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IMPLICATIONS OF THE MERCOSUR AGREEMENT FOR CEREAL AND LIVESTOCK PRODUCT MARKETS AND TRADE

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This study was undertaken within the general framework of the activities of the OECD Committee for Agriculture. The report represents a condensed and consolidated version of documents that were first considered by the OECD Group on Cereals, Animal Feeds and Sugar and the Group on Meat and Dairy Products, subsidiary bodies of the OECD Committee for Agriculture, at their meetings in the autumn of 1997. The Committee for Agriculture recommended the study for declassification.

The original documents on which this study was mainly based consisted of: (a) a consultant study prepared by Dr. Antônio Salazar P. Brandão, Director of the Instituto Brasileiro de Economia of Fundação Getulio Vargas, Professor of the Graduate School of Economics of Fundação Getulio Vargas, Professor of the University of the State of Rio de Janeiro and Professor of Universidade Santa Úrsula; and Dr. Mauro de Rezende Lopes, Senior Researcher, Instituto Brasileiro de Economia of Fundação Getulio Vargas, Rio de Janeiro, Brazil; b) another consultant study, prepared by Dr. Thomas L. Cox, Professor of Agricultural and Applied Economics of the University of Wisconsin, Madison, Wisconsin in the United States and Dr. Paulo D. Waquil, Professor of Economics of the Federal University of Rio Grande do Sul in Brazil, which was presented to the meeting of the Group on Meat and Dairy Products; and, finally (c) a series of papers prepared by the national authorities of Brazil and Argentina, in their capacities, respectively, of country experts and official observers at the two commodity Group meetings.

This document is issued as a consultant's report and is published under the responsibility of the Secretary General of the OECD. The views expressed in the study are those of the authors and do not necessarily reflect those of the member governments of the organisation.

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A. Introduction

1. Regional integration is not a new phenomenon in Latin America. The Latin America Free Trade Association (LAFTA) was created in 1960 with the aim of eliminating trade barriers in the region over a period of 12 years.¹ The main driving force of LAFTA was the idea that the integration process could foster the import substitution model of industrialisation through greater economies of scale associated with the enlargement of market size (Pereira, 1993). In 1980, LAFTA was replaced by the Latin America Integration Association (LAIA)², created by the Treaty of Montevideo. The guiding principle of this association, which was different from that of LAFTA, was to stimulate preferential tariff agreements among its members.

2. At about the same time, Argentina and Brazil began to improve their diplomatic relations which had previously been characterised by disputes around border questions. Better diplomatic relations were not, however, immediately translated into economic integration. The debt crisis of 1982 led Brazil to raise trade barriers and to devalue its currency. The middle of the eighties marked the beginning of the return to democracy in Argentina and Brazil. This political development paved the way for the trade agreements. In 1986, the first agreement, PICE (Program for Integration and Economic Cooperation), was signed. This initiative was taken by the two governments and was apparently not motivated by demands of the private sectors nor the significant reduction of intra-regional trade that took place in the beginning of the 1980s (Pereira, 1996, Table 1).

3. Two years after the signature of the PICE agreement and when concrete results were still to be achieved, Argentina and Brazil signed a new treaty aimed at creating a common market. This initiative was driven by factors such as perception that regional trade agreements would become pervasive worldwide; that developed countries were not interested in integration with Latin America; and that the outcome of the Uruguay Round would be far below the expectations of the two countries. Another contributing element was the unilateral liberalisation that was underway in each country at the time; a process in which Argentina was perceived to be moving ahead of Brazil.

4. The Governments of Argentina and Brazil both decided that the common market should begin in 1995. The Treaty of Asunción, signed in March of 1991, created the *Mercado Común del Sur* (MERCOSUR or Common Market of the South), which is to become a customs union between Argentina, Brazil, Paraguay and Uruguay by the year 2006. Chile and Bolivia became Associate MERCOSUR members in 1996, joining the FTA but not the CET or the planned common market. MERCOSUR was created under the GATT and is an integral part of the process of trade liberalisation occurring amongst the four countries. The agreement aims at establishing a single market among these nations, based on the free movement of goods and services; the establishment of common external tariffs and trade policies; the co-ordination of macroeconomic and sectoral policies; and the harmonisation of legislation to strengthen the process of economic integration.

5. The rest of this paper analyses different aspects of MERCOSUR. The next section, B, provides background material. It begins with a selected review of the literature on the impacts of trade liberalisation for Brazil and the provocative analysis of Yeats[1997] in relation to MERCOSUR. The

1. The members of LAFTA were Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

2. All LAFTA members are in LAIA.

second part of section B presents some macroeconomic indicators of the significance of MERCOSUR. Section C discusses the Treaty of Asunción; while section D focuses on the agricultural provisions. The following section E concentrates on the implications of the agreement for the main agricultural products and related trade aspects; section F analyses alternative future integration paths for MERCOSUR, and finally, section G discusses some macroeconomic issues.

B. Background

6. While acknowledging that the disciplines introduced by the Uruguay Round agreement were a step forward in the process of incorporation of agriculture into multilateral trade negotiations, the results of tariffication were far below the expectations of the developing countries. Those developing countries that export agricultural commodities without subsidies, and which were largely powerless to influence the course of the negotiations in agriculture, did not see much improvement in market access for their products.

7. This perception was instrumental in speeding up the creation of MERCOSUR. Several studies completed in the beginning of the 1990s, before the end of the multilateral trade negotiations, showed the possibility for significant gains for both the developed and developing countries if agreement on agriculture was to be reached at levels similar to those established by the Dunkel proposal³. The OECD/World Bank study (Goldin, Knudsen and van der Mensbrugghe) estimated world wide benefits of the order of US\$190 billion with tariff reductions of the order of 30 per cent. About US\$70 billion of this total would accrue to non OECD countries. The total gains would increase to US\$430 billion with full agricultural reform, with the gain for non OECD countries of the order of US\$180 billion. With the levels of tariffication agreed in the Uruguay Round agreement, the gains are much smaller, particularly for those agricultural exporters that do not subsidise their agricultural activities.

8. A number of studies were carried out to examine country implications of multilateral trade reforms in the context of the OECD/World Bank project (Goldin, Knudsen and Brandão) and the general equilibrium model (RUNS) developed for that project. Brandão, Hertel and Campos (1994) studied the outcome for Brazil of a 30 per cent reduction in agricultural tariffs worldwide, using simulations from the RUNS model to estimate world price changes. This analysis showed a substantial change in trade in selected commodities, particularly livestock and sugar, and to a lesser extent in the soyabean complex. The impacts on production were relatively small and while the impacts on income distribution in the worst case scenarios showed the poorest sections of the population being hit hardest by the price changes, these were considered unlikely to take place. However, the analysis revealed that domestic policy response plays an important role in determining the magnitude of the gains and losses and their specific incidence. The general message from these studies was that attempts to prevent the domestic effects of world price changes can reduce the benefits of international trade liberalisation for Brazil.

9. Brandão and Martin (1996), within the framework of the OECD/World Bank study, reported results, using the RUNS model, of four experiments: 1) implementation of the Dunkel proposal in the OECD countries only; 2) reduction in all assistance (including both positive and negative protection) in all countries; 3) reduction of distortions arising from assistance applied to agriculture by the OECD (according to the Dunkel proposal) countries with a reduction of positive protection in the developing

3. From the end of 1991 onwards the negotiations on agriculture proceeded on the basis of the Draft Final Act as put forward by Arthur Dunkel, then Director-General of the GATT, and known as the Dunkel proposal. This proposed specific quantitative actions and measures designed to strengthen trade disciplines in each of the three areas of market access, domestic support and export subsidies.

countries of the order of two-thirds of that in the OECD; and 4) reduction of all protection (negative and positive) rates in the developing countries alone.

10. The estimated welfare gains for the developing countries as whole from these experiments were found to be, respectively: US\$629 million, US\$60 billion, US\$20 billion and US\$56 billion. The gains for Brazil were, respectively: US\$1.6 billion, US\$2 billion, US\$2 billion and US\$412 million. The interesting aspect is the small gains accruing to Brazil when the reform does not include the OECD countries. This underlines the fact that for an exporter of agricultural commodities such as Brazil, international liberalisation of agricultural policy is fundamental.

11. In concluding their study, Brandão and Martin note the following:

It seems that the developing countries in aggregate could expect to achieve small welfare gains if the Dunkel package were implemented by the developed countries alone and the developing countries choose not to participate in the liberalisation process. Very much larger gains would be realised if the developing countries choose to participate wholeheartedly in the world trading system by undertaking agricultural reforms of their own. If the developing countries instead choose to participate in a GATT agreement along the lines of the Dunkel proposal and reduce only their positive assistance to agriculture, they might still experience a relatively significant gain. In the non-participation scenario, a significant minority of developing country regions could be expected to suffer welfare losses. By contrast, in the active participation scenarios, only a small number of developing country regions would be expected to lose, and the magnitude of these losses would be extremely small relative to the gains to other developing regions. (p. 341)

Additionally, they note that:

The potential gains discussed in this paper capture only a portion of the potential gains from a comprehensive move to liberalisation in world agriculture. Even if the gains from an initial liberalisation were small, there would likely be future gains from the incorporation, at last, of agriculture within the multilateral trading system. As is evident from the experience of manufactures where average protection levels have been reduced dramatically over a series of GATT Rounds, the incorporation of agriculture in GATT could have very major long term benefits. Further, the stimulus to productivity in developing countries provided by liberalisation would have cumulative benefits, compounding the gains reported in this paper. (p. 341)

12. One aspect of the recent paper by Yeats (1997), analysing MERCOSUR, is that it raises the general question of whether regional trade agreements would be the appropriate route to follow in the absence of multilateral trade negotiations.. In the specific case of MERCOSUR, his analysis compares trade patterns of the participating countries between 1988 and 1994. The results show that the dynamic products in MERCOSUR's intra-trade are capital intensive goods in which member countries have previously not had strong export performance. He attributes this to MERCOSUR's trade barriers.

13. Yeats observes that:

On average, about 63 per cent of Mercosur's intra-trade now consists of manufactures (this is about 15 percentage points higher than their share in the region's global exports) with Brazil having a major influence on the overall average, as expected, due to its relative size. Over 81 per cent of Brazil's exports to Mercosur now consist of manufactured goods - this is almost double the corresponding share for Argentina, and more than four times that for Paraguay. The second largest product category in intra-trade, namely, foods and feeds now accounts for about

one-quarter of the goods traded within Mercosur (their share in the region's global exports is about 36 per cent) and have been of declining importance since the early 1980s. Both agricultural materials, and ores, minerals and non-ferrous metals also declined in relative importance with mineral fuels being the only product group, in addition to manufactures, which increased its relative share. In short, shows that manufactures provided the catalyst for the increase in Mercosur's intra-trade with transport and machinery products being the most dynamic sub-sector within this group.(pp. 6-7)

14. Yeats notes that the analysis of trade distortions, such as the one presented in his paper, are not sufficient to reach conclusions about net welfare effects of the agreement on member countries. In his words:

Comparing 1994 with 1988, it is likely that the Mercosur trade arrangements both created and diverted trade, and it is also well to remember that even trade diverting customs unions can improve economic welfare if they lead to declines in producer and consumer prices. Thus, while Mercosur trade policies are distortionary relative to what could have been achieved, they may well have been positive relative to where member countries started from.(p. 29)

15. The analysis contained in Yeats' paper sheds additional light on the implications of the MERCOSUR agreement and more recent data show that the trends noted in his paper continue. However, these were not altogether unexpected. In the negotiations that established the common external tariff (CET) this was a constant issue between the participants and the agreement dealt with parts of the issue by giving the countries time to adjust their tariff schedules to the value of the CET. The tariff reduction schedule is likely, in due course, to reduce some of the distortions indicated in Yeats' analysis. Furthermore, it should be emphasised that a large reduction in the level of regional protection will take place with the full implementation of the CET and, despite the fact that this was not neutral with respect to the pattern of trade, the net welfare effects are positive for the member countries and for the world as whole as the last section of this paper shows.

16. We derive the following conclusions from this brief review. Worldwide trade liberalisation will have the highest welfare benefits for the developing countries, indicating that they should engage fully in multilateral trade negotiations. If worldwide liberalisation is not within reach, regional trade agreements are second best solutions but may give rise to distortions in trade patterns. However, these second best solutions are not necessarily welfare reducing for the countries directly engaged nor for the world as a whole. We show later for MERCOSUR.

