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EU-Mercosur FTA: an evaluation of the vulnerability of Mercosur imports

Marta R. Castilho (*)

The second round of offers made by the European Union and Mercosur for an inter-regional free trade agreement were delivered in March 2003. This year is a decisive time for the negotiating process, as it will signal whether the project will continue or not. At first glance, both blocs have made advances in their negotiating offers, enlarging the set of products as compared with the first offers. At the same time, the international scenario seems to be quite favourable for an approach between the two blocs. In any case, above and beyond the proposals, the individual countries must effectively start to negotiate the preferences to be granted and the target periods for achieving free trade.

The trade agreement between the EU and Mercosur presents opportunities and dangers for both sides. For the EU, the sectors most vulnerable to competition from Mercosur are mainly agricultural and food products or those sectors that are natural resource intensive. For Mercosur, the opposite is the case; its vulnerability is mainly based on manufactured goods. The structure of the current protection of the two blocs reflects this: the EU protects agricultural products, and Mercosur protects manufactured products.

The aim of this paper is to analyse this vulnerability from the point of view of the Mercosur countries. The industrial products in Mercosur which are most sensitive to European competition are identified, taking as sensitive those sectors where reduction in trade barriers could lead to a strong growth of imports from the EU. Sensitive products are defined in trade terms since production data are not available at the level of disaggregation used in the present analysis.

The Mercosur Chair of Sciences Po was created in order to further cooperation with the Mercosur member countries (Brazil, Argentina, Uruguay, Paraguay) and associates (Chile, Bolivia). Its main objectives are : calling attention about issues and debates related to this regional integration process, teaching on this issues for students and for leaders and experts of the private and public sectors, promoting academic research and seminars on regional topics and setting up a neutral ground for a political and citizen dialogue between the European Union and Mercosur. The Working Group on EU-Mercosur Negotiations (WG) constitutes an interface between the two regions' business, negotiators, political leaders, civil society representatives and academics. It contributes to the preparation and monitoring of the bi-regional negotiations, and to the discussion of the positions of the two parts within the framework of the WTO and FTAA.



Several analyses of the impact of the agreement have been carried out using different methodologies and tools. The methodological choice depends greatly on the problem being analysed. CGE models, for example, are used for analysing the impacts on macroeconomic aggregates and on the connections between them – such as GDP, income distribution, public accounts and balance of payments. If, however, the objective is to identify opportunities and dangers of an agreement on trade flows at the level of sectoral disaggregation, the tools used are diverse. Among possibilities such as the computable partial equilibrium models or the gravity models, we opted to use simple indicators of geographic orientation and specialisation (comparative advantages). This choice is justified by the fact that the methodologies mentioned depend heavily on data which are not available – such as the elasticities, for example – or they show some deficiencies in the calculation of the potential trade.¹

The following procedure was adopted in this study. First, the products where the specialisation of the two blocs is complementary – complementarity being observed when there are simultaneous exporter (EU) comparative advantages and importer (Mercosur) comparative disadvantages – were identified. Second, this information was compared with the protection applied by Mercosur against European products. Alternatively, the European products whose exports tend to grow faster are those where the specialisation of the two blocs is complementary and that face a high level of protection on entry into the Mercosur market. A high level of protection, on the one hand, means that the margin of liberalisation is important and, on the other hand, demonstrates that Mercosur production is more sensitive to external competition. Finally, information about the main exporters to the Mercosur market completes the scenario to indicate which country(s) would be seriously affected by EU-Mercosur liberalisation.

The paper is divided into two sections. The first provides a brief presentation of the trade between the two blocs and Mercosur's commercial policy. The second analyses the threat to Mercosur products represented by European products.

1. EU-Mercosur trade: evolution, composition

EU-Mercosur trade has unequal importance to the two regions. While the European Union is the main partner of Mercosur, responsible for about 25% of the bloc's total trade, the four Mercosur countries are responsible for less than 2.2% of the total external trade of the EU bloc.

In the past, the two blocs already had close economic relations. In the 1950s and 1960s, Latin America was the main trading partner of the EEC (see Nême and Nême, 1992), the bilateral trade showing a high degree of complementarity. Despite the weakness of Mercosur's position in European external trade, these countries are still the EU's most important partners in the South American continent.

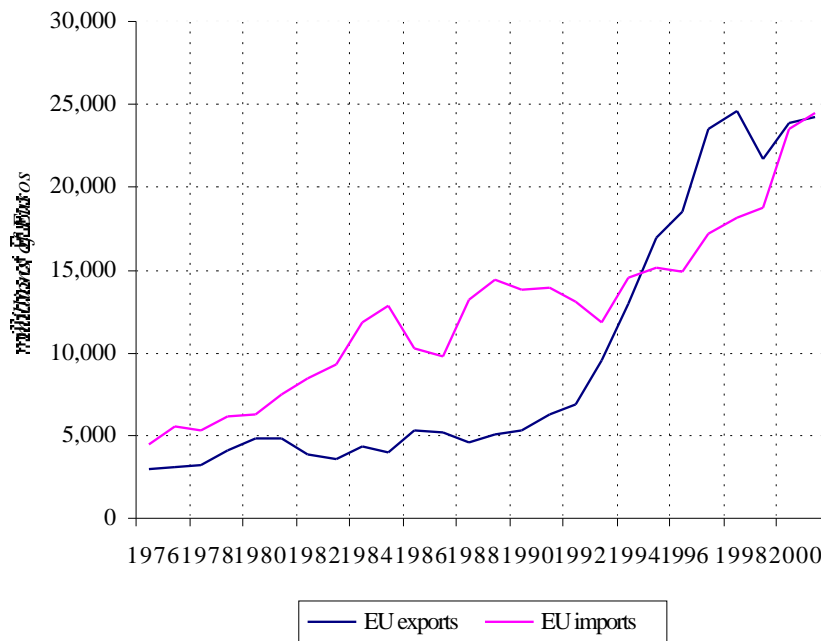
Figure 1 presents the evolution of the total interregional trade and shows that: (i) between 1976 and the beginning of the 1990s, the Mercosur countries maintained a trade surplus with the EU, even though their exports grew at a lower rate than those of their competitors in the European market; (ii) in the 1990s, the European exports grew quickly, reversing the South American surplus; and (iii) from 1999 on, with the depreciation of the Brazilian currency and the serious fall in growth rates of the Mercosur economies, their exports have recovered and trade has become relatively balanced.

During the 1990s, the volume of trade between the two regions intensified. This occurred because of the trade liberalisation of the Latin American economies and their rapid economic growth during part of the decade. Mercosur's imports therefore grew more quickly than its exports between 1990 and 2000, with imports from the EU experiencing a 350% growth, while Mercosur's exports grew by only 71%.

¹ Castilho (2002) reviews recent studies that measure the effects of a number of trade agreements on the Brazilian economy.

European direct investment in Mercosur contributed to the growth of imports (see Castilho and Zignago, 2002).

Figure 1. Evolution of EU-Mercosur trade



The trade between Mercosur and the European Union shows a typical North-South profile. The Mercosur countries export mainly natural resources-intensive products (50% of their exports consist of agricultural products and derivatives), while the European countries export mainly manufactured goods (95% of their exports), overall those of higher aggregated value.

1.1. *The composition of the Mercosur-EU imports*

Mercosur's imports from the EU increased strongly during the 1990s. The combination of trade liberalisation with the overvaluation of the South American currencies stimulated imports, and the EU was one of the suppliers that benefited from these conditions. After the devaluation of the Brazilian currency in 1999, the precipitate fall in Mercosur income – reinforced by the financial crisis in Argentina, the depreciations of the other Mercosur currencies and the reversal of the growth cycle in the world economy – led to a reduction in Mercosur imports from the EU. Table 1 illustrates part of this phenomenon by showing a 7% fall in Mercosur's imports from the EU between 1996 and 2000.

