



Revista de la Facultad de Ciencias
Agrarias

ISSN: 0370-4661

ccea@fca.uncu.edu.ar

Universidad Nacional de Cuyo
Argentina

Enciso Cano, Víctor; Castillo Quero, Manuela; De Haro Giménez, Tomás
EU-MERCOSUR trade agreement: finding winners products for Paraguay
Revista de la Facultad de Ciencias Agrarias, vol. 49, núm. 2, 2017, pp. 289-302
Universidad Nacional de Cuyo
Mendoza, Argentina

Available in: <http://www.redalyc.org/articulo.oa?id=382853527020>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

EU-MERCOSUR trade agreement: finding winners products for Paraguay

Acuerdo comercial EU-MERCOSUR: identificando los productos ganadores del Paraguay

Víctor Enciso Cano ¹, Manuela Castillo Quero ², Tomás De Haro Giménez ²

Originales: *Recepción: 07/09/2016 - Aceptación: 12/12/2016*

ABSTRACT

The European Union (EU) and the Southern Common Market (MERCOSUR) have been negotiating a Regional Association Agreement (RAA) since the mid-nineties. This paper aims to identify products at the level of sub-headings of the Harmonized System which would benefit from the signing of the agreement. The methodology used trade indicators combined with trade statistics from 2010 to 2012. A total of 61 subheadings were identified with potential to increase its exports to the EU with the agreement. At first glance they reproduced the traditional pattern of exports from the MERCOSUR countries, a high concentration in agrifood products due to high exported value of one product. When this product was not considered an important number of manufactures were identified as having potential to increase their exports to the EU. This finding showed a potential to decrease the dependence on primary or raw material exports. The paper focused on tariffs; therefore further research on non-tariff measures for market access is a must.

Keywords

EU • MERCOSUR • Paraguay • trade indicators • agrifood

1 Facultad de Ciencias Agrarias. Universidad Nacional de Asunción. Ruta Mcal. Estigarribia Km 10,5. San Lorenzo-Paraguay. venciso@agr.una.py

2 Universidad de Córdoba-Departamento: Economía, Sociología y Política Agrarias. Campus universitario de Rabanales, Edificio Gregor Mendel, 3º Planta, 140014 Córdoba.

RESUMEN

La Unión Europea (UE) y el Mercado Común del Sur (MERCOSUR) se hallan negociando la firma de un Acuerdo de Asociación Regional (AAR) desde mediados de los noventa. Esta investigación buscó identificar productos a nivel de sub-partidas del Sistema Armonizado que serían beneficiados con la firma del acuerdo. Se utilizaron indicadores de comercio exterior y de barreras comerciales, combinados con estadísticas de comercio del período 2010-2012. Se identificaron 61 sub-partidas con potencial para incrementar sus exportaciones a EU con la firma del AAR. A pesar de que los productos reprodujeron el tradicional patrón de las exportaciones de los países del MERCOSUR, alta concentración en productos agroalimentarios debido a un producto con elevado valor de exportación que sesgaba los resultados. Cuando se ignoró este producto un importante número de manufacturas fue identificado, lo que muestra la existencia de potencial para disminuir la dependencia en la exportación de productos primarios o materias primas. El trabajo utilizó aranceles, por lo cual se precisa más investigación pero focalizando en requisitos no arancelarios para acceso al mercado.

Palabras clave

Unión Europea • MERCOSUR • Paraguay • indicadores de comercio exterior • agroalimentos

INTRODUCTION

The European Union (EU) and the South Common Market (MERCOSUR) have been negotiating a Regional Association Agreement (RAA) since mid-nineties. In September of 2004, following the exchange of market access proposals, the negotiation was suspended. Years later, in 2010, negotiations were restarted. So far an agreement has not been achieved. Recently, in 2016 new market access proposals were exchanged.

The aim of this paper is to identify products at a 6 digit level (sub-headings) of the Harmonized System currently being exported by Paraguay that would benefit by the implementation of the agreement. Following this background there are sections on commercial integration, impact evaluation methods, and a brief summary of the very few impact studies of the agreement that include results

for Paraguay. Then methodology, main findings and discussion follow, to end with conclusions and some suggestion for further studies.

Economic integration

The economic analysis on impacts of commercial agreements started with the theory of custom unions, the seminal work of (21). Up to then the analysis was done using the same methodology applied to support free trade, being Ricardo's comparative advantages and factor endowment of Heckscher-Ohlin, the most common. Viner identified two effects of economic integration on the production and the commercial flows, one positive called trade creation and a negative one known as trade diversion. They are classified as static or short runs effects. Trade creation refers to a situation

in which two countries begin to trade with each other due to the elimination or reduction of border restrictions. The new situation with reduced prices stimulates consumption of goods and therefore increases production in the more efficient country. Trade creation encourages the proper allocation of economic resources, boosts general welfare by means of specialization and enhances trade between the partners. Trade diversion occurs when one country within a custom union begins to import a good from the new partner, when previously it used to import the same good from a third country. This country is not included in the union, therefore its product faces border restriction and hence is more expensive relative to the new partner in the custom union. Once the custom union is implemented trade diversifies from the former source outside the union to a new source within the union. Later, Meade and Lipsey (13, 16) substituted the Viner's assumption that goods were consumed in fixed proportions by relative prices. They stated that relative prices changed due to the increase in imports and consumption, and price reduction following integration favored consumption. This was called trade expansion. It was a third effect of commercial agreement.

