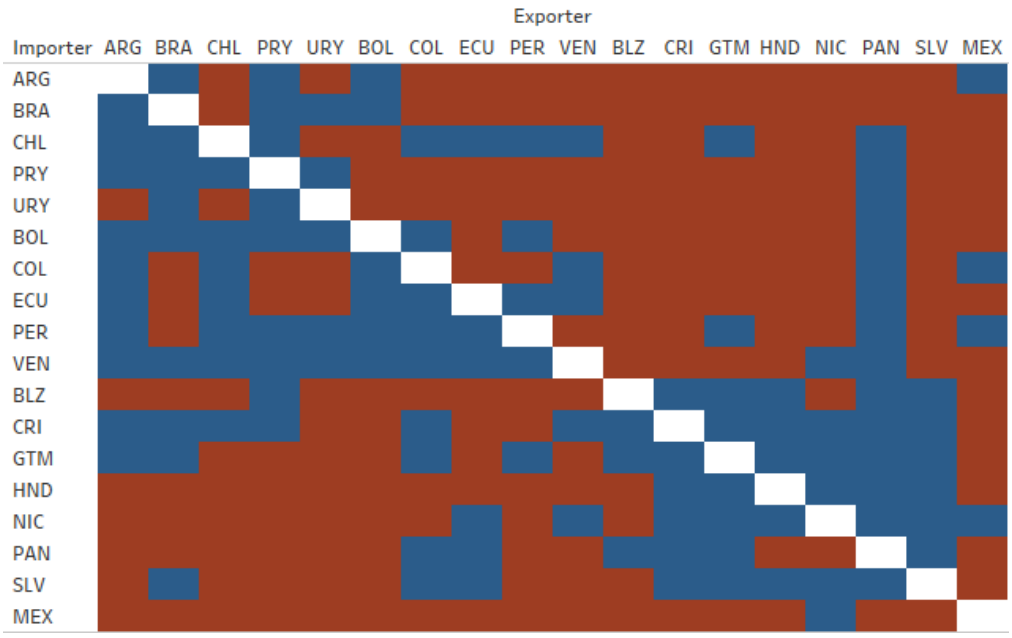
The results also show an asymmetry between bilateral exports and imports of SC countries. Southern Cone exports to other sub-regions are generally above the norm, while imports from other sub-regions tend to be below the norm.

Trade intensity between the Southern Cone and the rest of Latin America is weaker for intermediate goods than for consumer goods (Figure 5). This points to hidden production complementarities that, if exploited, could boost intraregional trade.

Several studies such as those by IMF (2015, 2017), IDB (2017), and World Bank (2017) argue that Brazil and Mexico's integration with Latin America remains limited. Part of the story is depicted by Figures 6 and 7. These economies, the largest in the region, could perform as trade hubs, importing intermediate goods from the rest of Latin America and using them to produce exports destined to larger markets outside the region. However, Mexico and Brazil's imports of intermediate goods from Latin American countries are below the norm in most cases while exports of final goods to large markets are also lower than expected, except for Mexico's exports to the U.S.