The sectoral composition of imports has shown some stability over the last 25 years. The imports remained concentrated in three groups of products: equipment goods (machinery and electrical equipment), transport equipment, and chemical products. Together they represent about 70% of bilateral imports (see Table 1). Other than these three groups, plastic and rubber imports also have a significant share in the total at 5.1%.

In general, the goods imported by Mercosur from the EU are characterised by a relatively higher degree of sophistication than those from the rest of the world. Within certain product chains, the imports are concentrated in a higher degree of processing, as in the agricultural and food products, and the paper

and cellulose sectors, where the respective values are relatively higher than their values in total Mercosur imports.

Table 1. Profile of the Mercosur-EU imports

HS	Description	Evolution of Mercosur imports from EU					Share of Mercosur in extra-EU exports		Share of EU in extra-Mercosur exports	
		1996	2000	evolution (%)	1998/2000	comp. (%)	1998/2000	1998/2000		
	Agriculture and food products	1.194.564	860.148	-28.0	977.612	4.1	2.1	33.9		
V	Mineral products	600.035	365.789	-39.0	398.545	1.7	2.2	5.6		
VI	Chemicals	3.795.184	4.122.637	8.6	4.303.389	18.0	4.3	36.8		
VII	Plastics and rubber	1.129.791	1.197.936	6.0	1.221.880	5.1	4.0	32.3		
VIII	Hides, skins and leather and articles	28.164	40.372	43.3	35.666	0.1	0.5	17.3		
IX	Wood and articles	35.969	62.320	73.3	68.986	0.3	1.1	48.2		
X	Pulp, paper and paperboard	711.033	733.713	3.2	798.879	3.3	3.8	39.9		
XI	Textiles	434.796	382.228	-12.1	387.911	1.6	1.2	19.8		
XII	Footwear	18.574	13.472	-27.5	14.868	0.1	0.3	6.8		
XIII	Articles of stone, ceramic and glass	307.995	272.839	-11.4	312.806	1.3	2.4	49.9		
XIV	Pearls and precious gems	21.782	83.593	283.8	60.750	0.3	0.3	35.7		
XV	Base metals and articles	1.276.416	1.083.252	-15.1	1.317.491	5.5	2.9	36.8		
XVI	Machinery and electrical equipment	8.647.714	7.869.601	-9.0	9.356.879	39.1	4.0	35.9		
XVII	Transport equipment	3.058.820	2.651.557	-13.3	3.449.679	14.4	3.7	51.2		
XVIII	Precision instruments	920.740	783.809	-14.9	879.598	3.7	3.0	30.7		
XIX	Arms and munitions	5.934	79.282	1.236.1	40.742	0.2	3.3	76.8		
XX	Miscellaneous manufactured goods	236.941	251.153	6.0	294.250	1.2	2.0	29.4		
	Manufactured goods	21.229.888	19.993.553	-5.8	22.942.318	95.9	3.4	33.6		
	Total	22.424.452	20.853.701	-7.0	23.919.931	100.0	3.3	33.6		

Source:
PCTAS

The EU's share in these sectors is considerable (see Table 3). In the three product groups cited above, the EU represents more than 30% of Mercosur external purchases. This occurs in some other sectors, such as paper and board, stones and ceramics, articles of jewellery, and arms and munitions, where the EU share is 71%. The EU's share is less than 10% in only 3 of the 16 categories of manufactured products (these categories are natural resources-intensive and/or have a low degree of processing).

The significant share of the EU in these sectors is synthesised by the Geographic Orientation Index (Table 2) – (see Appendix 1 for methodological notes) which indicates a favourable geographic bias for the EU in Mercosur in the majority of sectors. The two blocs also present quite complementary specialisations for manufactured products as a whole. For chemical products and arms and munitions, this complementarity is very strong but it is also present in plastics and rubber, paper and board, stones, ceramics and glass, machinery and electrical equipment, transport equipment and precision instruments.

In several cases – such as chemical products, stones and ceramics and arms and munitions – is reflected a combination of the EU's comparative advantages and Mercosur's disadvantages. In other sectors, however, Mercosur has comparative advantages, but the EU advantages are sufficiently stronger to create a relation of complementarity – as in the case of transport equipment and arms and munitions.

Table 2. The profile of Mercosur manufactured imports from EU, 1998/2000

HS	Description	Geographical Orientation Index	Complementarity Index	EU Revealed Comparative Advantage	Mercosur Revealed Comp. Disadvantage	Composition of MS-EU manufactured imports (%)
	Agriculture and food products	2.24	0.48	0.88	0.55	..
V	Mineral products	1.32	0.23	0.25	0.95	1.7
VI	Chemicals	1.11	4.39	1.93	2.28	18.8
VII	Plastics and rubber	1.66	1.60	1.13	1.41	5.3
VIII	Hides, skins and leather and articles	0.93	0.33	1.08	0.31	0.2
IX	Wood and articles	4.55	0.09	0.62	0.15	0.3
X	Pulp, paper and paperboard	1.73	1.71	1.34	1.27	3.5
XI	Textiles	1.70	0.28	0.68	0.41	1.7
XII	Footwear	0.56	0.19	0.70	0.28	0.1
XIII	Articles of stone, ceramics and glass	1.62	1.55	1.79	0.87	1.4
XIV	Pearls and precious gems	1.80	0.11	1.15	0.10	0.3
XV	Base metals and articles	2.10	0.81	1.02	0.80	5.7
XVI	Machinery and electrical equipment	2.07	1.15	1.01	1.14	40.8
XVII	Transport equipment	2.37	1.15	1.25	0.92	15.0
XVIII	Precision instruments	1.63	1.17	1.09	1.07	3.8
XIX	Arms and munitions	2.04	2.10	2.19	0.96	0.2
XX	Miscellaneous manufactured goods	2.28	0.38	0.75	0.51	1.3
	Manufactured goods	1.93	1.05	1.01	1.04	100.0
	Total	1.95	1.00	1.00	1.00	..

Notes: see Appendix 1 for the methodology.

Source: PCTAS.

The EU's two major competitors in Mercosur are its own members and the NAFTA countries, mainly the United States. Among the three main sectors for EU exports, NAFTA is the principal competitor in two of them – machinery and electrical equipment and chemical products – and Mercosur is the main competitor in transport equipment. The other countries have less importance, at least for the segments of major importance for the EU.

With regard to the main competitors, intra-Mercosur imports benefit from free trade,² while those from the US currently face the same trade barriers as the EU. But, as well as the EU, the US is negotiating a trade liberalisation agreement. In other words, for those products where protection is high but intra-Mercosur trade has an important market share, exports from the EU can represent a threat to Mercosur members where they can face strong resistance to liberalisation.

² There still remain country exceptions to the Common External Tariff (CET), their termination being scheduled for 2006.

Table 3. Composition of Mercosur imports by origin, 1998/2000

HS	Description	EU	Mercosur	CAN	NAFTA	Japan	NICs Asia	Total
	Agriculture and food products	13.7	59.5	2.8	9.9	0.1	2.2	100.0
V	Mineral Products	4.4	20.3	16.5	9.1	0.3	0.9	100.0
VI	Chemicals	32.3	12.1	0.5	33.1	2.8	1.1	100.0
VII	Plastics and rubber	25.3	21.7	1.9	31.2	3.9	11.0	100.0
VIII	Hides, skins and leather and articles	9.5	45.1	0.5	5.4	0.2	10.2	100.0
IX	Wood and articles	23.5	51.3	5.8	5.2	0.0	2.2	100.0
X	Pulp, paper and paperboard	30.0	24.7	1.2	30.6	0.8	1.7	100.0
XI	Textiles	13.4	32.2	1.4	12.6	0.7	17.7	100.0
XII	Footwear	4.1	40.0	0.3	1.4	0.3	17.2	100.0
XIII	Articles of stone, ceramics and glass	38.8	22.4	2.6	18.8	5.0	3.7	100.0
XIV	Pearls and precious gems	34.8	2.6	18.2	6.9	0.2	1.5	100.0
XV	Base metals and articles	29.1	21.0	2.1	19.9	4.9	3.5	100.0
XVI	Machinery and electrical equipment	33.1	7.7	0.1	34.0	8.1	10.2	100.0
XVII	Transport equipment	33.1	35.4	0.1	15.5	7.9	4.4	100.0
XVIII	Precision instruments	29.7	3.3	0.1	38.6	11.7	7.3	100.0
XIX	Arms and munitions	70.9	7.6	0.0	13.1	0.0	0.6	100.0
XX	Miscellaneous manufactured goods	25.1	14.7	0.7	17.9	3.3	12.7	100.0
	Manufactured goods	27.9	16.8	2.3	26.3	5.4	6.5	100.0
	Total	26.8	20.2	2.4	25.0	5.0	6.1	100.0