The final effect of the integration could be positive or negative depending on the magnitude of the positive effects, creation and expansion of trade, and of the negative effects, trade diversion (17, 18).

Methodologies for assessing trade agreements

There are many ways to classify methodologies used to evaluate the impact of free trade agreements. CEI (2003a) groups them in three stages based on the aggregation levels of products. First

level, the most aggregated of all, includes quantitative models such as computable general equilibrium models (CGE).

The second level includes the use of trade and commercial barriers indicators. Sectorial studies are considered the most disaggregated level (20). Piermartini, R. (2005), classifies the methodology by means of two criteria.

The first takes into account the time of the evaluation and can be ex-ante or ex-post. Ex-ante simulates the change in trade policy and its future impacts on a set of economic variables. It answers a "what if" type of question. An ex-post evaluation, on the other hand, is applied after the commercial agreement implementation. Therefore uses historical data. Most econometric models are of this type.

The second criterion considers whether the approach would be sectorial or would cover the entire economy.

The former uses partial equilibrium analysis and the latter general equilibrium analysis. UNCTAD (2012) proposes the following classification: i) Descriptive statistics and trade and commercial barriers indicators; (ii) simulation models including partial and general equilibrium; and (iii) econometrics models such as gravitational models.

Impact assessments of trade agreements are commonly conducted using computable general equilibrium (CGE). General equilibrium models consider the interrelationships between the various sectors that make up the economy. They are most appropriate to analyze the effects of trade liberalization since they assume that markets are not isolated but interconnected (15, 18). Their results are estimates of aggregate effects, which can provide an overall idea of the effect of integration. A description of the major studies of the effects of an FTA between the EU and

MERCOSUR can be found in Boyer (2010) and Burrell (2011). Modeling studies using partial equilibrium are scarce. This may be because they focus on a specific product or sector ignoring the interaction with other markets that are assumed constant (*ceteris paribus*). Not considering interconnection between markets ignores the fact that increase in production in one sector means that resources must be removed or transferred from other sectors. Partial equilibrium models are more suitable for analysis of sectorial policies or sectors that are a small fraction of total economy (18).

Two are the most representative studies with these models related to EU-MERCOSUR agreement. Weissleder *et al.* (2008) evaluated the agreement, using the CAPRI model.

The other belongs to Burrell (2011), who also used CAPRI to simulate the impacts of changes in trade policy, specifically in the agricultural sector. Overall, both of them agree that EU imports from MERCOSUR would increase once the agreement is implemented.

There are also studies using gravity models. For example Castillo (2001) estimated the sensitivity of a group of products imported by the EU from MERCOSUR assuming reduction in border protection by the former. Thus the authors identified products that would get greater benefit from trade liberalization. Balaguer (2000) identified the factors that most influenced bilateral trade. Bittecourt *et al.* (2006), focused on factors attracting foreign direct investment while researched on the determinants of manufactures commercial flows between the MERCOSUR and the EU (11).

Studies of the EU-MERCOSUR agreement by means of trade indicators are not a common feature in the literature. Their mathematical simplicity could

be one of the reasons. However, they are quite useful in the identification of products at a high level of disaggregation. Trade indicators (specialization, complementarity, revealed advantages, etc.) are very useful descriptive tools for analysis of trade agreement impacts at the level of individual products (1, 9). When general equilibrium models as well as trade indicators use data of similar period, the results are comparable but at a different disaggregation levels (9) found that impact results on Argentina's exports running a CGE model were very similar to ones obtained with trade indicators, but with a different disaggregation. Trade indicators identified products at 6-digit levels, while CGE did so in large sectors.

The conclusion stated that "in almost all sectors where the CGE model showed a notable change in the sales, indicators and commercial barriers identified subheadings with opportunities in the EU or threatened of displacement from the Brazilian market by EU's exports". Knowing the consequences of the agreement at product level (6 digits) is as important as to know its impact on the global economy. Furthermore, information at those two levels is complementary.

