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The external agenda of the MERCOSUR:
the impact of negotiations with FTAA, EU and WTO[1]

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1.   Introduction

Ever since its creation almost fifteen years ago, the MERCOSUR has been involved in complex external negotiations. The agenda has included a wide variety of issues, from bilateral agreements with some members of the Latin American Integration Association (LAIA) and with India to multilateral negotiations like those in the framework of the World Trade Organization (WTO).

However, there are three negotiations dealing with trade liberalization that are the core of the external agenda of the MERCOSUR, regardless of the actual progress attained in each of them. These negotiations are those in the framework of the Free Trade Area of the Americas (FTAA), those between the MERCOSUR and the European Union (EU) and those of the Doha Round of the WTO.

These three processes are not totally independent, but rather, each of them reinforces and at the same time, sets limits to the others. Among other reasons, the interdependence is mainly explained by the divergences raised by each of the relevant actors concerning the treatment of the agricultural sector. In this area, there is a confrontation between countries that are very competitive in agriculture and food production (like those of the MERCOSUR) with countries like the United States (US) or those of the EU that maintain a high level of subsidies and/or protection measures for this type of goods.

The treatment of agriculture has not been the only obstacle in the negotiation processes, which have also been hindered by the discussion of services trade, government procurement and other subjects of the so called "new agenda" of the WTO. The difficulties to reach an agreement concerning these issues did not only appear *vis-à-vis* the potential partners, but also among the MERCOSUR countries there were differences explained by their own particular interests. These discrepancies are due to the sharp disparities within the bloc, with Paraguay and Uruguay on one end and Brazil on the other.

Even though at present there is a halt in those three negotiation processes, there is a widespread feeling that sooner or later they will be restarted and, eventually, some kind of agreement might be reached. The latter might be more or less ambitious, but in any case, it may have strong effects on the MERCOSUR countries.

In this paper, the possible results of these intertwined negotiations are studied and compared, evaluating the impact on welfare for the bloc as a whole and for each of the member countries. In addition, the effects on the main production sectors in each country are analyzed, taking into account different options for each of the possible agreements. The methodology used with this purpose is based on the simulation of several scenarios, using a computable general equilibrium (CGE) model that separates each of the MERCOSUR countries and the other relevant actors involved in the three negotiations.

The following section presents a brief narrative of the recent evolution and the present state of the three negotiations. Then, in section 3 the expected effects of this type of agreement according to international trade theory are summarized. The model used for the analysis is presented in section 4 while section 5 describes the calibration procedure and the simulations carried out with the model. In section 6 the results are presented and analyzed and finally, in section 7 the main conclusions are drawn.

2. The external agenda of the MERCOSUR

2.1 Multilateral negotiations in the WTO

The Doha Round of the WTO was launched in November 2001, despite the pessimism that prevailed after the failure of the Ministerial Conference held in Seattle in 1999. The difficulties to launch a new round could be explained by the discrepancies between developed and developing countries regarding almost every single issue in the agenda (Da Motta Veiga, 2001).

The main players in the WTO (in particular, the EU and the US) were interested in reaching agreements concerning the so-called "Singapur issues" (trade facilitation, investments, competition policies, government procurement, etc.). On the other hand, developing countries insisted on the issues of the "old agenda" (market access, treatment for the agricultural sector, anti-dumping measures, etc.). The MERCOSUR countries, members of the Cairns Group, have unanimously defended the need to eliminate trade distortions introduced by policies that protect the agricultural sector and food production. As the four countries are highly competitive in agriculture production, they have been firmly interested in obtaining a reduction in the level of protection granted to these goods by developed countries (mainly, the EU, the US and Japan), as well as by other countries which are less influential in the WTO.

The Doha Round had a setback in September 2003, when the Ministerial Meeting gathered in Cancun ended in a complete failure. One of the issues that raised a severe disagreement was the treatment of agriculture, in view of the EU refusal to reduce its protection any further than what it was established in its own initiative of reform of the Common Agricultural Policy (CAP), as long as the other protectionist countries would not offer an equivalent reduction in their own protection and support measures.

Even though the MERCOSUR countries have traditionally maintained similar positions on this matter, they did not share a common strategy in Cancun. Brazil, together with India, China and South Africa led a new group, the so-called Group of 20, which was also joined by Argentina and Paraguay. However, Uruguay remained outside of this group, arguing that the defense of its interests was tied to the actions developed by the Cairns Group. This strategic discrepancy has disappeared after the change in government in Uruguay in March 2005. One of the first decisions adopted by the new government was to ask for admission to the Group of 20, so that the whole MERCOSUR is again aligned in the claims to the WTO.

The failure in Cancun was not the end of the Doha Round negotiations. Despite the appearance of the Group of 20 and of the Group of 90 (a gathering of the least developed

countries), the main players maintain their interest in reaching agreements that might enable a more balanced regulation of world trade. At the Ministerial Meeting that took place in Hong Kong by the end of 2005, the controversial issues that explain the failure in Cancun were, again, the center of the discussion. In this opportunity, some progress was made, allowing for the continuation of the Doha Round. In particular, a time schedule was approved to lower agricultural subsidies until their complete elimination in 2013.

2.2   Negotiations in the framework of the FTAA

The process of creation of the FTAA was launched in 1994, after the Initiative for the Americas. After a phase of preparatory work, when the institutional framework was established, in April 1998 formal negotiations started. The objective was to create a free trade area in the hemisphere, including almost every country, to be enforced by January 2005. Negotiations did not make the progress envisaged, as it was necessary to fit together very different interests and to face a varied and complex agenda which included almost all the issues under discussion in the WTO: market access, agriculture, trade in services, investments, intellectual property rights, government procurement, competition policy, etc.

The MERCOSUR is a small bloc as compared with the US, but it is larger and more developed than the other countries in America. However, there are strong disparities within the bloc, which have hampered the adoption of common stances in the negotiations. Eventually, the FTAA might generate more competitive markets and improve market access of MERCOSUR products in a vast region, but inevitably, it would deeply affect its production and social structure. Given the size of the new partners, all the system of effective protection of the MERCOSUR would be modified and the existing preferences in intra-bloc trade would be deteriorated. In particular, an agreement with the US would have a strong impact on resource allocation, even in Brazil which, due to its relative size, was the least affected by the integration experience of the MERCOSUR (Terra, 2004).

One of the most controversial issues in FTAA negotiations has been market access and the MERCOSUR has been especially demanding in this sense, as many of its export goods are protected by high tariffs in several of the countries involved and by non-tariff barriers in the US (like textiles, wearing apparel and footwear). In these sectors, the MERCOSUR has a disadvantage as compared to other members of the FTAA (like the Central American and Caribbean countries) that enjoy a preferential access to the US market. The treatment of agriculture has also been a controversial issue between the MERCOSUR and the US, because the latter has refused to deal with it in the framework of the FTAA and prefers to discuss it in the multilateral negotiations of the WTO.

The leading roles in the FTAA negotiations have been played by the two countries with the most attractive markets in the hemisphere: the US and Brazil. Both of them have tried to defend their interests, trying to balance the preferences to grant with the preferences to receive. Therefore, the US has shown great resistance to discuss the issue of agriculture, while pushing for concessions in the matter of services, investment and intellectual property rights. Brazil, on the other hand, has refused to grant preferences in these areas and demands the opening of the US market for agricultural goods and food.

Furthermore, the FTAA has encountered political obstacles, due to the underlying quest for leadership in the continent. History shows that both the US and Brazil have tried to lead the Latin American countries and these conflicting interests have obviously hinder the FTAA agreements.

In spite of the progress made in the negotiation process, as the deadline approached, there was a clear perception about the impossibility of reaching an agreement. Therefore, in November 2003 (after the Doha Round failure in Cancun), a less ambitious strategy was approved, by allowing all the countries to accept a minimum agreement on rights and obligations and to negotiate separately different levels of commitments according to their own realities and interests. The FTAA became a looser agreement, which has been called "FTAA light", consisting of a common and balanced set of rights and obligations

applicable to all countries and deeper reciprocal agreements between the countries that wish to go further. Even though this strategy implies minimum commitments, it does not leave any sector out of the negotiation. In this way the differences were solved, reaching an agreement of different speeds and leaving behind the ambitious strategy of a multilateral agreement in all matters.

The negotiations continued all along 2004 between some countries (like the US and those of Central America), but there was no real progress involving the MERCOSUR countries. At the Presidential Summit held in November 2005 in Mar del Plata the discrepancies deepened, but this does not mean that the negotiations have been abandoned definitely. It is very likely that in the future they will be reinitiated, once the uncertainties about the multilateral negotiations in the WTO are solved.

2.3   The negotiations between MERCOSUR and the EU

During the nineties, trade between MERCOSUR and the EU doubled, reaching a share of almost 26% of total MERCOSUR trade in the period 1998- 2000. On the contrary, for the EU, the share of trade with MERCOSUR was less than 2% of the total (CEPAL, 2001). These figures show the great disparity in the interest that one or the other bloc might have in the liberalization of their reciprocal trade. However, even though the MERCOSUR is not very attractive for the EU in terms of trade, the presence of European firms in the MERCOSUR is very significant and since the creation of the bloc, foreign direct investment (FDI) from that origin has risen sharply in these countries (Chudnovsky, 2001). In addition, an agreement with the MERCOSUR raises some political interest in the EU as a means of compensating the possible increase of US influence in these countries through the creation of the FTAA.

Negotiations between the MERCOSUR and the EU started in 1995, with the signature of the Framework Agreement for Interregional Cooperation between both blocs. After going through different stages where the institutional mechanisms and organs were established,

the main controversial issues and discrepancies were delineated (Laens and Osimani, 2001).

The issues of the "old agenda" are crucial for the MERCOSUR and an agreement will hardly be accepted if those issues are not satisfactorily solved. Many of the exportable goods from the MERCOSUR are subject to tariff peaks in the EU and/or are subject to quotas and other non-tariff barriers.