FIGURE 4. BILATERAL TRADE POTENTIAL WITHIN LATIN AMERICA

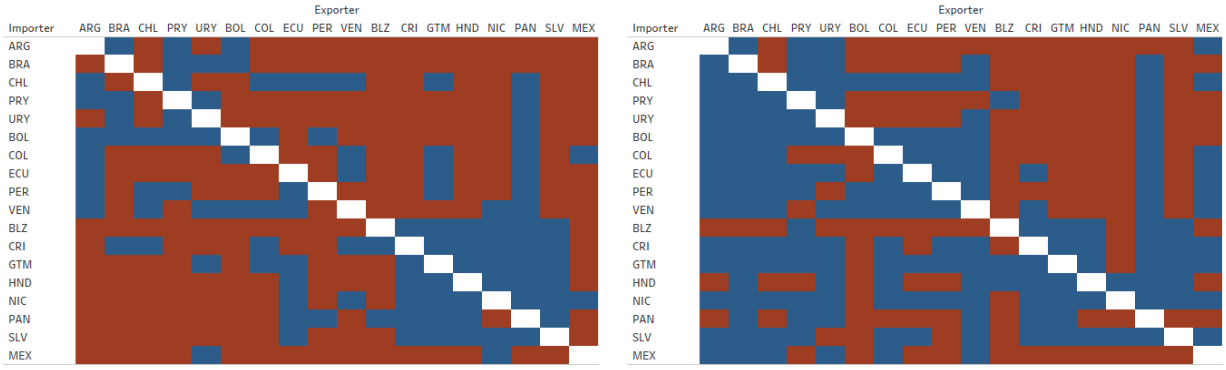
(blue: trade above theoretical norm, red: trade below theoretical norm, average 2002-2015)



Note: Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY), Bolivia (BOL), Colombia (COL), Ecuador (ECU), Peru (PER), Venezuela (VEN), Belize (BLZ), Costa Rica (CRI), Guatemala (GTM), Honduras (HND), Nicaragua (NIC), Panama (PAN), El Salvador (SLV), Mexico (MEX).

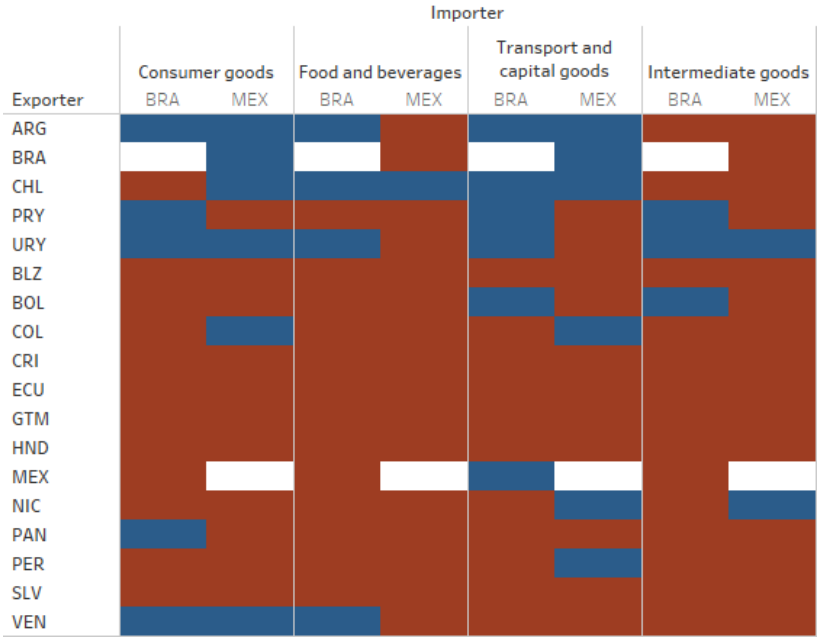
FIGURE 5. LATIN AMERICAN COUNTRIES TRADE POTENTIAL IN INTERMEDIATE AND CONSUMER GOODS
(blue: trade above theoretical norm, red: trade below theoretical norm, average 2002-2015)

a. Intermediate goods *b. Consumer goods*



Note: intermediate goods results are the aggregation of results for: industrial supplies (BEC 2), fuel and lubricants (BEC 3), and parts and accessories of capital goods (BEC 42). Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY), Bolivia (BOL), Colombia (COL), Ecuador (ECU), Peru (PER), Venezuela (VEN), Belize (BLZ), Costa Rica (CRI), Guatemala (GTM), Honduras (HND), Nicaragua (NIC), Panama (PAN), El Salvador (SLV), Mexico (MEX).