Trade negotiations are basically a process of tariff concessions exchange. Market access proposals are made at the highest level of disaggregation using the Harmonized Commodity Description and Coding System, also known as the Harmonized System (HS). Therefore the trade information provided by the CGE models needs to be complemented with more detailed data, such as products at a 6-digit level (10). For example, Kirkpatrick (2008), using a model of CGE identified that in a free trade situation between the EU and MERCOSUR, the sector with the greatest growth in exports would be

"processed food". This is an aggregated level formed by processed beef, vegetal oils and fats, dairy products, processed rice, sugar, beverage and tobacco. Only beef and vegetal oils and fats include some 100 sub-headings. This aggregate characteristic of the CGE data limits the identification of sensitive and especial products among the exporting goods. Trade negotiators, as well as policy makers, require information at the most disaggregated level, which cannot be provided by the CGE models for their data base are of aggregated products (14).

The required level of details can be achieved using trade indicators. Trade indicators provide results for products as they are currently traded discover their tariff structure and identify special concessions offered to the counterpart in the negotiation.

Assessments of EU-MERCOSUR Agreement and Paraguay

The impacts of the RAA have been extensively studied with emphasis on the aggregate impacts for the larger economies of the MERCOSUR, Argentina and Brazil. To date and according to the information gathered by the authors, the main impact studies with results on Paraguay are (1, 6, 7, 12). ALADI (2002), combined two indicators of trade (intensity and trade complementarity) and two classification systems, the Harmonized System and the Standard International Trade Classification.

The paper aimed at the identification of Latin American exports that could be displaced by European exports, and of Latin American exports with trade expansion opportunities in the EU. A total of 57 products at 6 digit level were identified with opportunities in the EU market, the most important being wheat, bovine meat, woods, tobacco, peanuts, and soybean meal, sunflower and soybean

oil, and tanned/crust hides and skins of bovine. Paraguay had its advantages concentrated in primary agriculture products rather than manufactures.

Kirpatrick (2012) conducted a study of the economic, social and environmental impact that could result from the implementation of the agreement both in the European Union and MERCOSUR's countries. The study concluded that Paraguay would have the greatest GDP growth (2.5%) among the fourth countries in the MERCOSUR.

According to the authors, the food sector would experience the largest development, (73%), followed by animal products (36%) and grains (13%). Manufactures would reduce their growth the most, but since their weight in the total output was quite small, the negative impact was marginal. Paraguayan exports would have the greatest increase (42%), because a large percentage of its exports faced high tariffs (92% on average) when entering the EU market. Therefore tariff reduction would lead to an important increase of Paraguay's exports to the EU, as well as the output of the connected sectors.

The greatest rise would be in processed food. At the same time there would be an important reduction in the export of raw agricultural products as they become intermediate inputs for the processed goods.

Boyer (2010) modeled the impact of the Agreement on a full liberalization scenario and, another where sensitive products were excluded. MERCOSUR's sensitive products were minerals, textiles, leather products, machinery and electronic equipment, and for the EU rice, meat and meat products, dairy products, beverages and tobacco.

The results showed that Paraguay had the highest percentage growth of production in both scenarios. Lightweight manufactures (meat, vegetable oil, milk,

sugar, beverages and tobacco, textiles and clothing, leather, wood and paper) were the fastest growing sector, more specifically meat and sugar. Although Paraguay's exports to MERCOSUR would drop by 11%, they would increase by more than 100% to the EU, mainly due to meat and sugar growth. Burrell (2011) simulated the impact of the agreement on EU imports from MERCOSUR in five scenarios. They used a general equilibrium model (GLOBE)¹ to estimate the effects on the whole economy, and partial equilibrium model (CAPRI)² to estimate the effects on the agricultural sector.

The CGE model showed increases in EU's imports from MERCOSUR although in different magnitudes.

The partial equilibrium model showed that European imports would increase in all categories except oilseeds. The study identified beef as the main imported product by the EU from Paraguay.

METHODOLOGY

This research was based on methodologies used (1, 9). The former used trade indicators to identify within the EU-MERCOSUR trade agreement products exported by Argentina with opportunities as well as the threatened ones. The latter was already described.

The methodology applied in this research used indicators such as Anderson and Norheim's (2) trade complementarity index (TCI) combined with trade statistics, namely total exports and total imports values. Trade, tariff and other data were from 2010 to 2010 period. Trade data

were from World Bank's WITs (World Integrated Trade Solutions), while data on tariffs and other trade barriers were from the World Trade Organization Data Base.

The Harmonized Commodity Description and Coding System generally referred to as "Harmonized System" or just "HS" was used.

The methodology had three stages. The first one was called filtering. It deleted out of the exported list those products with an average export value equal or below of 1,000 USD, as well as those not subject to any border restriction such as ad valorem tariff or some kind of specific tariff, quota, or combination.

The reasoning behind was that if the product had been exported to the EU despite facing trade barriers, the probability to increase its exports was greater with the advantages of the agreement. If the product had not been exported to the EU, reducing border barriers could boost exports to that market. In addition, if the products had already entered the EU free of tariff, there were few concessions to negotiate.

