

Will regionalism survive multilateralism?

The EU-MERCOSUR example

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Abstract

The EU and the MERCOSUR have been negotiating a trade preferential agreement for more than four years and now a day, these discussions have stopped for many reasons. First, the progress in a bilateral negotiation is subjected to the evolution and possible gains under the Doha Round. Second, Agriculture is one of the most conflictive stakes in both, bilateral and multilateral negotiations and Tariff-rate quota (TRQs) appears to be policy-makers' most favored tool to combine market access commitments and imports' control. Finally, the possibility that Venezuela becomes a full member of the MERCOSUR could also change the conditions of these bilateral negotiations.

For providing a very detailed analysis of the negotiations, we use the MIRAGE CGE dynamic model from CEPII where TRQs enlargement consequences are taken into account with a particular sensitive analysis on rents allocation. The policy relevance of this paper is twofold: first, Venezuela's joining in MERCOSUR is explicitly taken into account in the baseline. Second, simulations are run by considering plausible outcomes of the Doha Round, including its failure. Liberalization scenarios (multilateral and regional) are defined at the finest level available (HS6 for trade protection and GTAP sector from GTAP data). Thanks to this, we handle with care the issue of sensitive products and exceptions. Simulation scenarios lead to examine trade flows and welfare effects of EU-MERCOSUR trade agreement (average proposal between EU and MERCOSUR proposal) with and without a successful multilateral trade agreement at the WTO.

Keywords: Tariff-rate quota, TRQ, Tariff-rate quotas administration, MERCOSUR, European Union, Preferential Trade Agreement, Welfare effects.

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INTRODUCTION

The EU and the MERCOSUR have been negotiating a trade preferential agreement for more than four years and now a day, these discussions have stopped for many reasons.

First, the progress in a bilateral negotiation is subjected to the evolution and possible gains under the Doha Round. Indeed, the interests in reaching a bilateral agreement in the future would be strongly reduced whether the multilateral negotiations succeed and lead to an important markets openness. At the same time, concluding an agreement right now would have no sense since most of the preferences granted could be vanished by the multilateral talks. Moreover, a conflict between EU and G20 leaders, as Brazil and Argentina, on the WTO stage make more difficult any bilateral agreement. Nevertheless, since Doha Round have failed the motivations to reach a regional trade agreement appears again in the negotiation schedule of these countries.

Second, Agriculture is one of the most conflictive stakes in both, bilateral and multilateral negotiations. In this sector, Tariff-rate quota (TRQs) appears to be policy-makers' most favored tool to combine market access commitments and imports' control. If the size of the quotas is a hot topic in negotiations, the way TRQs are administrated is also controversial. The quota rent allocation (importers, exporters or government) depends heavily on these methods (License on Demand, Historical trade, Auctions, etc.).

Finally, Venezuela have recently become a full member of the MERCOSUR and it could also change the conditions of these bilateral negotiations.

For providing a very detailed analysis of the negotiations, we use the MIRAGE model, the CEPII's CGE model aimed at studying trade shocks. MIRAGE is a dynamic multi-sector, multi-country model, based on the last release of the GTAP (version 6.2) database. Foreign Direct Investment (FDI) is explicitly modeled. A major improvement is made from its standard version: the model is recalibrated using trade variation from BACI database between 2001 and 2004.

The policy relevance of this paper is twofold: first, Venezuela's joining in MERCOSUR is explicitly taken into account in the baseline. Since it is the first net food importer country in the custom union, it is crucial to assess the consequences of its integration. It is noteworthy that to this day, no such assessment has been done in a CGE framework. Second, simulations are run by considering plausible outcomes of the Doha Round, including its failure. Both elements allow to provide us with a very realistic framework for the analysis. Even if the main attention is addressed to the agricultural part of the agreement, liberalization in manufacturing sectors and services are looked at. Liberalization scenarios (multilateral and regional) are defined at the finest level available (HS6 for goods using the MAcMap database, GTAP sector for services using the new CEPII database on protection in services). Thanks to this, we handle with care the issue of sensitive products and exceptions¹.

Two modalities of an EU-MERCOSUR agreement are examined : the first one consider an average scenario of EU-MERCOSUR trade agreement between EU and MERCOSUR proposals, assuming that a multilateral trade agreement was signed before; and the second scenario simulate the same EU-

¹In particular for products excluded from the MERCOSUR's common external tariff.

MERCOSUR trade agreement without WTO trade agreement. Since Tariff rate quotas are a key issue of the negotiations, a sensitivity analysis of the results is made on their rents allocation given alternative choices of allocation methods.

To compare the consequences of this different scenarios, a close examination of trade flows and welfare effects is made.

The paper is organized as follows. The next section describe the bilateral trade relation and protection between both blocs. Then, section 2 describes the specifications of the MIRAGE model. Finally we discuss the results and advance some conclusions about this regional trade agreement.

1 Bilateral trade relation between the EU and MERCOSUR

Bilateral trade negotiations between the European Union (EU) and MERCOSUR countries (i.e. Argentina, Brazil, Paraguay, Uruguay) started at the end of 1999 when ministers set the structure, methodology and calendar for negotiations. The first phase concluded with the political and cooperation dialogue and then in 2001 they exchanged the first texts on goods, services and government procurement in order to improve market access between regions. In the Presidential Summit in Madrid in 2002 the countries reiterated the political commitment in order to reach the largest biregional trade agreement (Giordano 2003). Several rounds of negotiations followed the previous commitments. In the 9th round, the first list of most sensitive products under negotiation was exchanged and it has constraint the progresses in negotiations because MERCOSUR countries insisting on a much larger access to the EU market. In the most recent proposals (October 2004), the EU offered concessions under several TRQs for these sensitive products. MERCOSUR countries considered the European proposal too limited on market access issues and the EU also found limited the MERCOSUR concessions in services and government procurement. Moreover, the EU fears that a more generous European proposal on agriculture would allow MERCOSUR countries to capture an extremely large market share in the EU (Bureau et al. 2006). After this disagreement on proposals the dialogue have been interrupted until the Ministerial Meeting in Brussels on September 2005 when it has restarted (Ramos et al. 2006).

The conditions for an EU-MERCOSUR trade agreement are that within this market, trade would be partly liberalized in a gradual and reciprocal way covering substantially most of bilateral trade flows and without excluding any sector according to the WTO rules. This insures that a regional integration process achieves a sufficient degree of compatibility with the multilateral trading system (Giordano 2003).

Inside Latin America, the MERCOSUR has signed different kind of agreement with its neighbors. The trade agreements with Chile and Bolivia (format “4+1”) have created two separate free trade areas leading that the two partners become MERCOSUR associated members. This was the beginning of the MERCOSUR “expansion” in Latin America. Then, trade negotiations between MERCOSUR and the Andean Community, which displays a preferential trade agreement with Venezuela, would have been the first “bloc to bloc” trade agreement in the region, but it has failed due to the discrepancy

between members' interests. Venezuela has recently become a full member of MERCOSUR and this step in MERCOSUR expansion would lead a future Latin America integration. The enlargement of MERCOSUR and the possibility to become a power region in trade negotiation may have a considerable impact on the EU-MERCOSUR biregional trade negotiations.

1.1 European Union - MERCOSUR Bilateral trade

The period 1998-2004 displays important changes in the MERCOSUR economies (currencies devaluation, social and macroeconomic crisis and recent economic growth) which have affected their trade relations with the rest of the world and specially, with the European Union.

MERCOSUR exports to the rest of the world (ROW) have fluctuated since 1997 following the crises in the region. Agricultural exports have obviously suffered more than manufactures (-21% of agricultural export and 5% for manufacture exports in 1998 and -13% and 1% each in 2001). Agricultural exports variation to the European Union are not only related to local macroeconomic situation but also link to sanitary crisis, specially for the cases of beef (foot and mouth disease) and poultry meat (avian influenza) exports. Between the years 2003 and 2004, MERCOSUR countries have improved their international competitive through currencies devaluation as a consequence of the financial crisis in the region, but animal diseases limited animal products exports to the European Union (34% in 2003 and -12% in 2004 for agricultural and food exports).