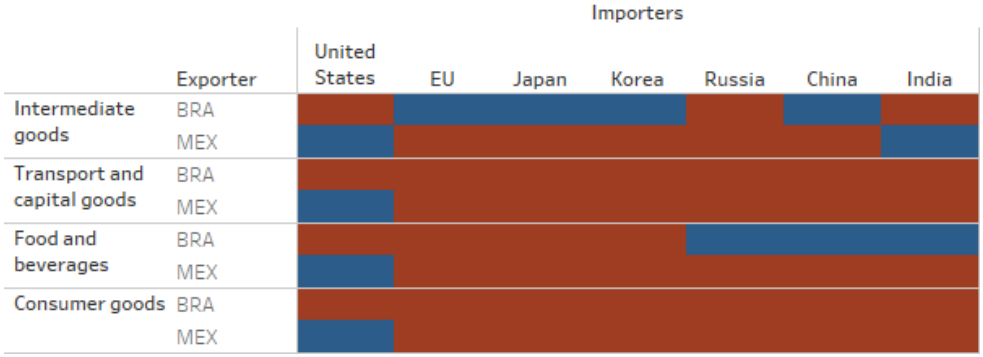
FIGURE 6. LATIN AMERICAN COUNTRIES EXPORT POTENTIAL WITH BRAZIL AND MEXICO BY ECONOMIC CATEGORY
(blue: exports above theoretical norm, red: exports below theoretical norm, average 2002-2015)



Note: intermediate goods results are the aggregation of results for: industrial supplies (BEC 2), fuel and lubricants (BEC 3), and parts and accessories of capital goods (BEC 42); and transport and capital goods results are the aggregation of results for capital goods (BEC 41) and transport goods (BEC 5). Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY), Bolivia (BOL), Colombia (COL), Ecuador (ECU), Peru (PER), Venezuela (VEN), Belize (BLZ), Costa Rica (CRI), Guatemala (GTM), Honduras (HND), Nicaragua (NIC), Panama (PAN), El Salvador (SLV), Mexico (MEX).

FIGURE 7. EXPORT POTENTIAL OF BRAZIL AND MEXICO WITH SELECTED LARGE MARKETS BY ECONOMIC CATEGORY

(blue: exports above theoretical norm, red: exports below theoretical norm, average 2002-2015)



Note: intermediate goods results are the aggregation of results for the following categories: industrial supplies (BEC 2), fuel and lubricants (BEC 3), and parts and accessories of capital goods (BEC 42); and transport and capital goods results are the aggregation of results for capital goods (BEC 41) and transport goods (BEC 5). Brazil (BRA), Mexico (MEX), European Union (EU).

BOX 2. MERCOSUR-PACIFIC ALLIANCE

Nearly 7% of MERCOSUR's exports are destined to Pacific Alliance countries (Chile, Colombia, Mexico, and Peru). Exports of commodities and natural resource-intensive products (food and beverages, industrial supplies, and fuel and lubricants) are below the norm, while exports of capital, transport, and consumer goods are above expected values (Figure B2.1). MERCOSUR's imports from the Pacific Alliance are below the norm in all categories except transport goods.

Looking at bilateral exports across goods, Argentina and Brazil exports of capital and consumer goods are above the norm. Beyond that, however, the pattern is heterogeneous across sectors and countries (Figure B2.2).

Then, given trade fundamentals, there are several good categories for which exchange between MERCOSUR and the Pacific Alliance could be higher, calling for further research on the obstacles hindering bilateral trade.

FIGURE B2.1. TRADE POTENTIAL BETWEEN MERCOSUR AND THE PACIFIC ALLIANCE BY ECONOMIC CATEGORY

(blue/red: trade above/below the theoretical norm, average 2002-2015)