In the second step, named selection, filtered data was divided in two groups upon each product TCI value.

The TCI, based on the "revealed comparative advantage" index of trade specialization proposed by Balassa (1965), measures the level of complementarity between the export (supply) and the import (demand) of two countries or regions.

The greater the similarity, higher is the probabilities of trade between them.

1 <http://www.cgemod.org.uk/index.html>

2 <http://www.capri-model.org/dokuwiki/doku.php?id=capri:concept>

TCI values greater (less) than 1 imply a strong (weak) complementarity between the export specialization of a country and the import specialization of its partner (2, 9).

The TCI can be decomposed as the product of the Revealed Comparative Advantage Index (RCA) showing export specialization of the exporting country and the Revealed Comparative Disadvantage Index (RCD), showing import specialization of the importing country. As Vaillant (2003) explain "For each product industry (or sub-heading in this paper), the trade complementarity index of the exports of A (B) in the market of B (A) equals the product of the export specialization index of A (B) (comparative advantage index) and the import specialization index of B (A) (comparative disadvantage index).

The export (import) specialization index equals the ratio between the share of the industry, (or sub-heading in this paper), in a country's total exports (imports) and the share of the industry in world trade.

When the export (import) specialization index is greater than one, we say that the country is more export (import) oriented in that particular industry than the world average, and therefore we conclude that the country has a comparative advantage (disadvantage) in that industry".

When the index is close to one, the country has a specialization for that product similar to the world average (2).

In this paper for a product to be part of the selected data it needed to have and TCI greater than one, but with both RCA and RCD also greater than one. Those products

with TCI equal or below one were not considered in the study.

The selection procedure continued with the computing of two indicators. "Indicator 1", measured of the EU market share on Paraguay's export, see (a). Goods with exported value above the average had higher probability to increase their exports to the EU (table 1, page 296). "Indicator 2" measured the capacity of Paraguay's export to respond to a EU's demand for a specific product, see (b). Values below the average were an indication that the product had a high probability of rapidly increase its sales to the EU market.

$$Indicator\ 1 = \frac{TEV_{Py}^{EU}}{TEV_{Py}} \quad (a)$$

where:

TEV_{Py}^{EU} = Total export value from Paraguay to the EU

EU = European Union

Py = Paraguay

TEV_{Py} = Total export value from Paraguay

$$Indicator\ 2 = \frac{TEV_{Py}^{EU}}{TIV_{Py}} \quad (b)$$

where:

TEV_{Py} = Total export value of Paraguay

TIV_{EU} = Total imported value by the European Union

The selection ended with the classification the selected products into eight categories. It was done by a process of "if... then" using TCI, indicator 1 and indicator 2 average values as showed in table 1 (page 296).

Category I grouped products most likely to increase their exports to the EU according to the methodology.

Table 1. Categorization matrix.**Tabla 1.** Matriz de caracterización.

TCI*	Indicator 1	Indicator 2	Categoría
>1	> average	<= average	I*
>1	> average	> average	II
>1	<= average	<= average	III
>1	<= average	> average	IV
<=1	> average	<= average	V
<=1	> average	> average	VI
<=1	<= average	<= average	VII
<=1	<= average	> average	VIII**

Source: Adapted from CEI (2003).

Fuente: Adaptado de CEI (2003).

They met the following conditions: TCI greater than one, EU's market share of EU on the product above average, and Paraguay weight in EU's imports below the average. Categories I to IV included goods with TCI greater than one, meaning that Paraguay's exports for those products matched EU's demand. The following step was performed only for these products.

Finally each product within categories one to four was assigned to one of two possible groups. This process was named prioritization.

The goods already exported, at least once during the study period, to the EU market were called high priority products. It was assumed that they would more likely increase their sales to the EU due to their "export experience".

The rest of the goods were classified as "normal priority".

RESULTS Y DISCUSSION

During the period of study, Paraguay exported in average 1,762 products per year at a 6-digit level for a total of 7,180 million USD. Out of these, 511 items valued 1,255 million were exported to the EU. Although in general the EU was a

small market for Paraguay's exports, in some products it accounted for more than 90% of the total exported value (TEV). Paraguay's exports were concentrated in a few items, basically primarily agriculture products or their first manufactures. In the period of study, four chapters, accounted for 78% of TEV, and within each of them few products added up for a large portion of the exported value. These chapters and their weight in the TEV were as follows: chapter 27-mineral fuels, mineral oils (mostly electric power) represented 30%, chapter 12-oil seed and oleaginous fruits (mostly soybean) 27%, chapter 2-meat and edible meat offal 11% (mostly beef) and chapter 10-cereals (mostly wheat and corn) weighted 10%. Adding electric power among the exports products somehow caused a distortion in the traditional export structure of Paraguay. When it was not considered as an export product, the structure was more in line with the traditional profile. Then, the main chapters and their weights were 38% for oil seed and oleaginous fruits, 16% for meat and edible meat offal and 14% for cereals.