The MERCOSUR countries are highly competitive in the production of goods that benefit from the domestic support policies and from export subsidies in the framework of the Common Agricultural Policy (CAP) of the EU. Even though the EU has recently introduced some reforms to the CAP, tending to reduce its importance and the distortion it brings to trade, it has not accepted to include this issue in the negotiations with MERCOSUR. The EU is only willing to discuss this issue at the multilateral level, as it involves its relations with other developed countries like the US and Japan.

The relevant issues for the EU are those of the "new agenda": services, trade facilitation, investments, competition policies, government procurement. The MERCOSUR countries have not taken a uniform stance on this matter, mainly because the possible concessions would have a different impact in each country. Brazil would be the country paying the highest cost of those concessions and, therefore, has been more cautious concerning market opening for services and in relation to government procurement.

Starting on July 2001, the EU and the MERCOSUR have exchanged successive offers, which have not been accepted by the counterpart. In October 2004 negotiations came to a halt, which might be reversed in 2006. On the side of MERCOSUR, the main objections referred to market access, as the EU did not accept to include agriculture in the liberalization commitments, offering only some increase in quotas for the main MERCOSUR exports. On the side of the EU, the MERCOSUR offer was considered insufficient in relation to trade in services and government procurement.

The EU offer in the case of merchandise trade was quite extended, covering 95% of the items in the nomenclature. However, 60% of those items had already been liberalized through previous preferences, so that the liberalization offer of the EU actually covered just 30% of the items. On the other hand, according to the international rules for free trade agreements, the EU left out of the commitments a portion of trade flows that coincides, precisely, with the most relevant goods for the MERCOSUR. In addition, it should be noticed that imports of those goods are limited in the EU by the existence of quotas.

In turn, MERCOSUR offer covered 88% of the tariff nomenclature, which would be completely liberalized in a maximum of a ten-year period. The objection raised by the EU focused on the fact that this offer did not reach the lower limit established by the above mentioned rules for free trade agreements, as it did not covered at least 90% of the items in liberalization schedules not exceeding ten years.

During these negotiations the stance of the MERCOSUR countries has been relatively unified, as all of them are strong critics of the agriculture protection implemented by the EU and they coincide on the importance assigned to the market access issue. Despite this common vision on the treatment to agriculture, there have been some minor differences among the four countries, as the smallest countries were more willing to accept an agreement that would assure a significant increase of the present quotas.

2.4   The interaction among the three negotiation processes

The three negotiation processes described above are closely related and their present halt can be explained, to a large extent, by their interdependence.

On one side, the EU has lost part of its interest in reaching an agreement with MERCOSUR as a result of the stagnation in FTAA negotiations. In addition to the possible economic interest, the possible agreement had a clear political interest on the side of the EU, as a

means of avoiding the predominance of the US in all the Americas. As the FTAA negotiations stagnated, this incentive for negotiating has vanished.

On the other side, both the negotiations with the EU or with the FTAA are dependent of the progress made in the multilateral negotiations in the WTO framework. Once a significant progress is reached in the WTO concerning subsidies and market access, the road to those other agreements will be paved.

To a large extent, the future of the FTAA and of the agreement with the EU also depend on the strength of multilateralism, as regional agreements are stronger when multilateralism is stuck as it happened during the nineties.

All the evidence indicate that the core of the negotiations within the FTAA and between MERCOSUR and the EU can only be solved at a multilateral level, involving (among others), the three relevant actors in these negotiations (MERCOSUR – EU – US). This means that the issues involved can only be unlocked at the WTO and, in turn, this needs the agreement of a group of countries, mainly the EU, the US and the MERCOSUR, especially Brazil.

3.   Expected effects of the agreements according to trade theory

From a theoretical point of view, the welfare effects of a preferential trade agreement for the countries involved are ambiguous. The theory of economic integration provides a set of propositions that help to identify the positive and the negative possible effects but at the end, the result is more empirical than theoretical. This is particularly true when the agreement involves large asymmetries in terms of the relative size and the development status of the countries. The result is even more uncertain when the countries negotiating a preferential agreement are linked to other countries by previous preferential agreements, as it happens with those participating in the FTAA negotiations.

The theory of economic integration points out to the static and dynamic effects of an integration process. Starting with a static model, the welfare effects of integration are explained by the changes in resource allocation, efficiency, consumption and terms of trade. Following Viner, the welfare impact of a free trade area (FTA), depends on the net result of *trade creation and trade deviation.* Due to the agreement, a country may replace domestic production with imports from a more efficient producer that enters the domestic market with preferential tariffs (trade creation). This brings about an improvement in resource allocation and an increase in welfare. The country may also replace imports from more efficient countries with imports from the new partner (trade deviation), but in this case, welfare decreases. When the country or region that enters an integration process is not a small economy, the FTA may affect its *terms of trade.* These are the usual effects of a FTA from the standpoint of the importing country.

In turn, in a static perfect competition model, the creation of a FTA generates effects on the welfare of the exporting country, due to its preferential access to its partners' domestic markets. The counterpart of each country's opening vis-à-vis its partners, is its *preferential access* of its exports to the partners' domestic markets. Wonnacott and Wonnacott (1981) emphasize the importance of the improvement in market access when considering the whole effect of integration. The preferential access to the partners' domestic markets has a positive effect on the exporting country but it may have positive or negative effects on the welfare of the FTA as a whole, depending on whether or not it compensates the negative effect of trade deviation.

Finally, when there are previous preferential agreements, the analysis gets more complicated because the creation of a FTA extends the preferential treatment to new partners and deteriorates the existing preferences. The costs of trade deviation and the gains from preferential market access would be reduced, while the positive effect of trade creation would increase. In other words, the country previously importing from preferential partners would reduce its trade deviation but, the country exporting to its previous partners, would reduce its gains from preferential market access to them.

Even though the theory is not conclusive, several theoretical hypotheses can be raised to evaluate the possible impacts of a FTA. The chances of gaining from a FTA would be larger for a country when:

i. tariffs in participating countries were high before the FTA creation, because the probability of trade creation will be high, without decreasing trade with the rest of the world;

ii. the share of the rest of the world in total imports is low, because the potential for trade deviation will be low;

iii. prices in the new partners are close to prices in the rest of the world;

iv. the number and the size of the countries participating in the new FTA are large, because the probability of prices in the bloc being closer to prices in the rest of the world is higher;

v. differences in supply from member countries are larger, because when the economies are more complementary, the probability of trade creation is higher;

vi. the integrated area is not too different from the world economy;

vii. the integrated area is far away from the rest of the world and its members are close to each other. The existence of transport costs tends to favor the formation of "natural blocs" among neighbor countries and to minimize the costs of trade deviation.[2]

Economic theory states that unilateral free trade is the optimal policy for a small country. This recommendation could be valid for the MERCOSUR countries as it is a relatively

small bloc in world trade. However, the situation is different in the case of several agricultural goods, as the MERCOSUR countries have a very significant share of world exports of those goods. Developed countries apply high protective barriers in the case of these agricultural goods. Under these conditions, the expected gains from unilateral trade liberalization are relatively low for the MERCOSUR countries. The opening of these countries in the context of high protection barriers for agricultural goods would deteriorate their terms of trade, compensating for the positive effect of the increased efficiency stemming from trade liberalization. A preferential agreement eliminating those distortions could avoid the deterioration of the terms of trade or even improve them (Melo, Panagariya and Rodrik, 1993).

Besides these static effects, an integration process generates "dynamic effects". They are associated with more competitive markets, with the presence of scale economies and with investment incentives. Even though there is no doubt about the importance of the dynamic effects, in this paper only the static effects are analyzed.

4.   The model

The methodology chosen for the analysis of the effects on MERCOSUR countries of the external negotiations is based on a computable general equilibrium (CGE) model. Several works dealing with the FTAA and its impact on MERCOSUR have adopted a similar approach (among others, Diao and Somwaru, 2001; Diao et al, 2002; Monteagudo and Watanuki, 2001). Giordano and Watanuki (2002) have also used this approach to analyze an agreement between MERCOSUR and the EU.

Most of the existing studies using this type of model include only Argentina and Brazil as members of the bloc. The model used in this paper also disaggregates the smallest countries in the bloc (Paraguay and Uruguay) in order to take into account the existing asymmetries

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[2]   See Frenkel, Stein and Wei (1993) and Krugman (1991).

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within MERCOSUR. In this way, it is possible to identify the different effects than can be expected in each negotiation option for each of the MERCOSUR members.

The CGE models deal with structural features that are absent in macroeconomic models, but they still are a stylized representation of the real world. Many aspects of economic behavior of the different agents are ignored or simplified, while only the most relevant ones for the issue under study are retained in the model. Therefore, the results obtained with policy simulations cannot be interpreted as predictions of what eventually will happen, but rather, as indicators of the direction and relative size of the possible outcomes o a given policy, as long as the exogenous or the excluded variables remain unchanged.

The model used here is a typical trade model that only considers real flows, ignoring the existence of money and financial flows. Neither does it take into account some significant features of modern economies like imperfect competition, scale economies, segmentation of labor markets or other market failures. In addition, being a static model, it can only show the impact of trade policy on relative prices, resource allocation and income distribution. Despite these limitations, CGE models are useful to evaluate the effect of trade policy on trade flows, allocation of resources and specialization in production. These models trace the whole set of relations among economic agents. They assume that each agent maximizes his welfare or his gains and from that starting point, supply and demand functions for goods are deducted, as well as factor demand functions. The equilibrium of the model is found when demand equals supply in every market. When a policy change is introduced, a new price vector is found that simultaneously clears each and every one of the markets included in the model.

The equations of the model are presented in the Appendix. It is a multi-country, multi-sector model with twelve countries or regions and twenty-two sectors. Perfect competition and constant returns to scale are assumed for all sectors. Nevertheless, goods are not homogenous, because they are differentiated by geographic origin, following a nested Armington specification (Armington, 1969).

In each country, output by sectors is obtained by combining intermediate inputs from different origins and primary factors (land, capital and labor). Factor supplies are fixed in each country and there is no international factor mobility.

In each country there is a single representative consumer. Government behavior is not explicitly specified and, therefore, tariff and taxes revenue is assigned directly to the representative consumer in each country. It is assumed that governments collect tariffs on imports and taxes on domestic output and they pay subsidies on production and exports. Total revenue in each country is obtained by adding all factor incomes (received by the representative consumer) plus the net revenue from taxes, subsidies and tariffs.