The size of MERCOSUR

17. Table 1 presents some macroeconomic indicators for MERCOSUR, while those for the individual participating countries in 1996 are shown in Table 2. Within the MERCOSUR bloc, GDP is approaching one trillion US dollars, per capita income is of the order of US\$5 000 and the population is around 204 million inhabitants. It should be noted that Argentina and Brazil constitute the largest part of the market, corresponding to 86.8 per cent of the population, 82.2 per cent of the area, and 88.2 per cent of the GDP in the region. Argentina, Chile and Uruguay are the nations with higher GNP *per capita* and lower percentages of rural population. Exports have increased 53 per cent between 1990 and 1995, while imports have risen 173 per cent over the same period. The remarkable growth of imports is a consequence of the structural reforms that have taken place in the region, particularly by Argentina and Brazil the two

leading economies, and renewed economic growth. But it is has also been facilitated by large foreign capital inflows, which increased international reserves almost fourfold over the period.

Table 1. The Size of MERCOSUR

Indicator	1990	1991	1992	1993	1994	1995
Nominal GDP (US\$ millions)	586 974	600 574	605 844	652 229	780 981	971 477
Population (millions)	189	192	195	198	201	204
Per Capita Income (US\$)	2 943	3 105	3 201	3 435	3 889	4 764
Trade Balance (US\$ millions)	19 547	14 510	12 692	9 468	4 462	-3 005
Imports (US\$ millions)	27 290	31 809	38 042	45 236	58 569	74 500
Exports (US\$ millions)	46 837	46 319	50 734	5 704	63 031	71 445
Current Account (US\$ millions)	762	-2 503	-1 602	-9 196	-12 579	-21 501
International Reserves (US\$ millions)	13 797	16 380	34 434	46 518	53 885	66 729
Exports/GPD (%)	8.00	8.00	8.00	8.00	8.07	7.35
Imports/GPD (%)	5.00	5.00	5.00	5.00	7.50	7.67
Debt Service / Int. Reserves (%)	118	94	46	45	41	...

Source: Central Bank of Brazil

Table 2. Economic indicators for participating countries in MERCOSUR - 1996

Indicator	Argentina	Brazil	Paraguay	Uruguay	Chile	Bolivia	Total
Area (million Km ²)	2,8	8,5	0,4	0,2	0,8	1,1	13,8
Population (millions)	34,7	164,0	5,0	3,2	14,5	7,6	229,0
GDP (US\$ billions)*	282,2	701,5	9,0	17,8	59,1	6,9	1.076,5
GDP (% growth)	2,6	4,2	3,7	4,9	7,1	3,7	4,1
Inflation (average %)	0,2	10,0	9,8	24,3	7,3	9,7	
Unemployment (national average)	17,0	5,1	4,8*	11,9	7,1	6,5*	
Exports (US\$ billions)	23,8	47,7	2,7	2,4	15,3	1,1	93,0
Imports (US\$ billions)	22,1	53,2	4,1	3,1	16,5	1,4	100,4
Trade Balance (US\$ billions)	1,7	-5,5	-1,4	-0,7	-1,2	-0,32	-7,4
Current Account (US\$ billions)	-2,9	-24,3	-0,7	-0,2	-2,9	-0,5	-31,6
Internal Reserves(US\$ billions)	19,7	59,7	0,9	1,9	15,5	1,0	98,7
Foreign Debt(US\$ billions)	100,6	174,0	2,4	2,4	27,5	5,4	315,3

Source: Inter-American Development Bank - IADB and the Central Bank of Brazil * 1995.

18. Despite the significant efforts on the part of Argentina and Brazil to open their economies, the regional trading bloc is still comprised of fairly closed economies. In 1995, the share of trade in GDP (that is, imports plus exports) was only around 15 per cent overall. For the two largest participants in the agreement the ratios are 17 per cent for Argentina and 13 per cent for Brazil. Despite the substantial growth of imports that Brazil experienced after 1994, the share of imports in GDP in 1995 was still only 7 per cent. Agriculture is a crucial and dynamic sector in the MERCOSUR region, and demonstrates considerable specialisation. MERCOSUR is a major producer and net exporter of grains and oilseeds, fruits, coffee, beef, poultry and other agro-industrial products.

C. Characteristics of the MERCOSUR agreement

The Treaty of Asunción

19. The Treaty of Asunción provides the legal framework for the negotiations that will lead to the formation of a customs union and eventually a common market between the member countries of MERCOSUR. The agreement does not establish any supra-national institution nor does it specify how negotiations must be implemented. In the face of the large differences in size of the four participating economies, the creation of a supra-national institution would likely demand a long gestation process.

20. The Treaty of Asunción establishes ten fields for the negotiations leading to the establishment of the common external tariff (CET) and eventually the common market. Before that goal is achieved, the Treaty required that tariffs among the member countries were to be reduced to zero by January 1995. This was to be accomplished by an automatic linear reduction of tariffs, but some waivers were granted to member countries through the creation of a list of exceptions. It is important to emphasise that in the MERCOSUR the common external tariffs are less important for agricultural commodities than for manufactured goods. Since the MERCOSUR bloc is a net exporter of most agricultural products at prices that are internationally competitive, the common external tariff is less relevant for most agricultural products. Jank (1993) suggests that the common external tariffs for agricultural commodities, were cautious measures designed to neutralise the highly subsidised exports at the time from the European Union, the United States and Canada. Because of the possibility of trade diversion, the common external tariff is generally quite important for manufactured goods.

21. Significant advances have been made in the establishment of a free trade area and in the implementation of the common external tariff. Since January 1995, Argentina, Brazil, Paraguay and Uruguay have constituted a free trade zone. During this phase there were, as expected, several difficulties due to country-specific problems. For example, Brazil, as a result of its 1994 stabilisation plan has changed its exception list, removing some products and adding some others. More recently, Brazil imposed restrictions on imports of automobiles, due to a burgeoning trade deficit, and this has affected Argentina.

22. The number of members included in the free trade area of MERCOSUR is expanding. Recently, Chile and Bolivia have become Associate MERCOSUR members, joining the FTA but not the CET or the planned common market; other Andean countries are expected to join the bloc. There is a strong commitment by the four founding members to deepen the integration among themselves and to enlarge the regional dimension of MERCOSUR. This became clear during the meeting of the Ministers of Trade of the American continent, held in Belo Horizonte in May 1977. At that meeting, which was part of initial negotiations of the Free Trade Area of the Americas (FTAA), the MERCOSUR countries were able to

negotiate jointly with the other countries and were quite successful in advancing their positions. The substantive negotiations on the FTAA initiative were launched in March 1998, in the Presidential meetings in Chile, where the second Summit of the Americas took place. The 1977 meeting established that the deadline for a final agreement is 2005, when MERCOSUR will be close to becoming a full *customs union*. Thirty four countries are expected to participate in the FTAA process, and all the decisions will be taken by consensus. The final form of the agreement is expected to be a single undertaking and in accordance with rules adopted by all countries in the WTO. There will be no imposition of barriers to other countries within the free trade area. The final FTAA agreement is expected to co-exist with the existing (or future) regional and sub-regional agreements. All countries will be free to negotiate individually or in blocs, within their regional agreements. There will be a temporary administrative secretariat to support the technical negotiations and the existing working groups will be transformed into negotiating groups.

23. In relation to MERCOSUR, even though steps towards the creation of the common market have been taken, it remains an *imperfect customs union*. There are several elements that justify this label, as discussed below.

24. The negotiations on the external common tariff of MERCOSUR proved to be difficult in some areas. Brazil was more willing to accept relatively low common external tariffs in agriculture. Although Argentina recognised the threat to its interests in the expanding Brazilian market posed by relatively low tariffs on commodities such as wheat, maize, milk powder, rice and meat, which would allow imports of subsidised products from countries outside of the region, it did not oppose the Brazilian position. In part, this was a matter of strategy to avoid a push for higher tariffs on industrial and related goods by Brazil.

25. The final agreement for agriculture set the common external tariff on most agricultural products at between 6 to 12 per cent, with some exceptions allowing for a maximum of 35 per cent. These tariff levels are considered to be relatively low by international standards, considering that the commodities covered have been subject to severe price distortions from export subsidies and protective domestic policies in both developed and developing countries. In agriculture, the MERCOSUR agreement will provide relatively less protection to the member countries than has existed in the past.

26. With respect to the industrial sector, the import tariff structures of Brazil and Argentina reveal different productive environments and, therefore, different strategies which have been reflected in the negotiations on a common external tariff.

27. Argentina, for example, has zero import tariffs for capital and computer goods. Argentina does not produce computers. For capital goods, its share of the value added by industry dropped from 23.1 per cent to 17.7 per cent, between 1985 and 1990 (Kume and Markwald, 1993). The strategy after the 1990s was to eliminate import tariffs and to compensate local industry through a subsidy to domestic production. Importation of capital goods at international prices is the strategy being followed to accelerate the process of modernisation of the industrial sector.

28. Brazil, as the only producer of computer goods and the largest producer of capital goods in MERCOSUR, was concerned with the possibility of greater competition from outside the region. At the same time, these sectors had a history of high protection. Despite this, some branches of these industries in Brazil have been relatively successful in the international marketplace. However, leading entrepreneurs in the capital and computer goods sectors were not prepared to accept a regime of free trade *vis à vis* the rest of the world. Tariffs are justified on the grounds that Brazil has a relatively large and diversified

capital goods sector with some degree of efficiency, but where further structural adjustment is required for it to be able to compete on the basis of a zero tariff.

29. The solution was to offer a period of transition for these industries until the common external tariff could be implemented. For capital goods, it was agreed that an average tariff of 14 per cent would apply in 2001 and for computers and some telecommunications goods, an average tariff of 16 per cent would apply from 2006. During the period of transition, the tariffs of the member countries are to converge to the agreed tariff rates.

30. There are also national lists of exceptions to the CET. The convergence to the CET and the free trade zone will be completed in 2000 for the other products. At the end of 1997, the external common tariff covers 85 per cent of the tariff items. However, MERCOSUR will only be a true customs union by 2006.

D. Major provisions of the treaty for agriculture

Market access

31. In terms of market access, the initial agreement provided for tariffs to fall by seven percentage points every six months, until they were eliminated in 1995. Additionally MERCOSUR would contribute to the harmonisation and reduction of non-tariff barriers for agricultural products. According to the agreed schedule of tariff reductions, the margin of preferences was set at 40 per cent in January 1991 and would reach 100 per cent in January 1995.

32. The Agreement of Economic Complementarity, made in October 1996 with the entry of Chile is a significant achievement for MERCOSUR. Together with the associate membership agreement with Bolivia, it indicates the open structure of MERCOSUR and should reduce fears about the potential for trade diversion. In this agreement the majority of products will have an average tariff of 6 per cent. These tariffs are to be reduced to zero over a time frame of 8 years. Some agricultural products were included in a list of exceptions with a margin of preference of 40 per cent, with partial increases of 8 per cent in the margin every year until it reaches a final margin of preferences of 100 per cent. Sensitive agricultural products will have their margins of preference frozen, for 4 years, at 0 to 30 per cent, and afterwards, all tariffs will be reduced to zero in 10 years. The list of exceptions will have a period of reduction for intra-trade tariffs of 10 to 15 years. The most significant exception being the products of the wheat complex (grain and processed products) for which tariffs will be eliminated over 18 years.

Exceptions and sensitive products

33. There are two special regimes of tariffs for sensitive products: the Lists of Exception (*Listas de Exceção*) and the Lists of Adequacy (*Listas de Adequação*). These refer to intra-zone trade where each member country is allowed extra time to comply fully with the preference margin established in the free trade zone. According to these special provisions, each country could keep a few products with tariffs above zero provided that the tariffs are subject to a sliding scale of reduction which takes them to zero.

34. Each country deposited a list of products which were granted full tariff lines, but with a sliding scale that would reduce intra-zone tariffs to zero by 1994 for Argentina and Brazil. For Uruguay and Paraguay the period was extended to 1995. The list for Brazil had 324 tariff lines, for Argentina 394,

Uruguay 960, and for Paraguay 439 tariff lines. In the period 1991 to 1994, all countries were supposed to remove 20 per cent of the tariff lines every year. However, this schedule could not be met and *Lists of Adequacy* were accepted extending the period for the elimination of intra-zone tariffs for four years. Thus, Argentina and Brazil will have completed the process in 1999 and Paraguay and Uruguay in 2000.