A total of 818 out of 1,762 exported products met the two filtering requirements. These filtered products totalized 30% of the TEV during the study period.

The reduction in the number of products and their value led to some changes. First the market share of the EU in Paraguayan exports was further reduced to 5.8% of the TEV, although the number of sub-headings increased slightly reaching 33%. A second result of the filtering was a change in the export structure with the increase of manufactures' share. Several products included in the main chapters cited above were not subject of any border restrictions.

Table 2. Filtered sub-headings by categories.**Tabla 2.** Sub-partidas filtradas por categorías.

Categories	Number of sub-headings		Total exported value by Paraguay*	Total exported value by Paraguay to EU*	Total imported value by EU*
	Exported by Paraguay	Exported by Paraguay to EU			
Category I	9	9	13,691	7,157	3,898,572
Category II	4	4	73,048	38,607	2,271,525
Category III	39	11	105,671	1,281	60,299,404
Category IV	9	5	437,308	16,831	13,354,153
Category V	97	97	22,035	7,469	270,697,155
Category VI	1	1	68,643	16,831	2,246,975
Category VII	643	138	158,829	1,885	1,330,981,717
Category VIII	16	6	1,244,666	35,621	18,218,590
Total	818	271	2,123,891	125,682	1,701,968,092

Source: Prepared by the authors with data from WITS (World Integrated Trade Solution). / * Thousands of dollars.

Fuente: Elaborado por el autor con datos de WITS. / * Miles de dólares.

As a result, they were excluded from the study, resulting in a significant reduction in the weight of those chapters in the TEV.

Specifically, chapter 27 was totally excluded from the list of products. Most goods in chapters 12 and 10 were not included either. As a result their relative weights decreased drastically.

The main chapters and their weights in the list of filtered products were chapter 2 (44 %), chapter 39 (10 %) (plastics and articles thereof), chapter 41 (9%) (raw hides and skins (other than fur skins) and leather) and chapter 62 (4%) (articles of apparel and clothing accessories not knitted or crocheted).

Despite the indicated changes, high concentration of exports in a small number of products continued. Previously, four chapters accounted for 78% of TEV; following filtering the main four chapters added up to 67% of the TEV.

Even though it represented an eleven percentage point reduction it could still be considered high. Another important change was the level of value added in the most important chapters.

They moved from primary agriculture product to manufactures, namely chapters 39, 41 as mentioned above plus chapter 62 (articles of apparel and clothing accessories not knitted or crocheted). An exception was chapter 2, which added 11 percentage points to its export share.

Out of the 818 products, 106 had a TCI greater than one.

However, only 61 of them met the condition of having both the revealed comparative advantage and the revealed comparative disadvantage above one.

They were named selected products and were distributed in the first four categories. They accounted for 30% of the export value of the filtered products, and 51% of export value to the EU.

The remaining 45 sub-headings were distributed in categories V to VIII. Their complementarity with European demand was less than one. Therefore, they were not taking into further consideration.

The exact location of each one of the products within the categories was subject to the values of the other two indicators.

During the period of study Paraguay exported to the EU 511 (out of the 1,762) product at 6 digit level, representing 29% of the total sub-heading exported to the world.

The UE average market share on Paraguay's export showed by indicator 1 was 17%, being the second market behind the MERCOSUR.

The regional market participated with 44% of TEV. A total of 261 products had an indicator above the average, amounted to just over half of the exported value to the EU.

Paraguay's export to the EU was concentrated on a small number of products.

The first ten goods amounted 95% of the exported value. All of them were primary agriculture products mainly soybean and its manufactures, as well as bovine meat and its manufactures.

Between 2010 and 2012, the EU imported 5.050 products for a value of 5.666.000 millions of dollars.

Paraguay had a 0.0012 share on that amount, for 1,762 products. A total of 182 products exported by Paraguay were above the average representing 97% of Paraguay's exported value to the EU.

In other words, a very small amount of Paraguay export value was below the average, though it represented 75% of the number of products.

Combining the TCI, indicator 1 and indicator 2 allowed the 818 filtered to be assigned to one of the eight possible categories using the categorization matrix.

The following analysis focused on the 61 selected products, At first glance their structure showed the high importance of agrifood products (Chapters 1 to 24 of the Harmonized System) in the export of Paraguay.

Although only 20% (11 products) were classified as agrifoods, they had a quote of 58% in the export value.

The high participation of beef, 51% of the TEV of the 61 products, was the main reason behind. When beef was excluded from the list, on the one hand agrifoods reduced their relative importance significantly, to 16%, and on the other hand, industrial manufactures boosted their participation and became the group with the largest export share.

The main manufactures were chapter 39 with 20%, chapter 41 with 20%, and textiles and textile articles (chapters 50 to 63) with 18%.