The representative consumer allocates his income to consumption by maximizing his utility function, subject to his budget constraint. Then he chooses how much imported and domestic goods he will buy and finally, he chooses where he will import from.

Total demand for goods in each sector from each country is obtained by adding intermediate and final demand in the domestic market plus export destined to each trade partner. Total supply of goods by sector includes domestic production and imports from every trade partner.

The solution of the model means there is a simultaneous equilibrium in every good market and every factor market. Factor markets are in equilibrium when the sum of demands from the different sectors equals supply for each factor, which is fixed in each country. The external equilibrium is found when the external debt in each country equals the difference between income and consumption. The closure of the model assumes the external debt is fixed in each country.

4.1   *Calibration of the model*

The model parameters were calibrated from a database provided by the Department of Integration and Regional Programs of the Inter-American Development Bank (IDB-DIRP). The base year is 2000. The core of this database was the social accounting matrices from the database GTAP v.5 (1997). They were updated by the IDB-DIRP using GDP data and Consumer Price Indexes whenever possible, or they were directly estimated by IDB-DIRP. Trade data were obtained from the databases DATAINTAL, FTAA and UN COMTRADE; protection data is based on FTAA, complemented with data from SICE (OAS) and the MERCOSUR web site. The *ad valorem* equivalent for specific or mixed tariffs, as well as quotas, were estimated by IDB-DIRP, using information at the 8-digit level of the Harmonized System and information from the USITC and Jank (2004); other information sources were Government Finance Statistics and International Financial Statistics Yearbooks (FMI); additional data were obtained from the Central Banks of Paraguay and Uruguay. The advantage of this database as compared with other available sources is the existence of disaggregated data for Paraguay. The twelve countries or regions considered in the model are presented in Table 1, while the disaggregation by sectors is shown in Table 2.

Table 1
Countries and regions considered in the model

Code	Country or region	Code	Country or region
ARG	Argentina	CAC	Central America and Caribbean
BR	Brazil	MEX	Mexico
PRY	Paraguay	CAN	Canada
URY	Uruguay	USA	United States
CHL	Chile	E_U	European Union
A_C	Andean Community	ROW	Rest of the world

The tariff data refers to those actually applied, taking into account preferences granted by most agreement in the framework of LAIA (MERCOSUR, Chile- MERCOSUR, Andean Community, and Andean Community -MERCOSUR). However, preferences granted by the agreements between Mexico and the MERCOSUR countries are not considered.

Table 2
Sectors considered in the model

Code	Sector	Code	Sector
WHEAT	Rice and Wheat	DAIRY	Dairy Products
CORNS	Corn and Other Grains	BVTBC	Beverages and Tobaccos
VEGET	Vegetables and Fruits	OTHFD	Vegetable Oils and Other Food Products
SYBNS	Soybeans	TXTIL	Textiles and Leather and footwear
OSEED	Oil Seeds	OTLMF	Light Manufactures
SUGAR	Sugar	PETRO	Petroleum and Chemicals
COFFE	Coffee and Other Crops	METAL	Metals
LVSTK	Livestock and Animal Products	VEHCL	Automobiles
MNING	Mining	MCHNY	Machinery and Equipment
BVNMT	Bovine Meat	UTLTY	Utilities and Construction
OMEAT	Poultry Meat	SERVC	Trade and Services

Laens and Terra (2005) showed that the effect of preferential tariffs on the possible outcomes of the FTAA is significant, especially for countries like Uruguay or Chile. Therefore, the inclusion of the most relevant tariff preferences in this database is a significant advantage of the same as compared with other world databases of the same type. Given that the purpose of this study in terms of showing the impact of MERCOSUR external trade negotiations on each of the member countries, it is crucial to work with a database containing those preferences.

For each sector and country, the applied tariffs are a simple average of tariffs on goods belonging to that specific sector. This solution has some inconvenience, as the average tariff obtained for each sector is neither the protectionist barrier faced by goods actually imported, nor the protection received by goods actually produced in that sector in the given country. Generally, trade is biased towards goods with low tariffs, while domestic output is biased towards goods with high tariffs. Clearly, simple averages are not realistic but, at least, they are free from those biases.

Table 3 shows the average tariffs actually applied in several countries to imports coming from the MERCOSUR countries. The level of protection that MERCOSUR faces in the main FTAA markets (Mexico, the US and Canada) is significantly higher than the level of protection *vis-à-vis* the rest of the world, because the mix of exportable goods is

concentrated in a set of agricultural goods highly protected in those countries. The same thing happens in relation to the EU.

Table 3
Total imports and average tariff applied*

	Total imports**	Baseline Average Tariff	Average Tariff applied to Mercosur countries			
			Argentina	Brazil	Paraguay	Uruguay
Mexico	200.267	4,7	17,9	15,8	20,3	26,3
USA	1.406.403	2,4	3,1	2,2	4,1	6,4
Canada	278.914	1,6	7,4	5,9	7,4	12,0
Andean Comm	47.143	10,5	10,4	9,0	11,2	11,4
European Union	1.323.095	4,3	19,7	8,8	6,0	28,7

*Average tariff weighted by trade
** U$S millions

5. Simulations and Results

The seven scenarios that were simulated are summarized in Table 4. Two of them refer to the FTAA (full or restricted), two of them to the agreement between the EU and MERCOSUR (full and restricted) and the other three deal with the WTO negotiations.

Table 4
Scenarios for the simulations

Scenario	Description
FTAA full agreement	Complete trade liberalization among the countries of the Americas (US, Canada, Mexico, Central America and Caribbean countries, Andean Community, Chile, Argentina, Brazil, Paraguay and Uruguay)
FTAA restricted agreement	Same as Full FTAA but no liberalization in agricultural goods and food
EU-MERCOSUR full agreement	Complete trade liberalization between the EU and the MERCOSUR countries
EU-MERCOSUR restricted agreement	Same as Full EU-MERCOSUR but no liberalization in agricultural goods and food
Full WTO	50% tariff reduction in all countries belonging to the WTO, 50% reduction of domestic support and of export subsidies in the EU and the US
WTO dsup&sub	Elimination of domestic support and of export subsidies in the EU and the US
WTO peaks	Reduction to a maximum of 35% for all tariffs above 70% and 50% reduction for all other tariffs in all WTO countries

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5.1   FTAA

The creation of the FTAA would lead to a significant reduction in the existing protection in the four MERCOSUR countries, increasing import competition in domestic markets. At the same time, it would improve access to FTAA markets. This is particularly important in the case of large partners like the US and Canada that apply high protection barriers to imports of agricultural goods and light manufactures, even though their tariffs are low for most other items. As it was said before, MERCOSUR has comparative advantages precisely in those highly protected items. The FTAA would also improve MERCOSUR access to other small but highly protected markets.

Table 5 shows the average tariffs applied by the MERCOSUR as a whole and by each country in the baseline and in the scenarios concerning the FTAA. It also presents the changes in the opening coefficient for MERCOSUR and for each member country.

Table 5
Average protection and trade openness by scenario
FTAA negotiation options

	Mercosur	Argentina	Brazil	Paraguay	Uruguay
Average tariff (%)					
Baseline	11,1	9,4	12,2	5,9	6,1
Full agreement	5,1	4,7	5,3	4,1	3,6
Restricted agreement	5,2	4,9	5,4	4,5	3,8
Trade openness (%)					
Baseline	24,7	21,4	25,4	52,9	41,4
Full agreement	27,2	22,7	28,5	54,0	43,5
Restricted agreement	27,1	22,5	28,5	53,5	43,0

The creation of the FTAA would lead to a significant decline in the level of protection and to a rise in trade opening in MERCOSUR. Average tariff falls from 11% to 5%, while the trade opening coefficient climbs from 24.7% to 27.2%. Brazil is most affected by this

change because it is the country with the largest share of imports coming from outside the MERCOSUR; Argentina is the second most affected country. In 2000, 79% and 90% of Argentine and Brazilian imports (respectively) came from non MERCOSUR members, while those shares were 62% in the case of Paraguay and 68% in the case of Uruguay. That explains why the average tariff (considering trade flows with the bloc and with the rest of the world) falls from 9% to 4% in Argentina, from 12% to 5% in Brazil and from 6% to 4% in Uruguay and Paraguay.

Table 6 shows that the impact of the FTAA on welfare and GDP for the MERCOSUR countries would be rather small. This is the usual result in this type of models that do not consider the effects of scale economies, increased competition and technological externalities, thus underestimating the actual impact of a change in trade policies.

Table 6
Global results by scenario (% variations)
FTAA negotiations options

	MERCO-SUR	Argen-tina	Brazil	Paraguay	Uruguay	Chile	Andean countries	Central America & Carib.	Mexico	Canada	USA
Full agreement											
Equivalent Variations	-0,03	-0,08	-0,02	-0,02	0,22	0,49	-0,04	0,52	0,02	0,01	0,03
Terms of trade	-0,05	-0,08	-0,04	0,00	0,18	0,39	-0,08	0,23	-0,08	-0,04	0,03
Real GDP	0,02	0,00	0,02	-0,02	0,04	0,10	0,04	0,28	0,10	0,05	0,00
Real exports	11,36	6,88	13,93	2,97	5,22	7,06	9,53	11,91	3,97	0,88	1,42
Real imports	9,07	5,38	11,05	1,70	5,20	9,09	10,24	13,17	3,07	0,85	1,38
Restricted agreement											
Equivalent Variations	-0,05	-0,11	-0,03	-0,07	0,07	0,18	-0,04	0,51	0,02	0,01	0,03
Terms of trade	-0,06	-0,10	-0,04	-0,02	0,07	0,14	-0,06	0,29	-0,04	0,00	0,03
Real GDP	0,01	-0,01	0,02	-0,05	0,00	0,04	0,02	0,22	0,06	0,01	0,00
Real exports	10,90	6,24	13,62	1,76	3,88	5,85	7,64	9,24	2,67	0,11	1,09
Real imports	8,56	4,58	10,73	0,90	3,69	6,98	8,24	10,56	2,13	0,14	1,06

The FTAA creation would increase competitiveness in the hemisphere, because protection would fall in most countries, except in the US and Canada. Being the largest countries involved in the negotiations, they would be the least affected. For the other countries, more protected in the baseline, the creation of the FTAA would mean a significant progress in terms of trade liberalization. In the case of the US and Canada the impact is much lower,

given the large asymmetries in relation to the other countries. In addition, the latter apply very low tariffs to most items and they had previously granted preferential tariffs to a large share of imports coming from the rest of America.