Source: PCTAS

1.2 Mercosur's Trade Policy

Despite the fact that Mercosur is currently involved in several preferential trade negotiations,³ the present Mercosur commercial regime is relatively simple. Trade within the zone is almost completely liberalised. Some exceptions persist: they vary according to the members, which explains the differences in the Common External Tariff (CET) applied by each country, as will be seen later. Beyond the CET, Argentina and Paraguay also apply additional customs rates.⁴ The rate imposed by Mercosur on other non-member countries is the applied rate, and exceptions to it are restricted to the preferences granted to the ALADI countries.⁵

The simple average tariff of Mercosur is 14.6%. The average tariff for agricultural products is 13.3%, lower than that applied to manufactured goods - 15% (see Table 4). This average is a simple one for the four countries; it takes no account of the countries' sizes, nor of the products' share in imports. If we consider the four countries' size (measured by the share of each country in the total imports of the bloc in 1999), the average rate (still not weighted for product share) for manufactured products goes up from 15% to 15.6%.

This higher average reflects the protectionism of the largest partners. The tariff averages for manufactured products by country are: Argentina: 15.9%; Brazil: 16.0%; Paraguay: 13.8%; and Uruguay: 14.1%. The average tariffs are in fact proportional to the size and the industrial development of the different countries.

³ Such as FTA Mercosur-EU, FTA with the Andean Community, Free Trade Area for the Americas (FTAA) and others that are less advanced (with South Africa, for example).

⁴ Both countries apply a 0.5% rate to a major part their imports.

⁵ Mexico, Peru, Venezuela, Colombia, Ecuador, Bolivia and Chile (the latter are associated members of Mercosur).

Of the 16 manufactured goods sectors, the most protected sectors (in terms of weighted tariff averages) are: footwear, arms and munitions, miscellaneous manufactured goods, transport equipment and textiles. Plastics and rubber, base metals and hides, skins and leather also represent relatively high rates.

Argentina has the highest rates (including the customs tax) in 14 of the 20 sectors. Brazil is more protectionist in 3 sectors – machinery and electrical equipment, transport equipment and precision instruments; the difference in the Brazilian tariff is important in relation to the others' rates. In three other sectors, Paraguay has higher tariffs; however, the differences from the other partners are quite small.

The maximum rate applied by the four countries is 35%, corresponding to the rate imposed by Brazil on automobile imports. Of the 4,314 products (defined at the 6-digit level of the Harmonised System – HS), 32 face tariffs above 25%. They belong to the 3 HS chapters: footwear (64), electrical equipment (85) and automobiles (87).

The tariff structure described reflects the level of industrialisation of the four countries. Brazil, where industrial production is more important, imposes the upper rates for products with a higher degree of processing, and so is the most protectionist country.⁶

Among the most protected sectors, the Mercosur countries demonstrate not having comparative disadvantages for a number of them, such as transport equipment, hides, skins and leather, textiles, footwear and base metals. This does not mean that Mercosur has comparative advantages – our Revealed Comparative Advantage (RCA) (RCD – comparative disadvantages) indicator uses only exports (imports) flows (see Appendix 1). For some of these sectors, Mercosur shows good export performance and the following sectors present comparative advantages: hides, skins and leather, footwear and base metals (see Castilho, 2003, for an analysis of the Mercosur Valor de Contenido Regional (VCR). In the case of textiles and transport equipment, high tariffs aim to protect domestic production which is directed to domestic markets.

The automobile sector is traditionally protected in Mercosur countries – notably the final product – and there is even a special automotive regime that regulates intra-regional trade. The high tariff on transport equipment is explained mainly by the high protection imposed on automobile imports; the other products – notably aircraft, but also railways and ships – face lower tariff rates. With regard to textiles, this industry is very important not only in Brazil, but also in Argentina and Uruguay.

For the machinery and electrical equipment and the precision instruments sectors, which are also highly protected, the bloc presents comparative disadvantages. In this case, the protection aims to preserve mainly Brazilian industry from external competition.

Table 4. Tariff protection imposed by Mercosur on EU exports, 2000

⁶ If we take the effective rates of protection for Brazil in 1998 (Kume et al., 2003), the most protected sectors in Brazil remain the same, even if the size of the rates is different. Automobile imports face the highest effective tariff (129%) while other transport equipment faces lower tariffs (20.5%), textiles and footwear imports face high rates (between 19% and 26%), and chemical and plastic imports can face tariffs above 20%. Effective tariff rates can show a more elevated level and thus far, the weighted average for all products is 16.2%, compared with the weighted average of the nominal tariff – 12.2%.

HS	Description	Tariff		
		Simple Average (1)	Weighted Average (2)	Maximum
	Agriculture and food products	13.3	13.2	32.5
V	Mineral products	4.7	1.8	15.0
VI	Chemicals	10.8	11.1	21.5
VII	Plastics and rubbers	15.7	16.0	23.0
VIII	Hides, skins and leather and articles	15.4	15.7	23.5
IX	Wood and articles	11.4	12.2	18.5
X	Pulp, paper and paperboard	14.1	12.3	21.5
XI	Textiles	20.5	18.3	23.5
XII	Footwear	23.4	27.8	33.5
XIII	Articles of stone, ceramics and glass	14.3	14.1	23.5
XIV	Pearls and precious gems	13.1	9.9	21.5
XV	Base metals and articles	15.4	15.8	25.5
XVI	Machinery and electrical equipment	12.9	14.6	26.0
XVII	Transport equipment	14.5	19.6	35.0
XVIII	Precision instruments	15.8	14.4	24.5
XIX	Arms and munitions	23.3	23.1	23.5
XX	Miscellaneous manufactured goods	21.2	21.4	24.5
	Manufactured goods	15.0	12.8	35.0
	Total	14.6	12.2	35.0

Notes: (1) simple average of the applied tariff by the 4 countries; (2) tariff weighted by the total imports of each country in 1999 and for the sectoral weight, sectoral imports of Mercosur (sum of 4 countries' imports).

Source: TRAINS

A first look at the non-tariff barriers (NTB) applied by the Mercosur countries suggests that they make ample use of these measures. In fact, about 70% of products and 77% of imports from the EU are subject to some kind of NTB. Nevertheless, these numbers suggest that one must treat this information with caution: the majority of these barriers are measures of inspection, authorisation, licence and/or prohibition to protect human health, animal or vegetable life,⁷ and the high index of their incidence also reflects a differentiated imposition according to each Mercosur country.

In fact, a distinction needs to be made between non-tariff measures (NTM) and non-tariff barriers. According to the UNCTAD data set used here, any measure other than tariffs that obstructs trade can be considered a non-tariff barrier. In any event, this broad definition mixes different measures with different purposes and different degrees of restrictiveness.⁸ Some measures are more regulatory than protective, as European countries claim with regard to environmental barriers, for example. It is very difficult to separate them into their real purposes, not just their declared reasons. But in the case of Mercosur, we can see, from the measures imposed, that a lot of them represent poor effectiveness in protection. This is clearly the case with the prohibition measures imposed on a large set of products whose imports continue to be significant, see Table 5 for a sectoral distribution of NTM by type of measures.

⁷ Fontagné et al. (2001) identify Brazil and Argentina as the most protectionist countries in terms of environmental barriers out of a large set of countries.