A more detailed look to the first four categories showed the following:

(i) In category I, the main products were non-coniferous plywood, saddlery & harness for any animal, frozen orange juice and sugar cane molasses. They accounted for 87 % of category exported value (CEV).

Agrifoods had one third of that value. All products had been exported to the EU at least once during the period of the study, and their weight on the category exported value was 52%.

(ii) In category II, four products tanned/crust hides and skins of bovine, tobacco, not stemmed/stripped, grape-fruit juice and silk yarn made the category. Hide and skins accounted for 84% of the category exported value, while agrifoods as an aggregated for a 14%.

As in category one, all products had already been exported to the EU at least once and weighted 53% in the CEV.

(iii) Category III had the largest number of sub-heading among the first four categories.

The most important goods, always considering export value, were textiles, with 30% of CEV, plastics with 16%, magnetic media for data storage with 11%, and copper wires with 10%.

The agrifoods had a low share relative to the previous categories, with a 6% of CEV. Just over 1% of the CEV was exported to the EU.

(iv) Category IV had the greatest export value in the first four categories. Besides, it was the only category in which the agrifoods has a significant weight, as they reached 79% of the CEV. Beef exported value accounted for 73% of the CEV and for half of the exported value when the four categories were put together.

Other important products were carboys, bottles, flasks and similar (10%), husked (brown) rice (4%), uppers and parts of footwear thereof, other than stiffeners (4%) and other articles of wadding of man-made fibers (3%).

Prioritization of products

A total of 29 sub-headings out of the 61 selected ones had been exported to the EU at least once between 2010 and 2012.

The 29 goods, called high priority products, had a total exported value of 540.2 million USD or 86% of the four categories exported value put together. High concentration of exports in a few products deepened. Six products accounted for 88% of the 29 products total exported value.

In other words, the already low EU's market share not only continued, but it was reduced to just 12% (63.9 million USD) from the 17% prior to the application of the methodology.

Two products reached 77% of exports value to the EU, tanned or crust hides and skins of bovine (51%) and boneless meat of bovine animals, fresh or chilled (26%). Agrifoods accounted for 39% of the exported value. However, when beef was not considered agrifoods participations were reduced to only 14%.

The potential of the EU market for

Paraguay's export is shown by the fact that if the total exported value of the 29 products were re-directed to the EU, the European market share would increase to 86% of selected products exported value (the 61 ones products). Table 3 (page 300), shows the 29 products with their code number exported values.

CONCLUSIONS AND RECOMMENDATIONS

The research showed that in the study period, 2010-2012, the EU, in general, was not a major market for Paraguay's export. The low market share of the EU on Paraguay's exports meant a large scope for export increase once the Regional Association Agreement (RAA) between the EU and MERCOSUR is in operation. A second finding showed that for some products the EU was not just an important market, but in many cases the only one.

Despite this fact, EU's low participation remained in general. This research applied a methodology that identified 61 products exported by Paraguay during 2010-2012, with the potential to increase or start exports to the European Union once the RAA is signed. At first glance the products reproduced the traditional pattern of exports from MERCOSUR countries in general and those of Paraguay in particular, that is, high concentration in agrifood products. However, this importance was due to the high value of a specific product. This was beef or bovine meat.

Once bovine meat was taken out from the list a different export structure came up, a hidden structure.

Most of the products of this hidden structure were non agriculture manufactures gathered under plastics and articles thereof, raw hides and skins, textiles and textile articles and glass and glassware.

Table 3. High priority products.
Tabla 3. Productos de prioridad superior.