MERCOSUR imports would increase nearly 9% and exports would expand by 11%. This result is mainly explained by trade growth in Brazil, while for the other MERCOSUR countries the increase in trade flows would be much smaller. As it was said above, this is so because Brazil has a significant share of its trade with the other countries outside MERCOSUR, while the smaller countries have more intense trade relationships with their MERCOSUR partners, whose tariffs would not change for them.

Table 6 shows that the GDP would increase in MERCOSUR as a result of improved resource allocation and of production efficiency. Uruguay would get the largest gains, followed by Brazil, while the effect on Argentine GDP would be negligible and negative in the case of Paraguay. Nevertheless, in the case of Argentina and Brazil, this positive effect would be compensated by the negative impact on the terms of trade, so they would have a welfare loss. On the contrary, Uruguay would improve its terms of trade, thus reinforcing the positive impact on welfare. Uruguay would be the only country gaining from the FTAA. The net effect on MERCOSUR as a whole would also be negative[3].

The terms of trade effects are the result of the variation in import and export prices *vis-à-vis* the MERCOSUR partners, the other FTAA partners and the rest of the world. In table 7 a decomposition of the terms of trade variation is presented. The creation of the FTAA would bring about a fall in MERCOSUR prices, so that imports from that origin and exports to that destination would be reduced. The net effect on the terms of trade in relation to the other MERCOSUR partners is positive for all its members, except Argentina. In the case of Uruguay, export prices would increase, even within MERCOSUR. In this case, the opening of the large North American markets to agricultural and food products, for which Uruguay

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[3] The effects on the terms of trade in the simulated changes in trade policy should be taken cautiously, because the use of Armington functions with rather low substitution elasticities, as it was done here, may lead

has strong comparative advantages, would lead to a reorientation of its exports, substituting exports to the rest of the world for exports to the MERCOSUR. Then, export prices would rise, both to the MERCOSUR and to the rest of the world, even though preferences within the bloc would be eroded. The main Uruguayan exports to NAFTA countries are beef, dairy products, vegetables and textiles.

Uruguay seems to be the country that benefits the most from the FTAA. The US and Canada also receive positive impacts. The Andean countries, those of Central America and Caribbean and Mexico, increase their efficiency, but the deterioration of the terms of trade leads to a welfare loss for their consumers. These results are not consistent with those obtained in Laens and Terra (2005), where the main winners were Argentina and Brazil. This difference can be explained because in the previous work the completeness of the MERCOSUR and the agreement MERCOSUR-Chile were considered, while in this case both agreements are already considered in the baseline. In addition, from 1997 (baseline of the previous work) to 2000 (baseline in the present work) there was a substantial change in trade flows. Brazil devaluated its currency and lowered its share as destination of exports from the rest of the bloc, so that a negative effect stemming from the erosion of the preferential access to that country is much lower than in the previous work and the positive impact of access improvement to the other countries in the hemisphere becomes more important.

The scenario that entails a restricted FTAA (not including agriculture and food products) would have even larger negative effects on the welfare of the four MERCOSUR countries. The bloc as a whole would get lower efficiency gains and larger losses associated to the deterioration of the terms of trade, when trade opening does not include the agricultural and food sectors.

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to an overestimation.

Table 7
Terms of trade disaggregation
FTAA full negotiation

	MERCOSUR	FTAA	REST OF FTAA	REST OF THE WORLD	TOTAL
ARGENTINA					
Terms of trade effect	-0,01	-0,04	-0,03	-0,03	-0,08
Exports price variation	-0,02	-0,04	-0,02	-0,03	-0,08
Imports price variation	-0,01	0,00	0,01	0,00	0,00
BRASIL					
Terms of trade effect	0,00	-0,03	-0,03	-0,01	-0,04
Exports price variation	-0,01	-0,02	-0,02	-0,01	-0,03
Imports price variation	-0,01	0,00	0,01	0,00	0,01
PARAGUAY					
Terms of trade effect	0,04	0,01	-0,03	-0,02	0,00
Exports price variation	-0,01	-0,02	-0,01	-0,01	-0,04
Imports price variation	-0,05	-0,03	0,02	0,00	-0,03
URUGUAY					
Terms of trade effect	0,08	0,10	0,02	0,08	0,18
Exports price variation	0,03	0,07	0,04	0,08	0,15
Imports price variation	-0,05	-0,03	0,02	0,00	-0,03

A FTAA agreement without restrictions would lead to a 15% increase in MERCOSUR exports and an 11% rise in imports. This variation is explained by the behavior of Brazil, because trade flows of the other partners would increase more slowly. The other small partners of the FTAA (rest of South America, Central America and Caribbean) would also have a significant expansion of trade flows, while the US and Canada would be less affected and the EU and the rest of the world would receive a lower negative effect, stemming from trade deviation.

A restricted agreement in FTAA would bring about a much smaller expansion of trade within the bloc and a smaller trade deviation effect in relation to the rest of the world. Table 8 shows the share of the FTAA countries in total trade of each of the MERCOSUR countries at the baseline and after the creation of the FTAA. A fall in intra-bloc trade is observed in MERCOSUR, together with a decline in the share of the EU and the rest of the world as origin and destination of trade flows of the MERCOSUR countries. At the

baseline, 72% of Argentine exports and 79% of Argentine imports involved countries outside MERCOSUR. After the creation of the FTAA, these figures increase as the share of NAFTA rises substantially.

Table 8
FTAA negotiations options
Effects on the orientation of trade

	Share of total exports					Share of total imports				
Scenarios	**Mercosur**	**NAFTA**	**Rest of America**	**European Union**	**Rest of the world**	**Mercosur**	**NAFTA**	**Rest of America**	**European Union**	**Rest of the world**
Argentina										
Baseline	28,04	13,94	13,63	22,61	21,78	20,72	24,24	3,00	26,08	25,98
Full agreement	24,98	17,41	14,44	22,01	21,16	18,05	34,20	3,28	22,15	22,32
Restricted agreement	25,58	16,42	14,02	22,44	21,54	18,25	34,00	3,16	22,22	22,37
Brazil										
Baseline	11,26	27,52	6,29	28,88	26,04	10,22	26,91	3,92	30,22	28,74
Full agreement	9,24	34,73	6,94	25,86	23,22	8,60	40,07	4,25	23,91	23,16
Restricted agreement	9,28	34,38	6,88	26,07	23,39	8,78	39,83	4,23	23,96	23,20
Paraguay										
Baseline	32,26	15,56	11,26	21,64	19,28	38,50	14,35	1,85	16,90	28,40
Full agreement	30,57	16,01	13,15	21,34	18,93	36,64	19,18	2,26	15,75	26,18
Restricted agreement	31,41	16,16	11,32	21,79	19,32	37,85	17,67	2,14	16,02	26,31
Uruguay										
Baseline	28,47	19,13	5,22	23,98	23,20	32,14	16,00	5,76	24,06	22,05
Full agreement	23,92	27,05	5,84	21,94	21,26	30,80	20,40	6,76	21,97	20,07
Restricted agreement	25,46	24,04	5,33	22,94	22,23	31,05	20,23	6,62	21,99	20,11

In the case of Brazil, the trade share of countries outside the MERCOSUR was 90% at the baseline and, even though it rises slightly after the FTAA, the larger share of trade within the hemisphere is accompanied by a reduction of trade with the EU. This evolution is also found in the smallest MERCOSUR countries. The creation of a FTAA brings about an increase of trade with the rest of the FTAA with a parallel decrease of intra-MERCOSUR trade and of trade with the rest of the world.

The improvement in market access to the US would be the most important, for two reasons: the size of the US market and the importance of the US as a destination for MERCOSUR exports at the baseline. In the case of Brazil, the share of trade with the US was 27% at the baseline and it climbs to 35% of total exports and 40% of total imports after the FTAA creation. Even though the US showed relatively low protection levels for the most part of the items in the Harmonized System, it applied high tariffs for some products (grains,

soybeans, sugar, coffee, beef, dairy products, other food and beverages, textiles) where MERCOSUR has strong comparative advantages (see table 9).

Table 9
Revealed Comparative Advantages

		Argentina	Brazil	Paraguay	Uruguay	MERCOSUR
Rice and Wheat	WHEAT	21,54	0,04	3,05	21,12	7,17
Corn and Other Grains	CORNS	17,33	0,33	7,80	0,55	5,38
Vegetables and Fruits	VEGET	4,60	1,39	0,00	1,76	2,32
Soybeans	SYBNS	15,09	16,73	98,13	0,56	16,87
Oil Seeds	OSEED	13,10	0,07	3,07	0,39	3,91
Sugar	SUGAR	2,18	13,84	7,88	0,83	9,85
Coffee and Other Crops	COFFE	1,59	5,91	7,81	2,50	4,55
Livestock and Animal Products	LVSTK	4,31	3,04	3,52	11,49	3,75
Bovine Meat	BVNMT	10,30	4,23	29,45	51,01	8,26
Poultry Meat	OMEAT	0,32	6,91	0,00	0,00	4,61
Dairy Products	DAIRY	5,92	0,10	0,00	17,68	2,50
Beverages and Tobaccos	BVTBC	1,94	0,33	0,00	5,04	0,98
Vegetable Oils and Other Food Products	OTHFD	9,72	4,40	4,26	2,90	5,88
Mining	MNING	2,04	1,20	0,01	0,01	1,38
Textiles and Leather and footwear	TXTIL	0,83	1,09	1,10	2,62	1,08
Light Manufactures	OTLMF	0,44	1,42	0,91	0,55	1,09
Petroleum and Chemicals	PETRO	1,00	0,81	0,25	0,85	0,86
Metals	METAL	0,89	2,17	0,14	0,44	1,70
Automobiles	VEHCL	0,68	1,13	0,00	0,38	0,95
Machinery and Equipment	MCHNY	0,11	0,38	0,00	0,04	0,28
Trade and Services	SERVC	0,70	0,62	1,72	1,36	0,69

The creation of the FTAA tends to consolidate the specialization of the MERCOSUR in producing and exporting agricultural products, food and light manufactures, according to the comparative advantages of the bloc (see Table 10). The most important changes in specialization are observed in the case of Brazil, where there is an increase in the export propensity for coffee, beef, cattle, vegetable oils, other foods and automobiles. In Uruguay the export propensity for several agricultural products (especially beef), food and textiles increases, but there is a fall in export propensity for automobiles. The tariff reduction would lead to a significant decline in the price of intermediate inputs and a fall in production costs.