⁸ For a discussion of definitions and measures of NTB, see Deardoff and Stern (1997).

The great majority of these measures were imposed in 1997, at the time of the Asian crisis, in order to reduce imports and solve the balance-of-payments difficulties of the Mercosur countries. The measures are generic and affect all the Mercosur partners, without discrimination. In addition, they are redundant for a large number of goods, several of them being imposed simultaneously.

The specific measures imposed only on specific countries are very few. These measures, such as price measures, anti-dumping or compensatory or quantitative restrictions, have stronger restrictive capacity than those mentioned earlier. With regard to imports from the EU, the measures in force in 2000 affecting manufactured goods were the following:⁹

- Argentina imposes safeguard measures against metal products (ch. 82) imports from a number of European countries; anti-dumping measures against paper (ch. 48) imported from Austria and Finland, and against ceramic products (ch. 69) and metal products (ch.82) from Italy, and quotas for automobiles (ch. 87) from all European countries.
- Brazil imposes anti-dumping measures on a chemical product (ch. 28) imported from the UK and some quantitative restrictions on mineral (ch. 25 and 27) and chemical products (ch. 28 and 29).
- Uruguay applies some minimum price measures on clothing imports (ch. 62) from the UK.

Because of the methodological problems and the low efficacy of the majority of NTMs imposed by Mercosur, we shall not take them into account in the present analysis.

⁹ Agriculture and food imports are more strongly affected by NTMs (other than authorisation and prohibition) than manufactured goods.

Table 5. Non-tariff measures imposed by Mercosur on European exports, 2000.

HS	Description	all NTB measures		Authorisation and surveillance	Prohibition	Price Measures	Anti- dumping and safeguard measures	Quantitative restrictions
		Frequency Index	Coverture Index					
	Agriculture and food products	100.0	100.0	100.0	46.7	0.4	1.3	0.5
V	Mineral products	40.6	52.5	52.5	23.3	0.0	0.0	23.2
VI	Chemicals	86.4	89.5	89.5	62.2	0.0	0.3	3.0
VII	Plastics and rubber	34.3	38.5	37.9	5.2	0.0	0.0	0.0
VIII	Hides, skins and leather and articles	98.6	100.0	100.0	13.3	0.0	0.0	0.0
IX	Wood and articles	100.0	100.0	100.0	75.6	0.0	0.0	0.0
X	Pulp, paper and paperboard	34.7	46.6	39.5	10.4	0.0	6.9	0.0
XI	Textiles	51.3	45.5	45.4	35.1	0.4	0.0	0.0
XII	Footwear	92.7	95.9	95.9	41.8	0.0	0.0	0.0
XIII	Articles of stone, ceramics and glass	24.3	26.0	24.3	1.7	0.0	1.4	0.0
XIV	Pearls and precious gems	24.0	11.2	11.2	1.2	0.0	0.0	0.0
XV	Base metals and articles	27.9	24.5	24.5	3.2	0.0	0.8	0.0
XVI	Machinery and electrical equipment	95.3	100.0	62.7	66.8	0.0	0.0	0.0
XVII	Transport equipment	94.7	97.0	73.0	82.9	0.0	0.0	42.1
XVIII	Precision instruments	82.4	95.2	82.3	61.7	0.0	0.0	0.0
XIX	Arms and munitions	100.0	100.0	100.0	41.7	0.0	0.0	0.0
XX	Miscellaneous manufactured goods	86.9	92.9	92.4	40.6	0.0	0.0	0.0
	Manufactured goods	65.8	76.0	63.1	50.1	0.0	0.3	8.8
	Total	70.5	77.8	65.8	49.9	0.0	0.4	8.2

Notes: see Appendix for more details on classification of NTM (inspired from UNCTAD classification).

Source: TRAINS

2. The vulnerability of Mercosur to EU competition

Trade liberalisation between the EU and Mercosur will obviously bring opportunities and dangers for both blocs. An opportunity for one bloc will be a threat for the other if the first bloc is directly in competition with the member countries' exports and production, these exports resulting from a combination of high protection with comparative disadvantages. In other words, if intra-bloc trade results from a trade deviation effect, the competition of the other bloc can become a threat for domestic producers. If, however, the main suppliers of the importing market are non-member countries, the opportunities of the exporter will not necessarily become a threat to domestic producers. Put another way, if bilateral trade liberalisation displaces third countries instead of intra-bloc trade, generating a new trade deviation effect, there will be no negative impact from the point of view of member country producers.

The objective of this section is to identify which are the sectors and products where the growth of European manufactures exports can represent a threat to Mercosur countries' producers. We are of the opinion that trade growth depends on the existence of complementarity between the two regions and of a margin for liberalisation (i.e., the existence of trade barriers). In other words, sectors where a reduction of trade barriers will lead to a strong growth of imports are considered here as 'sensitive sectors'. We proceed as follows:

- (i) first, the products where there is complementarity between the two blocs are identified. The complementarity is assessed by crossing the EU's revealed comparative advantages with Mercosur's revealed comparative disadvantages;
- (ii) secondly, a 'protection' filter is applied. Owing to the weakness of the protection of a tariff lower than 5%, we select the products responding to the first criterion, those facing in Mercosur a tariff above 5%.
- (iii)

Mercosur's reduction of tariffs on EU exports will generate two effects: trade creation and trade diversion. The former corresponds to an effective threat to Mercosur's production, since it will dislocate production and intra-bloc trade. The latter will imply a displacement of imports coming from other countries, as the EU will benefit from more favourable entry conditions.

Here we are interested basically in the first effect, and we therefore bring into the analysis information about the share of intra-regional trade and of the main EU competitors in Mercosur markets. The existence of important intra-zone trade in the presence of complementarity between the two blocs and high protection suggests that the liberalisation could, in fact, threaten domestic production and would certainly face greater resistance from the Mercosur producers.¹⁰

The methodology used in this paper does not take into account any information about production, which can underestimate the EU threat to Mercosur producers. This is the case for sectors that have an important domestic production directed to the domestic market, such as the automobile industry in Argentina or capital goods in Brazil (see Appendix 2). In fact, production data are available in a different and much more aggregated classification. As we wanted to favour product disaggregation, we had to restrict ourselves to trade statistics.

For the EU, as already noted, the sectors that are most vulnerable to competition from the Mercosur countries are mainly the agricultural and food sector or those which are natural resources-intensive. However, for some industrial products, Mercosur could achieve gains in market share with inter-regional liberalisation – by the displacement of either European suppliers, or third-countries' products.¹¹

For Mercosur, the opposite is the case and its greatest vulnerability is in the manufactures sector. Mercosur countries are more competitive than European countries as regards the majority of agricultural products: the low value of Mercosur's comparative disadvantage for agricultural products – 0.55 – (see Table 2) to a large extent reflects the strong advantages obtained by these countries. Nevertheless, for the manufactures sector as a whole, Mercosur shows a low comparative disadvantage (index: 1,04), even if this is not the case for all products and categories, as can be seen from Table 2 and the following analysis.

¹⁰ Here, as we analyse from the point of view of *Mercosur producers*, ignoring all consumer surplus effects, the trade creation and deviation effects have opposite implications from the usual sense.

¹¹ See Castilho (2003) and Flóres (2003) for an analysis of Mercosur opportunities in the European market for manufactured goods.

2.1 Vulnerable Products

According to Table 6, of the 4,396 manufactured products (defined at the 6 digit level), 1,927 – or 44% – show a relationship of complementarity between the two blocs. This complementarity results more frequently from strong EU comparative advantages than from Mercosur comparative disadvantages. Naturally, a large share of bilateral imports (in value) – 84% – is concentrated in these products.¹²

Intra-Mercosur trade, on the other hand, is more concentrated in the products where there is no complementarity with the EU, mainly because the EU does not have comparative advantages in these sectors. In these cases, Mercosur usually benefits from tariff preferences and trade does not necessarily reflect its comparative advantages; we are in the presence of classic trade deviation effects.