[INSERT Figure 1]

European Union (agricultural and industrial) exports to the ROW have steadily grown during this period. However, their exports to the MERCOSUR countries have displayed a strong linking to the macroeconomic situation in Latin America. European exports to MERCOSUR's countries have been falling since 1998 which is explained by the recession period in South America and of the first Real (Brazil's currency) devaluation. Industrial exports remained steadily at the beginning of the year 1997 and after Real devaluation they suffered from a strong negative variation (-8%). European exports have recovered in the two years following (1999 and 2000) until the next crisis in the 2001 (-6% of industrial exports). In 2001, the economic crisis in the MERCOSUR and thus the devaluations of MERCOSUR countries currencies in 2002, resulted in a collapse of European exports to MERCOSUR countries. Since then until 2004, a more "healthy" MERCOSUR economy lead to an steadily increase (between 30% and 40% per year) in European exports (even for agricultural and food exports).

European imports from MERCOSUR have never stopped to rise during the crises. Since 2002 European agricultural imports from MERCOSUR have shown a rapidly increase with a pick in 2003. The depreciation of MERCOSUR currencies have reinforced the competitiveness of MERCOSUR exports and the appreciation of the Euro with respect to USD then contributed to widen the trade surplus of MERCOSUR with the EU until now.

[INSERT Figure 2]

Even if the MERCOSUR is a minor EU partner, it is the most important partner in Latin America, representing near from 50% of the EU exports to this region. Nevertheless, the EU is an important partner of MERCOSUR countries specially for their agricultural and food exports (more than 30% of total non-MERCOSUR exports).

Figures 3 gives an idea of the patterns of trade of these two regions an also to the dynamic bilateral balance of trade. MERCOSUR's countries are net exports (no only with the EU but also with the ROW) of agricultural and food products and as a complement of their patterns of trade, the European Union exports to them basically manufactures products and services. Bilateral balance of trade displays a deficit for MERCOSUR region until 2001 and it shows a decrease in the deficit due to the shrinking of MERCOSUR absorbtion capacity in manufacture goods. Since 2002, thanks to the boom in their agricultural exports, they have reversed the negative balance of trade with the European Union.

[INSERT Figure 3]

Bilateral trade between the European Union and the MERCOSUR seems to be complementary according to the previous pattern of trade. MERCOSUR export to the European Union are concentrated in a few chapters, which most of them are agricultural: animal products (high-quality of beef, poultry meat, swine meat and fish), cereals and seeds (wheat, rice and corn), fruits and vegetables and some foods and beverages. However, we may think they also compete on chapter 48 (papers and articles of paper) and 87 (vehicles other than railway or tramway), but the composition of trade at HS6 level is different and also complementary, i.e MERCOSUR countries export raw material from paper sector and the European Union exports final products from this sector.

European Union exports to MERCOSUR countries particularly concern manufacture products (chemicals, pharmaceutical, plastic, paper, iron and steel products and machinery, such as nuclear reactor, domestic electrical and electronic devices and vehicles) as we can see the composition by chapter in figure 5.

[INSERT Figure 4]

[INSERT Figure 5]

Bilateral trade between Venezuela and the rest of MERCOSUR countries is concentrated on primary products (petrol and derivatives) on exports side from Venezuela and its imports are specially agricultural and food products (meat, fats, dairy products, food) from all MERCOSUR countries and manufactures products (chemical, vehicles, machinery, metal and textile products) specially from Brazil. Within bilateral trade between the European Union and the MERCOSUR, Venezuela increases the primary and fruits exports from the region.

Bilateral trade is only a part of bilateral business relations between the two regions and the Foreign Direct Investment (FDI) completes them. During the '90 years, the MERCOSUR region has received more than 50% of the FDI in Latin America and most of capital came from European transnational

groups (telecommunication, energy services and agribusiness). With a EU-MERCOSUR agreement, the European Union is looking for a consolidation of its presence in the MERCOSUR market through FDI. To insure the FDI, an stable regulatory framework of direct investment and intellectual property rights is demanded by the European companies in order to reduce risks and avoid problems in the future (Giordano 2003).

In short, the MERCOSUR and the European Union have a complementary trade patterns, but we will see in the next subsection that trade flows are concentrated in the sectors with highest level of protection. The latter and an insecure regulatory framework for FDI make this regional trade agreement difficult to conclude.

1.2 European Union - MERCOSUR bilateral protection

1.2.1 Structure of protection in the European Union

Since MERCOSUR countries are developing countries, they are eligible to the EU Generalized System of Preferences (GSP) and some of them, such as Venezuela benefit from the GSP+ whit a duty exemption over around 85% of its exports. However, they benefit from a limited preferential market access, because the coverage of the EU GSP is very partial for agricultural products. For the least developed countries, the EU GSP covers all products, but for MERCOSUR countries it only covers some agricultural products (fats, seafood and fruits) and only grants limited reductions in tariffs (no 0% tariffs). EU GSP products coverage, tariff reduction and graduation provisions for some MERCOSUR countries in some agricultural products limit the preferences of the GSP for MERCOSUR's exports; however, they even export facing MFN tariffs.

Tariff-rate quotas defined under the Agriculture Agreement of Uruguay Round lead to MERCOSUR countries to benefit from reduced tariffs for some of their agricultural exports. These are either current access TRQs, opened so as to ensure persistence of historical preferential trade flows, or minimum access TRQ, given in order to open 5% of EU consumption market to international competition.

The EU has opened more than 80 TRQs on agricultural products, some of then are granted for the current access and others were introduced under the Uruguay Round minimum access to the EU market. MERCOSUR countries and Chile benefits from a preferential market access through TRQs for cereals (maize), wheat, meats (bovine, swine and poultry meat), fruits and vegetables, rice, dairy products and other food products. Argentina and Brazil face a large quotas for food (Argentina) and meat (Brazil and Argentina) and fruits and vegetables (Brazil), while Uruguay and Paraguay only have smaller (bovine) meat quota (Uruguay and Paraguay) and a tiny quota for dairy products (Uruguay). Venezuela, the new MERCOSUR member, only benefits from a very large quota of fruits and vegetables.

[INSERT Figure 6

[INSERT Figure 7

Under the EU TRQs current access Argentina and Uruguay profit from a preferential access with a limit to 23000 tons and 5800 tons for sheep and goat and under minimum access these countries benefit from TRQs for bovine meat or also of nutritional remainders (Argentina). Argentina also benefits from a quota of garlic, which was notified to the WTO, but it is not fulfilled like in the case of beef TRQs (Bureau et al. 2006).

MERCOSUR countries also benefit from 59100 tons TRQ of “Hilton” (fresh) meat (28000 tons quota for Argentina, 6300 tons for Uruguay, 5000 tons for Brazil and 1000 tons for Paraguay). The only country which doesn’t fulfill its quota is Paraguay specially due to sanitary problem. There is also a frozen bovine meat WTO TRQ (for meat industry) of 66000 tons which Brazil is the main beneficiary as it is not allocated to any specific country. The Hilton in-quota tariff is 20% and the out-of-quota tariff is a composite tariff (ad-valorem tariff of 12.8% + specific tariff). In spite of the high out-of-quota tariff, MERCOSUR countries manage to fulfill their quotas and even to export small volumes out-of-quota. For instance, Brazil exported some 80000 tons of frozen meat and 41000 tons of Hilton meat outside quota in 2003. In this last case, outside exports represent eight times its quota of 5000 tons. Brazil also benefits from the TRQs opened under minimum access for poultry meat not allocated to a particular country. Brazil fills half of the 15500 tons poultry meat TRQ. In spite of EU tariffs, Brazil manages to ship large quantities of poultry to the EU outside quotas (Bureau et al. 2006, Ramos et al. 2006).