35. Both systems constitute a postponement of the completion of the free trade area and of the customs union in order to allow selected industries time to implement fully needed structural adjustments and to make the necessary investments to achieve a level of efficiency compatible with the requisites of the new, more competitive environment.

36. There are two remaining cases of special tariff treatment, these are for sugar and leather goods. For sugar, Argentina requested time for the adjustment of its domestic industry in view of strong competition from Brazil. To maintain the pace of the negotiations an *Ad Hoc* group was created to propose special measures to solve the problems arising from the impact of zero tariffs on industries in that country. In relation to leather, Argentina had an export tax which penalised the exports of leather in favour of manufactured leather goods.

37. Both products were included in the negotiations of the four member countries, which took place in Fortaleza, Brazil in December 1996. This agreement approved an agenda with a deadline of May 1997, to submit both products to the dispositions of the Protocol of Ouro Preto, for full tariff exemption in intra-zone trade by the year 2000.

Export assistance, restrictions and taxes

38. Brazil submitted a list of commitments on export subsidies to avoid a new war of subsidies such as the one that occurred during 1984-86. Brazil has included in the list of commitments the levels of subsidies that other countries have claimed in investigations of unfair trade practices, even though it has never accepted that it was subsidising exports. These were of the order of 13 or 14 per cent of the value of exports of selected products, such as orange juice, tobacco, sugar and poultry.

39. The subsidies committed at the levels indicated above are no longer an issue for Brazil even if it is threatened with a loss of market share in other countries. This is because the Federal government has exempted all exports from the ICMS tax⁴. The ICMS on exports of agricultural products was 13 per cent, and its elimination more than compensates for the loss of any subsidy.

Safeguards and other trade remedies

40. There are no safeguards for intra-zone trade. A possible explanation for this is the fact that the *List of Adequacy* is already a form of safeguard. That list is a temporary relief against any surge in imports, with a *sunset clause* on its effective duration duly negotiated with the other member countries.

41. In the case of a sudden influx of imports from third countries, a special code is expected to apply which is near to being agreed by the participating countries. Once approved, this regulation will be submitted to the Committee on Safeguards of the WTO, to have full legal authority for its enforcement.

4. The ICMS is a value added tax. In the case of exported agricultural goods it cascades due to the fact that no credit is allowed from tax payments made at intermediary stages.

42. The special regulations for anti-dumping and countervailing duties are still in the process of being drafted, prior to their negotiation. There is consensus among member countries that these regulations are an integral part of the system of commercial defence of the economic space of MERCOSUR. It is also recognised that there is a need for a surveillance body to monitor the imposition of safeguards, antidumping duties, countervailing duties, and rules of origin. Although membership of the common market would allow any one country to conduct an investigation into the practices of other participating countries, this part of the regulations has not yet been developed in an appropriate way.

Dispute settlement

43. It was known at the beginning of the negotiations that there existed a need for establishing an effective system of panels for disputes and settlements and for the creation of a technical body for the analysis and resolution of pending commercial disputes both within MERCOSUR and with third countries. This matter was finally included in the MERCOSUR provisions through the Protocol of Brasilia in 1993.

Common external tariff for agriculture (CET)

44. The decision taken on the levels to be implemented for the CET for agricultural products proceeded in a direction totally different from that taken for other tariffs in MERCOSUR. A statement signed by the presidents of the four founding member countries, at Las Leñas in 1992, would suggest that the CET for agricultural commodities would have been higher than the levels actually adopted:

The presidents decided that, after June 1993, according to what has been established in the schedule of tariffs of Las Leñas, the CET would be from 0 to 20 per cent. It was also agreed that a few tariff lines would have a higher tariff of 35 per cent. But this level will be reduced to 20 per cent in a period of time no longer than 6 years, starting January 1, 1995. A special tariff regime for CET will be applied to products imported from third countries with subsidies, according to what has been accomplished in the Uruguay Round. This special regime will be decided by the Working Group of the MERCOSUR Common Market after the Round [Las Leñas 1992].

45. Although several analysts have argued that the modest results of the Uruguay Round for agriculture limited the benefits of the Round, the Working Group of the Common Market considered the results satisfactory and decided to set the CET of agricultural products at between 0 and 20 per cent and for most agricultural raw materials between 6 and 8 per cent.

46. Another complication to the CET has been introduced by having tariffs on some inputs higher than the tariffs on the final products. Consequently, some agricultural products face a negative effective rate of protection. In a process of trade liberalisation, the effective rate of protection should converge to the nominal rate of protection. To further complicate things for agriculture other products benefited from higher levels of protection. Significant examples are provided by textiles, automobiles, household appliances and shoes which had tariffs raised temporarily to levels as high as 70 per cent. Needless-to-say, in Lerner's sense, protection to one sector (say, industry) is an implicit and symmetrical tax on other sectors (such as agriculture).

47. Finally, for products imported with subsidies, with extremely low tariffs, the burden of restraining unfair trade practices remained with the commercial defence system. Unfortunately, the

system of countervailing duty has not yet been developed in an acceptable form. A concentration of cases occurred in the early years of the agreement, in which it was not possible to prove injury. The result has been further imports of subsidised commodities, aggravated in the case of some goods by the provision of cheap export credit. For cotton, these factors contributed to a 50 per cent reduction in harvested area.

Domestic support

48. After a long period of deliberation Working Group 8 concluded that three policies would require substantial change and possible elimination. These were:

- agricultural credit at concessionary interest rates;
- minimum prices *cum* subsidised marketing loans and government purchases with public funds; and,
- government stock operations above a limit defined for food security.

49. For these three policies an *Aggregate Measure of Support* should be compared with commitments made in the WTO. This measure would provide the basis for future agreements in terms of reductions, since these policies were considered as potentially damaging to the competitiveness of the member countries. Policies that fall within the WTO's so-called *green box* category require notification and are subject to monitoring and permanent evaluation.

50. In the negotiations Argentina sought the dismantling of all domestic support policies used by Brazil. This was not accepted on the grounds that without a relatively long adjustment period Argentina was judged as being unable to supply Brazilian markets with sufficient wheat, rice, maize and other feed and food grains in the event that a domestic food shortage should occur. Brazil argued that in order for its policies to be removed, a phasing out period would be necessary.

51. Earlier deregulation of agricultural markets implemented by Brazil was not taken into account in the process of negotiation. Calls for dismantling domestic policies still in place in Brazil were high on the agenda of the negotiations. Brazil insisted on sticking to its Uruguay Round commitments while Argentina argued that under MERCOSUR, tariff reductions had to go beyond those in the Uruguay Round agreement.

52. In addition, Brazil insisted on keeping the *de minimis* clause of maintaining support of up to 10 per cent of the value of domestic production. Other countries would have likely accepted a value of 5 per cent, but pressed hard for the outright elimination of all domestic support policies. This situation led to an impasse and negotiations could not be concluded in a satisfactory way.

53. In the end, no agreement was reached in terms of domestic support, and the commitments for all member states are the same as in the lists deposited at the WTO for the Uruguay Round agreement (GATT 1994).

54. Lopes (1996) discussed the issue suggesting that no nation could participate in a negotiation which would result in a dismantling of its own policies. The decision taken has been to postpone any such agreement to a future framework of a true common market, and after the design and implementation of an effective competition policy for all four member states. The proposal is still before the Common Market Group, the body in charge of analysing and approving agreements on sectoral policies in MERCOSUR.

55. Lopes (1996, p. 220) argued that the agreement for the elimination of domestic support policies was not feasible in this period mainly because macroeconomic adjustment in Brazil had led to high interest rates and to the overvaluation of the currency. The phasing out of subsidies and other support policies (minimum prices, subsidised production and marketing credit) that was underway imposed heavy financial losses on farmers who had invested in response to the policies. The debt crisis in the agricultural economy forced farmers to embark on a painful, but unavoidable, process of structural adjustment.

56. This situation led to a substantial increase in farm debt, reaching a volume of around \$US 7 billion. State owned banks were reluctant to foreclose on mortgages, since they found few buyers of such land which was expected to be sold at give-away prices. The execution of mortgages would have led to even heavier financial losses for the lending banks. Under these circumstances, it seemed impossible to negotiate commitments above and beyond the ones accepted in the Uruguay Round agreement of 1994.

57. All the other Member countries of MERCOSUR, apart from Brazil, argued that the correct measures to be adopted for those farmers who were not able to compete were for them to undergo a reconversion of existing activities, to change their crop mix or to exit from farming. The first option was not considered to be feasible because: a) the extent of the necessary reconversion, under the distorted system of price signals, would have been very substantial; and b) it is difficult to talk about reconversion when farming is plagued with problems such as inefficient infrastructure, overburdening taxation, high interest rates, overvalued exchange rates and unstable sectoral policy. In the absence of these other problems, the number of farms requiring reconversion may have been relatively few in number.

E. Implications of the agreement

Trade flows

58. Total trade between Brazil and MERCOSUR reached US\$15.6 billion in 1996, which represents 15.4 per cent of Brazilian merchandise trade. As may be seen in Table 3, trade performance between Brazil and MERCOSUR has been spectacular, increasing almost three times during the period 1990 (which is before the signature of the Treaty of Asunción) to 1996. Exports to MERCOSUR countries (Table 5) are of the order of US\$7.3 billion (15.3 per cent of total exports) and imports are US\$8.3 billion (15.5 per cent of total imports). These figures are quite significant and indicate that the impact of MERCOSUR on overall trade is quite substantial, despite the size of the Brazilian economy in the regional grouping.

59. MERCOSUR's share in Brazil's total exports increased from 7.3 per cent in 1992 to 15.7 per cent in 1996 (Table 4). This large increase transformed LAIA into the second main export market destination for Brazilian products, just surpassed by the European Union. Argentina is now the second trading partner of Brazil, after the United States.

Table 3. **Total trade of Brazil with MERCOSUR**

US\$ millions, F.O.B.	
Period	Total Trade
1970	388
1971	402
1972	437
1973	660
1974	958
1975	919
1976	1163
1977	1343
1978	1428
1979	2404
1980	2856
1981	2659
1982	1997
1983	1513
1984	1996
1985	1674
1986	258
1987	2282
1988	2776
1989	3559
1990	3647
1991	4578
1992	6347
1993	8721
1994	10580
1995	12 993
1996	15 563

Source: Central Bank of Brazil

Table 4. **Brazilian exports by market destination**

Markets	Share of Total Exports (%)			Average Growth Rate (%) per year		
	1996	1994	1991	1991-96	1991-94	1994-96
LAIA	22.89	22.37	15.55	17.22	21.51	11.05
MERCOSUR	15.30	13.59	7.28	25.90	32.63	16.44
Other LAIA*	7.59	8.78	8.27	6.62	9.72	2.13
United States	19.50	20.24	19.58	7.92	8.83	6.56
European Union	26.88	27.12	30.89	5.44	3.26	8.80
Asia	16.37	16.21	18.01	6.56	4.17	10.25
Africa	3.20	3.10	3.27	8.09	6.12	11.11
Others	11.16	10.96	12.69	7.29	4.37	11.83
Total	100.00	100.00	100.00	8.59	8.00	9.49

Source: MICT/Secretaria do Comercio Exterior

* LAIA, except MERCOSUR.

60. The expansion in total trade between Brazil and MERCOSUR is due to increases in both exports and imports (Table 5). In the last two years, a trade deficit with MERCOSUR has emerged. This can be attributed to the large increase in the total imports of Brazil and in the stagnation of overall exports. The importance of Argentina to Brazil's trade with MERCOSUR is shown in Table 6. In 1996, Brazil's exports to Argentina account for 70 per cent of the total sales of Brazil to the regional bloc. But the rate of increase of shipments to the other three member countries has been very high in the period shown in the table: 70 per cent for Argentina, 144 per cent for Paraguay and 58 per cent for Uruguay. Although the rate of growth of exports to Paraguay and Uruguay is relatively high, this has taken place from a low base.