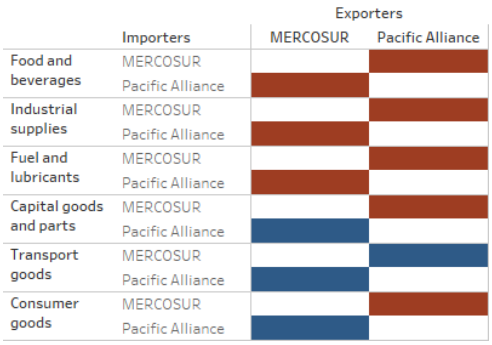
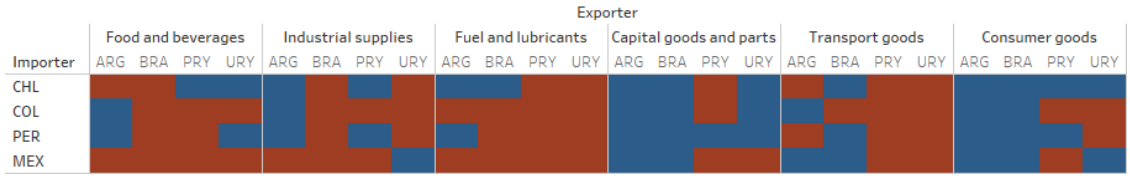


FIGURE B2.2. MERCOSUR'S BILATERAL EXPORT POTENTIAL BY ECONOMIC CATEGORY AND PARTNER
(blue/red: exports above/below the theoretical norm, average 2002-2015)



Note: Argentina (ARG), Brazil (BRA), Chile (CHL), Colombia (COL), Mexico (MEX), Paraguay (PRY), Peru (PER), and Uruguay (URY).

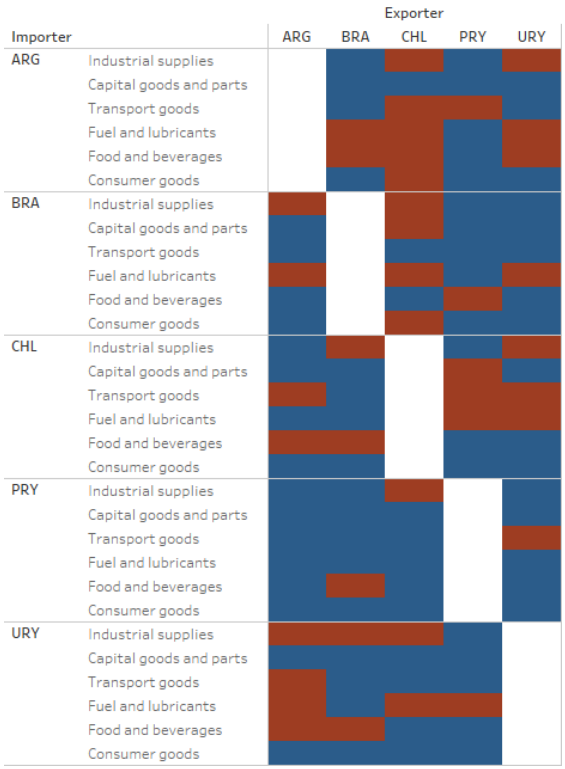
C. Trade potential within the Southern Cone

Bilateral exports within the Southern Cone are usually above the norm, but there is still a high degree of heterogeneity across countries and sectors (Figure 8).

Argentina and Brazil's exports to each other are above-norm during the whole period of analysis (Figure 9). Since we control for proximity, country-specific effects, and the presence of MERCOSUR, the result points to the existence of intense bilateral links between both countries, present in many sectors. Further research is needed on the exact nature and mechanics of these links.