Categories/ code	Product description	Total exported value by Paraguay*	Total exported value by Paraguay to EU*	Total imported value by EU*
Category I		13,691	7,157	3,898,572
420600	Articles of gut (other than silk-worm gut), of goldbeater's skin, of bladders or of tendons.	33	33	38,282
410692	Tanned or crust hides and skins, not elsewhere specified.	33	33	21,064
460219	Basketwork, wickerwork and other articles.	797	791	368,333
540412	Synthetic monofilament, of polypropylene.	128	126	31,295
200911	Orange juice, frozen, unfermented.	2,224	2,113	753,935
420100	Saddlery and harness for any animal of any material.	2,388	1,910	539,559
170310	Cane molasses.	1,148	734	273,886
121299	Stevia rebaudiana ("Ka'a He'e").	795	294	226,107
441232	Plywood, veneered panels and similar laminated wood with at least one outer ply of non-coniferous wood	6,143	1,123	1,646,110
Category II		73,048	38,607	2,271,525
200929	Grapefruit juice (excl. of 2009.21).	2,596	2,411	120,151
500400	Silk yarn (other than yarn spun from silk waste) not put up for retail sale.	1,119	927	144,236
410411	Tanned or crust hides and skins of bovine.	61,432	32,560	1,158,198
240110	Tobacco, not stemmed or stripped.	7,901	2,708	848,940
Category III		53,393	1,281	26,162,973
210120	Extracts, essences and concentrates, of tea or maté, and preparations with a basis of these extracts.	2,174	131	312,136
390760	Poly(ethylene terephthalate).	9,982	723	4,096,101
392350	Stoppers, lids, caps and other closures.	5,747	1	3,334,883
420211	Trunks, suit-cases, vanity-cases, with outer surface of leather, of composition leather.	899	1	362,719
420239	Other articles of a kind normally carried in the pocket or in the handbag.	125	0	108,291
420500	Other articles of leather or of composition leather.	3,854	348	809,853
440729	Other wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, > 6 mm.	3,512	74	540,565
620322	Men's or boys' ensembles (excluded knitted).	73	1	64,132
620342	Trousers, bib and brace overalls, breeches and shorts of cotton.	17,139	0	11,325,921
630221	Bed linen, table linen, toilet linen and kitchen linen of cotton.	3,472	2	1,364,007
701090	Other carboys, bottles, flasks, jars, pots.	6,416	0	3,844,365
Category IV		400,060	16,831	10,862,013
20130	Meat of bovine animals, fresh or chilled.	318,034	16,376	5,885,105
100620	Husked (brown) rice.	19,580	448	820,528
560122	Wadding; other articles of wadding of man-made fibres.	13,853	6	340,570
392330	Carboys, bottles, flasks and similar articles.	45,820	2	3,559,166
690410	Ceramic building bricks.	2,773	0	256,644
Total		540,191	63,875	43,195,083

Source: Prepared by the authors with data from WITS (World Integrated Trade Solution). / * Thousands of dollars.

Fuente: Elaborado por el autor con datos de WITS. / * Miles de dólares.

This finding deserves further study, or to be more precise the study of non-traditional exports.

The research also identified 29 products out of the 61 that were already exported to the EU between 2010 and 2012. They had a similar structure and dependence on few products as in the selected list of products.

The hidden importance of manufactures kept among the 29 goods. This is an indication that the country has the potential to lessen its dependence on the exports of primary goods or raw material. However further studies are needed, taking into account that the findings of this paper were based only on tariff measures.

Finally, the presence of complementarity between Paraguay and the EU is an encouraging sign for the economy of the former, but it does not imply that trade will developed or increase between the parts. Collecting the benefits or transforming the identified opportunities into real actions

will be hampered by two factors. One it is the landlocked status of Paraguay that raises considerably transportation cost. Secondly, Paraguay is the country with the lowest level of economic development relative to the rest of the MERCOSUR. The combination of both situations will delay the capacity of Paraguay to take any or at least a great deal of the advantages that will come up with the agreement. Therefore, Paraguay must negotiate with their partners from the MERCOSUR and the EU to obtain a Special and Differential Treatment status, as provided in The Uruguay Round agreements.

This treatment should give to Paraguay greater facilities for market access to the EU in relations to the other MERCOSUR countries. There are precedents for such preferential treatment for Paraguay as in MERCOSUR-Egypt, and MERCOSUR-India commercial agreements.

REFERENCES

1. ALADI. 2002. Probable impacto que tendrían los acuerdos con la Unión Europea en el comercio intrarregional y en el comercio de los países miembros con los países de Europa. ALADI. Asociación Latinoamericana de Integración. ALADI/Secretaría General/Estudio 149. Consultado el 30-agosto-2002.
2. Anderson, K.; Norheim, H. 1993. From imperial to regional trade preferences: its effect on Europe's intra and extra-regional trade. *Weltwirtschaftliches Archiv* 129 (1). Available in <http://www.springerlink.com/content/y11n8078l02h4354/about/> Consultado el 9-Setiembre-2015.
3. Balaguer, J.; Martínez-Zarzoso, I. 2000. Análisis de los flujos comerciales Unión Europea-MERCOSUR. *Revista Boletín Económico de ICE*. N° 788, Noviembre 2000. Madrid, 119-132.
4. Balassa, B. 1965. Trade liberalization and revealed comparative advantages. *Manchester School of Economics and Social Studies*. 33(2): 99-123.
5. Bittencourt, G.; Domingo, R.; Reig, N. 2006. FDI flows into MERCOSUR countries: winners and losers in the FTAA and the EU-MERCOSUR agreement. Available in <http://www.fcs.edu.uy/archivos/0206%20english.pdf>. Consultado el 9-Setiembre-2015.
6. Boyer, I; Schuschny, A. 2010. Quantitative assessment of a free trade agreement between MERCOSUR and the European Union. Comisión Económica para América Latina (CEPAL). Serie Estudios estadísticos y prospectivos N° 69. Santiago de Chile, Chile. Available in: http://www.eclac.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/1/41551/P41551.xml&xsl=/publicaciones/ficha-i.xml&base=/publicaciones/top_publicaciones-i.xml# Consultado el 9-Setiembre-2015.