MERCOSUR countries also have benefited from the corn TRQ (2500000 tons) since Spain and Portugal have become EU members. MERCOSUR countries, particularly Argentina and Brazil, therefore became the main corn supplier of the European Union. Since Finland entered in the European Union, Brazil also benefit from a 82000 tons sugar TRQ because it existed between Finland and Brazil before it enters in the EU.

Venezuela benefits from a large TRQ on fruits and vegetables.

Even if the WTO is concerned with the effects of quota administration methods on volume and distribution of trade, the distribution of rights to imports at the in-quota tariff has an impact on the distribution of rents. At the same time, the distribution of rents has influenced the distribution of trade and motivates the politics of TRQ administration (Skully 1999).

The WTO identifies seven methods of TRQ administrations: Applied tariff, License on demand, First-come/first-serve, Historical, Auction, State trader/Producer group and a mixed of the six other methods (Abbott 2002).

Most TRQs from the European Union are administrated according to the License on demand, Historical trade and First-come/First-serve methods and thus determine not only the volume of trade but also the rent allocation between importers and exporters (de Gorter and Kliauga 2006). Nevertheless, in some TRQs, such as “Hilton” beef TRQ, MERCOSUR countries manage their licenses and capture most part of the quota rent. This explain the interest from some MERCOSUR’s producers to keep TRQs and not to negotiate MFN tariff reduction.

The previous tariff quotas administration methods are one of the factors which influences the allo-

cation of the quota rent between importer and exporters. However, the capture of the rent is explained sometimes by the presence of importer (or exporter)'s market power (Olarreaga and Ozden 2005). Others possibilities to explain the rent allocation between countries under the same preferential agreement are the difference in the quality composition of exports, the changes in world prices (or import prices) after the agreement or the differentiation of imports across origins.

1.2.2 Structure of Protection of MERCOSUR countries

Since 1995, all MERCOSUR member applied the same Common External Tariff (CET). At the beginning the CET covered about 85% of imports but since 2001 Argentina and Brazil have a full coverage, for Paraguay and Uruguay this es more recent (2006). The CET varies between 0 and 23% where higher level of protection is concentrated in manufacture products such as textiles, wood, machinery and equipment, food and other manufactures goods and lower level of protection is applied on animals, seeds, some chemical products, etc.

Since Venezuela has entered in the MERCOSUR, it benefits from the advantages of the custom union. Moreover, it keep the preferences reach through bilateral agreements, such as with the Andean Community countries (Bolivia, Peru, Colombia and Equator). Most of tariff between the Andean Community and Venezuela are 0%, but since no "bloc to bloc" free trade agreement was signed before between MERCOSUR and the Andean Community, the rest of MERCOSUR countries don't benefit from a preferential access to the Andean market. MERCOSUR countries are only associated countries to the Andean Community since July 2005 but biregional trade is not even liberalized. Venezuela as a full MERCOSUR member and as a preferential partner of the Andean Community may help to get closer trade relations between the two Latin custom unions.

The EU has no preferential access to MERCOSUR market. The European countries face the CET from MERCOSUR in all products which are greater for non agricultural products. Some MERCOSUR countries, such as Brazil and Venezuela, has open WTO TRQs on agricultural products but some of them are not effective because the CET is lower than the in-quota tariff.

The MERCOSUR countries have also introduce some WTO TRQs. Brazil has open two TRQs, one on pears and apples and the other on wheat. The first one is not effective because the CET is lower than the in-quota tariff but the second one is always effective and open to all WTO members, including the European countries. Venezuela is the other MERCOSUR countries which has open TRQs (more than 60) on many different agricultural products. These TRQs aren't MERCOSUR TRQs, they are open only by Brazil and Venezuela. The rest of MERCOSUR countries don't use them because of 0% tariff inside the MERCOSUR, except for some exports, such as vehicles and vehicles' parts exports.

2 Modelling the EU-MERCOSUR bilateral agreement

MIRAGE model is the CEPII's dynamic multi-sector, multi-country model CGE model which aims at studying trade and welfare consequences of trade policy shocks. Imperfect competition (horizontal differentiation), quality differentiation based on geographical development and FDI are explicitly modeled. The calculation of the dynamic baseline have been recently improved in order to have an endogenous total factor productivity (TFP). This improvement is based on more elaborate demographic and macroeconomic forecast. For that the labor and GDP growth rates have been taken from the World Bank database until the year 2015. In the baseline the TFP is calculate endogenously but under the simulation scenarios it becomes fixe and the GDP is calculated endogenously.

MIRAGE uses the last release of the GTAP (version 6.2) database but protection and trade are always updated. Tariffs and TRQs (quotas, inside, marginal and outside tariffs and rents) are taken from MAcMapHS6 database (v.1) (Bouët et al. 2004) and the improvement of trade data is based on BACI database (Gaulier and Zignago 2004).

Some particular changes have been made for this paper. First, we have defined a specific aggregation between regions (13) and sectors (30) where all agricultural products are kept at GTAP original sector definition (see Table 1). Second, a particular treatment to recalibrate the matrices has been done in order to improve trade data. Then, we consider two different pre-experiment (with and without Doha before the bilateral agreement) for the background of the scenario. These pre-experiments will lead to a different list of sensitive products in the bilateral negotiation.

[INSERT Table 1]

2.1 Calibration

Crisis and currencies devaluation in MERCOSUR economies have led to important changes in their trade. MERCOSUR bilateral trade with the EU have strongly increased for Cereals, Meat and other traditional agricultural exports from MERCOSUR. In contrast, EU exports to the Mercosur countries have reduced for their traditional exports (chemicals, machines, vehicles, etc.) due to the different crisis and currencies devaluations.

Comparing GTAP and BACI trade databases we found that since 2001 the bilateral trade between these two regions has been varying a lot. According to BACI data for 2004, the fact to keep GTAP trade for 2001 would have some implications in our simulation results.

We decided to modify GTAP bilateral trade between these two regions (also including Chile) based on BACI trade for 2004 in order to start our simulations with a more realistic initial situation. For some sectors and some small countries, such as Paraguay and Primary products, COMTRADE and so BACI displays null or very small volumes of trade. For that reason when the trade variation between GTAP and BACI were too big and negative, we decided to keep GTAP data in order to avoid some calibration problems, such as negative prices or negative consumption.

Finally, the rule we retain to modify GTAP trade was to keep greater bilateral trade between GTAP and BACI data, knowing that this rule would introduce a bias on the results. The recalibration of the matrices implied the modification on production and consumption. For instance, when bilateral trade increases, the production for exporters and consumption for importers also increase in the same proportion as trade and the increase in the added value is allocated between all factors keeping the initial allocation parts. The increment in imports is consumed as final products and capital goods (no intermediate consumption is increased).

2.2 Pre-experiment

Before the simulation of the biregional agreement scenario, we did the traditional pre-experiment in MIRAGE which consists to take into account the end of the textile agreement, the United States' farm bill and China as a WTO member. However, for this paper a larger pre-experiment scenario is run.

We also introduce Venezuela in the MERCOSUR since 2006 and for that we changes Venezuela's tariff by the CET. In order to modify Venezuela's tariffs, we distinct two cases: if Venezuela's tariffs are greater than CET, they are replaced by the Mercosur CET, but if Venezuela's tariffs are smaller than the CET and we know that there exists a bilateral trade agreement between Venezuela and other country or region we keep the Venezuela's tariff. This is the case of the bilateral trade agreement between Venezuela and the Andean Community where all applied tariffs are smaller than the Mercosur's CET. Since Venezuela is a preferential partner of is this custom union, we kept the preferential tariffs between the Andean Community members and Venezuela (most of them are equal to zero).