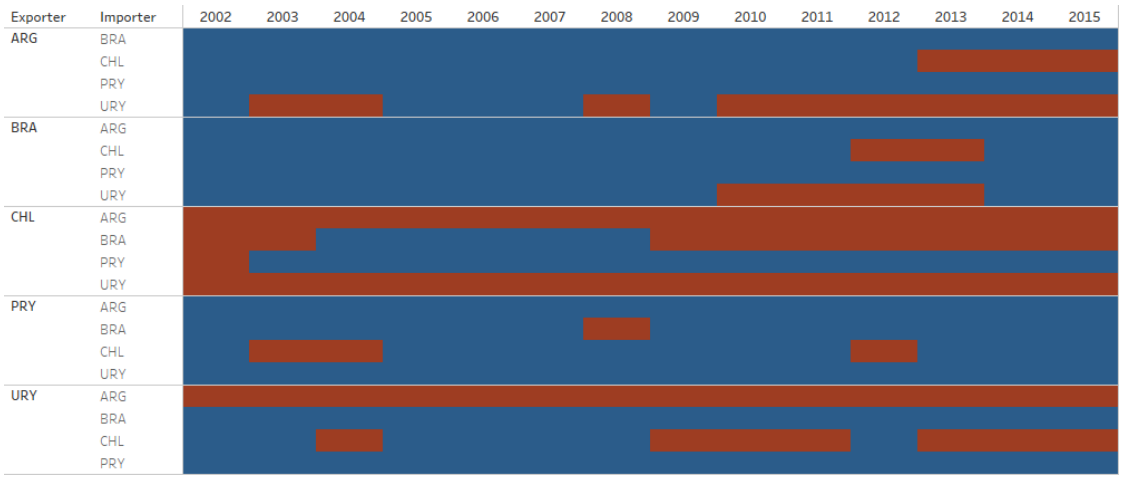
At the aggregate level, Uruguay displays below-norm exports to Argentina and above-norm exports to Brazil during the whole period of analysis, while Paraguay displays above-norm exports to all SC economies almost consistently. Finally, Chile's exports to the rest of the SC are below the norm in all cases except Paraguay. This is not due to the existence of MERCOSUR since our specification controls for FTAs. In contrast, Chile's imports from other Southern Cone countries are mostly above model-predicted levels (Figure 4).

FIGURE 8. TRADE POTENTIAL WITHIN SOUTHERN CONE BY ECONOMIC CATEGORY
(blue: trade above theoretical norm, red: trade below theoretical norm, average 2002-2015)



Note: Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY).

FIGURE 9. EVOLUTION OF TRADE POTENTIAL WITHIN CSC
(blue: trade above theoretical norm, red: trade below theoretical norm)



Note: Argentina (ARG), Brazil (BRA), Chile (CHL), Paraguay (PRY), Uruguay (URY).

BOX 3. TRADE FLOWS WITHIN MERCOSUR

Exports within MERCOSUR represent 14% of total exports by its members, a share that has been broadly stable over the last decade. At the aggregate level, except for bilateral exports between Argentina and Uruguay, exports within the bloc are above the norm (Figure 4). Intra-bloc exports are more diversified than those destined to other markets, particularly advanced countries, being transport goods and industrial supplies the most important categories (Figure B3.1).

Looking at bilateral export flows by good categories and countries, MERCOSUR's members may have incentives to increase sectoral exports in specific markets given that there is some potential in all categories except transport and consumer goods (Figure B3.2).

Paraguay, the smallest member of the bloc, exports above the norm to almost all MERCOSUR's partners for most product categories. Argentina, Brazil, and Uruguay present a more heterogeneous pattern. The bilateral trade relationship between Argentina and Uruguay is particularly interesting, with below the norm exports from Argentina to Uruguay in all categories except capital and consumer goods, and below the norm exports from Uruguay to Argentina in all categories except capital, transport, and consumer goods (Figure B3.2).

Then, it is clear that there are still benefits to be gained from deepening and improving integration within the bloc.