7. Burrel, A.; Burrel, A.; Ferrari, E.; Gonzáles, M. A.; Himics, M.; Michalek, M.; Shrestha, S.; Van Doorlaer, B. 2011. Potential EU-MERCOSUR Free Trade Agreement: Impact Assessment. Volume 1: Main Results. Joint Research Centre-EU. Luxembourg-Publications Office of the European Union. Available in <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=4819> Consultado el 9-Setiembre-2015.
8. Castillo, M. 2001. The Access of mercosur exports to the single market (December 2001). IPEA Working Paper No. 851. Available at SSRN: <http://ssrn.com/abstract=297227> or <http://dx.doi.org/10.2139/ssrn.297227> Consultado el 9-Julio-2016.
9. CEI (2003 a). Oportunidades y amenazas para la Argentina de un acuerdo MERCOSUR-Unión Europea: Un estudio de impacto sectorial. Revista del Centro de Economía Internacional. Secretaria de Comercio y Relaciones Económicas Internacionales. Ministerio de Relaciones Exteriores, Comercio Internacional y Culto. Serie Estudios del CEI. Nro. 3. Febrero 2003. Buenos Aires. 106 p.
10. Francois, J.; Hall, K. H. 2003. Global simulation analysis of industry-level trade policy. The World Bank Technical Paper, Versión 3.0. Abril 2003 mimeo, Washington D.C. Available in <http://wits.worldbank.org/data/public/GSIMMethodology.pdf> 22 pp. Consultado el 5-Diciembre-2015.
11. Jacobo, A. 2008. Una estimación de una ecuación gravitacional para los flujos bilaterales de manufacturas MERCOSUR-Unión Europea. *Econ. Apl., Ribeirão Preto*, V. 14, n. 1. Available in http://www.scielo.br/scielo.php?pid=S1413-80502010000100005&script=sci_arttext Consultado el 5-Diciembre-2015.
12. Kirkpatrick, C. 2008. Sustainability impact assessment of the association agreements under negotiation between de European Union and The Mercosur. Available in http://www.sia-trade.org/mercotur/phase2/OVERVIEW_INCEPTION_revised_June_08.pdf. Consultado el 9-Setiembre-2015.
13. Maesso, M. 2011. La integración económica. *Revista Boletín Económico de ICE*. N° 858, Enero-Febrero 2011. Madrid, 119-132.
14. Milner, C.; Morrisey, O.; McKay, A. 2004. Some simple analytics of the trade y welfare effects of economic partnership agreements. *Journal of African Economies*.14(3): 327-358.
15. Piermartini, R.; Teh, R. 2005. Demystifying modelling methods for trade policy. WTO Discussion Paper N° 10. Organización Mundial de Comercio. Ginebra, Suiza. 59 p.
16. Solares, A. 2010. Integración. Teoría y procesos. Bolivia y la integración, Edición electrónica gratuita. Texto completo en www.eumed.net/libros/2010e/814/. Consultado el 9-Setiembre-2015.
17. Trejos, A. 2009. Instrumentos para evaluación del impacto de acuerdos comerciales internacionales: aplicación para países pequeños en América Latina. Serie Estudios y Perspectivas 110. Conferencia Económica de las Naciones Unidas para América Latina-Sede México. Available in <http://www.eclac.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/9/37329/P37329.xml&xsl=/mexico/tpl/p9f.xsl&base=/mexico/tpl/top-bottom.xsl>. Consultado el 9-Setiembre-2015
18. UNCTAD. 2012. A practical guide to trade policy analysis. United Nations Conference on Trade and Development. Organización Mundial de Comercio. 232 p.
19. Vaillant, M.; Ons, A. 2003. Winners and losers in a free trade area between the United States and Mercosur. Working paper 14/03, Departamento de Economía, Universidad de la República, Montevideo. Available at <http://decon.edu.uy/publica/2003/Doc1403.pdf>. Consultado el 28-Noviembre-2016
20. Valdes, R.; Diaz Osorio, J. 2015. The Brazilian beef meat sector into a domestic and international context: a Supply Chain Management (SCM) approach. *Revista de la Facultad de Ciencias Agrarias. Universidad Nacional de Cuyo. Mendoza. Argentina*. 47(1): 233-239.
21. Viner, J. 1950. The Custom Union Issue, Carnegie Endowment for International Peace, Nueva York.
22. Weissleder, L.; Adenauer, M.; Heckeley, T. 2008. Impact assessment of trade liberalization between EU and MERCOSUR countries. Paper prepared for presentation at the 107th EAAE Seminar Modeling of Agricultural and Rural Development Policies. Sevilla, Spain, January 29th-February 1st, 2008. Available in <http://purl.umn.edu/6667>. Consultado el 09-Setiembre-2015.