Table 5. **Trade balance: Brazil with MERCOSUR**

US\$ millions, F.O.B.			
Year	Exports	Imports	Balance
1980	1 811	1 044	767
1981	1 703	956	747
1982	1 129	868	260
1983	992	521	471
1984	1 322	674	648
1985	990	684	307
1986	1 170	1 188	- 18
1987	1 388	888	500
1988	1 643	1 138	505
1989	1 380	2 194	- 814
1990	1 320	2 320	- 999
1991	2 309	2 268	g 41
1992	4 097	2 229	1 869
1993	5 387	3 378	2 009
1994	5 921	4 583	1 338
1995	6 154	6 821	- 667
1996	7 305	8 258	- 952

Source: MICT/Secretaria do Comercio Exterior

Table 6. Trade between Brazil and MERCOSUR Countries

US\$ millions, F.O.B.																
Countries	1996			1995			1994			1993			1992			
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	
Argentina	5 170	6 775	-1 605	4 041	5 570	-1 529	4 136	3,662	474	3 659	2 717	942	3 040	1 732	1 308	
Paraguay	1 325	551	774	1 301	514	787	1 053	352	701	952	276	676	543	195	348	
Uruguay	811	932	-121	812	737	75	732	569	163	776	385	391	514	302	212	
MERCOSUR (A)	7 306	8 258	-952	6 154	6 821	-667	5 921	4 583	1 338	5 387	3 378	2 009	4 097	2 229	1 868	
Brazil (Total)	47 747	53 286	-5 539	46 506	49 583	-3 077	43 545	33 079	10 466	38 555	25 256	13 299	35 793	20 554	15 239	
Share MERCOSUR	%	15.30	15.50	17.19	13.23	13.76	21.68	13.60	13.85	12.78	13.97	13.38%	15.11%	11.45%	10.84%	12.26%

Source: MICT/Secretaria do Comercio Exterior

61. These figures show that for the Brazilian economy the dynamism of MERCOSUR is highly dependent upon the Argentine market. Accordingly, the majority of the effects of the custom union upon the Brazilian agricultural and industrial sectors can be attributable to Brazil-Argentina trade.

62. The growth of Brazilian exports to MERCOSUR has led to a trade surplus with the other member countries (See Table 6). With Argentina, the trade balance which was in deficit between 1989 and 1991, turned to a surplus of US\$1 billion in 1993, and then reverted to a deficit of US\$1.6 billion in 1996. This accounted for about 29 per cent of the total trade deficit of Brazil in 1996

63. The analysis of the evolution of the trade balance between Brazil and Argentina highlights an important aspect of the integration process in the region. The switching of the balance of trade between positions of deficits, surplus and deficit again can be explained largely by the relative movements of the exchange rates of the two countries and their respective growth rates. The Brazilian economy was in a recession in the beginning of the 1990s, with exchange rate devaluations following closely the domestic rate of inflation. At the same time, the economy of Argentina was growing much faster than Brazil and the exchange rate was appreciating due to the stabilisation plan implemented at that time. Since 1994, the situation changed, the Brazilian currency appreciated substantially and the economy of Brazil has been growing at a faster pace than that of Argentina. It must be said also that the trade deficit that Brazil displays vis-à-vis Argentina is part of a general phenomenon whereby the Brazilian trade balance is showing negative and increasing values. The effects of the free trade zone during 1991-96 was largely influenced by those macroeconomic factors. A longer view of these balances is presented in Table 7.

Table 7. Trade balance: Brazil with Argentina

US\$ thousands, F.O.B.			
Year	Exports	Imports	Balance
1980	1 091 521	756 500	335 021
1981	880 226	586 580	293 646
1982	666 363	550 229	116 134
1983	654 627	358 069	296 558
1984	853 110	510 898	342 212
1985	548 237	468 865	79 372
1986	678 336	736 988	(58 652)
1987	831 782	574 688	257 094
1988	979 385	707 104	272 281
1989	722 115	1 238 985	(516 870)
1990	645 140	1 399 680	(754 540)
1991	1 476 170	1 614 680	(138 510)
1992	3 039 984	1 731 625	1 308 359
1993	3 658 779	2 717 266	941 513
1994	4 135 864	3 661 966	473 898
1995	4 041 136	5 570 252	(1 529 116)
1996	5 170 032	6 774 685	(1 604 653)

Source: MICT/Secretaria do Comercio Exterior

64. Another aspect to be noted is the composition of trade between Argentina and Brazil. Manufactured exports in 1996 represented roughly 71 per cent of Brazilian exports to Argentina and 35 per cent of Argentine exports to Brazil. These figures should be compared to the share of 55 per cent of manufactured goods in Brazil's exports and 26 per cent of Argentina's total exports. MERCOSUR represents an important market for manufactures of both countries.

65. As can be observed from Table 8 the four main exports of Brazil to Argentina are: transportation equipment; electrical and mechanical machinery; chemical products and equipment and tools. Together these comprised 70 per cent of Brazil's total exports to Argentina in 1996.

66. Table 9 shows trade shares in 1994 and growth rates between 1993 and 1994 of the ten largest export commodities of Brazil to Argentina. The large growth rates associated with vehicles and parts and of semi finished iron and steel items are particularly notable. The ten commodities comprise 35 per cent of the total exports to Argentina; excluding iron ore and coffee, this falls to 32 per cent. It is apparent that manufactured goods constitute a significant share of Brazil's exports to Argentina.

Table 8. Main Brazilian exports to Argentina

(US\$ millions, F.O.B.)

Main items	1996	1995	1994	1993
Total	5 170	4 041	4 136	3 659
Transportation equipment	1 261	781	1 000	910
Electrical and mechanical machinery	1 056	762	817	738
Chemical products	842	801	614	501
Equipments and tools	489	476	460	375
Textiles and clothing	279	177	176	157
Paper and paper pulp	251	220	180	204
Food, tobacco and beverages	203	187	198	130
Cocoa and preparations	52	43	51	35
Mineral products and ores	187	166	201	186
Rubber and rubber made products	128	93	94	81
Vegetable products	113	112	86	72
Coffee and tea	82	92	72	40
Fruits	13	7	9	23
Live animals and animal products	108	59	82	111
All meats	101	54	77	95
Pottery and glass	78	59	65	61
Other	175	148	164	133

Source: MICT/Secretaria do Comercio Exterior, Brazil

67. Table 10 shows the composition of Brazilian imports from Argentina. The largest component is vegetable products, with cereals representing the highest value. The increase in Brazil's imports of cereals from 1995 to 1996 was quite large and reflected a downturn in domestic production. Transport equipment is also a significant component of imports, followed by mineral products and ore. The significant increase of the value of petroleum imports accounts for the large change observed from 1995 to 1996.

68. The analysis of the ten main products exported by Argentina to Brazil, which represent 55.2 per cent of total exports, shows a high concentration on two products: fuels and wheat (29.6 per cent of total exports). Nonetheless, sales of transport equipment also have a relatively significant weight of 12.9 per cent in the composition of foreign sales to Brazil (See also Table 11).

Table 9. Main Brazilian exports to Argentina -- share of exports and growth rate

Products	Share of exports (%)			Growth rate (%)	
	1996	1995	1994	1996/95	1994/93
Parts, tractors, motor vehicles	10.34	10.41	9.37	27.11	10.26
Passenger cars	6.34	4.47	5.96	81.37	-13.55
Goods vehicles	4.62	2.15	4.74	41.01	70.56
Piston engines and parts, nes	4.75	4.31	3.61	174.29	13.17
Iron ore mining	2.73	2.84	2.28	23.02	-1.35
Flat-rolled plated iron or steel	1.64	1.42	2.25	-2.60	-17.53
Semi-finish. iron or steel	1.55	2.15	2.08	47.86	86.23
Manufacture of chemical products, n.e.c.	2.03	2.67	1.95	21.85	10.92
Coffee, not roasted	1.50	2.19	1.64	-7.89	81.31
Pumps and compressors	1.57	1.65	1.58	-12.30	-4.99
Other products	62.93	65.74	64.55	22.47	13.99
Total Argentina	100.00	100.00	100.00	27.94	13.04

Source: MICT/Secretaria do Comercio Exterior , Brazil

Table 10. Main Brazilian imports from Argentina

US\$ millions, F.O.B.				
Main items	1996	1995	1994	1993
Total	6 775	5 570	3 662	2 717
Vegetable products	1 493	1 357	1 028	906
Milled products	414	732	514	500
Cereals	703	244	220	229
Horticultural products	183	216	187	108
Fruits	172	159	85	61
Seeds and oilseeds	10	4	19	6
Transportation material	1 364	1 020	669	476
Mineral products and ores	1 246	819	619	533
Chemical products	477	364	232	164
Live animals and animal products	465	467	243	105
Dairy products	210	192	90	30
All meats	113	131	74	27
Other	135	116	72	45
Machinery and equipment	459	462	246	194
Textiles and clothing	413	293	195	81
Food, tobacco and beverages	212	181	65	22
Vegetable oil	110	121	144	58
Paper and paper pulp	108	95	15	10
Equipments and tools	99	82	37	37
Leather and leather products	95	108	100	93
Optical products	8	7	4	5
Other	225	194	64	34

Source: MICT/Secretaria do Comercio Exterior, Brazil

Table 11. Main products exported by Argentina to Brazil

US\$ millions, F.O.B					
Products	January/October		Share in Total Exports Percentages		Growth % 1994/93
	1994	1993	1994	1993	
Oil	412	283	15.49	12.18	45.42
Wheat	376	424	14.13	18.23	-11.42
Gear boxes	165	134	6.20	5.75	23.28
Vehicles	121	131	4.54	5.64	-8.00
Corn	107	122	4.03	5.24	-12.08
Gross cotton	74	11	2.78	0.45	600.68
Other leathers and skins	59	62	2.23	2.68	-4.88
Piston Engines and parts, nes	59	76	2.20	3.27	-23.09
Soya oil	56	26	2.11	1.12	115.20
Frozen fish	43	32	1.63	1.36	37.46
Other products	1 187	1 025	44.65	44.08	15.77
Total	2 659	2 326	100.00	100.00	14.29

Source: INDEC - Argentina.

69. Despite the relative asymmetry in the composition of trade between Argentina and Brazil, intra-industry measures show that the two countries have important linkages within the manufactured goods sector (See Table 12). In view of the fact that intra-industrial trade is one of the main sources of dynamism in the world market, MERCOSUR can provide an additional stimulus to this trade. Lucangeli (1992) has made an extensive analysis of intra-industrial trade between Brazil and Argentina. His work

indicates that the reduction in trade barriers between the two countries has increased intra-industrial trade, even though this process started prior to MERCOSUR.

Table 12. **Intra-industry trade: 1992**

Country	Developed economies	Developing economies	United States	European Union	LAIA	Brazil	Argentina
Brazil	0.58	0.42	0.64	0.55	0.50	-	0.73
Argentina	0.27	0.63	0.30	0.23	0.70	0.56	-

Source: Commodity Trade Statistic.

Elaboration: FGV/IBRE/CEEG.

Selected agricultural commodity groups

70. As noted earlier, since the creation of MERCOSUR intra-bloc trade has grown considerably. While total exports of member countries increased 138 per cent, from US\$5.4 billion to US\$12.9 billion, agricultural exports increased from US\$1.1 billion to US\$1.5 billion, or by 33 per cent. When compared to an even earlier period of the previous agreement of economic complementarity between Argentina and Brazil of 1988, the growth in the volume of trade was even larger, increasing 264 per cent from 1988 to 1994. The benefits of integration have arisen from the following developments: specialisation in the patterns of trade, trade creation and reciprocity.

71. Sector-specific factors, however, have affected the pattern of intra-bloc trade. In sectors such as automobiles, household appliances and textiles, government intervention cushioned the negative effects of trade on employment. In agriculture, on the other hand, the liberalisation process was deeper, with the adoption of a regime of free imports (including for commodities heavily subsidised in world markets), the dismantling of domestic support policies (minimum prices and subsidised credit for production and marketing), and elimination of export promotion programs. Agriculture has been exposed to foreign competition from the beginning, and more deeply than some other sectors, in the process of implementing MERCOSUR (David and Nonnemberg, 1997, p. 3). Additionally, during the establishment of the CET the governments have gone beyond the tariff preferences granted within MERCOSUR.

72. Within this framework we now turn to an examination of trends in agricultural product trade flows in MERCOSUR. The first observation is that there appears to be a clear pattern of specialisation emerging in the region. Argentina and Uruguay are exploiting their competitive advantage in products such as temperate climate fruits (apples and pears), beef meat, leather and leather products, milk and dairy products, cotton, rice, maize (where the Northeast of Brazil has been importing from Argentina), wheat and flour and horticultural products. Table 10 contains data that shed some light to this development. On the Brazilian side, the pattern of specialisation is concentrated on coffee, sugar (potentially), poultry and pork and processed meats, tobacco, and soyabean by-products. Table 8 provides some data relevant to this observation. It should be clear that a continuation of this pattern of specialisation would imply a discontinuation of some existing activities. There are well known reasons, however, for this not to happen, such as transportation costs (a relevant consideration for a country of the size, and regional diversity, of Brazil), the relative differences in the sizes of the economies involved and other factors.