Table 10
FTAA agreement
Changes in specialization pattern

	ARGENTINA			BRAZIL			PARAGUAY			URUGUAY		
	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **
Rice and Wheat	28,08	0,48	0,39	0,05	0,00	0,00	8,12	0,42	-0,19	41,04	0,68	0,09
Corn and Other Grains	30,82	0,69	0,59	1,07	-0,05	0,04	12,52	0,62	-0,26	3,32	-0,13	-0,03
Vegetables and Fruits	7,64	0,38	0,32	1,66	0,40	0,08		0,00	0,00	12,67	2,95	0,45
Soybeans	14,03	0,36	0,48	22,99	-0,99	0,55	47,67	0,66	-0,01	5,06	-0,32	0,16
Oil Seeds	14,38	2,14	0,47	3,80	-0,10	0,16	7,29	-0,12	0,11	1,04	0,00	0,01
Sugar	2,09	0,33	0,09	7,17	0,13	0,28	3,65	1,21	0,07	1,23	-0,09	0,05
Coffee and Other Crops	8,03	0,64	0,33	22,58	1,87	0,81	11,47	0,10	0,05	15,70	0,11	0,49
Livestock, animal prod.	13,78	0,75	0,67	4,70	3,60	0,25	3,12	0,28	0,01	22,26	3,62	0,46
Bovine Meat	6,51	0,89	0,26	4,33	9,99	0,14	22,66	3,14	-0,28	45,06	12,19	0,53
Poultry Meat	0,30	0,01	0,02	8,84	2,32	0,34		0,00	0,00		0,00	0,00
Dairy Products	1,71	0,53	0,05	0,08	0,00	0,00		0,00	0,00	15,76	0,88	0,10
Bever. & tobacco	2,44	0,63	0,17	1,54	0,30	0,10		0,00	0,00	11,46	-2,43	0,17
Veget. oils & oth. food	15,43	0,89	0,59	9,66	4,36	0,41	19,99	0,56	0,11	12,67	1,88	0,35
Mining	38,28	0,47	0,75	28,60	-0,29	1,16	3,01	0,01	0,05	3,95	-0,16	0,08
Text., leath. & footwear	3,31	1,00	1,07	5,96	0,94	1,46	23,96	3,66	3,93	41,23	2,22	4,85
Light Manufactures	2,84	0,22	0,25	7,78	0,40	0,83	21,04	-0,27	-0,10	15,06	-1,24	-0,48
Petroleum & chemicals	5,60	0,17	0,20	5,36	0,11	0,29	17,46	0,70	0,96	17,62	-1,08	-0,29
Metals	3,66	0,41	0,45	10,68	0,56	0,99	11,94	-0,97	-0,88	12,89	-0,44	0,52
Automobiles	7,53	0,66	0,79	18,43	4,46	5,81		0,00	0,00	27,31	-5,44	-4,38
Machinery & equipment	3,97	0,15	0,19	11,59	0,60	1,06		0,00	0,00	9,17	-0,37	0,25
Utilities & construction		0,00	0,00		0,00	0,00		0,00	0,00		0,00	0,00
Trade & services	3,65	0,13	0,17	2,03	0,00	0,11	12,16	-0,03	0,19	7,63	-0,42	0,30

* Export propensity coefficient (export/output in percent)
** Absolute change in export propensity coefficient

In the case of Argentina, production of grains and oil seeds increase, but production of automobiles, machinery and equipment declines. This is consistent with a rise in the relative price of agricultural products relative to manufactured goods. Even though prices of goods fall in terms of the numeraire,[4] in the case of manufactured goods, especially in heavy industries with highest technological contents, prices decline. In Brazil production of soybeans, sugar, coffee, textiles and metal products and automobiles rises, while the opposite is true for the production of grains, beef, dairy products and machinery and equipment. This group is particularly affected by the decrease in relative prices. In

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[4]   The results obtained from simulations carried out with CGE models are changes in *relative* prices. In order to express all prices in a common unit, a numeraire has to be chosen. In this study, the

Paraguay several agricultural sectors increase their production, while production of beverages and tobacco, textiles and manufactures is reduced. In the case of Uruguay, the sectors that increase their production are grains, cattle-raising, beef, dairy products, food and textiles and those that decline are most other manufactures.

The return to factors of production, in terms of the numeraire, improves in the four MERCOSUR countries, except in the scenario of a restricted FTAA, when wages in Argentina and the land rent in Uruguay and Paraguay decline. A total elimination of tariffs in the FTAA leads to a more than proportionate increase in land rent in Argentina, Brazil and Uruguay. In the case of Argentina, Brazil and Paraguay labor is the factor with lower gains, while in Uruguay capital is the least favored factor (see the first two columns in Table 11).

Table 11
Real factor returns

	FTTA		Mercosur-EU		WTO		
	Full agreement	Restricted agreement	Full agreement	Restricted agreement	50% cut in subsidies & dom. support	50% tariff cut plus peaks	50% cut in tariffs, subsidies & dom. support
				ARGENTINA			
Labor	0,147	0,111	0,170	-0,006	0,048	0,171	0,200
Capital	0,298	0,264	0,531	0,231	0,000	0,379	0,373
Land	1,317	0,969	3,997	1,336	0,825	2,382	2,884
				BRAZIL			
Labor	0,598	0,596	0,277	0,315	-0,002	0,404	0,407
Capital	0,578	0,541	0,768	0,415	0,024	0,697	0,699
Land	0,665	0,417	3,079	1,076	-0,043	2,797	2,670
				PARAGUAY			
Labor	0,359	0,216	0,473	0,355	0,034	0,735	0,738
Capital	0,383	0,217	0,449	0,358	0,035	0,676	0,681
Land	0,549	0,216	0,985	0,051	0,100	1,330	1,288
				URUGUAY			
Labor	0,589	0,317	0,954	0,219	0,161	1,033	0,947
Capital	0,566	0,490	0,460	0,351	0,042	0,618	0,563
Land	2,441	-0,086	9,939	0,830	2,200	8,132	8,023

numeraire is the wage per unit of labor in the EU, so all prices are defined relative to that one price.

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5.2   MERCOSUR-EU agreement

As in the case of the FTAA, a free trade agreement between MERCOSUR and the EU
would have a large impact on the level of protection presently enforced in the MERCOSUR
(see Table 12).

Table 12
Average protection and trade openness by scenario
MERCOSUR - European Union agreement options

	MERCOSUR	Argentina	Brazil	Paraguay	Uruguay	European Union
Average tariff (%)						
Baseline	11,1	9,4	12,2	5,9	6,1	4,3
Full agreement	5,4	4,9	5,8	3,9	3,3	3,9
Restricted agreement	5,6	5,0	6,0	4,3	3,5	4,2
Trade openness (%)						
Baseline	24,7	21,4	25,4	52,9	41,4	33,2
Full agreement	27,3	23,3	28,3	54,2	43,9	33,6
Restricted agreement	26,5	22,3	27,7	53,9	42,6	33,4

The absolute decrease in protection would be most important in the case of Brazil, as the
average tariff would fall from 12,2% to 6%. As protection falls, both blocs increase their
trade opening, but the variation is sharper for the MERCOSUR countries, especially when a
full agreement is simulated. In that scenario, the trade opening coefficient rises three
percentage points in the case of Brazil and two percentage points in Argentina. The
smallest countries do not have a similar change, because they were more open economies to
begin with and their level of protection at the baseline was considerably low.

The overall effects on welfare, terms of trade and GDP are quite low for every country and
very similar to those obtained in the FTAA simulation (see Table 13). In a full agreement
with the EU the four countries increase their welfare (measured by equivalent variations),
but in all cases the gains are be very small (less than 0,5%). In the case of Argentina and
Uruguay, these gains can be mainly explained by the positive variation of their terms of
trade and by a slight increase in GDP. The opposite situation is found in Brazil and

Paraguay, where the welfare gains are basically explained by the increase in GDP that compensates the negative variation of their terms of trade. Uruguay benefits the most with a full agreement with the EU (0,35%), because more than 30% of its exports to the bloc are beef products presently protected there by very high tariffs.

Table 13
Global results by scenario (% variations)
MERCOSUR - European Union agreement options

	MERCOSUR	Argentina	Brazil	Paraguay	Uruguay	European Union
Full agreement						
Equivalent Variations	0,07	0,15	0,02	0,06	0,35	0,05
Terms of trade	0,02	0,10	-0,02	0,02	0,24	0,03
Real GDP	0,04	0,05	0,04	0,05	0,12	0,02
Real exports	11,21	8,82	12,77	3,42	6,03	1,08
Real imports	9,58	8,95	10,28	2,14	6,15	1,11
Restricted agreement						
Equivalent Variations	-0,14	-0,15	-0,14	0,06	-0,07	0,05
Terms of trade	-0,12	-0,13	-0,12	0,10	-0,05	0,04
Real GDP	-0,02	-0,02	-0,02	-0,03	-0,02	0,01
Real exports	8,66	5,23	10,68	2,22	3,04	0,58
Real imports	6,23	3,40	7,76	1,62	2,61	0,77

When trade barriers are removed in the EU, imports from the MERCOSUR become more competitive and demand for them increases. This leads, later on, to an increase in MERCOSUR export prices, thus improving the terms of trade. This effect is largest in the case of Uruguay, given the high protection its main export products face at the baseline in the EU.