Then, assuming the success or the failure of the WTO trade agreement before the EU-MERCOSUR agreement we determine the list of sensitive products in the EU-MERCOSUR trade agreement.

For a successful WTO agreement we consider the optimistic outcome of the Doha Round. Industrialized countries will reduce agricultural products' tariffs according to the following schedule based on the initial level of the ad valorem Equivalent of the Consolidated Tariff (ECT).

- $ECT \leq 20\% \Rightarrow \text{reduction by } 40\%$
- $20\% < ECT \leq 50\% \Rightarrow \text{reduction by } 45\%$
- $50\% < ECT \leq 75\% \Rightarrow \text{reduction by } 50\%$
- $ECT > 75\% \text{ by } 60\%, \text{ with a tariff cap at } 100\%$

For tariff reduction in non agricultural products, the ECT is reduced by a Swiss formula with a coefficient of 10.

For developing countries tariff in agricultural sectors are cut following the next schedule based on the initial level of the ECT:

- $ECT \leq 30\% \Rightarrow \text{reduction by } 25\%$

- $30\% < ECT \leq 80\% \Rightarrow \text{reduction by } 30\%$
- $80\% < ECT \leq 130\% \Rightarrow \text{reduction by } 35\%$
- $ECT > 130\% \Rightarrow \text{reduction by } 40\%, \text{ with a tariff cap at } 150\%$

For non agricultural products, tariffs are reduced according to a Swiss formula with a coefficient of 18. We also consider non agricultural sensitive products for developing countries with a tariff cut halved represent 10% of the total number of HS6 lines in the industrial sectors. They are chosen in some specific sectors. The automobile sector is considered as totally sensitive for all countries. The remaining HS6 sensitive lines are spread among some sensitive sectors so as to represent an identical share of each of them. The list of sensitive sectors varies with the developing country. For India, the ASEAN countries and the Rest of South Asia, there is no cut at all in sensitive products but they account for only 5% of the total number of HS6 lines in the industrial sectors.

For industrialized and developing countries we also consider sensitive products with reduction rates halved, cap unchanged, accounting for 5% of the tariff lines spread equally among the tiers (except if the highest ones are empty; unused sensitive lines are then used in the next tier), and selected so as to reduce tariff rates as little as possible as. This pre-experiment also consider a linear dismantling of export subsidies between 2007 and 2013.

The horizon of tariffs cut for industrialized countries is the 3 years and for developing countries is the 6 years.

No commitment is taken into account for the least developing countries.

All elements related to the WTO are computed based on bound tariffs, whereas bilateral agreements cut bilateral applied tariffs.

2.3 Scenario

The accomplishment of the EU-MERCOSUR trade agreement is subordinated to the multilateral negotiations at the WTO. This is the reason why on our pre-experiment scenarios we assume both possibilities, success and failure of the multilateral trade agreement before the signature of the bilateral EU-MERCOSUR agreement and their consequences on it. The fact that we consider a WTO trade agreement before the EU-MERCOSUR agreement also affect the choice of sensitive products for the bilateral negotiation, that is the second reason which justifies the our scenario and pre-experiments.

The horizon we consider for these simulation scenarios is 2020 but we assume that the end of the implementation of the bilateral trade agreement will be at the end of year 10. For the first scenario, the EM-MERCOSUR agreement starts in 2007 and for the second scenario (with WTO agreement in 2008) the beginning of the EU-MERCOSUR agreement is 2009.

Since October 2004 there would be no we proposal exchanged, we simulate an average agreement between EU and MERCOSUR proposals (October 2004), also including some new TRQs open by the EU for some particular products.

Trade liberalization for this bilateral trade agreement is total and reciprocal for all products except for sensitive and very sensitive products. Sensitive products will be liberalized on 5 years. For the EU, sensitive products are basically agricultural products and they represent 5% of HS6 lines for each agricultural sector. In contrast, for MERCOSUR countries sensitive products are manufacture products and they represent 10% of HS6 lines of each industrial sector. Very sensitive products only exists in the case of the EU. These very sensitive products are products under WTO TRQs such as meats, cereals and some dairy products and other products for which the EU has the intention to open new bilateral TRQs (ethanol, sugar, cacao and tobacco) for the MERCOSUR countries.

Considering the very sensitive products we assume two hypotheses for the scenario. For products under WTO TRQs we simulate a quota enlargement without any change in tariffs (inside and outside). The quota enlargement for these products is based on the comparison of the present utilization of the WTO TRQs of MERCOSUR countries and the new quota volume (average between EU and MERCOSUR proposals, See Table 2). Since in MIRAGE there isn't an explicit modeling of TRQs, the quota enlargement doesn't affect the TRQ regimes (in, at or out-of-quota). The quota enlargement simulated in MACMaps database only leads to a larger quota rent.

[INSERT Table 2]

For the new bilateral TRQs open to MERCOSUR countries we consider some special tariff lines at 8 and 4 digits level. The new quota for Ethanol would concern only 4 product lines (22071000,22072000,22089091,22089099), for Sugar only 7 products (17025050 ,ex17499099 (17499080),18061090, ex18062080 (18069080), ex18062095 (18069080), ex18069090 (18061980), ex18069090 (18069980)), for Cacao and Tobacco all products under the following HS4 codes: 1803,1804,1805 for Cacao and 2402, 2403 for Tobacco. The new TRQs will concern 1.5 of traditional bilateral trade between regions and this is the assumption for our scenario.

All the scenarios of trade liberalization (WTO agreement and EU-MERCOSUR agreement) were constructed using MACMap database at the product level (HS6 level) before aggregating the data towards the sectors used in the CGE model. The advantage of such a strategy is to fully take into account tariff peaks, exceptions and the possible non linearity of the applied tariff reduction formula, such as the Swiss formula for the pre-experiment scenario. Moreover, the quota rents' evolution is extracted from the scenarios and used in the modelling.

This EU-MERCOSUR Agreement will be simulated, first under the assumption that a multilateral trade agreement was not signed before and then, under the hypothesis that a WTO trade agreement was previously signed.

In short the scenario is simulated under two different reference situations according to WTO trade agreement:

- Simulation 1: EU-MERCOSUR trade agreement without a WTO trade agreement.
- Simulation 2: EU-MERCOSUR trade agreement with previous WTO trade agreement.

2.4 Simulations' Results

As a consequence of a bilateral trade agreement between the EU and the MERCOSUR's countries both regions improve their balance of trade. The background hypothesis of a WTO agreement (scenario 2) introduces extra gains for some countries, such as Argentina for which most traditional exports remain protected (TRQs and high tariff in agricultural sectors) under scenario 1. However, looking at total bilateral trade (Table 4) trade variation are greater under scenario 1 for most MERCOSUR countries (except for Uruguay) and for the EU27. The comparison between scenario 1 and 2 shows the erosion of preferences between the EU27 and MERCOSUR countries when a WTO agreement is implemented at the same time as the bilateral preferential agreement. For MERCOSUR's countries, bilateral trade under scenario 1 increases between 6% (for Uruguay) and 37% (for Paraguay) and for the EU27 it increases between 30% (with Paraguay) and 40% (with Brazil and Venezuela). Scenario 2 displays smaller bilateral trade variation for MERCOSUR countries but the dispersion amount them is also smaller ². The same situation is observed for the EU27 where all exports to MERCOSUR countries increases around 30% at the end of both trade agreements.

Looking at bilateral trade, it is important to pay attention to bilateral trade between MERCOSUR countries. Since we decided to introduce Venezuela in the MERCOSUR since 2006, the bilateral trade between the historical MERCOSUR's countries and Venezuela suddenly increases. While Argentinean and Brazilian exports to Venezuela increases more than 100%, Venezuelan exports to these partners only increase around 40%. In contrast, trade relation between Uruguay and Venezuela seems to be more beneficial to Venezuela than for Uruguay.