FIGURE B3.1. MERCOSUR INTRA-BLOC EXPORTS BY ECONOMIC CATEGORY
(2002-2015 average)

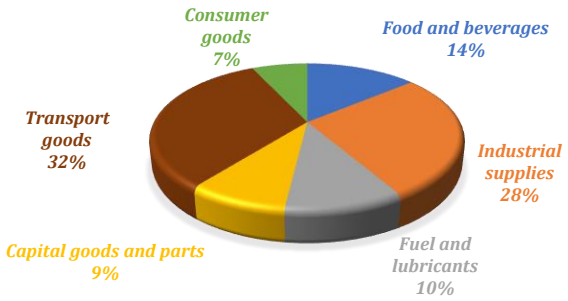
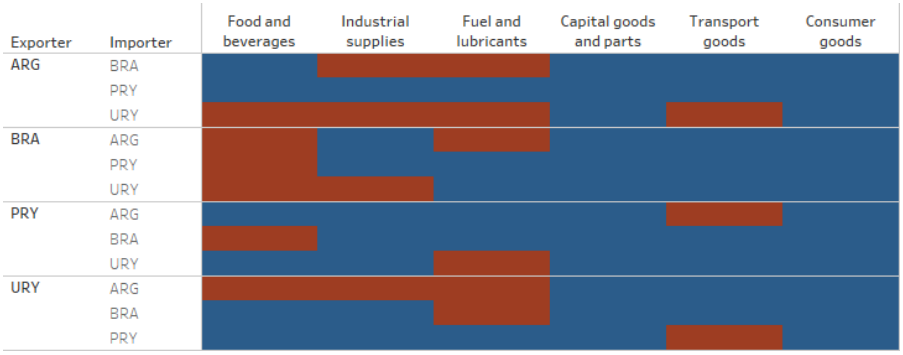


FIGURE B3.2. MERCOSUR'S TRADE POTENTIAL BY ECONOMIC CATEGORY AND COUNTRY
(blue/red: trade above/below the theoretical norm, average 2002-2015)



Note: Argentina (ARG), Brazil (BRA), Paraguay (PRY), Uruguay (URY).

III. Final remarks

Our analysis identifies markets where Southern Cone countries have untapped bilateral trade potential at the aggregate and sectoral level. Southern Cone exports to large markets in advanced economies are below the norm predicted by a well-specified empirical model, a result that reinforces the perception that the region faces significant obstacles trying to penetrate large and complex markets where competition is stronger. Looking at manufactures, the region under exports is almost every market except for some Latin American countries. Flows within Latin America follow a heterogeneous pattern across countries and goods, and integration with the two largest markets, Brazil and Mexico, remains limited. Trade flows within the Southern Cone are, in general, above the expected norm, but there is still potential for improvement, particularly from deeper integration between Chile and MERCOSUR.

Our focus here has been on evaluating export flows with respect to an empirical norm based on trade fundamentals well-acknowledged both in the theoretical and empirical literature. Fully understanding the international trade pattern of the Southern Cone, however, requires deeper analysis of a wide range of issues. First, it is key to explore the role of competitiveness and productivity as trade drivers. Second, SC intra-regional trade has not seemed to have developed in a way capable of leveraging internal comparative advantages to penetrate external markets.

Thinking about international trade as a driver of long-run growth in SC countries, distortions in the policy environment, both at the country and regional level, combined with deficiencies in the quality of physical and human capital may have prompted a model of integration with limited ability to promote growth.[9] These shortcomings may have been masked during the most recent commodity price boom but are now showing up more clearly.

Further research is also needed on effective ways on how to take advantage of the region's productive complementarities and on the determinants of within-SC and within-Latin America knowledge and technology spill-overs. This may shed light on the reasons behind the underperformance in trade of intermediate goods between Southern Cone countries and the rest of Latin America documented in the previous section.

Research on these issues should provide policy makers with inputs for an enhanced regional integration strategy, complemented by measures that alleviate country-specific microeconomic distortions and productivity shortcomings, putting Southern Cone countries in a better position to increase competitiveness and expand trade.

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[9] The channels through which trade affects growth are well known in the literature. On the one hand, there are static or short-run effects from the reallocation of resources towards more productive sectors which allow countries to achieve higher levels of output after opening their economies. On the other hand, there are dynamic or long-run effects related to the accumulation of factors, economies of scale, knowledge dissemination and innovation which enhance productivity and boost growth.

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