The high share of food exports in MERCOSUR trade with the EU explain the results obtained when a restricted agreement is simulated. In fact, a welfare loss is observed in every country except Paraguay, but the size of this effect is very small. When agricultural

and food products are excluded from the agreement, the terms of trade show a negative variation in Argentina, Brazil and Uruguay because their main export products would keep their high protection. This negative variation in the terms of trade is not compensated by the positive effect on GDP (which is rather low), so that the global effect is negative for the three countries. The opposite is true in Paraguay, with a positive change in the terms of trade and a decline of real GDP that does not compensate for that positive effect.

The other partner of the agreement, the EU, improves its welfare, regardless of the type of agreement simulated. The EU shows a positive variation in the terms of trade and an increase in GDP in both simulations. Even though MERCOSUR has only a 2% share in total EU imports, an agreement between both blocs would be beneficial for the EU, as the results show for both scenarios.

The largest impact of a full agreement between the MERCOSUR and the EU is found in trade flows. MERCOSUR exports and imports increase 11% and 10%, respectively. Brazil is the country with the highest trade increase, because its average tariff lowers the most, as it was shown before. Given the assumption adopted of a constant trade balance, in Argentina and Uruguay imports rise more than exports due to the positive change in the terms of trade. When a restricted agreement is simulated, the impact on trade flows is lower and real exports increase more than real imports, due to the fall in the terms of trade.

The difference between the effects on trade of a full agreement or those of a restricted agreement is more relevant in the case of Argentina and Uruguay. Again, this is explained by the high share of agricultural and food products heavily protected in the EU in their total exports. If the tariffs imposed on these goods remain unchanged (as it is assumed in the restricted agreement), these countries would have very limited opportunities to increase their exports to the EU.

By contrast, EU trade does not change much. MERCOSUR share in EU trade is very small, so a bilateral agreement would have a negligible effect on trade flows in the EU, regardless of the type of agreement.

The changes in the orientation of trade *vis-à-vis* each partner is shown in Table 14. As it could be expected, an agreement with the EU increases the share of MERCOSUR exports towards that destination, both in a full or restricted agreement. At the baseline, the share of Argentine exports to the EU was almost 23%, but they rise to 25% in the case of a restricted agreement and they climb to 35% in a full agreement. A similar behavior is found in Uruguay and, to a lesser extent in Brazil. Paraguay is the country that shows the smallest change in the share of exports destined to the EU with an increase of just three percentage points at the most.

Table 14
MERCOSUR- EU agreement options

Scenarios	Share of total exports					Share of total imports				
	MERCO SUR	NAFTA	Rest of America	European Union	Rest of the world	MERCO SUR	NAFTA	Rest of America	European Union	Rest of the world
Argentina										
Baseline	28,04	13,94	13,63	22,61	21,78	20,72	24,24	3,00	26,08	25,98
Full agreement	21,46	12,23	12,01	35,14	19,16	16,85	20,52	2,59	37,72	22,32
Restricted agreement	24,56	14,50	13,79	24,88	22,28	17,66	20,57	2,61	36,86	22,30
Brazil										
Baseline	11,26	27,52	6,29	28,88	26,04	10,22	26,91	3,92	30,22	28,74
Full agreement	8,94	25,04	5,70	37,18	23,14	7,81	21,24	3,37	43,91	23,68
Restricted agreement	9,17	27,46	6,16	32,16	25,04	8,58	21,26	3,36	43,14	23,66
Paraguay										
Baseline	32,26	15,56	11,26	21,64	19,28	38,50	14,35	1,85	16,90	28,40
Full agreement	31,04	14,98	10,87	24,54	18,56	35,20	13,42	1,74	23,52	26,12
Restricted agreement	30,50	15,56	11,09	23,59	19,26	37,70	13,51	1,75	21,15	25,89
Uruguay										
Baseline	28,47	19,13	5,22	23,98	23,20	32,14	16,00	5,76	24,06	22,05
Full agreement	22,50	16,94	4,62	35,43	20,51	27,76	14,46	5,41	32,34	20,03
Restricted agreement	25,35	19,43	5,24	26,57	23,42	29,44	14,38	5,40	30,90	19,88

The counterpart of the increasing importance of the EU as a destination market for MERCOSUR exports is a decrease in the relative importance of almost every other destination (except in Argentina and Uruguay when a restricted agreement is simulated). In

particular, MERCOSUR reduces its importance as destination of exports of its own members.

On the import side, the EU was an important supplier for all the MERCOSUR countries at the baseline, ranging from 17% of total imports in Paraguay to 30% in Brazil. In every case, these percentages show a sharp increase, reaching a maximum of 44% in Brazil when a full agreement is simulated. MERCOSUR imports from its own members reduce their relative importance, even in the case of Argentina and Brazil where it was very low at the baseline. In Paraguay and Uruguay, the increasing share of the EU compensates the apparent trade deviation to the large MERCOSUR partners. In fact, for the smallest countries, the other MERCOSUR partners would be the main losers from the imports reorientation.

Taking into account import flows, there is not much difference between the results obtained in one scenario or the other. However, the difference between both results is significant in the case of exports. Therefore, for the EU the market access effect would be similar in both alternatives, but for the MERCOSUR it would be clearly lower in a restricted agreement.

These asymmetric results are explained by the characteristics of bilateral comparative advantages. The improved access to the MERCOSUR markets entails good opportunities for manufactured goods made in the EU. On the contrary, if the agreement does not cover the agricultural sector, in which the MERCOSUR countries present a clear comparative advantage, their potential for taking advantage of the agreement is limited.

The simulation results by sector presented in Table 15 indicate that a full agreement would reinforce the specialization pattern of the MERCOSUR, which is based on agriculture, food production and light manufactures. The sectors producing livestock and bovine meat show the largest output increase in the four MERCOSUR countries, with a parallel growth in their export propensity. Other sectors that would benefit from a full agreement would be grains and vegetable oils and other food (in Argentina and Brazil), soybeans (in Paraguay),

textiles (in Paraguay and Uruguay) and vegetable and fruits and dairy products (in Uruguay). All these sectors increase their output and improve their export propensity. On the other hand, the automobile industry and the manufacturing of machinery and equipment are the sectors most harmed in every country, with a significant output reduction.[5]

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[5] The positive export penetration coefficients observed in Brazil and Argentina in these sectors are explained by a negative variation of both output and exports.

Table 15
MERCOSUR – European Union agreement
Changes in specialization pattern

	ARGENTINA			BRAZIL			PARAGUAY			URUGUAY		
	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **	Baseline*	Full **	Restr. **
Rice and Wheat	28,08	-1,09	0,37	0,05	0,00	0,00	8,12	0,42	-0,19	41,04	0,68	0,09
Corn and Other Grains	30,82	5,25	0,80	1,07	-0,05	0,04	12,52	0,62	-0,26	3,32	-0,13	-0,03
Vegetables and Fruits	7,64	1,36	0,43	1,66	0,40	0,08		0,00	0,00	12,67	2,95	0,45
Soybeans	14,03	-1,24	0,57	22,99	-0,99	0,55	47,67	0,66	-0,01	5,06	-0,32	0,16
Oil Seeds	14,38	-1,31	0,67	3,80	-0,10	0,16	7,29	-0,12	0,11	1,04	0,00	0,01
Sugar	2,09	-0,07	0,12	7,17	0,13	0,28	3,65	1,21	0,07	1,23	-0,09	0,05
Coffee and Other Crops	8,03	0,33	0,49	22,58	1,87	0,81	11,47	0,10	0,05	15,70	0,11	0,49
Livestock, animal prod.	13,78	5,80	0,97	4,70	3,60	0,25	3,12	0,28	0,01	22,26	3,62	0,46
Bovine Meat	6,51	10,23	0,35	4,33	9,99	0,14	22,66	3,14	-0,28	45,06	12,19	0,53
Poultry Meat	0,30	0,10	0,02	8,84	2,32	0,34		0,00	0,00		0,00	0,00
Dairy Products	1,71	-0,16	0,06	0,08	0,00	0,00		0,00	0,00	15,76	0,88	0,10
Bever. & tobacco	2,44	0,54	0,23	1,54	0,30	0,10		0,00	0,00	11,46	-2,43	0,17
Veget. oils & oth. food	15,43	4,55	0,88	9,66	4,36	0,41	19,99	0,56	0,11	12,67	1,88	0,35
Mining	38,28	-1,04	1,33	28,60	-0,29	1,16	3,01	0,01	0,05	3,95	-0,16	0,08
Text., leath. & footwear	3,31	0,12	0,66	5,96	0,94	1,46	23,96	3,66	3,93	41,23	2,22	4,85
Light Manufactures	2,84	-0,12	0,18	7,78	0,40	0,83	21,04	-0,27	-0,10	15,06	-1,24	-0,48
Petroleum & chemicals	5,60	-0,15	0,22	5,36	0,11	0,29	17,46	0,70	0,96	17,62	-1,08	-0,29
Metals	3,66	-0,02	0,43	10,68	0,56	0,99	11,94	-0,97	-0,88	12,89	-0,44	0,52
Automobiles	7,53	-1,86	-0,81	18,43	4,46	5,81		0,00	0,00	27,31	-5,44	-4,38
Machinery & equipment	3,97	-0,21	0,15	11,59	0,60	1,06		0,00	0,00	9,17	-0,37	0,25
Utilities & construction		0,00	0,00		0,00	0,00		0,00	0,00		0,00	0,00
Trade & services	3,65	-0,09	0,26	2,03	0,00	0,11	12,16	-0,03	0,19	7,63	-0,42	0,30

* Export propensity coefficient (export/output in percent)
** Absolute change in export propensity coefficient

The results of a restricted agreement are much smaller in size and not so clear in terms of trade specialization. Even though the traditional sectors show some output increases, their export propensity does not change much. At the same time, the reduction in the automobile industry and in the manufacturing of machinery and equipment is not as important as in a full agreement and, in the case of Brazil, it even shows a positive change.