While the EU-MERCOSUR agreement improves trade relations between these regions, this agreement introduces a trade diversion with other regions in the world. We will pay especially attention to trade diversion for NAFTA and for other developing countries. The reason why we choose NAFTA is because for some Latin American countries the ALCA appears as an alternative to the EU-MERCOSUR agreement and we also choose developing countries (SSA, CairnsDvg, ROW) because the EU27 have a close trade relation with them and the EU-MERCOSUR agreement may harm their preferences. Indeed, the EU-MERCOSUR agreement affect negatively the trade relation between the MERCOSUR countries and the NAFTA, because only Argentinean, Uruguayan and Venezuelan exports slightly increase and NAFTA exports to the MERCOSUR displays a strong reductions (between -24% -with Argentina- and -11% -with Uruguay-) leaving their market shares to new partner, the EU27. The WTO trade agreement cushions only a little the consequences of the EU-MERCOSUR agreement on the NAFTA's trade in the second scenario. Bilateral trade between the EU27 and the rest of developing countries is also harmed by this preferential agreement. The EU27 exports to them reduces around 2.5% and the most affected in their exports to the EU27 are the SSA countries (-8%) and the rest of South America countries (-7%) and under scenario 2 the WTO slightly cushions this negative effect on their trade.

The definition of tariff's cuts according to the "sensitivity" of the products in the bilateral relation

²Bilateral trade variation for MERCOSUR countries is between 7% for Uruguay and 22% for Paraguay

leads to logical consequences for the allocation of the gains of trade between sectors. Table 5 displays the trade variation for each of the scenarios, where for traditional exporter sectors the results are intensified under scenario 1 and not under scenario 2, because of the erosion of preferences due to the WTO trade agreement.

For MERCOSUR countries as a region, the preferential agreement with the EU27 leads to greater trade variation than under scenario 2. Agricultural and Food sectors increases their exports (in volume) more than 8% under scenario 1 and 7% under scenario 2. The same tendency is observed for Industrialized products (10% under scenario 1 and 8% under scenario 2). In particular, Argentinean sectors which benefits the most of this preferential trade agreement are: Crops (38.50%), Fats (23.16%), Machinery (25.82%), Meat (43.12% + 13.94%), Motors and Vehicles (135.62%), Sugar(35.94%) and Vegetables and Fruits (23.21%). These are most traditional agricultural and food sectors and for Machinery and Vehicles it would be interesting to have a larger disaggregation in order to know their composition, but according to the actual exports of these two sectors, it seems that they would be composed by machinery and vehicles parts and not final products. Brazil would improve trade situation of the following sectors: Crops (23.03%), Meat (48.78% + 28.99%), Rice (407.45%), Sugar (169.20%) and Textile (20.84%). The Brazilian exports of crops have been increasing since the beginning of this century and this results shows that the sector have even a lot of potential to develop. Meat, Rice and Sugar are very traditional agricultural exporter sector which go on to benefit from a trade liberalization and Textile (cotton wear) is also a traditional sector which would even have a capacity to increase their production and exports. In Paraguay, the sectors which would be benefited by this agreement are Fats (23.57%), Sugar (1580%) and Transports and Equipments (125.24%). Sugar is sector very protected in the EU27, so the tariff reduction for some HS6 product lines on a side and on the other side, some TRQs enlargement for the rest of sugar HS6 lines, would benefit not only Brazil but also smaller countries as Paraguay. Uruguayan sectors which gain the most with this agreement are also Sugar (157.70%) and Fishing (16.11%). For Venezuela, some sector such as Dairy (30.52% + 25.93% -only Milk-) and Wool (34.97%) increases their total exports, but is its traditional sector of Fruits and Vegetables which gain the most 170.98% with this biregional agreement.

In the EU27, the sectors which would benefit from this PTA with MERCOSUR are not only the traditional Industrialized sectors (Textile, Machinery and Motor and Vehicles) but also some Agricultural and Food sectors such as Beverages (26.69%), Crops (32.77%), Fats (41.01%), Food (39.27%), Meat (72.69% + 42.71%), Rice (89.96%), Sugar (155.64%) and Fruits and Vegetables (29%). In this particular cases, it would be interesting to know the detailed composition of each of this agricultural sectors to justify or not the agricultural lobbying in some European countries. However, we would infer according to the historical trade that these sectors would improve trade of products with more added value and not raw materials. Such as for MERCOSUR countries, for European countries the trade variation by sector under scenario 2 are smaller than under scenario 1 because of the erosion of preferences.

The asymmetry of this trade agreement displays more important consequences in terms of welfare than

in terms of trade. Total welfare consequences for MERCOSUR countries are very asymmetric because only the small countries (Paraguay, 0.48% and Uruguay, 0.08%) gain under scenario 1 and their gains are greater than under scenario 2. Brazil is indifferent to the EU-MERCOSUR agreement but if we include the WTO agreement in the scenario, it loses (-0.02%) but less than Argentina (-0.44%) and Venezuela (-0.53%). For Argentina, scenario 2 seems to be more attractive with 0.24% of welfare gain. This second scenario is also interesting for the smallest MERCOSUR's countries but not for Venezuela, which loses -0.46% of its welfare. In contrast, the EU27 appears as the winner of these scenarios because its welfare increases 0.31% under scenario 1 and 0.24% under scenario 2. These results are greater than under a Doha agreement (0.12% and 0.13% for the most ambitious scenario) (Decreux and Fontagné 2006), under a PTA between the EU and the ASEAN countries (0.03%) and under the PTA India-EU (0.02%).

In the case of MERCOSUR countries welfare gains come from capital accumulation gains and tariff-rate quotas gains, since the latter have been increased for the very sensitive products in the agreement. However, in the case of Venezuela, welfare gains are explained by some allocation efficiency gains. Brazil, Paraguay and Uruguay welfare gains are also composed by Land supply gains and only for Paraguay in the improvement of its terms of trade. For the rest of MERCOSUR countries this scenario leads to a loss of the terms of trade. All components of the welfare variation explain EU26's welfare gain except the tariff-rate quota gain which displays a very small negative effects.

Analyzing the effect of this agreement on the rest of the macroeconomic variables (Table 3 we also observed the asymmetry of the agreements such as in the case of the welfare effects. The GDP in the MERCOSUR countries increases except for Argentina (scenario 2 is better) and Venezuela and the increase in the EU27's GDP is not negligible (0.25%). The real return to the capital increases only in Paraguay (0.37% in scenario 1 and 0.28% in scenario 2). The real return of land only reduces in Argentina and Venezuela, but in this last country the real return of natural resources displays a strong increment (2.43% under scenario 1 and 2.05% under scenario 2) as it is attending. Unskilled wages in agricultural sectors reduces only un Argentina and Venezuela and in non-agricultural sector they fall in every MERCOSUR countries but Paraguay. In the EU27 all factors increase their real returns, except for capital and natural resources.

In short, for MERCOSUR region, this agreement as it is simulated in this paper seems to be not very interesting for them because of its asymmetry in the tariff cuts introduced by the very sensitive products under TRQs. Since this agreement is very profitable for the EU27, a more attractive proposal from its part would lead to give end to negotiations with the MERCOSUR and thus sign the largest biregional trade agreement.

[INSERT TABLE 3]

[INSERT TABLE 4]

[INSERT TABLE 5]

[INSERT TABLE 6]

CONCLUSION

The asymmetrical agreement between the EU-MERCOSUR simulated in this paper according to the proposals exchanged between the regions in 2004 leads to asymmetric welfare and trade results between the two blocs. Even if MERCOSUR region increases their traditional trade (agricultural and food products) each country displays different consequences for their sectors. The European Union not only improve its non-agricultural trade with the MERCOSUR but also this agreement leads to increase its total agricultural and food trade. This is not a negligible results since until now the European Union (or some European countries) argue that for them it is impossible to liberalize agricultural sector. This paper presents some results that would oppose the opinion of the EU agricultural lobbying.

