EXPORT OPPORTUNITIES FOR ARGENTINA: EVIDENCE FROM A GRAVITY MODEL

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Executive summary

The purpose of this study is to make a diagnosis of Argentina's trade position in relation to several countries in the world through a quantitative analysis of bilateral exports, given the importance for our trade policy of finding new destinations for our exports.

With this aim, the Centre for International Economy (CEI) has developed a first version of a gravity model to understand what determines the behaviour of our exports towards a group of 50 countries (accounting for 83% of the foreign sales in 2016) during the 2000-2016 period. In addition, the results obtained helped detect those markets where it would be conductive to boost trade relations.

Firstly, all goods traded internationally by Argentina were considered; then, a set of commodities that account for a large share of the country's total exports and in which Argentina has comparative advantages were omitted from the analysis, with the purpose of observing the behaviour of the remaining products.

From the estimates made on the total of Argentine exports, it is concluded that, on average, when Argentina increases its supply of goods by 1%, its exports rise by 0.68%. Likewise, when the importing country increases its income by 1%, our sales grow 0.37% and if the Real Exchange Rate depreciates 1%, exports rise 0.51% (Table 1).

Table 1. Effects of explanatory variables on exports

Explanatory variables	Sample 1 – Dependent variable: total exports	Sample 2 – Dependent variable: exports without commodities
Argentine GDP[1]	0,68%	0,77%
Importing country GDP[1]	0,37%	0,17%
Distance[1]	-0,61%	-0,95%
BRER[1]	0,51%	0,37%
Neighbouring countries[2]	326%	203%
Common language[2]	88%	164%
Brazil[2]	114%	186%
CHMT[2.3]	348%	228%
Eurozone[2]	305%	294%

Note: (1) The estimated coefficients correspond to percentage changes in the dependent variable due to increases in the explanatory variable (elasticities).
(2) The values presented in the table correspond to the percentage change in the dependent variable due to the presence of the feature represented by the binary variable.
(3) CHMT: China; Hong Kong, SAR of China; Malaysia and Thailand

Source: CEI

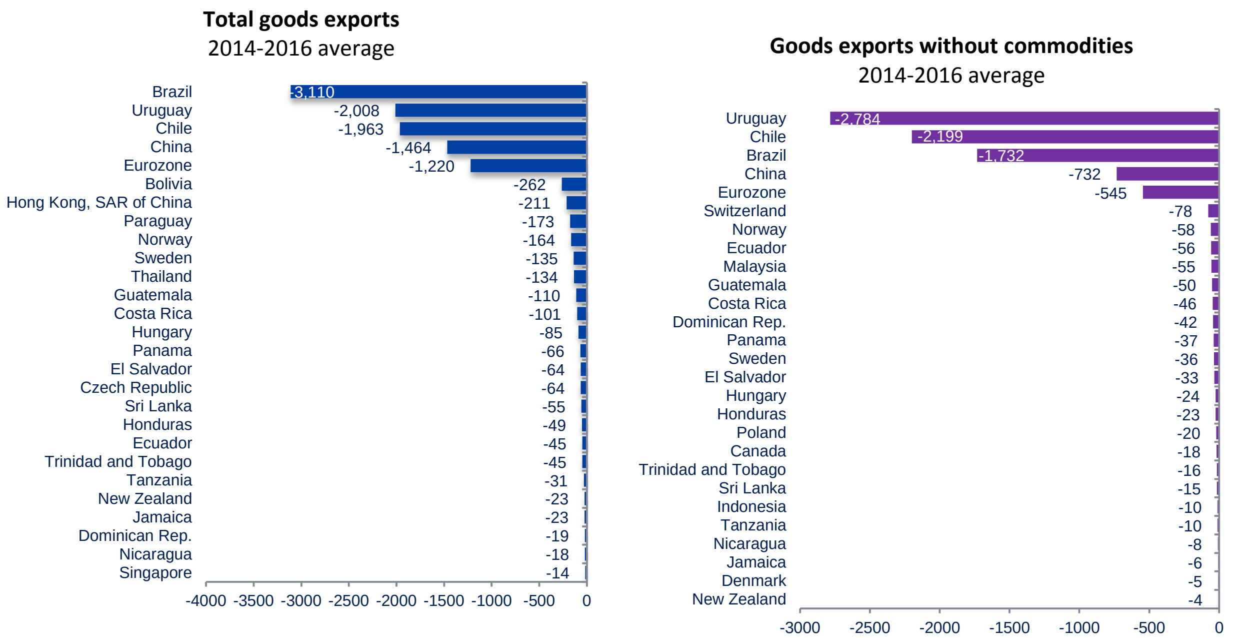
Likewise, the model shows that Argentine exports are higher when it trades with relevant partners – such as Brazil, a group of Asian countries (China; Hong Kong, SAR of China; Malaysia and Thailand) and the countries of the Eurozone–, compared to trade with other countries.

In addition, Argentina exports more to neighbouring countries and to those countries with which it shares the same language. On the other hand, it can be said the father the country Argentina trades with is, the lower the exports are.

When estimating on exports without commodities, the results of all the coefficients were different, as expected when taking into account the particularities of commodities' trade and their importance for our country's foreign sales.

Based on these elements, the destinations where the exports observed were lower than those estimated by the model and where opportunities for greater access could arise were defined as markets with an export gap.

Graph 1 . Ranking of markets with export gap according to deviations observed
Amounts of the export gap
Differences by magnitude (in millions of US$)



Source: CEI

The results indicate that for Argentina, there are 27 markets with an export gap with respect to its total exports (Graph 1). The model shows that additional exports amounting to 23% of the total average exports recorded in the 2014-2016 period could have been made.

Regarding exports without considering commodities, the results indicate that there are also 27 markets with possibilities for Argentina to increase its sales, although some differences are observed with respect to the previous group (Graph 1). In this case, the export gap estimated by the model reaches 29% of the total average exports without commodities recorded between 2014 and 2016.

In summary, 34 destinations were found where there would be room to increase exports, with or without commodities (Table 2).

Table 2. Ranking of markets by export gap

	Total exports	Exports without commodities
Brazil	1st	3rd
Uruguay	2nd	1st
Chile	3rd	2nd
China	4th	4th
Eurozone	5th	5th
Bolivia	6th	-
Hong Kong, SAR of China	7th	-
Paraguay	8th	-
Norway	9th	-
Sweden	10th	14th
Thailand	11th	-
Guatemala	12th	10th
Costa Rica	13th	11th
Hungary	14th	16th
Panama	15th	13th
El Salvador	16th	15th
Czech Republic	17th	-
Sri Lanka	18th	21st
Honduras	19th	17th
Ecuador	20th	8th
Trinidad and Tobago	21st	20th
Tanzania	22nd	23rd
New Zealand	23rd	27th
Jamaica	24th	25th
Dominican Republic	25th	12th
Nicaragua	26th	24th
Singapore	27th	-
Switzerland	-	6th
Norway	-	7th
Malaysia	-	9th
Sweden	-	14th
Poland	-	18th
Canada	-	19th
Indonesia	-	22nd
Denmark	-	26th

Source: CEI