In sum, an agreement with the EU would reinforce the traditional specialization patterns in the MERCOSUR, increasing the production of agricultural products and food, and reducing production in heavy manufactures (like the automobile industry). A restricted agreement would not avoid the fall in heavy industry production but would not improve the traditional industries so much as a full agreement.

Given the reinforcement of the traditional specialization pattern, any kind of agreement with the EU would lead to a significant increase of the land rental rate in Argentina, Brazil and Uruguay with detriment of wages (mainly in Argentina and Brazil) and of capital returns (in Uruguay).

5.3   Negotiations in the WTO framework

A 50% cut in tariffs, subsidies and domestic support measures in the framework of the WTO generates a significant reduction in protection in the MERCOSUR countries and a similar result is obtained in the scenario of a 50% tariff cut plus the elimination of tariff peaks (see Table 16). However, the average tariff in the MERCOSUR countries does not decrease 50% due to the variation that occurs in the import mix when prices and tariffs change. In the scenario of a complete elimination of subsidies and domestic support measures, the average tariff protection does not change.

Table 16
Average protection and trade openness by scenario
WTO negotiations options

	Mercosur	Argentina	Brazil	Paraguay	Uruguay
Average tariff (%)					
Baseline	11,1	9,4	12,2	5,9	6,1
50% cut in tariffs, subsidies & dom. support	5,9	5,1	6,5	3,3	3,4
Elimination of domestic support & subsidies	11,1	9,4	12,2	5,9	6,1
50% tariff cut plus elimination of tariff peaks	5,9	5,1	6,5	3,3	3,4
Trade openness (%)					
Baseline	24,7	21,4	25,4	52,9	41,4
50% cut in tariffs, subsidies & dom. support	26,9	22,8	28,0	54,3	43,7
Elimination of domestic support & subsidies	24,8	21,5	25,4	52,9	41,7
50% tariff cut plus elimination of tariff peaks	26,9	22,8	28,0	54,4	43,9

As a consequence of protection reduction, greater openness is observed in the four MERCOSUR countries, but the change is not very significant. In the scenario that eliminates subsidies and domestic support measures, the openness degree does not change, as there is no variation in protection.

The three simulations referred to the WTO negotiations render positive effects on the MERCOSUR as a whole but the impact is rather low (see Table 17). In the scenarios where tariff barriers are reduced, there is a welfare gain of 0,1% which is explained by a GDP increase, partially compensated by the deterioration of the terms of trade. The welfare effect is much higher for the smallest countries: Paraguay and Uruguay increase their welfare by approximately 0,5%. Even though the positive effect on GDP is similar in the four countries, Paraguay and Uruguay also receive a positive impact in their terms of trade, which add to a higher welfare gain.

Table 17
Global results by scenario (% variations)
WTO negotiations options

	MERCO SUR	Argentina	Brazil	Paraguay	Uruguay	Chile	Andean countries	Central America & Carib.	Mexico	Canada	USA	EU	Rest of the world
50% cut in tariffs, subsidies and domestic support													
Equivalent Variations	0,13	0,10	0,13	0,49	0,50	0,24	-0,08	-0,06	0,10	-0,09	0,07	0,27	0,06
Terms of trade	-0,02	-0,01	-0,04	0,10	0,24	0,08	-0,15	-0,26	-0,20	-0,09	0,04	0,13	-0,09
Real GDP	0,15	0,11	0,16	0,39	0,25	0,16	0,07	0,20	0,30	0,00	0,03	0,14	0,15
Real exports	9,85	7,27	11,44	2,89	5,33	5,13	6,07	6,71	3,53	0,82	2,77	5,52	5,98
Real imports	8,21	6,51	9,21	2,89	5,97	6,04	6,10	6,21	2,36	0,63	2,49	5,71	7,32
Elimination of domestic support and subsidies													
Equivalent Variations	0,03	0,06	0,01	0,10	0,16	-0,01	-0,08	-0,18	-0,08	0,00	0,04	0,10	-0,05
Terms of trade	0,01	0,04	0,00	-0,01	0,08	-0,04	-0,09	-0,20	-0,08	0,03	0,01	0,03	-0,03
Real GDP	0,01	0,02	0,01	0,11	0,08	0,03	0,01	0,02	0,00	-0,03	0,03	0,08	-0,01
Real exports	0,22	0,43	0,12	-0,22	0,47	-0,19	-0,34	-0,31	-0,19	0,07	-0,25	-0,07	-0,19
Real imports	0,35	0,87	0,10	0,18	0,92	-0,25	-0,62	-0,54	-0,28	0,18	-0,15	-0,09	-0,30
50% cut in tariffs plus elimination of tariff peaks													
Equivalent Variations	0,12	0,06	0,13	0,42	0,53	0,27	-0,03	0,03	0,15	-0,08	0,04	0,18	0,09
Terms of trade	-0,03	-0,04	-0,03	0,11	0,30	0,12	-0,10	-0,17	-0,16	-0,12	0,04	0,12	-0,08
Real GDP	0,15	0,10	0,16	0,30	0,23	0,14	0,07	0,20	0,31	0,03	0,00	0,06	0,17
Real exports	9,80	7,07	11,41	3,24	5,99	5,30	6,28	6,89	3,65	0,85	3,00	5,66	6,20
Real imports	8,09	6,02	9,21	2,84	6,48	6,30	6,50	6,54	2,55	0,60	2,63	5,83	7,68

The MERCOSUR countries are not the only ones that would benefit from tariff reductions in the framework of the WTO. In fact, Chile, Mexico, the US and the EU and the group labeled as Rest of the World also show welfare gains in both scenarios. On the contrary, the Andean countries, Central America and Canada receive a negative impact, probably due to the erosion of the preferences they enjoy in the US market.

In the case of a 50% tariff cut across the board, the welfare gain in the EU and the US is explained by the GDP increase as well as by the terms of trade improvement. However, in the simulation that eliminates the tariff peaks, the welfare gain is mainly explained by the terms of trade increase. Even though the reduction of tariff peaks would negatively affect some production activities in these countries, the improved access to other markets would more than compensate this negative impact.

When only subsidies and domestic support measures are eliminated, the impact on welfare, terms of trade and GDP is negligible for every MERCOSUR country. Welfare, GDP and the terms of trade (except in the case of Paraguay) have positive variations but the size of these effects is quite low. Uruguay is the exception, because its terms of trade would improve 0,11% contributing to the welfare gain of 0,16%. The reason for this result is the fact that a very high share of Uruguayan exports is composed by goods which are heavily subsidized and supported (beef, dairy products, rice). When subsidies and domestic support measures are eliminated, their prices rise and consequently, the terms of trade have a positive variation for Uruguay.

As it could be expected, a worldwide tariff reduction brings about a significant increase in trade flows, which is observed in all the countries considered in the model. For MERCOSUR as a whole, exports and imports increase 10% and 8%, respectively. In particular, Brazil and Argentina are the countries with the highest export increase, indicating the importance that improved market access may have for their export performance. In the case of Uruguay imports grow more than exports because import prices fall relative to export prices, as the evolution of the terms of trade indicate.

Subsidies and domestic support measures do not seem to be a severe constraint for trade development. In fact, in most countries, exports and imports increase much less than 1% when they are eliminated. This is because the terms of trade remain almost unchanged in this scenario.

The importance of improved access to developed countries markets is found again when the changes in trade orientation by regions of destination or origin are observed (see Table 18). In the four MERCOSUR countries the share of intra-bloc trade decreases. In the simulations that involve a tariff reduction, the share of the European Union and of the Rest of the World in total MERCOSUR exports increase in the four countries and the same thing happens with the share of the NAFTA countries in the case of Argentina and Brazil. The changes in exports destination are generally more intense in the simulation that eliminates

tariff peaks. This is an expected result, as many of the MERCOSUR export goods are heavily protected in developed countries like those of NAFTA, the EU or Japan (which is included in the Rest of the World group). On the contrary, in the case of a reduction in subsidies and domestic support measures the variations in the shares of each export destination are smaller.

The reorientation of trade is even clearer in the case of imports. The countries of NAFTA, the European Union and the Rest of the World increase their share in total imports of each MERCOSUR country. The counterpart of this increase is the less importance of the same MERCOSUR as supplier of imports for each of its members. This change in the orientation of imports indicates a reduction of the possible trade deviation within MERCOSUR. This is an expected result for any multilateral tariff reduction, as it entails a move towards free trade.

Table 17
WTO negotiation options

Scenarios	Share of total exports					Share of total imports				
	Mercosur	NAFTA	Rest of America	European Union	Rest of the world	Mercosur	NAFTA	Rest of America	European Union	Rest of the world
Argentina										
Baseline	28,04	13,94	13,63	22,61	21,78	20,72	24,24	3,00	26,08	25,98
50% cut in subsidies & dom. support	27,49	13,78	13,59	22,96	22,18	20,67	24,25	3,01	26,12	25,96
50% cut in tariffs, subsidies & dom. support	23,89	14,15	13,05	25,60	23,30	17,20	25,60	2,87	26,97	27,36
50% tariff cut plus peaks	23,63	14,08	13,05	25,53	23,72	17,22	25,61	2,88	26,99	27,31
Brazil										
Baseline	11,26	27,52	6,29	28,88	26,04	10,22	26,91	3,92	30,22	28,74
50% cut in subsidies & dom. support	11,32	27,35	6,25	28,86	26,22	10,10	26,98	3,93	30,27	28,73
50% cut in tariffs, subsidies & dom. support	9,05	27,59	5,99	29,35	28,03	8,42	28,12	3,72	30,48	29,26
50% tariff cut plus peaks	9,07	27,56	5,98	29,25	28,13	8,39	28,17	3,73	30,50	29,22
Paraguay										
Baseline	32,26	15,56	11,26	21,64	19,28	38,50	14,35	1,85	16,90	28,40
50% cut in subsidies & dom. support	32,43	15,52	11,31	21,55	19,19	38,36	14,40	1,86	16,96	28,43
50% cut in tariffs, subsidies & dom. support	30,33	15,41	11,73	22,36	20,18	34,60	15,24	1,89	17,63	30,63
50% tariff cut plus peaks	30,52	15,47	11,80	22,38	19,84	34,58	15,26	1,90	17,65	30,61
Uruguay										
Baseline	28,47	19,13	5,22	23,98	23,20	32,14	16,00	5,76	24,06	22,05
50% cut in subsidies & dom. support	28,05	19,13	5,28	23,77	23,77	32,02	16,02	5,78	24,12	22,06
50% cut in tariffs, subsidies & dom. support	22,37	18,87	4,85	24,74	29,18	28,93	16,76	5,78	25,14	23,40
50% tariff cut plus peaks	23,02	19,59	5,05	24,85	27,49	28,86	16,78	5,81	25,16	23,39

Table 19 shows the results by sector. Tariff reductions favor those activities with comparative advantage, so in Argentina, Paraguay and Uruguay livestock and bovine meat

increase their export propensity. Argentina would also reinforce its specialization in grains, oils seeds, vegetable oils and other food, Paraguay would increase its specialization in oil seeds and sugar, while in Uruguay there is an increase in export propensity of textiles. Both in Argentina and Uruguay the export propensity of the automobile industry and of the manufacturing of machinery and equipment decreases, but the negative change in Argentina is quite small. Brazil also increases its specialization in some agricultural activities like soybeans, coffee and other crops or livestock and bovine meat. However, the positive variation of the export propensity of the automobile industry is remarkable. Therefore, in this case, the WTO tariff reductions do not reinforce the specialization pattern based on primary activities as there is also an improvement in the competitiveness of heavy industries like the automobile industry.