Moreover, in terms of welfare both regions gains, but looking at each MERCOSUR welfare in details, only smallest countries don't lose with this agreement. The EU27 is the big winner of this scenario of bilateral agreement. The EU27 increases its welfare by 0.31% under the EU-MERCOSUR agreement and also considering the WTO agreement the welfare gain become 0.24%. These results are greater than others presented by the CEPII such as under Doha WTO agreement, where the welfare gain for the EU was 0.12% and under PTA EU-Asean it was only 0.03%.

The EU-Merosur agreement seems to very a very interesting opportunity for the EU27 to increase its share in MERCOSUR markets. The only constraint to this agreement would come from some MERCOSUR countries (Argentina and Brazil), which will ask to improve the proposal for the most sensitive products. The end of the bilateral negotiation and the signature of this agreement seems depend only on the EU proposal for this products because the quota enlargements for the very sensitive products doesn't look enough for the biggest MERCOSUR countries.

Acknowledgement

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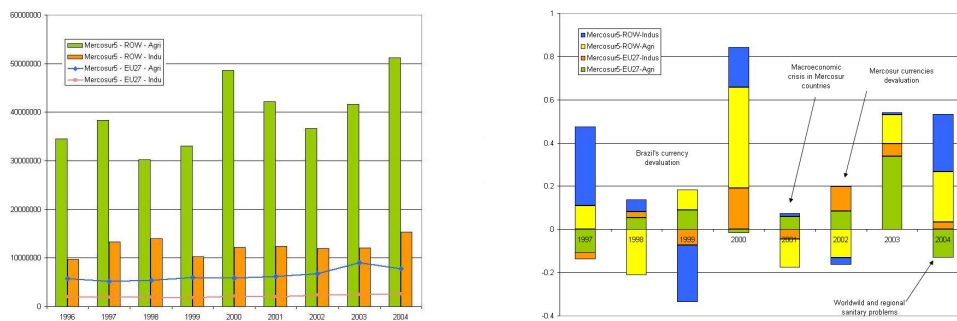
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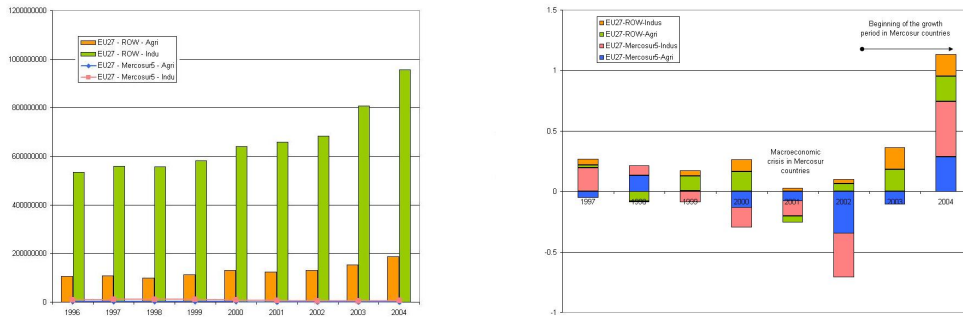
Tables and Figures

Figure 1: MERCOSUR (5) total exports (in thousand U\$\$ and variation)



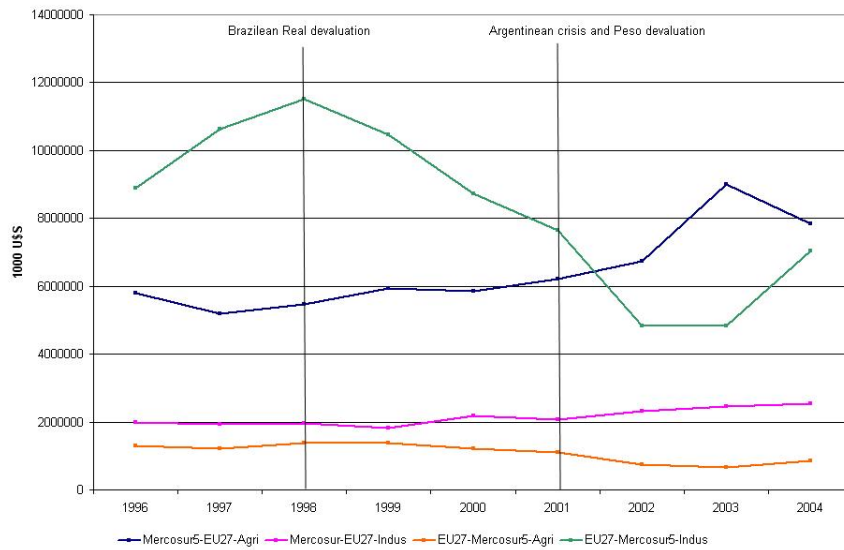
source: BACI - CEPII

Figure 2: European Union (27) total exports (in thousand U\$\$ and variation)



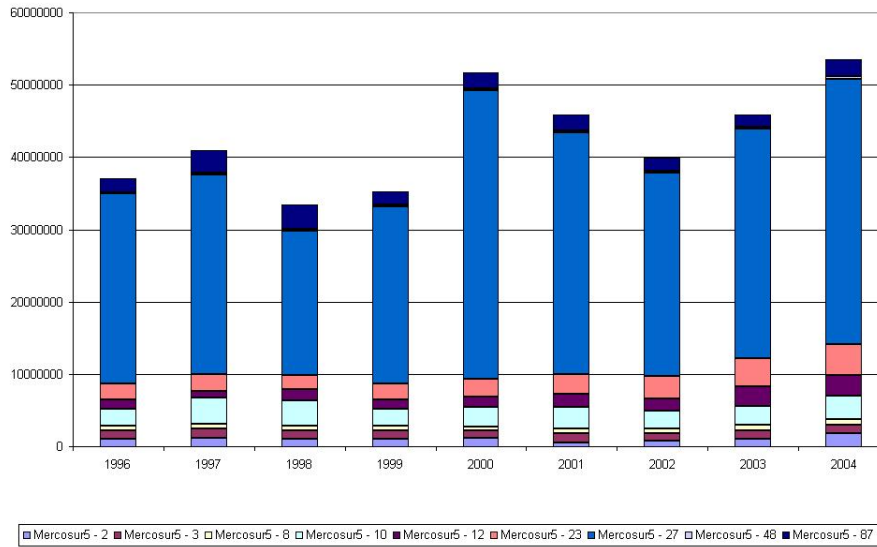
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Figure 3: European Union - MERCOSUR bilateral trade (exports in thousand U\$\$)



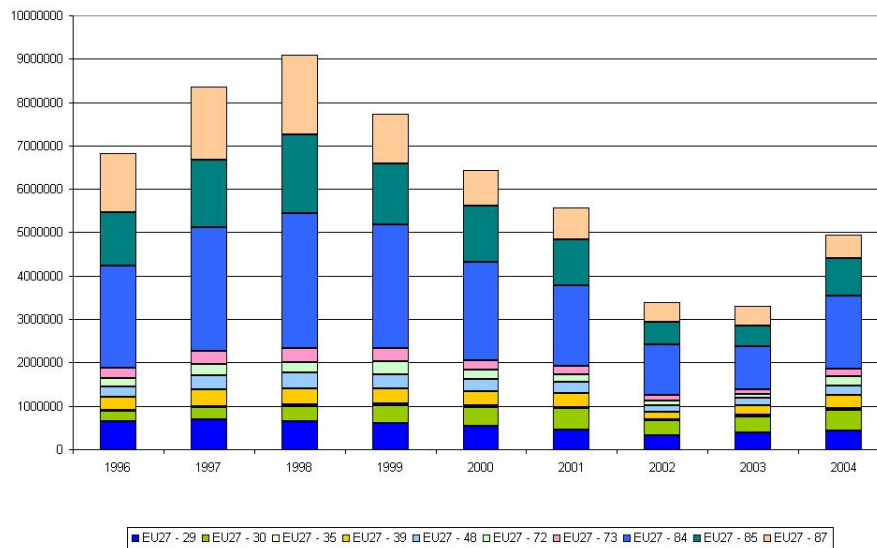
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Figure 4: MERCOSUR exports to the European Union by HS2 level (thousand of U\$S)