The tariff averages denote lower protection for the products with complementarity between the two blocs, if the simple average is taken, and higher protection, if we consider the weighted average.

Table 6 Distribution of Mercosur-EU imports according to complementarity

Complementarity Index	number of products	Import composition (%)				Tariff Average	
		MS-EU	Extra-MS	Intra-MS	Export. Extra-EU	Unweighted	Weighted (1)
IC < 1	2.469	15.6	31.6	60.7	39.4	16.2	10.8
IC > 1	1.927	84.4	68.4	39.3	60.6	14.7	13.0

Notes: (1) weighted by the total MS imports.

Source: TRAINS & PCTAS

Of the 1,927 products for which the complementarity of the two blocs is confirmed, 1,874 face tariffs above 5% in Mercosur (see Table 7). The majority of products is concentrated in the 3 bands with tariffs up to 20%: 40% of them are concentrated in the 15-20% band, 20% in the 10-15% band and 18% in the band up to 10%. The 20-25% band contains 15% of the number of products and the highest band – tariffs above 30% – contains 3% of the total.

In terms of *imported value*, 79% of Mercosur-EU imports face tariff rates of up to 20%, concentrated in the 15-20% band. The share of Mercosur-EU imports in the above 20% bands is relatively small, and is less important than the share of total extra-Mercosur imports and intra-regional imports. In fact, in the two top bands – mainly in the 25-30% band –, the share of intra-regional trade is relatively important.

In other words, the selected products – those where European exports present an important potential for growth and a threat to domestic producers – face tariff rates ranging from 5% to 20%, concentrated in the highest tariff band.

¹² We are aware of the limits of the revealed comparative advantages index, mainly concerning the effects of preferences or protection on present trade flows. But, in our opinion it remains the best, even if far from perfect, available indicator of specialisation.

Table 7. Profile of Mercosur-EU imports of selected products according to tariff band

Tariff band	Number of products (HS6)			Import composition (%)			Tariff		
	Total	RCA EU (2)	RCD (3)	MS MS-UE	Extra-MS	Intra-MS	Export. Extra-EU	Weighted aver. (4)	Maximum
5-10	344	302	291	15.3	15.8	5.4	14.3	7.2	10.0
10-15	371	341	300	23.5	24.8	25.8	27.3	12.7	15.0
15-20	814	755	608	44.4	38.3	36.5	42.4	17.3	20.0
20-25	278	234	190	8.7	8.1	12.4	9.4	21.6	24.7
25-30	3	3	3	1.0	1.2	11.0	0.7	27.3	29.9
>30	64	51	51	7.0	11.7	8.8	5.9	31.1	31.2
Total	1.874	1.686	1.443	100.0	100.0	100.0	100.0	15.1	31.2

Notes: (1) ad valorem tariff; (2) EU Revealed Comp. Advantage; (3) Mercosur Revealed Comp. Disadvantage; (4) weighted by MS total imports 98/00.

Sources: TRAINS & PCTAS.

Five sectors seem to concentrate the 'vulnerabilities' of Mercosur's industry (Table 8). The two principal sectors, that comprise more than 50% of the selected products and around 65% of the corresponding bilateral trade are machinery and electrical equipment, and chemicals. These two sectors are also those where the share of selected products in the total number of products is higher. The other three sectors are responsible for 27% of the selected products, but only 12% of bilateral trade. They are base metals and articles, plastics and rubber, and textiles. Transport equipment contains a low absolute number of selected products but 10% of bilateral trade and, as will be seen later, this is quite a sensitive sector in Mercosur.

Table 8. The selected products profile

HS	Description	Imports MS-EU (value)			No. of products defined at the 6 digit level				
		% of selected (1)	% extra-Mercosur import. of each sector (2)	% extra-UE export. of each sector (2)	I<1 & C>1	EU RCA >1 (3)	MS RCD > 1 (3)	I<1 & C >1 (4)	I<1 & C >1 (5)
V	Mineral products	1.4	9.3	7.8	22	68.2	72.7	13.0	1.2
VI	Chemicals	22.4	40.1	4.5	492	90.0	87.8	65.4	26.3
VII	Plastics and rubber	5.4	34.8	4.8	115	80.9	79.1	60.8	6.1
VIII	Hides, skins and leather and articles	0.1	23.2	0.8	10	80.0	60.0	13.5	0.5
IX	Wood and articles	0.2	88.4	4.1	12	100.0	75.0	15.4	0.6
X	Pulp, paper and paperboard	3.1	54.5	4.5	64	95.3	70.3	43.0	3.4
XI	Textiles	1.3	29.5	2.9	165	84.2	64.8	20.4	8.8
XII	Footwear	0.0	19.2	0.9	4	75.0	75.0	7.3	0.2
XIII	Articles of stone, ceramics and glass	1.5	53.7	3.2	72	95.8	76.4	52.9	3.8
XIV	Pearls and precious gems	0.2	70.0	6.4	6	83.3	33.3	12.0	0.3
XV	Base metals and articles	5.5	42.9	4.0	243	90.5	61.7	41.5	13.0
XVI	Machinery and electrical equipment	43.7	46.7	5.1	494	94.3	79.4	64.8	26.4
XVII	Transport equipment	10.4	53.4	7.2	50	82.0	80.0	37.9	2.7
XVIII	Precision instruments	4.1	37.0	3.7	84	89.3	78.6	36.7	4.5
XIX	Arms and munitions	0.2	77.6	5.2	12	100.0	58.3	70.6	0.6
XX	Miscellaneous manufactured goods	0.6	39.6	3.6	29	82.8	75.9	22.3	1.5
	Manufactured goods	100.0	41.9	4.8	1,874	90.0	77.0	37.5	100.0

Notes: (1) sectoral distribution of selected products; (2) share of select products in total extra-MS imports and extra-EU exports of each sector; (3) % of selected products by sectors; (4) % of no. of all products by sector; (5) % of selected products.

Source: PCTAS.

Table 9. Market share of main competitors of the EU in Mercosur for selected products (1998/2000)

HS	Description	EU	Mercosur	USA	NAFTA	Japan	SE Asia (1)	China	Chili	CAN
V	Mineral products	8.2	11.4	5.7	12.1	0.0	1.3	0.1	0.6	14.1
VI	Chemicals	35.6	10.9	29.7	33.4	2.9	1.2	2.2	0.4	0.3
VII	Plastics and rubber	28.2	18.9	30.0	34.3	4.8	7.5	0.7	0.8	2.2
VIII	Hides, skins and leather and articles	6.9	70.2	4.3	4.5	0.0	4.1	4.1	0.5	0.2
IX	Wood and articles	84.2	4.8	3.5	3.8	0.0	0.2	0.1	4.9	0.0
X	Pulp, paper and paperboard	42.6	23.0	22.0	25.2	1.2	1.4	0.1	3.2	0.8
XI	Textiles	24.1	18.2	15.8	19.2	1.4	22.4	1.8	3.5	1.8
XII	Footwear	15.8	17.9	1.3	1.4	0.7	19.3	40.1	3.0	0.0
XIII	Articles of stone, ceramics and glass	42.3	21.1	16.6	19.2	5.6	2.9	1.7	1.1	2.3
XIV	Pearls and precious gems	69.4	0.8	5.2	5.3	0.0	0.2	0.5	0.0	0.0
XV	Base metals and articles	36.7	15.4	24.1	27.2	5.6	3.3	1.9	2.7	0.9
XVI	Machinery and electrical equipment	42.8	8.4	26.8	30.4	7.8	5.1	1.3	0.2	0.1
XVII	Transport equipment	34.0	36.2	9.4	11.0	10.3	5.2	0.3	1.0	0.1
XVIII	Precision instruments	35.6	3.9	39.5	40.8	8.7	4.2	1.5	0.0	0.1
XIX	Arms and munitions	71.0	8.5	13.1	14.2	0.0	0.7	1.5	0.5	0.0
XX	Miscellaneous manufactured goods	35.2	11.2	27.7	30.6	6.1	5.2	5.3	1.3	1.7
	Manufactured goods	36.0	14.1	24.2	27.7	5.9	4.2	1.4	0.7	1.3

Notes: (1) Hong Kong, Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

Source: PCTAS.