73. Another feature warranting a mention is that for a few products a clear pattern of specialisation has not yet emerged. For products such as soyabeans and maize, the capacity of the individual countries to foster technology and to rationalise production processes will be essential to ensure competitiveness and efficiency in production and distribution and this will determine the direction of specialisation. The

volume of investment in these commodities will also be a key factor determining the pattern of specialisation, since so far most of the changes have been limited to the existing capital structure.

74. Brazil is clearly less competitive in grains and raw materials, which are the domain of Argentina. However, it has had a strong performance in processed products, which includes capital intensive processing plants and modern food processing technology - sectors where economies of scale exist.

75. Sugar is a case where little progress has been made. Argentina maintains protection for its sugar producers because of the subsidies granted by Brazil for the production of ethanol. However, it is likely that these subsidies will be severely reduced, if not eliminated, in the near future⁵ and this will facilitate the conclusion of the regime of adequacy in the framework of MERCOSUR, which proposes a full harmonisation of policies and free movement of products by the year 2001.

76. The operation of market signals continues to be masked by macroeconomic stabilisation measures adopted in several of the MERCOSUR countries. High interest rates and exchange rate overvaluation are likely to have distorted the pattern of trade, but it would be difficult to foresee future changes in these variables and to assess their implications.

77. David and Nonnemberg (1997, p. 34) have shown that the pattern of specialisation in production, based on indices of revealed comparative advantage, has increased in Brazil, Uruguay, Argentina and Paraguay. For the latter two countries, there has been a concentration on traditional exports. While demand in the rest of the world for the traditional exports of these countries has been relatively stagnant, MERCOSUR has allowed them to increase exports of these commodities. These trends are expected to persist.

78. Finally, mention is made of products which are new markets for all the trading partners in MERCOSUR. In the particular case of Argentina and Brazil, these include processed food products imported from Argentina which are pushing Brazilian industries towards more efficient production and processing methods. On the other hand, Argentina is a growing market for Brazilian poultry and pigmeat related products.

Crop products

79. The implementation of the common market plays an important role in the ongoing reform process and in the improvement of the agricultural sector's productive efficiency. From the point of view of agriculture, once the reform cycle is over activity in the sector may be strengthened by the deregulation of macroeconomic policies and specific policies which penalise the sector in MERCOSUR. MERCOSUR has not yet a significant share of world agricultural exports, representing a mere 1.5 per cent of world trade, but it has potential to play a larger and more active role.

80. Within MERCOSUR Argentina is the main exporter of grains, and Brazil is its main customer for feedstuffs and the principal importer of these raw materials. Argentinian cereal exports to MERCOSUR amounted to US\$941.7 million in 1996 representing a 148 per cent and 29 per cent increase, respectively, over the levels in 1990 and 1994.

5. A number of facts seem to indicate that the subsidies within the Proálcool program will be reduced. First the government is lifting price controls on sugar cane, sugar and ethanol (in fact fuel prices are no longer subject to price controls since the end of 1996). Additionally, with the opening of the oil market in Brazil, further pressure for the elimination of this subsidy will take place.

Wheat

81. It is important to remember that one of the main advantages of economic integration is the scope for specialisation of production in which each integrated economy can increase the production of those specific products for which it has a competitive advantage, while decreasing the production of others. An example of this is provided by Argentinian wheat. In MERCOSUR Argentina is the major wheat exporter of South America. The four countries relative participation in the world wheat market has reached 2.7 per cent in production, 2.5 per cent in consumption, 8.4 per cent in exports and 6.4 per cent in imports, according to data for 1994-96. Argentina is the main producer of the region being responsible for 80 per cent of the total within MERCOSUR and is the only exporter in the Bloc. The dimensions and competitive advantage of the wheat sector in Argentina make this product the main one for specialisation within the common market.

Table 13. Argentinian share of wheat production and exports in MERCOSUR

(thousands of tonnes)

Year	MERCOSUR production	ARGENTINIAN share (%)	MERCOSUR exports	ARGENTINIAN share (%)
1993/94	12 575	76.8	4 827	100
1994/95	14 310	79.0	6 896	100
1995/96	11 370	83.1	4 610	100
1996/97	19 880	80.0	10 200	100

Source: SAGPyA y USDA

82. In terms of wheat demand within MERCOSUR, Brazil is the main consumer and importer responsible for 60 per cent of consumption and 97 per cent of imports. Brazilian imports from the international market have increased significantly in recent years and, consequently, there has also been growth in Argentinian exports to Brazil, in order to supply its growing internal market.

83. The continuous growth of Argentinian wheat exports to Brazil makes the latter country its major buyer (see Table 14). The average amount sold in 1995 and 1996 represented 60 per cent of Argentinian foreign sales. On the other hand, Argentina is the main wheat supplier to the Brazilian market with its import share ranging from 34.6 per cent in 1985/86 to 88.5 per cent in 1995/96, followed mainly by Canada and the United States

Table 14. Evolution of the Argentina's participation in the Brazilian wheat market

(thousand tonnes)

Year	Brazilian imports	Argentinian exports	Argentinian exports to Brazil (%)*
1992/93	5 825	5 749	62.5
1993/94	5 700	4 827	71.5
1994/95	5 600	6 896	64.6
1995/96	5 600	4 610	88.5
1996/97	5 200	10 200	29.0**

Source: SAGPyA y USDA

* Expressed as a percentage of the exports to Brazil/total wheat exports.

** Estimated.

84. MERCOSUR has created an important regional wheat market with a fluid exchange among the member countries, especially between Argentina and Brazil. Despite the fact that Brazil is Argentina's major customer, Argentinian wheat has been sold to other countries as well. The exportable supply of Argentinian wheat in 1996/97 doubled compared to the previous year reaching an amount of about 10.5 millions tonnes. That supply was sold to more than 50 countries in Africa, Asia and Europe in addition to the American countries, which are the traditional buyers.

Maize

85. The Member countries of MERCOSUR are responsible for 8.6 per cent of world maize production, 8 per cent of global consumption, 10 per cent of exports and 1.5 per cent of imports. The total production of the MERCOSUR bloc is around 56.1 million tonnes, of which 36.5 million tonnes comes from Brazil (75 per cent), 14.3 million tonnes from Argentina (23 per cent) and 0.8 million tonnes from Paraguay (1 per cent). The climatic and soil conditions in the Pampas Region of Argentina, the main production area, permit a smaller usage of agricultural inputs in grain production. Consequently, Argentina has lower production costs than its MERCOSUR partners, which makes it more competitive.

86. Argentina has been the main exporter among MERCOSUR countries and Brazil is its biggest customer. In 1996, Brazilian imports from Argentina reached 187.5 thousand tonnes. These maize imports are mainly used in Brazil's poultry industry located in the Northeast region of the country. This region is far from the internal grain production centres, which would mean high road or railway transportation costs, and this has made imports by sea a feasible option.

87. In terms of developments that have taken place in the last ten years, it is worth noting that the change in cultivated acreage in Argentina during the 1980/81 to 1996/97 period reveals two different situations: a strong decrease from 4 million hectares at the beginning of the 1980s to 2.1 million hectares in 1989/90, followed by an increase to 3.8 million hectares in 1996/97. Apart from these changes in the sown area, the greater use of technology (increased fertilisation and improved seeds from better crop hybrids) has provided an increase in cereal yields and overall productivity in Argentina.

88. In Brazil, during the same period, there was a slight increase in planted acreage of maize to around 14 million hectares. In addition, productivity has also been increasing strongly. In Brazil, due to

its territorial size, there are many technological levels of production, which results in yield differences from 1 000 kgs per hectare to 5 000 kgs per hectare in the most developed regions. For the 1996/97 harvest, the average yield productivity in the country was around 3 400 kgs per hectare.

Table 15. Brazilian and Argentinian share in maize production and exports in the MERCOSUR

(thousand tonnes)

Year	MERCOSUR production			MERCOSUR exports	
	Total, kt	Argentina (%)	Brazil (%)	Total, kt	Argentina (%)
1993/94	43 499	23.8	76.3	4 200	97.8
1994/95	48 792	23.4	76.7	6 100	96.6
1995/96	44 295	23.7	73.1	6 900	98.4
1996/97	51 600	28.5	71.0	8 750	97.8

Sources: SAGPyA, USDA, CONAB/MA

Rice

89. Within the MERCOSUR sphere of influence, Brazil is the main rice producer accounting for almost 86 per cent of total production in the period 1994/95 to 1996/97, followed by Argentina and Uruguay which together account for the rest of production in the region.

90. With respect to consumption trends within MERCOSUR countries, Brazil has reached 40 kg per capita, Uruguay 11 kg per capita and Argentina only 6 kg per capita in recent years. Rice is the main product in the Brazilian population's diet and total consumption has reached 10 million tonnes (milled basis). As a result, Brazil is the major importer, almost exclusively for the region, accounting for over 98 per cent of the total purchases of MERCOSUR in the recent period. The average amount imported in the last three years was above one million tonnes. The main suppliers of rice to Brazil are Argentina and Uruguay. In the 1994/95-1996/97 period, these two countries' exports reached 980 000 tonnes, with 58 per cent from Uruguay and 42 per cent from Argentina.

Table 16. **Argentinian and Brazilian share of rice production and exports in the MERCOSUR**

(thousand tonnes)

Year	MERCOSUR production			MERCOSUR exports			
	Total, kt	Argentina (%)	Brazil (%)	Uruguay (%)	Total, kt	Argentina (%)	Uruguay (%)
1993/94	11 885	5.0	88.5	6.5	590	36.4	63.6
1994/95	12 769	7.3	88.0	4.7	863	40.5	59.5
1995/96	12 049	7.3	83.3	9.4	970	40.7	59.3
1996/97	11 267	10.6	85.2	5.3	1 100	50.0	50.0

Sources: SAGPyA, USDA, CONAB/MA

91. Although rice production is not one of the major crops in Argentina it has experienced one of the highest growth rates in the 1990s. The cultivated rice area in Argentina, averaged roughly 100 000 hectares in 1980-82, but now approaches 227 000 hectares, an increase of over 100 per cent. Production has increased by 400 per cent over the same period as the result of higher yields and is currently above one million tonnes. It is important to note that the production increase taking place in Argentina as well as in Uruguay is located near the Brazilian border. In part it may be related to Brazilian immigrant producers.

92. Brazil's rice production is approximately 10 million tonnes from an acreage of approximately 3.5 million hectares. The yield varies greatly depending on the type of cultivation practised. For irrigated production, yield performance is similar to the main world producers, at around 5 400 kg per hectare. For the so-called "dry" culture or rain fed production, yields have traditionally been lower, which explains why it has tended to be replaced over time by maize and soyabeans.

93. The establishment of a regional market in which Brazil is the importer and Uruguay and Argentina the main exporters has made MERCOSUR more independent of the international market during specific periods of the year.

Soyabeans

94. Brazil is the main soyabean producer in MERCOSUR, accounting for around 26 million tonnes in 1996. In the same year, Argentina produced 11.5 million tonnes and Paraguay 2.5 million tonnes. Soyabean production in the MERCOSUR countries, mainly in Argentina and Brazil and to a smaller degree in Paraguay, has turned the bloc into one of the major production centres in the world. In the 1994/95-1996/97 period, the MERCOSUR countries accounted for 30 per cent of world production. This outcome is mainly due to growth in cultivated area since there has been no significant growth in yields in recent years.