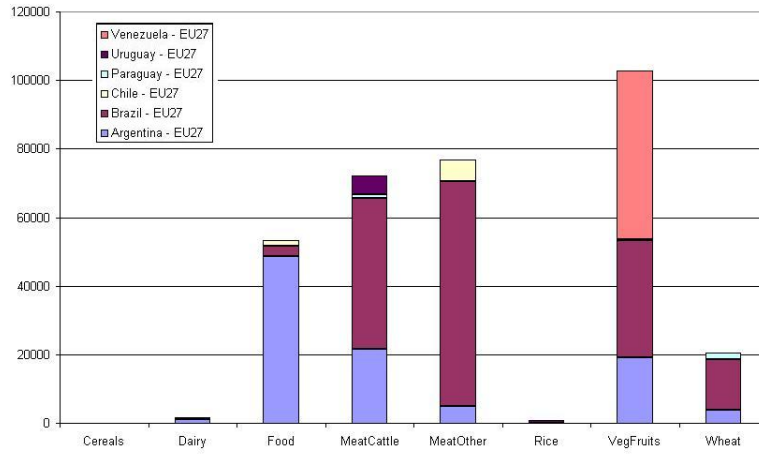
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Figure 5: European Union exports to MERCOSUR by HS2 level (thousand of U\$S)



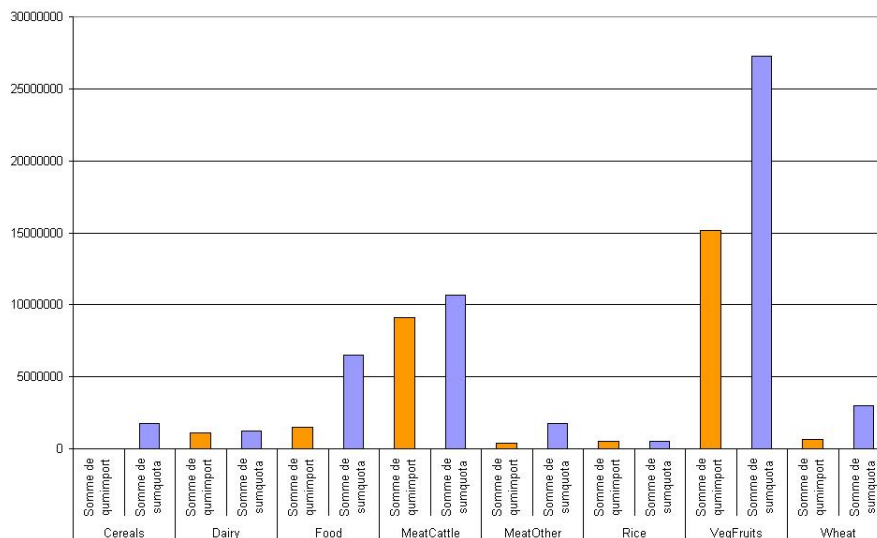
source: BACI - CEPII

Figure 6: EU TRQs distribution between MERCOSUR countries



source: MACMaps TRQ database - CEPII

Figure 7: Relation between EU TRQs and In-quota imports for MERCOSUR countries



source: MACMaps TRQ database - CEPII

Table 1: Geographical and sectoral aggregation

Sector	Regions
Rice	CairnsDvped
Wheat	RoW
Cereals	CairnsDvg
VegFruits	NAFTA
OilSeeds	SthAm
Sugar	Venezuela
Crops	Argentina
MeatCattle	Brazil
MeatOther	Chile
Milk	Uruguay
Wool	Paraguay
Forestry	EU27
Fishing	SSA
Primary	
Fats	
Dairy	
Food	
Beverages	
Textile	
Paper	
Chemicals	
Metal	
MotorVeh	
TrspEqNec	
ElectManuf	
Machinery	
OthSer	
Trt	
BusServ	
CGDS	

Table 2: TRQ enlargement scenario for the EU-MERCOSUR agreement

Products	EU proposal (TN)	MERCOSUR proposal (TN)	Average Scenario (TN)
Bovine meat	160000	315000	237500
Poultry meat	27500	250000	138750
Swine meat	15000	40000	27500
Wheat	200000	1000000	600000
Corn	200000	4000000	2100000
Cheese	20000	60000	40000
Milk	13000	34000	23500
Butter	4000	10000	7000

Table 3: Scenario1 and 2: Main results of Macroeconomic Variables

	Argentina		Brazil		Paraguay		Uruguay		Venezuela		EU27	
	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2
Employment in agri sectors	-3.63	0.46	2.84	1.48	0.36	0.11	0.63	0.68	-1.13	-0.91	0.56	0.89
Employment in non-agri sectors	0.44	-0.06	-0.15	-0.09	-0.13	-0.04	-0.23	-0.25	0.18	0.15	-0.03	-0.05
Exports (val-no intra)	4.19	6.38	9.83	7.65	6.53	5.16	2.43	1.98	6.83	5.80	-1.06	-0.49
Exports (val)	4.19	6.38	9.83	7.65	6.53	5.16	2.43	1.98	6.83	5.80	7.12	6.38
GDP (vol)	-0.02	0.34	0.15	0.11	0.43	0.32	0.34	0.29	-0.23	-0.19	0.25	0.20
Imports (val-no intra)	6.12	8.93	10.93	8.46	4.40	3.61	3.37	2.75	7.65	6.49	-1.44	-0.71
Imports (val)	6.12	8.93	10.93	8.46	4.40	3.61	3.37	2.75	7.65	6.49	6.88	6.19
Real effective exchange rate	-1.15	0.14	-0.01	-0.09	0.72	0.51	-0.36	-0.14	-1.57	-1.35	0.61	0.69
Real return to capital	-0.54	-0.44	-0.19	-0.16	0.37	0.28	-0.55	-0.33	-0.04	-0.07	-0.10	-0.20
Real return to land	-4.76	0.29	3.42	2.51	0.28	0.08	0.25	0.29	-0.82	-0.60	0.33	0.56
Real return to natural res.	-0.89	-2.35	-2.01	-1.56	-1.42	-1.26	-2.03	-1.73	2.43	2.05	-0.63	-1.07
Skilled real wages	-0.13	0.32	-0.32	-0.30	0.34	0.20	-0.14	-0.23	-1.36	-1.18	0.42	0.34
Tariff revenue (points of GDP)	-0.04	-0.03	-0.04	-0.04	-0.05	-0.05	-0.09	-0.07	-0.07	-0.06	-0.09	-0.09
Terms of trade	-2.62	-0.26	-0.52	-0.26	0.19	0.30	-0.66	-0.22	-1.44	-1.05	-0.27	0.04
Unskilled real wages	-0.61	0.24	-0.12	-0.13	0.38	0.21	-0.05	-0.01	-1.11	-0.96	0.56	0.47
Unskilled real wages in agri	-2.42	0.47	1.29	0.60	0.56	0.26	0.25	0.32	-1.66	-1.41	0.84	0.92
Unskilled real wages in non-agri	-0.37	0.21	-0.20	-0.17	0.31	0.19	-0.18	-0.14	-1.02	-0.88	0.54	0.45
Welfare	-0.44	0.24	-0.00	-0.02	0.48	0.32	0.08	0.16	-0.53	-0.46	0.31	0.24