The machinery and electrical equipment sector is a very large and diversified sector. Both Argentina and Brazil have domestic production in some segments, even though the capital goods industry in both countries – mainly in Argentina – suffered significantly from the trade liberalisation and the overvaluation of national currencies during the 1990s. Despite the contraction of the capital goods industry, it remains a relevant sector for both economies and the EU is the major threat for local producers for two reasons: it is the main foreign supplier to the domestic market and it is also the main foreign investor in this sector in Mercosur countries. Liberalisation can induce a change in the production mix and the location of these firms' production. In Brazil, domestic production is competitive in some segments like machines for construction, mining and drilling, electrical transmission and some motors and generators – but in many others, bilateral liberalisation is seen as a significant threat to domestic producers.

In any event, there is some margin to bilateral liberalisation with little prejudice to Mercosur industry, as can be seen from Table 9 which shows that there is some market to be gained from the US, Japan and the South-East Asian countries. Switzerland is also in competition with the EU in this market and it is not going to benefit from EU-Mercosur liberalisation. In this sector, even if the share of Mercosur trade is low – 8.4%, its indicators of vulnerability do not capture the importance of domestic production or the sensitivity to the growth of imports.

The chemical sector is also very diversified. This, together with the machinery and equipment sector, presents the highest number of product lines, which reflects their diversity – a diversity which is present not only in the range of products but also in the market structure and the performance of domestic firms. As in the preceding case, European competition can be an important threat to domestic production in some segments, but there is a place for liberalisation, as the US – as well as Japan, South-East Asia,

China and Switzerland – are in competition with European countries (see Table 10). Of 754 chemical products, 492 are, following the criteria adopted in this paper, vulnerable to European exports. As shown in the table, they are mainly organic and inorganic chemicals. For these segments, Mercosur's intra-bloc exports are relatively small and the US is the main competitor to Europe in Mercosur. The segments where intra-Mercosur trade represents a greater market share are those corresponding to chapters 34, 33, 37, 35 and 38. They face high tariff rates and, for them, liberalisation of trade with Europe could threaten intra-bloc trade.

In the chemical sector, the presence of multinational firms is very important, and an analysis of the origin of the capital of these firms as well as of their international strategies could indicate some of the impacts of the liberalisation on their behaviour. Like the machinery sector, the chemical sector has already suffered from the liberalisation and the subsequent restructuring in the 1990s. In Brazil, domestic production has diminished; it is progressively concentrated in certain segments but there remain some competitive lacunae, mainly in terms of scale and technology.

Table 10. Mercosur imports of chemical products

SH2	Description	Tariff simple average	Tariff maximum	distribution of selected products (%)	market share in Mercosur		
					EU	USA	Mercosur
28	Inorganic chemicals	9.8	14.1	19.9	35.8	29.3	11.8
29	Organic chemicals	9.6	17.7	42.7	37.6	33.0	4.4
30	Pharmaceutical products	11.9	17.0	5.1	43.6	22.7	12.1
31	Fertilisers	7.9	9.3	1.4	6.4	24.3	1.5
32	Tanning extracts and derivatives, dyes, pigments, paints and inks	14.9	17.4	7.9	38.1	22.7	14.9
33	Perfumery, cosmetic or toilet preparations	17.3	21.3	4.9	36.4	26.1	22.6
34	Soap, washing preparations, lubricating preparations, waxes, candles	16.9	21.2	3.3	37.3	26.9	28.1
35	Albuminoidal substances, modified starches, glues, enzymes	17.2	19.1	2.0	34.9	32.5	19.5
36	Explosives, pyrotechnic products, certain combustible preparations	14.9	17.3	0.4	11.4	65.4	2.1
37	Photographic or cinematographic goods	10.3	17.0	4.3	23.9	37.1	20.4
38	Miscellaneous chemical products	14.0	17.4	8.1	31.3	36.6	17.9

Source: TRAINS and PCTAS

The plastic and rubber sector shows an important number of products that are vulnerable to foreign competition. EU exports represent an important threat to domestic production but other new suppliers now represent a growing threat. This is the case of some developing countries – such as Asian countries or the Andean Community – that have a growing share of the world market. Bilateral liberalisation would give European producers a good preference margin relative to the Asian countries, as the tariff applied to these products is over 15%. Mercosur has a competitive position in some segments which is reflected in the share of Mercosur imports in intra-regional trade – 19%. In fact, Brazilian industry, despite some current competitive deficiencies, has experienced good export performance in certain segments and, as Mercosur is a growing market, domestic producers can benefit in some cases from economies of scale.

Despite the small share of Mercosur imports of textile goods in total bilateral imports, there are a large number of products in which Mercosur seems to be vulnerable. As can be seen from Table 11, they are concentrated in 3 HS chapters: man-made filaments and fibres and textiles for industrial use (ch. 54, 55 and 59). This reflects the competitiveness and specialisation of the Mercosur industry: domestic production is concentrated more in natural fibres and their articles and also in relatively less processed

goods (textiles rather than clothing). For synthetic goods, Mercosur suffers from competition from other developing countries for the less processed products – mainly from Asia – and from developed countries – notably the EU for more processed articles. Mercosur produces a lot of cotton and its products, and the intra-bloc trade is also important for man-made filaments and fibres. Protection imposed on textiles and clothing imports is very high, and a bilateral agreement with the EU could give them a great preference advantage. As the specialisations of the two blocs are quite different – the EU is more specialised in clothing and in higher value-added products than Mercosur – the threat of European competition might be less effective than that of the Asian countries, for example. Nevertheless, the EU enlargement will make the Central and Eastern European countries (CEEC) new competitors for Mercosur in low value-added products.

Table 11. Mercosur imports of textiles and clothing

SH2	Description	Tariff simple average	Number of selected products	Market share in Mercosur						
				EU	USA	Mercosur	China	SE Asia	Chile	Mexico
51	Wool, fine or coarse animal hair	17.8	8	76.6	6.0	10.6	1.9	4.2	0.2	0.0
52	Cotton	18.4	9	44.8	2.5	42.5	0.0	0.0	0.2	0.0
53	Other vegetable textile fibres, paper, yarn	6.7	3	89.9	0.0	0.0	10.1	0.0	0.0	0.0
54	Man-made filaments	18.6	22	14.0	11.9	23.4	1.1	32.3	3.6	0.8
55	Man-made staple fibres	19.3	44	22.6	16.1	15.2	1.4	13.8	3.4	7.3
56	Wadding, felt and nonwovens, special yarns	19.7	12	29.2	20.9	24.0	1.0	11.2	4.8	1.6
57	Carpets and other textile floor coverings	23.2	9	21.5	51.5	14.8	1.0	0.3	0.5	0.3
58	Special woven fabrics, tapestries	21.0	14	18.2	15.8	4.4	2.5	49.9	0.2	0.0
59	Impregnated, covered or laminated textile fabrics, articles for industrial use	18.8	18	44.2	17.1	10.9	1.4	14.6	1.6	1.6
60	Knitted or crocheted fabrics	21.0	2	9.0	3.2	5.1	1.1	68.9	9.1	0.4
61	Apparel and clothing accessories, knitted or crocheted	23.0	11	30.7	5.7	26.5	6.3	13.0	12.9	0.8
62	Apparel and clothing accessories, not knitted or crocheted	23.1	9	48.4	2.2	3.9	23.5	14.7	0.9	0.0
63	Other made-up textile articles	22.2	4	21.9	21.2	25.0	3.9	18.0	0.1	0.8

Source: TRAINS and PCTAS

The base metals sector comprises a large variety of products. Mercosur's main vulnerabilities are concentrated in iron and steel products (ch. 72 and 73) and tools, cutlery and other metal articles (ch. 82), as seen in Table 12. For these segments, as well as for copper (ch. 74), the intra-bloc share is relatively important. The tariffs are lower for iron and steel products and copper, but they reach 20% in the case of tools, cutlery and other metal articles. The presence of the EU in some segments is very high, notably for the first three segments mentioned. In the case of iron and steel, even if the EU in general specialises in higher value-added products than Mercosur, European producers represent an important threat to Mercosur producers. The competitive position of Mercosur – mainly Brazil – is based on low wages and primary resources and is very sensitive to exchange rate fluctuations. Here, the EU enlargement can enhance the threat to domestic producers, as the CEEC have an important – even if decreasing – iron and steel production.