95. Exports from the MERCOSUR soyabean complex have turned the region into one of the major suppliers of soyabean by-products in the world. With respect to soyabean oil, MERCOSUR accounts for 25 per cent of world production and 50 per cent of global trade

Table 17. Argentina's and Brazil's share of soyabeans, meal and oils in MERCOSUR

(thousand tonnes)

Year	MERCOSUR production			MERCOSUR exports		
	Total, kt	Argentina (%)	Brazil (%)	Total, kt	Argentina (%)	Brazil (%)
<i>Oilseeds</i>						
1993/94	30 180	30.0	64.1	9 477	30.7	56.6
1994/95	39 065	28.7	63.6	7 620	37.3	46.2
1995/96	40 754	32.5	60.6	7 061	29.7	50.3
1996/97	42 233	26.1	61.6	7 800	10.0	51.3
<i>Meals</i>						
1993/94	21 881	32.4	67.6	17 172	38.8	61.2
1994/95	24 083	29.1	70.9	18 368	36.1	63.9
1995/96	23 286	34.2	65.8	18 031	41.8	58.2
1996/97	25 148	33.4	66.6	19 400	42.3	57.7
<i>Oil</i>						
1993/94	5 080	29.9	70.1	2 994	48.4	51.6
1994/95	5 604	26.8	73.2	3 259	46.0	54.0
1995/96	5 436	32.2	67.8	2 970	55.6	44.4
1996/97	5 828	30.9	69.1	3 000	56.7	43.3

Source: USDA, CONAB/MA

96. Its important to stress that there appears to have been a change in the use of oilseeds, with a larger volume or amount assigned to be processed domestically, and consequently a smaller exportable balance of oilseeds.

97. Concerning soyabean oil, Brazil is the major producer in the region with annual output of approximately 4 millions tonnes, based on the average of the last three harvests. Paraguay's production is less significant, with an oil production of 140 000 tonnes per annum. Argentina is ranked as the major soyabean oil exporter of the region with an annual volume of shipments greater than 1.6 million tonnes. Among the major Argentinian export destinations are Iran, Venezuela, Peru, Egypt and China.

98. Brazil is the main consumer in the region with annual consumption of around 2.5 million tonnes. Its soya oil exports have increased significantly in the last few years; from 0.4 million tonnes in 1990/91 they rose to 1.45 million tonnes in the 1995/96-1996/97 period. These shipments have gone mainly to Asia. In the first half of the eighties, Brazil accounted for close to a quarter of the world soyabean oil trade and Argentina only 5 per cent. In the beginning of the nineties, the Argentinian share became significantly higher than Brazil's, but the latter's share has increased again since the middle of the decade.

99. The production of soyabean meal in the MERCOSUR bloc averages around 25 million tonnes, with Brazil's share representing 66 per cent, Argentina's 32 per cent and Paraguay's 2 per cent for the period of 1994/95-1996/97. Brazil is the major soyabean meal exporter of the region with 11 million tonnes, followed by Argentina with 7.5 million tonnes and Paraguay with 0.6 million tonnes. Export shipments of soyabean meal, as well as soyabeans, from MERCOSUR are mainly destined for countries in the European Union.

Sunflower seed

100. The production of sunflower seed in MERCOSUR is concentrated in Argentina, which accounts for about 97 per cent of the annual output of the region or over 5.5 million tonnes. The other MERCOSUR countries have very limited production, with Uruguay the second producer in the region, with annual production of 55 000 tonnes. Sunflower seed is only exported by Argentina with total shipments averaging 700 000 tonnes in the last three harvests.

101. Argentina is the major world exporter of sunflower oil and meal, accounting for 45 per cent and 70 per cent of the total, respectively. Argentinian exports of sunflower meal, which are of the order of some 1.8 million tonnes annually, are mainly sent to the European Union. Argentinian sunflower oil is exported to a large number of countries, among the most significant being Iran, Egypt, India, Mexico, Venezuela and Turkey.

102. Within MERCOSUR, there is the possibility in the future of more of Argentina's sunflower oil being exported to Brazil as a consequence of a change in its consumption habits with rising per capita incomes due to economic development and an orientation towards healthier eating habits by its population. At the present time, 90 per cent of the edible oil consumed in Brazil is soyabean oil.

Animal Feed

103. Since the beginning of the nineties animal feed production in Argentina has increased by close to 50 per cent. In 1996, approximately 1.8 million tonnes of maize were consumed as feed ingredients, with a total production of animal feed of 3.6 million tonnes.

104. In analysing animal feed production by major end users one can observe that the poultry sector as a whole represents the most important market segment. This sector accounted for 75 per cent of total domestic feed production during 1996. In terms of importance, poultry is followed by beef and dairy cattle consumption with 17 per cent, domestic animals with 4 per cent, and pigs with 3.5 per cent.

105. Nowadays the production of animal feeds is carried out at a large number of competitive factories. There has been a general trend to vertical integration and self-consumption in the industry. Many factories that produce feedstuffs to sell to others, are now directing a large part of their production to their own use, as well as to their partners. Within the poultry sector, many broiler meat and egg producers are starting to produce their own animal feed. In some cases, the process of vertical integration is complete.

106. The Brazilian animal feed market is still growing, with a total consumption of 25.2 million tonnes in 1996 - an increase of 2.8 per cent on the 24.5 million tonnes consumed in 1995. Poultry is still the activity that demands the most feedstuffs, representing a market share of over 65 per cent. It should also be noted that an increase of 18 per cent took place in the use of prepared feeds by the cattle sector from 1995 to 1996, particularly in relation to dairy farming. This activity is now facing increased competition within MERCOSUR, and has been investing in prepared feed rations to increase efficiency and improve productivity.

107. Among MERCOSUR countries there is no significant trade in animal feeds, only small Brazilian imports of soyabean and cottonseed meal from Paraguay (8-10 000 tonnes,) and from Argentina (6-35 000 tonnes) in 1996, respectively. In terms of exports, some 1.2 million tonnes of Brazilian citrus pulp was purchased by EU countries in 1996 for use as animal feed.

Sugar cane

108. International focus on the Brazilian national alcohol program *PROALCOOL* reflects concern that there might be a surplus of sugar for disposal on the world market. About 60 per cent of the sugar cane produced in Brazil is used for the production of fuel alcohol which would otherwise represent an additional 16 million tonnes of sugar for sale on the world market. Nevertheless, there is a limit to Brazilian sugar exports since most importing markets are protected, such as in Europe, Japan, Canada and the United States. Nowadays 5.3 million tonnes are exported to Asia and the Far East and a small amount is allocated to the United States under quota.

109. In terms of foreign trade policy, it should be mentioned that the long-standing sugar export tax has recently been reduced to zero by the Brazilian government. The absence of tax does not mean that this regime is eliminated or that Brazilian sugar exports will be tax-free forever. Brazilian government officials have commented that they see little need to maintain a 40 per cent export tax in circumstances when domestic supplies are expected to be abundant.

110. The *PROALCOOL* program will continue to supply alcohol as an additive to gasoline and it is currently being considered also as an additive to diesel oil. The use of alcohol as a fuel will likely only exist for the current fleet of vehicles. Governmental policy is in favour of price liberalisation, which already exists for the wholesale market, and it is expected to be extended to retail sales.

111. Brazilian vehicles consume 35 billion litres of diesel per year, 25 billion litres of gasoline and 12.5 billion litres of alcohol. The potential consumption in Brazil of alcohol added to other fuels is very large. Technically it could reach up to 15 per cent when mixed with diesel (currently not done) and up to 29 per cent with gasoline (currently 2 per cent). These and other measures, such as the establishment of an environmental tax on gasoline and incentives for the replacement of diesel buses with alcohol-based fuel buses will be considered by the Inter-Ministry Alcohol Council, which was recently established. A continuation of alcohol production is favoured in Brazil for a number of reasons including environmental ones, because either alone or added to other fuels, it substantially reduces the emission of atmospheric pollutants.

112. As for other MERCOSUR member countries, it should be noted that Argentina uses all of its sugar cane, of around 11 million tonnes annually, for sugar production. This is a product considered sensitive by Argentina in the context of competitiveness with the Brazilian sugar cane industry. Consequently, it is part of the Common Export Tariff (CET) exception list of Argentina with a 21 per cent tariff rate on imports from Brazil. Imports were 182 000 tonnes in 1995 but were only 10 300 tonnes in 1996. Within the MERCOSUR trading bloc, Argentina's imports represent around 74 per cent of the total sugar trade and Paraguay and Uruguay's imports each represent about 13 per cent.

113. Sugar cane production is carried out over an acreage of 310 000 hectares in Argentina and 4 706 000 hectares in Brazil.

114. Argentinian sugar trade in recent years has seen periodic switches between net imports and net exports. The net import position has tended to prevail in years of poor harvests. During such years, Argentina has imported refined sugar to meet internal consumption requirements. In recent years, the primary production sector as well as the industrial processing one, have developed a re-conversion process that will help them to compete on the international market. The sugar sector does not benefit from any form of government intervention or subsidy, having been totally deregulated in 1992.

Livestock products

Meat

115. All of the four countries have public intervention in their meat sectors. The major objective is to ensure abundant meat supplies at low prices in order to fulfil urban consumers' needs. The governments of Argentina, Uruguay and Paraguay have eliminated, from 1991 onwards, regulations over the sector so as to minimise their intervention and ensure free trade. The same tendency was observed in Brazil after 1994 with the adoption of the "Real Plan", allowing improved access for meat, meat products (such as quarters and special cuts) and live animals to the Brazilian market.

116. Notwithstanding that the region is a net meat exporter, MERCOSUR faces the real challenge of ensuring its further development by the adoption of appropriate strategies. Argentina and Uruguay are leaders in beef production and exports within the trading bloc, with the United States and the European Union having been their major markets for a number of years. However Argentina and Uruguay are not self-sufficient in poultry and pigmeat. Brazil exports pigmeat and large quantities of poultry, in addition to processed meats. However, it continues to depend upon regular imports of beef meat to satisfy consumer demand during certain times of the year.

117. The member countries have a strong complementarity in their meat sectors and they benefit from their differences. Argentina provides beef to Brazil, which exports poultry and pigmeat to Argentina. This situation is expected to continue and will increase meat trade among MERCOSUR member countries.

Beef

118. Brazil's beef production is mainly extensive, carried out on some 220 million hectares of pasture land, which corresponds to 75 per cent of its arable land. Brazil has one of the largest beef sectors in the world in terms of its cattle population (153 million head). Brazil produces about 4.9 million tonnes of beef yearly, making it the major producer in MERCOSUR and the fourth largest in the world.

119. Beef production in Brazil is highly seasonal with meat supplies declining in the winter months, and being supplemented by higher imports in that period. The Brazilian sanitary situation for cattle production has improved, particularly in relation to foot and mouth (FMD) disease, which is now under control but is not expected to be eliminated fully from the national herd before 2005.

120. Argentina and Uruguay have levels of per capita beef consumption among the highest in the world, although these are declining in both countries. Per person consumption in Argentina is higher than in Uruguay at about 64 kilograms. In Paraguay, per person consumption amounts to nearly 44 kilograms, and tends to vary with exports, as annual production does not change very much.

Table 18. The size of the cattle herd - World, MERCOSUR and Chile

(million head)

Year	World	Argentina	Brazil	Paraguay	Uruguay	Chile
1992	1.031.983	53,0	146,0	9,4	9,5	3,5
1993	1.032.445	52,7	148,3	9,8	10,0	3,6
1994	1.035.959	53,2	150,7	9,7	10,4	3,8
1995	1.044.181	52,6	152,4	9,7	10,5	3,9
1996	1.044.551	50,8	153,1	9,7	10,4	3,8

Source: Instituto Nacional de Carnes

121. Brazil and Chile present a different situation. The consumption of beef in these countries has not been high, but is increasing due to improvements in the general standard of living. In Chile the growth has been rapid, rising from 14.1 kg per person in 1987 to 24.4 kg in 1996 (+66 per cent). The forecast for the year 2000 is 29 kg per person, which would be greater than the expected growth in production. If this forecast is realised the country will have to rely on imports to cover the shortfall. Historically, Chile has imported meat and in the last few years quantities have increased rapidly. Its market is fully supplied by other MERCOSUR members. To date, Argentina has provided 85 per cent, Paraguay 9 per cent and Uruguay 5 per cent of such imports.

122. Due to its size, Brazil constitutes a promising market for beef. It is estimated that about 50 million Brazilians can not afford to buy beef at the present time. The increase that has taken place in the consumption of red meat is mainly explained by higher levels of per capita income. Market studies reveal a high income elasticity of demand for meat among the poor. The growth in Brazilian red meat demand generated by purchasing power increases, has been reinforced by the launch of the "Real Plan".