The scenario where only subsidies and domestic support measures are eliminated does not show very significant changes in the specialization pattern of each MERCOSUR country. Most sectors change their export propensity by less than 1 percentage point. The exceptions are grains, oils seeds and wheat in the case of Argentina, sugar in the case of Brazil, rice, bovine meat and dairy products in the case of Uruguay. Traditionally these sectors have been very competitive in the respective countries, so the elimination of subsidies and domestic support measures seems to favor further development of the sectors with the highest comparative advantage in each country.

In sum, a multilateral reduction of tariffs and subsidies would have positive welfare effects on the MERCOSUR countries, due to the increase in real GDP and a positive variation of the terms of trade (in the small countries). However, the main impact of this type of policy change would be observed in trade flows, which would increase significantly, together with a reorientation of trade towards developed countries. When only the elimination of subsidies and domestic support measures is simulated, the impact is much lower on most variables and the share of MERCOSUR in exports and imports of its own members would be maintained. The tariff cuts would affect the specialization pattern, improving the

situation of the most competitive agricultural sectors, but in the case of Brazil, some heavy industries (like the automobile industry) would also benefit.

Table 19
WTO negotiations
Changes in specialization pattern

	ARGENTINA				BRAZIL				PARAGUAY				URUGUAY			
	Baseline*	50% cut in tar, sub & dom sup**	50% tariff cut and peaks**	50% cut subs. & dom supp**	Baseline*	50% cut in tar, sub & dom sup**	50% tariff cut and peaks**	50% cut subs. & dom supp**	Baseline*	50% cut in tar, sub & dom sup**	50% tariff cut and peaks**	50% cut subs. & dom supp**	Baseline*	50% cut in tar, sub & dom sup**	50% tariff cut and peaks**	50% cut subs. & dom supp
Rice and Wheat	28,08	1,04	1,00	1,03	0,05	0,00	0,00	0,01	8,12	0,15	0,09	0,09	41,04	0,59	-2,01	2,
Corn and Other Grains	30,82	1,16	1,14	1,24	1,07	0,23	-0,02	0,51	12,52	0,34	0,11	0,29	3,32	-0,17	-0,25	-0,
Vegetables and Fruits	7,64	0,97	1,10	1,08	1,66	0,17	0,19	-0,03		0,00	0,00	0,00	12,67	-0,01	0,00	-0,
Soybeans	14,03	0,95	0,96	0,94	22,99	3,30	4,12	-0,50	47,67	0,94	1,04	-0,20	5,06	-1,92	-1,90	-0,
Oil Seeds	14,38	1,20	1,05	1,15	3,80	1,28	0,76	0,84	7,29	2,97	2,17	0,64	1,04	-0,02	-0,06	0,
Sugar	2,09	1,08	1,34	1,43	7,17	2,03	0,99	1,48	3,65	1,51	3,35	0,12	1,23	0,06	0,03	-0,
Coffee and Other Crops	8,03	0,96	1,10	1,08	22,58	2,83	3,19	-0,63	11,47	-0,59	-0,49	-0,22	15,70	-1,08	-1,06	-1,
Livestock, animal prod.	13,78	1,05	1,14	1,17	4,70	1,11	0,84	0,41	3,12	0,24	0,07	0,30	22,26	2,10	0,05	0,
Bovine Meat	6,51	1,12	1,72	1,65	4,33	3,45	3,84	0,76	22,66	1,91	1,93	0,24	45,06	12,22	15,64	2,
Poultry Meat	0,30	1,08	1,41	1,47	8,84	5,62	5,26	0,72		0,00	0,00	0,00		0,00	0,00	0,
Dairy Products	1,71	1,09	1,02	1,09	0,08	0,02	0,04	0,01		0,00	0,00	0,00	15,76	0,47	-1,04	1,
Bever. & tobacco	2,44	1,00	1,12	1,12	1,54	0,45	0,43	0,03		0,00	0,00	0,00	11,46	-1,59	-1,79	-0,
Veget. oils & oth. food	15,43	1,01	1,16	1,16	9,66	2,22	2,02	0,29	19,99	1,35	1,13	0,31	12,67	1,33	0,97	0,
Mining	38,28	0,98	1,00	0,99	28,60	0,39	0,85	-0,87	3,01	-0,07	-0,05	-0,06	3,95	-0,17	-0,11	-0,
Text. leath. & footwear	3,31	0,98	1,04	1,03	5,96	0,51	0,50	-0,01	23,96	1,51	1,51	-0,05	41,23	1,56	1,20	-0,
Light Manufactures	2,84	0,98	1,01	1,00	7,78	0,37	0,38	-0,03	21,04	0,05	0,08	-0,12	15,06	-1,24	-1,38	-0,
Petroleum & chemicals	5,60	0,99	1,00	0,99	5,36	0,13	0,15	-0,03	17,46	0,31	0,37	-0,13	17,62	-1,21	-1,30	-0,
Metals	3,66	0,98	1,09	1,07	10,68	0,65	0,66	-0,04	11,94	-0,90	-0,89	-0,07	12,89	-0,42	-0,52	-0,
Automobiles	7,53	0,97	0,95	0,93	18,43	4,64	4,66	-0,09		0,00	0,00	0,00	27,31	-3,27	-3,62	-0,
Machinery & equipment	3,97	0,98	0,98	0,98	11,59	0,84	0,84	-0,03		0,00	0,00	0,00	9,17	-0,63	-0,70	-0,
Utilities & construction						0,00	0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,
Trade & services	3,65	0,99	1,04	1,03	2,03	0,04	0,04	-0,01	12,16	0,12	0,14	-0,08	7,63	-0,28	-0,37	-0,

* Export propensity coefficient (export/output in percent)

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6. Conclusions

The CGE model made possible a quantitative analysis of the effects that might be expected from the three most important negotiations included in MERCOSUR external agenda.

Several options were considered for the negotiations in the FTAA, between MERCOSUR and the EU and in the framework of the Doha Round of the WTO. When this work was initiated the expectations were that by the end of 2005 significant progress would have been made in the negotiation processes. In that case, more realistic scenarios than those analyzed in previous works could have been designed, but great uncertainty still exists concerning the conclusion of all these negotiations. Therefore, the hypothetical scenarios designed for this paper are based on extreme assumptions, with the purpose of having a quantitative evaluation of the lowest and highest possible effects. Three scenarios were designed for the WTO negotiations, two options for the FTAA and two for the negotiations between the MERCOSUR and the EU. Several general conclusions can be drawn from the analysis that was carried out.

i. The overall impact of these agreements would be small, at least those that can be identified with a static perfect competition model. Changes in global welfare, terms of trade and GDP would be low.

ii. The main effects of these agreements would be observed in trade and productive specialization. In any of the three negotiation processes, an agreement would lead to a significant increase in MERCOSUR trade, mainly explained by the behavior of Brazil. In fact, Brazil is the country with the highest average protection in its domestic market because it has the lowest share of intra-bloc trade within MERCOSUR. In this case, an agreement that entails a wide liberalization with developed countries (like the US, Canada or the EU) would lead to a significant fall in protection and, therefore, to an important increase in trade. For the other

MERCOSUR countries, Argentine trade would be the most affected by the agreements while Paraguay and Uruguay would receive a minor impact.

iii. In all the scenarios the MERCOSUR would increase its specialization on agricultural goods according to its strong comparative advantages. This reinforcement of this agricultural specialization would lead to an increase in world supply of some of products for which MERCOSUR has a high share in world exports. Therefore, the positive effect on the terms of trade due to the dismantling of agricultural protection would be fully or partially compensated by an increase of world supply.

iv. Agricultural specialization is most intense in the scenario that entails the full liberalization of trade between MERCOSUR and the EU. By contrast, the full implementation of the FTAA would lead to an increase in agricultural specialization, together with an increase of light manufacturing in the smallest MERCOSUR countries and of some heavy industries in the case of Brazil.

v. The elimination of subsidies and domestic support measures within the WTO, involving the main developed countries would have a relatively minor effect on the MERCOSUR countries. Argentina would be the most favored in this scenario.

vi. All the simulated agreements would have a positive effect on the MERCOSUR countries stemming from their improved access to developed countries markets. At the same time, they would have a negative effect derived from the erosion of their mutual preferences. The latter would tend to compensate the positive impact of the agreements, so that the net effect depends on factors such as the shares of the MERCOSUR partners in total exports and total imports of each other.

vii. Finally, any agreement that excludes the agricultural sector would lead to a welfare loss for the bloc as a whole. All the countries would lose welfare as compared with a scenario that includes the agricultural sector. The inclusion of this sector in the

negotiations seems to be crucial for the MERCOSUR, while the developed countries are only willing to deal with this sector in a multilateral framework, so that the agreements will take shape according to the progress made at the multilateral level.

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