For other segments, like nickel and other base metals, there is a margin to liberalisation, as Mercosur's share is very low and the main EU competitors are from North America and South East Asia.

Table 12. Mercosur imports of base metals

SH2	Description	Tariff simple average	Number of selected products (%)	Market share in Mercosur (%)							
				EU	USA	Mercosur	Japan	China	SE Asia	Chile	CAN
72	Iron and steel	15.8	79	40.6	10.8	17.7	2.9	1.7	2.2	1.6	0.0
73	Articles of iron or steel	17.9	58	35.2	21.2	14.0	9.8	2.3	4.5	2.9	0.4
74	Copper and articles thereof	14.2	16	25.2	7.1	29.7	8.5	0.5	1.1	22.3	0.1
75	Nickel and articles thereof	15.1	8	60.0	35.0	2.1	0.6	0.0	0.0	0.0	0.0
76	Aluminium and articles thereof	14.5	16	32.4	43.1	12.8	2.7	0.4	1.0	1.3	2.1
79	Zinc and articles thereof	11.0	1	8.1	0.0	1.6	1.4	0.0	0.0	0.0	88.8
81	Other base metals, cermets, articles thereof	6.0	15	45.3	40.4	0.4	2.3	2.9	1.2	0.0	0.0
82	Tools, implements, cutlery, spoons, and forks, of base metal, parts thereof of base metal	20.6	34	39.9	20.6	20.5	3.6	3.0	4.1	0.4	0.6
83	Miscellaneous articles of base metals	18.5	16	45.2	25.3	11.6	2.7	3.2	5.3	1.6	0.3

Source: TRAINS and PCTAS

The vulnerable transport equipment goods identified in this paper represent only 2.7% of the selected products, but their share in terms of import value rises to 10% of bilateral imports. In fact, it reflects the vulnerability of the automobile industry, as shown in Table 13. Neither railway equipment nor ships and boats and the aircraft industry seem to be very vulnerable to EU competition because of the reduced share of intra-bloc trade and/or and the non-existence of complementarity.

The automobile industry nevertheless is a very important sector for the Mercosur countries, not only for its contribution to Argentinian and Brazilian GDP, but also because this sector is one of the origins of Mercosur. Since its beginnings, the automobile industry has occupied an important place in Mercosur, and rules to administer the bilateral trade in automobiles were established early on.¹³ In 1994, the Special Automotive Regime was negotiated and, despite some disputes between Brazil and Argentina, it is still in operation. As a consequence, the multinational firms (MNF) that invested heavily in the Mercosur countries in the 1990s,¹⁴ adopted complementary strategies for producing in the two Mercosur countries, and the intra-industry trade in this sector is very high.

As can be seen from Table 13, Mercosur is the main regional supplier of automobiles and spare parts. The second supplier is the EU, which is partially explained by the fact that the Mercosur standard for automobiles, like that of the EU, is based on small models. This gives an advantage to European producers relative mainly to North American competitors.

The liberalisation schedule of this industry might take into account the fact that European firms are already established in Latin America and that their strategies in the protected Mercosur region have been to invest in these countries in order to explore the regional market. Transport costs can be an effective protection for the Mercosur countries, but caution in liberalisation is desirable if Mercosur wishes to guarantee the maintenance and development of this industry.

¹³ See Lugones and Tigre (1999) for a deep analysis of the Mercosur auto industry.

¹⁴ See Chudnovsky (2000) for more details on FDI.

Table 13. Mercosur imports of transport equipment

SH2	Description	Tariff simple average	Tariff maximum	Distribution of selected products (%) Market share in Mercosur (%)								
				% of MS-EU of imports	% number products	EU	USA	Mercosur	Japan	SE Asia	CEEC	Norway
86	Railway or tramway equipment	14.8	18.0	4.8	8	69.7	11.7	3.4	6.0	0.1	7.2	0.0
87	Auto vehicles, parts and accessories	18.6	31.2	94.7	38	33.2	9.2	37.2	10.4	5.4	0.3	0.0
89	Ships, boats and floating structures	12.9	16.9	0.5	4	34.9	32.2	1.0	17.6	0.6	0.0	13.2

Source: TRAINS and PCTAS

Finally, we must stress that the protection faced by EU exports of the selected products is not significantly higher than the protection applied to the entire sectors considered (compare Table 9 with Table 4). For the few sectors where the tariffs applied to the selected products are higher than those applied to the totality of products – such as leathers and skins, paper and paperboard, and machinery and electrical equipment – the difference between the tariff levels is relatively small.

Table 14. Protection applied by Mercosur to EU imports of selected products, 2000.

HS	Description	Tariff		
		Simple average	Weighted average (1)	Maximum
V	Mineral products	7.2	0.7	9.1
VI	Chemicals	11.3	11.0	21.3
VII	Plastics and rubber	15.8	15.3	22.6
VIII	Hides, skins and leather and articles	13.9	13.1	23.1
IX	Wood and articles	11.5	12.1	17.4
X	Pulp, paper and paperboard	15.5	15.8	20.1
XI	Textiles	19.7	17.0	23.5
XII	Footwear	23.9	23.4	26.1
XIII	Articles of stone, ceramics and glass	13.6	12.1	21.3
XIV	Pearls and precious gems	14.4	10.9	21.5
XV	Base metals and articles	16.2	15.4	23.3
XVI	Machinery and electrical equipment	16.0	14.6	24.7
XVII	Transport equipment	17.5	20.5	31.2
XVIII	Precision instruments	16.8	14.0	23.1
XIX	Arms and munitions	23.2	23.2	23.5
XX	Miscellaneous manufactured goods	21.0	21.0	24.2
	Manufactured goods	15.1	13.7	31.2

Notes: (1) average weighted by total MS imports 19 98/2000.

Sources: PCTAS & TRAINS.

Top 25 selected products

Given the number of selected products, not all will be presented individually in this paper.¹⁵ However, 25 products from the sample of 1.874, defined at the 6-digits level, are shown in Table 15. These products, as well as presenting a positive complementarity index and high tariffs, meet with the following criteria:

- (i) the EU's external exports of the product correspond to more than 0.05% of total exports (this criterion guarantees that there are exports on offer);
- (ii) total Mercosur imports amount to more than US\$5 million (to guarantee a minimum import volume); and
- (iii) the share of intra-Mercosur trade in the bloc's total trade is high.

Imports of these products are in direct competition with domestic products. In some cases, such as, for example, some ceramic articles (69.08.90), the EU and Mercosur are responsible for more than 99% of total imports. Reduction of the 17% applied tariff rate could have important consequences for bilateral trade and for domestic production. Several products are in similar situations – such as, for example, automobile engines (87.03.32), although the tariff rate is lower. The majority of products described here belong to the following sectors: chemical and plastic products, leather and paper, stone and ceramics articles, articles of iron, steel and other metals, machine and equipment and other (chapter 94). The sector, however, where the selected products are most numerous – 6 products - is that of vehicles and spare parts. Here, the share of Mercosur in the total trade of the bloc is raised because of the Special Automotive Regime, as already mentioned.

¹⁵ Information is available on request to the author.