123. The consumption of beef meat in Argentina and Paraguay appears to be associated with their respective export opportunities. Whenever exports fall, the domestic market absorbs a large part of available production and conversely, exports provide an alternate outlet when domestic consumption is low. On average, around 80 per cent of Argentina's beef production goes to the domestic market and 20 per cent is exported

124. The situation of Brazil in that regard is quite different. Out of its total beef meat production, around 95 per cent is destined for domestic consumption. Exports depend heavily on production and consumption behaviour. In periods of economic stability, such as in 1986 under the "Cruzado Plan" and after 1994 under the "Real Plan", internal consumption has grown due to improvements in the purchasing power of the low and middle class sectors of the population. Consequently, in those periods exports have tended to fall and imports of beef have increased

Table 19. The Beef cattle market : Mercosur and Chile - 1996

Item	Argentina	Brazil	Uruguay	Paraguay	Chile
Total Herd (millions of head)	50.8	153.1	10.6	9.1	3.8
Slaughtering (millions of head)	11.5	25.6	1.7	0.4	-----
Imports (thousand tonnes.)	9	200	0.0	1.9	61.6
Exports (thousand tonnes eq.d.c.r.*)	470	250	209	29.5	0.0
Total Consumption (thousand tonnes.)	1910	3716	202	185	352

Sources: Dirección de Mercados Ganaderos. SAGPyA, OCDE, INAC, DATOS AGROPECUARIOS

* equivalent dressed carcass refrigerated

125. The meat trade within MERCOSUR is small compared with regional production. The major producers (Brazil, Argentina and Uruguay) are also net exporters. Brazil and Paraguay import significant quantities from Argentina and Uruguay.

Table 20. Beef cattle, meat and offal import tariffs: MERCOSUR - 1996

Inter-MERCOSUR	Argentina	Brazil	Uruguay	Paraguay
Live cattle	0	0	0	0
Refrigerated meat	0	0	0	34.5
Cooked meat	0	0	20	29.5
Offal	0	0	0	10

Source: Instituto Nacional de Carnes

Table 21. **Beef cattle, meat and offal import tariffs : MERCOSUR with third countries - 1996**

Extra-MERCOSUR	Argentina	Brazil	Uruguay	Paraguay
Live cattle	0-4	0-4	0-4	0-4
Refrigerated meat	10	10	10	34.5
Cooked meat	14	14	20	29.5
Offal	10	10	10	10

Source: *Instituto Nacional de Carnes*.

126. Over the next few years the volume of meat trade within MERCOSUR is expected to increase. Beef exports face no tariff barriers, except in the case of Paraguay where the product was included in its *List of Exceptions*. This import levy is scheduled to be eliminated by the year 2000.

127. The live cattle trade within MERCOSUR was significant up to 1994 before the elimination of tariff barriers.. Argentinian exports are made through Paraguay, in particular from the extra Mesopotamia provinces (Argentina Mesopotamia is free of food and mouth disease). About 82 per cent of the Argentina's exports go to Paraguay. These amounted to 168 000 head in 1994, 340 000 in 1995, and 152 892 in 1996, representing some 77 per cent of the total trade.

128. Brazil's annual exports of meat products is valued at about US\$ 1 billion, which represents 10 per cent of its agricultural exports. Earlier this decade that percentage was only 6 per cent. Brazilian exports of beef meat reached some 580 000 tonnes in 1988 but had declined to 250 000 tonnes by 1996. The balance of trade in this product, however, has increased. In 1996, imports amounted to 200 000 tonnes and the balance of trade surplus of 50 000 tonnes is greater than the one observed in 1995 (15 000 tonnes). Most of Brazil's meat exports are frozen boneless meat, followed by processed meats such as corned beef and boiled meat, for which Brazil is a traditional exporter.

129. A few years ago Brazil initiated exports of frozen meat and it is now negotiating an increase of 5 000 tonnes on its current 15 000 tonnes of Hilton Beef quota with the European Union. The Brazilian government is aware that both Argentina and Uruguay have higher quotas of such beef, although their herds are much smaller than Brazil's. Brazil's major meat suppliers are MERCOSUR neighbour countries and the European Union. Brazilian frozen bone-in and boneless meat imports vary from 10 000 to 30 000 tonnes per annum and take place in the periods of lower seasonal supply and stable domestic demand.

130. The challenge for Brazil is to improve its export performance and increase its beef production capacity through improved pastures, genetic improvements, and the elimination of diseases that cause lower meat quality and production.

131. Argentina increased its meat exports from 298 416 tonnes in 1992 to 466 379 tonnes in 1996. Its exports to neighbouring countries, such as Chile and Brazil, have become important, although the European Union and the United States remain Argentina's major markets. Exports to Chile increased 400 per cent between 1992 and 1996. The growth was even higher in relation to Brazil, rising from 5 318 tonnes in 1992 to 49 919 tonnes in 1996, an increase of 800 per cent. These shipments to Brazil peaked at 71 636 tonnes in 1995.

Table 22. **Brazil - beef exports to MERCOSUR and Chile**

(thousand tonnes)

Country	1994	1995	1996
Uruguay	3.9	3.1	4.6
Argentina	61.6	30.4	59.2
Paraguay	0.2	0.3	0.6
Chile	0.1	0.0	0.0
Total exports	378.2	288.4	250.0
Total to MERCOSUR (%)	17.4	11.7	25.8

Source: *Instituto Nacional de Carnes*.

132. Argentina is free of BSE (and so are the other countries on the continent) and in the last three years it did not record a single case of food and mouth disease. It has high expectations concerning the future growth of meat exports, particularly high quality chilled meat, in addition to the existing quota of 20 000 tonnes of fresh meat to the European Union. The Asian market could become an important destination for meat from Argentina. The beef export forecast for the year 2000 is 650 000 tonnes.

133. In 1996, Paraguay exported 23 424 tonnes of meat and offal which is 17 per cent higher than the average for 1992-96, but lower than the 100 000 tonnes exported in 1990. Brazil used to be its major market (52.9 per cent), followed by Chile (25.5 per cent). Paraguay's exports can be broken down into the following shares: frozen boneless meat (38.7 per cent), chilled bone-in meat (34.4 per cent), chilled boneless meat (15.9 per cent), offal (9.5 per cent), corned beef (1.3 per cent) and the remaining frozen bone-in meat (0.30 per cent).

134. Most of the meat exported to Brazil is frozen bone-in meat, followed by frozen boneless meat and then offal. For the Chilean market most of Brazil's meat exports comprise chilled meat cuts and frozen boneless meat. MERCOSUR is an important market for Paraguay, given that it accounts for around 81.5 per cent of its total meat exports.

135. Paraguay has an established live beef cattle trade with neighbouring countries, especially Brazil and Argentina. It sells to Brazil as much as it buys from Argentina. The statistics for 1996 reveal that Paraguay exported 37 295 head of cattle to Brazil, but this figure could be even higher with more reliable records of across border movements. Beef cattle imports were 122 565 head, out of which 90 235 were destined for slaughtering (73.6 per cent), 25 813 head for fattening (21.1 per cent) and the remaining 6 517 head for breeding purposes.

Table 23. **Paraguay - beef exports to MERCOSUR and Chile**

(gross weight, thousand tonnes)

Country	1993	1994	1995	1996
Brazil	3.5	13.9	13.5	10.9
Argentina	4.4	0.7	0.3	0.4
Uruguay	0	0	0.4	0
Chile	9.6	4.8	4.6	5.8
Total exports	22.0	27.5	25.4	21.1
Total to MERCOSUR (%)	79.5	70.5	74.0	81.0

Source: *Estadística Ganadera. Subsecretaría de Estado de Ganadería. Ministerio de Agricultura de Paraguay*

136. Most of the meat produced by Uruguay is destined for the export market. The highest level of exports occurred in 1996, accounting for 52 per cent of the slaughtered animals in that year. Total exports reached 209 294 tonnes carcass equivalent, representing a 46.7 per cent increase in relation to 1995. The European Union is its major buyer and imported 52 000 tonnes in 1996, some 5 per cent higher than in the previous year.

137. Brazil is the second major market for Paraguay and remains a stable buyer, as a result of its economic stability. In 1996, Brazilian purchases increased 71 per cent, reaching 44 000 tonnes, carcass equivalent. The third largest buyer is the United States which took almost 40 000 tonnes, carcass equivalent in 1996. Israel has become an important buyer, increasing its participation up to 20 per cent, which is close to 36 000 tonnes, carcass equivalent.

Table 24. **Uruguay - beef exports to MERCOSUR and Chile**

(thousands tonnes, dressed equivalent ref.)

Country	1992	1993	1994	1995	1996
Brazil	5.4	4.2	27.3	24.4	43.5
Argentina	8.7	2.1	3.0	2.9	6.7
Paraguay	0.0	0.0	0.0	0.1	0.0
Chile	18.7	17.9	12.0	6.9	8.2
Total exports	123	105	152	143	209.7
Total MERCOSUR (%)	26.6	23.0	27.8	23.9	27.9

Source: *Instituto Nacional de Carnes.*

Pigmeat

138. Most of the pigmeat production of Brazil takes place in a fully integrated industry. This vertically integrated system promotes high productivity by providing financial and technical inputs to producers, in addition to facilitating the transfer of genetically improved animals. The industry continuously undertakes research and resulting technological improvements are transferred to producers. In 1996, the country had the third largest pig herd in the world with 32.4 million head, and ranked just behind the United States and China in animal numbers. The majority of the Brazilian herd is concentrated in the south (33 per cent) of the country, followed by the northeast (27 per cent) and the southeast (18 per cent). Per capita yearly consumption of pigmeat in Brazil is about 9.3 kgs.

Table 25. MERCOSUR - pigmeat production and exports

(thousand tonnes)

Year	Production					Exports	
	MERCOSUR	Brazil	Argentina	Paraguay	Uruguay	Brazil	Argentina
1990	1330	1050	140	118	22	19	-
1991	1412	1130	141	120	21	17	1
1992	1495	1190	157	126	22	44	1
1993	1585	1260	177	126	22	35	4
1994	1660	1330	181	127	22	32	10
1995	1853	1540	162	129	22	32	11
1996	1938	1660	129	129	20	56	6

Sources: FNP, FAO, SECEX, ABECS

139. In the 1995/96 period, Brazilian exports increased from 32 000 tonnes to 56 000 tonnes (a 78 per cent increase) but this is very small when compared to production (1 per cent). The improved export performance was explained by higher imports by Hong Kong and Argentina, whose purchases in the 1995/96 period increased 180 per cent. Hong Kong is Brazil's major market for pigmeat. Its share of the Brazilian 1996 exports was 46 per cent, equivalent to 25 733 tonnes. Within the MERCOSUR bloc, Argentina's imports were 22 922 tonnes and Uruguay's were 3 175 tonnes in 1996. In 1995, Brazilian imports amounted to 8 579 tonnes, with 71 per cent coming from Canada, 27 per cent from the United States and 2 per cent from China.

140. In the last few years, Brazil has made important progress in the sanitary field, especially in terms of exports where sanitary standards are quite high. At the moment, the south region is considered free of classic swine pest and the Brazilian states of Minas Gerais, Mato Grosso do Sul e Mato Grosso were considered as areas free of vaccination. The State of São Paulo is in the area of compulsory vaccination and the remaining states come under a classic swine pest eradication program.

141. Vaccination is not permitted in Brazil, with the exception of the zones to be identified by the National Animal and Plant Protection Secretary. This procedure is expected to improve access to foreign markets. The movement of animals in the zone free of disease is not permitted, nor the transit of pigs and pigmeat products without treatment. These procedures are designed to ensure that disease will be totally eliminated.

142. In Argentina, pigmeat production is relatively low, at about 129 000 tonnes, but producers are becoming increasingly aware of comparative advantage and the need for modernisation. In Paraguay about half of the annual production of 129 000 tonnes is destined for family consumption. In Uruguay there is a large range of production systems varying from low technology to the most intensive and modern integrated systems. Uruguay's production of about 22 000 tonnes per annum is destined almost entirely for the domestic market. The per capita consumption is low (8 kg per year) due to the ample availability of other meat at low prices and pigmeat consumption as elaborated products.

Poultry

143. Poultry remains one of the most modern and dynamic sectors of Brazilian meat production. Brazil follows the model of the highly integrated production chain, which has been shown to be beneficial to the consolidation and development of the sector. Brazil occupies third place in world production with 11.6 per cent of the total output and is the second on the export side with about 11 per cent of world trade.