Table 4: Scenarios 1 and 2: Total Bilateral Trade (CIF prices)

	Argentina		Brazil		Paraguay		Uruguay		Venezuela		EU27	
	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2
Argentina	-2.12	-2.39	6.97	13.00	-9.12	-4.37	-6.04	-2.40	39.79	39.44	33.79	31.67
Brazil	30.54	23.32	-1.55	-1.20	-3.30	-2.54	2.07	1.07	35.55	30.78	39.52	31.74
CairnsDvg	0.50	-1.72	-4.41	-2.51	-4.59	-3.33	-1.52	-0.62	4.20	4.03	-2.90	-1.63
CairnsDvped	4.76	-1.14	-1.66	-1.16	-3.18	-2.52	0.40	-0.01	4.06	3.90	-2.49	-1.62
Chile	4.48	-0.41	-2.89	-1.70	-2.97	-2.43	1.36	-0.79	4.39	4.78	-1.50	-1.60
EU27	26.06	11.25	34.43	20.38	37.22	21.87	6.33	6.79	16.06	11.55	10.83	9.55
NAFTA	1.48	-0.84	-1.92	-1.44	-2.07	-2.87	0.98	-0.33	4.87	4.25	-2.20	-1.89
Paraguay	2.22	-2.06	-0.97	0.19	-5.46	-4.54	1.93	3.13	20.74	21.85	29.50	26.02
RoW	-26.99	-1.35	-9.77	-1.50	-10.24	-2.99	4.40	-0.54	5.02	4.38	-2.71	-1.53
SSA	4.21	-2.64	-3.37	-2.57	-3.25	-3.10	-0.11	-0.94	5.69	5.20	-1.88	-1.71
SthAm	3.74	-2.50	-2.59	-1.89	-9.33	-4.28	-3.61	-2.12	4.23	3.86	-2.45	-2.09
Uruguay	2.85	-0.91	-3.71	-1.49	-5.35	-3.38	-1.87	-1.61	98.13	84.52	36.21	28.81
Venezuela	133.59	102.23	94.29	84.52	71.11	78.12	77.41	67.05	-0.83	-0.70	39.15	33.81

Table 5: Scenarios 1 and 2: Trade by sector (vol)

	Argentina		Brazil		Paraguay		Uruguay		Venezuela		EU27	
	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2
Beverages	3.20	0.75	4.49	3.96	-3.67	-2.65	2.32	2.02	2.83	3.17	26.69	22.54
BusServ	2.83	-0.53	0.15	0.13	-2.38	-2.34	1.48	0.24	4.78	4.07	-2.00	-1.88
Cereals	-0.50	-1.40	-3.58	-1.54	-0.41	-1.30	1.86	0.24	3.29	2.98	12.95	14.37
Chemicals	6.24	0.11	1.87	3.36	-5.99	-2.18	8.87	7.56	18.83	15.63	5.20	5.02
Crops	38.50	15.50	23.03	13.62	1.31	1.66	-2.14	-0.42	3.34	5.36	32.77	24.44
Dairy	-7.18	10.07	5.63	9.46	8.04	6.14	8.14	0.72	30.52	20.50	14.57	6.38
ElectManuf	10.57	3.79	1.61	0.91	-4.61	-4.24	3.08	0.79	12.33	10.84	0.09	0.14
Fats	23.16	-1.54	-1.48	-2.37	23.57	27.42	5.30	9.62	11.24	12.97	41.01	37.38
Fishing	11.03	5.07	4.11	2.45	-1.45	-1.30	16.11	9.69	4.49	4.24	17.20	9.84
Food	12.18	6.23	13.22	12.19	9.17	6.71	7.83	3.50	13.35	12.75	39.27	32.60
Forestry	4.93	-0.74	1.83	2.24	-2.08	-1.20	0.49	-0.27	9.43	11.41	0.67	0.61
Machinery	25.82	14.13	0.74	1.71	-11.61	-7.67	0.34	-2.60	13.51	10.36	3.19	3.09
MeatCattle	13.94	0.06	48.78	-4.03	11.72	0.45	-9.20	-1.65	6.48	15.82	72.69	55.41
MeatOther	43.12	23.54	28.99	10.09	-12.39	-8.21	12.26	12.61	-3.85	3.12	42.71	31.11
Metal	15.00	2.43	3.58	2.33	-4.54	-3.68	10.60	6.18	15.00	11.96	4.09	3.59
Milk	15.91	-4.07	-0.29	-1.91	-5.97	-6.69	2.31	-1.83	25.93	18.18	0.16	-0.90
MotorVeh	135.62	109.77	8.50	12.12	-42.57	-37.09	-4.86	-7.03	13.73	10.98	15.54	15.71
OilSeeds	-54.88	-0.92	-16.92	0.54	-4.03	-0.82	3.03	0.05	3.76	7.54	2.58	-0.67
OthSer	2.98	-1.03	0.10	-0.00	-2.94	-1.65	1.30	0.55	6.38	5.40	-1.93	-1.86
Paper	4.03	-1.05	-0.46	0.09	-6.81	-3.32	-0.09	0.84	9.47	8.50	7.62	7.31
Primary	4.58	-0.81	1.19	1.63	-6.02	-3.52	1.37	-0.59	5.10	4.40	5.03	3.28
Rice	5.39	0.12	407.45	206.08	-2.87	-1.13	10.06	8.41	-15.32	6.45	89.96	20.86
Sugar	35.94	24.16	169.20	119.65	1580.00	829.90	157.70	90.82	11.84	11.40	155.64	147.10
Textile	12.49	1.10	20.84	10.88	-2.92	-2.54	16.85	10.78	15.51	17.87	1.91	1.57
TrspEqNec	7.49	-1.19	1.16	1.09	125.24	59.32	6.01	0.12	13.14	9.82	0.56	0.18
TrT	4.29	0.17	0.49	0.24	-2.71	-2.68	2.95	1.34	6.29	5.34	-1.69	-1.60
VegFruits	23.21	16.30	-0.70	0.41	-1.94	1.07	9.83	13.18	170.98	87.80	29.00	23.33
Wheat	4.38	-0.59	-0.52	-1.34	-3.85	-3.26	1.02	2.34	18.56	13.60	-1.18	-2.42
Wool	10.88	-2.89	2.07	0.18	-2.43	-7.43	5.65	3.69	34.97	26.01	11.54	6.58

Table 6: Scenarios 1 and 2: Welfare decomposition

	Argentina		Brazil		Paraguay		Uruguay		Venezuela		EU27	
	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2	SC1	SC2
Allocation efficiency gains	-0.08	0.10	-0.22	-0.16	0.15	0.12	0.10	0.07	0.07	0.05	0.07	0.00
Capital accumulation gains	0.05	0.18	0.09	0.06	0.20	0.14	0.13	0.11	-0.15	-0.12	0.07	0.08
Land supply gains	-0.08	0.02	0.03	0.03	0.04	0.03	0.05	0.05	-0.03	-0.03	0.00	0.00
Other gains	-0.14	-0.12	0.07	0.04	-0.12	-0.13	-0.32	-0.22	-0.26	-0.22	0.11	0.09
Tariff-quota gains	0.07	0.07	0.03	0.02	0.05	0.05	0.14	0.12	-0.00	-0.00	-0.00	-0.00
Terms of trade gains	-0.26	-0.01	-0.01	-0.01	0.15	0.11	-0.03	0.03	-0.16	-0.15	0.06	0.07
Welfare	-0.44	0.24	-0.00	-0.02	0.48	0.32	0.08	0.16	-0.53	-0.46	0.31	0.24