Table 15 Top 25 selected products

HS6	Description	Import. MS-EU (1)	Import. MS- EU/Total import. MS	Geogra- phical Orientation Index (2)	Import. Intra-MS/ Total Import. MS	Import. MS-EU/ Export. Extra-UE	Aver. MS Tariff (3)	NTB Incidence (4)
330610	Dentifrices	1.148	4.8	0.4	59.9	0.7	21.3	1
340220	Surface-active prep., washing & cleaning prep. put up for retail sale	15.422	25.6	2.6	61.1	3.3	20.8	1
370254	Film for col photo sens, unexp, in roll w>16but<=35mm&le<=30m,o/t slide	6.742	17.1	1.4	46.1	2.5	10.2	0
370320	Photographic paper, paperboard & textile sens, unexp for col photography	9.065	25.2	2.0	63.3	3.0	16.9	0
392330	Carboys, bottles, flasks and similar plastic articles	12.783	16.6	1.6	61.1	3.4	22.6	1
410431	Bovine and equine leather, full/split grains, nes	5.175	3.7	0.9	89.0	0.6	13.0	1
480253	Paper, fine, woodfree, in rolls or sheets, >150 g/m2, uncoated, nes	2.130	37.3	1.8	45.1	1.8	15.3	0
481840	Sanitary articles of paper, incl sanit towels & napkin (diapers) for babies	843	0.9	0.1	66.2	0.2	19.2	1
680710	Asphalt or similar material articles, in rolls	1.279	13.8	1.4	83.1	0.8	11.0	0
690890	Tiles, cubes and sim nes, glazed ceramics	23.766	39.2	1.5	60.2	1.3	17.3	0
721712	Wire, i/nas, plated or coated with zinc, containg by wght less than 0.25%C	2.321	15.1	1.6	59.9	2.2	n.d.	0
730640	Tube, pipe & hollow profile, stainless steel, weld, of circ cross sect, nes	2.986	15.9	1.2	56.3	1.7	17.3	1
731021	Cans, iron o steel, cap <50 litres, to be closd by crimpg o soldering, nes	1.170	12.4	0.9	60.3	0.9	17.3	1
740811	Wire of refind copper of which the max cross sectional dimension > 6mm	327	0.6	0.1	61.2	0.1	12.8	0
760421	Profiles, hollow, aluminium, alloyed	1.664	25.3	1.4	55.2	1.0	15.3	0
821210	Razors including safety razors and open blade type	1.611	3.5	0.9	71.5	2.4	21.3	1
843351	Combine harvester-threshers	5.605	9.4	0.5	54.1	1.6	12.6	1
843920	Machinery for making paper or paperboard	3.053	28.8	1.0	63.3	0.7	17.8	1
870332	Automobiles with diesel engine displacing more than 1500 cc to 2500 cc	155.771	38.6	2.5	45.3	7.8	31.2	1
870421	Diesel powered trucks with a GVW not exceeding five tonnes	154.832	16.2	2.2	67.5	8.4	29.9	1
870422	Diesel powered trucks w a GVW exc five tonnes but not exc twenty tonnes	11.778	4.1	0.8	82.2	1.1	14.2	1
870600	Chassis fitted w engines for vehicles of headg Nos 87.01 to 87.05	12.060	18.3	1.1	49.4	2.7	16.8	1
870790	Bodies for tractors, buses, trucks and special purpose vehicles	8.647	20.3	1.8	56.2	3.4	16.0	1
870850	Drive axles with differential for motor vehicles	32.527	29.1	2.4	43.7	5.2	18.7	1

940180	Seats nes, other than those of heading No 94.02	4.762	28.5	2.5	45.6	4.4	22.4	1
Subtotal		477.467	18.0		63.5	3.6

Notes: (1) in US\$ thousand; (2) see Appendix: IOG > 1 = favourable geographical bias (4) average tariff of the 4 countries weighted by their % in total MS imports in 99; (3) dummy = 1 when there's any kind of NTB.

Source: PCTAS & TRAINS.

3. Concluding remarks

This paper has shown the strong share of European manufactured goods in Mercosur markets. The EU holds around 28% of Mercosur imports concentrated in three sectors – machinery and electrical equipment, chemicals and transport equipment. Because of the EU's competitive position and Mercosur's high protection in manufactured goods, the agreement between Mercosur and the EU can represent an important threat to local production.

Using a simple methodology, we have identified, out of the 4,396 products defined at the 6-digit HS, 42% that would be vulnerable to European competition. Half of these vulnerabilities are concentrated in two sectors where the EU has a strong presence – machinery and electrical equipment. Four other sectors also show some vulnerabilities: base metals and articles, plastics and rubber, textiles, and transport equipment. In some of these sectors, EU enlargement can affect the composition of EU exports and increase competition with Mercosur products.

Nevertheless, for many products, the EU's main competitor is the US or a third country. In these cases, the bilateral agreement would improve imports from the EU without threatening Mercosur products. *From the point of view of Mercosur producers*, liberalisation starting with these products would be desirable. It would give them time to adjust their position to future liberalisation and would reduce the resistance to liberalisation in the Mercosur countries.

Appendix 1 Methodological notes

Index of geographic orientation

The Index of Geographic Orientation (IOG) confirms the existence of geographical bias in bilateral trade when comparing the export performance of the EU to Mercosur with its export performance to the rest of the world. This can be expressed in the following form:

$$I_{ij}^s = \frac{X_{ij}^s / X_i^s}{M_j^s / M_w^s} = \frac{x_i^s}{m_j^s} \quad (1);$$

where: s is the sector; i is the exporting country and j, the importer; W is the world; X represents exports and M, imports. The total exports of countries i and j, were deducted from the volume of intra-regional commerce, since countries i and j are here Mercosur and the EU (the consideration of the intra-trade volume can introduce a bias as this trade is made under trade preferences). If I_{ij}^s is less than 1, there is a negative geographical bias. In other words, the importance of the bilateral exports of that product for the total trade of the exporter is less than the importance of its partner in the world-wide purchases of the product. If the distribution of the partners were similar to the distribution world-wide total imports, the index would have the value of 1.

Index of complementarity

Analysis of the specialisations can be made from the Index of complementarity, which aims to measure the coincidence between offers of the exporter and the import demand of the partner from Balassa's traditional pointer of comparative advantages (Balassa, 1963). This index combines information relating to the comparative advantages of the exporting country and to the comparative disadvantages of the importing country. The greater the coincidence, the greater will be the complementarity of the two partners and the greater the trade expected in the case of liberalisation. The calculation of the comparative advantages and disadvantages does not have to take account of intra-bloc trade, since this is determined, *inter alia*, by commercial preferences.

Thus, like the Index of Geographic Orientation, when subtracted from the total exports of i and the total imports of j, intra-bloc trade can be expressed as

$$C_{ij}^s = \frac{X_i^s / X_i^s * M_j^s / M_j^s}{(M_w^s / M_w^s)^2} = \frac{x_i^s m_j^s}{m_w^s m_w^s} \quad (2)$$

where the variables are the same as those explained above.

Appendix 2 Structure of industrial production in Brazil and Argentina

Brazil: industrial structure, 1996 (%)

Sector	(%) of total
Food industry and beverages	24.3
Plastics and rubber	3.5
Petrochemicals	12.0
Chemicals	6.3
Wood and articles	2.7
Pulp, paper and paperboard	5.2
Leather and footwear	1.2
Textiles	5.8
Mineral products	4.5
Metals and articles	13.2
Machinery and equipment	10.8
Auto-industry	4.3
Other transport equipment	4.1
Other industries	2.1
Total Industry	100.0

Source: IBGE data.

Argentina: industrial structure, 1997 (%)

Sector	(%) of total
Food industry and tobacco	34,1
Plastics and rubber	3,9
Petrochemicals	6,5
Chemicals	12,2
Wood	0,7
Pulp, paper and paperboard	6,9
Leather and footwear	2,2
Textiles	5,9
Non-metal mineral products	2,8
Base metals and articles	8,6
Machinery and equipment	6,1
Auto-industry	8,5
Other transport equipment	0,1
Precision instruments	0,3
Furniture and other industries	1,1
Total Industry	100,0

Source: INDEC data.

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