144. Most of Brazil's poultry production is concentrated in the south of the country (66 per cent), followed by the southeast region with a share of 33 per cent. Its international competitiveness in poultry comes from the high quality standards and low industrial production costs of US\$ 1.00-US\$ 1.10 per kilo. In 1996, Brazilian production of 4 million tonnes matched the market expectations and was about the same as the previous year. This output was lower than in previous years due to a setback in demand, after a period of rapid expansion associated with the "Real Plan" and competition from other meats. The consumption of poultrymeat in 1996 was about 22.2 kg per inhabitant, or 4 per cent less than in the previous year.

145. Poultrymeat exports have undergone continuous growth reaching 552 000 tonnes in 1996, some 30 per cent higher than in 1995. Brazilian exporters are adjusting more and more to international market requirements in terms of product specifications. In that sense, Brazil's participation in the market for special cuts is increasing in comparison to whole bird exports. In 1985 cuts were 14 per cent of exports, in 1993, 35 per cent and in 1996, 50 per cent. The major poultry markets for Brazil are Saudi Arabia, followed by Japan, where demand includes a range of 60 special cuts. Within MERCOSUR, Argentina is the major destination with 4 per cent of Brazil's exports. This share reached 9 per cent in 1994, but has decreased with the expansion of local Argentinian production

146. It has not been possible to export non-cooked poultrymeat products to the United States due to non tariff, sanitary barriers established as a result of concern for the presence of Newcastle disease in Brazil. This disease has now been eradicated in the major producing states (Rio Grande do Sul, Paraná, Santa Catarina and Mato Grosso do Sul), such that exports of poultrymeat and eggs are now free to enter into the European Union.

Table 26. **MERCOSUR - poultrymeat production and exports**

(thousand tonnes)

Year	Production					Exports	
	MERCOSUR	Brazil	Argentina	Paraguay	Uruguay	Brazil	Argentina
1990	2728	2357	321	23	27	291	-
1991	3047	2628	373	17	29	307	-
1992	3422	2926	448	19	29	362	-
1993	3697	3143	500	20	34	464	-
1994	3995	3412	519	29	35	480	-
1995	4684	4050	564	32	38	424	-
1996	4677	4060	546	32	39	551	2

Sources: FNP, APA, ABEF, UBA, FAO, SECEX

147. Notwithstanding the absence of such sanitary barriers in the European Union, Brazilian poultrymeat exports face other problems. Brazil has claimed that the European Union is not fully honouring an agreement to import 15 500 tonnes of poultrymeat at zero tariff in compensation for the EU's oilseed regime. Currently, Brazil may export only 7 500 tonnes under that regime, and the remaining 8 000 tonnes is subject to a levy of 78 per cent, which is the normal tariff applied by the European Union on third country shipments. The World Trade Organisation (WTO) has accepted the Brazilian request for a panel to investigate this restriction and the sharing of the zero tariff import quota with other third country suppliers.

148. The poultrymeat sector in Argentina is facing a period of rapid development. The increase in competitiveness of the sector is one of the most important changes in MERCOSUR. Following on from what has been happening in this sector in Brazil, Argentinian producers are now adopting new and modern technologies. The recent recognition of Argentina as being free of Newcastle (poultry) disease should allow it to access new international markets for these products.

149. In 1996, Argentina produced 724 000 tonnes of poultrymeat. Nevertheless, this was insufficient to match its domestic requirements amounting to a per capita consumption of 21 kilograms per year. The shortfall was covered imports, which reached 28 500 tonnes in 1996, most of this being supplied by Brazil.

Milk

150. Milk production in Argentina has grown continuously, reaching 8.9 billions litres (about 32 per cent of MERCOSUR's production) in 1996. Over the 1991-1994 period the growth rate was around 38 per cent, although this expansion was disturbed by a drought in 1995. Close to 65 per cent of Argentina's production is consumed in the country with the remainder exported, mainly to Brazil.

151. Per capita consumption is about 215 litres per year, similar to that of the developed countries. Actual production is higher than the current processing capacity of factories, which has been expanding strongly in recent years. Quality improvement is the main priority of milk producers and for the industry.

152. The prospects for Argentinian exports are considered to be favourable. MERCOSUR is a market of 200 million persons and if their consumption were about 100 litres per year, imports would exceed 25 litres per year per capita. Only the joint production of Argentina and Uruguay could match that volume of imports in the short run.

153. In the last few years the milk sector in Brazil has undergone major changes and its improved performance favours its further integration into the world market. The increase in milk production has been substantial (today Brazil is among the 10 major world producers), but imports of dairy products, have also increased considerably. These changes are closely related to the improved economic circumstances of the country.

Table 27. MERCOSUR - dairy sector structure - 1996

Item	Argentina	Brazil	Uruguay
Total dairy cows (million head)	2,3	20,0	0,4
Milk production (billion liters)	8,9	17,5	1,3
Productivity (output/cow/day)	12,4	6,0	8,3
Producer's average prices (US\$/L.)	0,19	0,24	0,16

Source: FEPALE, IBGE, FAO, LEITE, Brazil

154. The Brazilian economy has undergone continuous adjustments, with some setbacks, which have affected milk production and consumption. The effects were stronger earlier in this decade, when the economy became more open, and were reinforced by the "Real Plan" due to the stimulus it gave to demand. The sector is facing the same pressures for rationalisation and industrial concentration, as has been experienced by those countries where the dairy sector is well developed.

155. Brazilian milk production increased more than 20 per cent in the 1990-1996 period. Initially this growth was due mainly to the expansion of dairying towards the centre-west and northern parts of the country, where livestock production is a dual purpose (meat and milk) enterprise, and not by productivity increases. Gains in productivity occurred in the traditional milk zones located in the southern part of the country. Since 1994, under the "Real Plan", there has been a productivity increase in both the traditional and new milk production areas.

156. In the 1995-96 period, annual production growth was about 6.5 per cent, reaching 17.5 billion litres, which is equivalent to 62 per cent of MERCOSUR's total production. In 1997 milk production was expected to increase less rapidly.

157. Brazilian dairy product imports up to the end of the seventies were always below 300 000 tonnes (milk equivalent), but from the early eighties it increased reaching 2.3 millions tonnes in 1986. In the following years imports became more regular amounting to an average of 900 000 tonnes per year. These registered an increase in 1994 and then peaked in 1995 as a result of a surge in demand. In 1996, Brazil imported 1.8 million tonnes and for 1997 the estimates suggest total imports of about 2.0 million tonnes, milk equivalent.

158. Brazilian foreign agricultural trade policy continues to be directed towards the elimination of trade barriers and export subsidies provided by its trading partners, especially in the dairy sector. This orientation has always been present in all the negotiations Brazil undertakes at the World Trade

Organisation (WTO). In the dairy sector the majority of the tariffs were set at the level of 16 per cent, with only powdered milk remaining in the *list of exceptions* with a tariff of 27 per cent.

Table 28. **MERCOSUR - milk production**

(billion litres)

Year	MERCOSUR	Brazil	Argentina	Paraguay	Uruguay
1990	21 995	14 484	6 281	225	1 005
1991	22 471	15 079	6 121	240	1 031
1992	23 945	15 784	6 795	255	1 111
1993	24 265	15 604	7 219	288	1 154
1994	25 319	15 784	8 018	290	1 227
1995	26 861	16 474	8 792	300	1 295
1996	28 124	17 543	8 947	300	1 334

Sources: IBGE, ANUALPEC/FNP, FAO

159. The annual consumption of fluid milk and dairy products has been about 100 kg per capita, about half the amount in developed countries. Although it is below the minimum recommended by the FAO (146 kg per capita), it may be considered reasonable when compared to the average of 36 kg per capita in the developing countries. With higher production and imports, per capita consumption in Brazil reached about 123 kg per capita in 1996.

160. Demand for dairy products is affected by income and regional inequalities. This is evident from the fact that the consumption of fluid milk and dairy products in the wealthier south and southeast of Brazil is similar to that in developed countries.

161. Favoured by its vast prairies and fertile soil, the meat and milk production sector is Uruguay's major source of income and wealth. There has been an effort underway in Uruguay to promote improved quality of its herds and pastures and to operate at lower costs. The average size of dairy farms is 138 hectares, with 67 cows that produce 2 800 litres per cow a year. Given that the internal market is very small, most of national production is exported. Uruguay, with a population of 3.14 millions inhabitants has an annual per capita consumption of milk of 223 litres, the highest in Latin America.

162. In 1996, Uruguay produced 1.33 billion litres of milk or about 5 per cent of MERCOSUR's total production. The country has around 6 000 producers and a dairy herd of 377 000 head. In 1963, the Uruguayan government passed legislation in favour of production quality which indeed improved its milk quality and herd productivity also increased substantially. Under this legislation, if milk producers fulfil their hygiene and sanitary obligations they received a 15 per cent increase in the milk price. This price incentive was eliminated in 1976 but the hygiene and sanitary requirements remained in force. As a consequence of that policy, diseases such as brucellosis, foot and mouth, tuberculosis and black leg have been eradicated.

163. In Paraguay, the dairy sector is not well developed and its small production comes from dual purpose cattle (meat and milk). The country relies on imports to supply the domestic market.

Future prospects

164. Problems associated with the macroeconomic stabilisation processes of member countries continue to overshadow any analysis about the future perspectives for MERCOSUR. Nevertheless, the four countries have succeeded in the implementation of an imperfect customs union during a period when the divergence in macroeconomic variables have produced great disparities in their trade balances. Sustainable, low levels of inflation in Argentina and Brazil will be essential to guarantee the deepening of the regional integration process.

165. In the context of a worsening of macroeconomic conditions that could jeopardise national -anti-inflationary plans, MERCOSUR does not represent an effective discipline framework for its member-countries. Even though there are increasing signs that macroeconomic stability is becoming a permanent feature, Brazil is unlikely to renounce taking some measures needed for its stabilisation plan that could negatively affect the integration process. This is because MERCOSUR as a market is still relatively small to Brazil. However, the very favourable results for MERCOSUR countries in the first stages of the FTAA negotiations have revealed that there are strategic benefits associated with the common market.

166. Future prospects for MERCOSUR appear to be quite promising. Overall, the gains from the process of integration are likely to outweigh possible losses to selected sectors in Argentina and Brazil and this has strengthened the commitment of the governments and the respective private sectors to the process of further integration. A less favourable scenario would be one where the potential opportunities created by the prospects of the FTAA catch the attention of the various parties and the negotiations become fragmented and dominated by each country's own interests.

167. Finally, the results achieved by MERCOSUR, even if impressive in terms of trade flows, are not restricted to this aspect. There has been significant growth in foreign direct investment by Brazilian and Argentine firms to establish subsidiaries in the other member countries, even though data to document this are not readily available.

F. Implications for trade of alternative integration paths

168. This section provides indications of the directions and order of magnitude of the impacts arising from tariff changes under the different regional integration arrangements that are currently being considered. The reader is cautioned that these are indicative results and should be viewed only as an aid to understanding the major economy-wide linkages and to compare results across different regional integration scenarios.

169. The analysis is based on the results of simulations from the Global Trade Analysis Project (GTAP), an applied general equilibrium model developed by Tom Hertel and associates at Purdue University, Indiana in the United States. The GTAP aggregation consists of ten commodity groups and eight regions⁶. In addition to the full set of accounting relations required for consistency, the model also includes behavioural and technological restrictions and a set of price equations. The latter reflect output, input and trade taxes and subsidies (tariffs, export taxes and subsidies) as well as transport costs. Additionally, separate treatment is given to primary factors leading to different factor market closures in the model.

6. See Appendix 1 for a description of commodities and regions.

170. The GTAP model generates welfare measures that permit an accurate evaluation of welfare changes as a result of regional integration. This permits the effects of policy changes to be directly linked to the ultimate objective of trade liberalisation, which is enhanced national welfare and distribution, thus avoiding the need to concentrate the analysis on approximate measures like trade creation.

Regional integration: what is best for Brazil?

171. Future steps taken by Brazil and the other MERCOSUR partners will be essential to determine the kind of regional integration that will develop in Latin America over the course of the next decades. Brazil is a global trader and it will make its choices from that perspective. Gone are the days where regional integration in Latin America was viewed as the creation of a *fortress* whereby the local industries would have access to enlarged markets and take advantage of alleged economies of scale. This view is no longer defended in any Latin American country. Brazil certainly does not support this model of development. MERCOSUR, as noted previously, is an open trade bloc and when the CET is fully implemented a significant reduction in tariffs will be achieved as shown in Table 29. The integration paths now under consideration by the MERCOSUR members and other countries in the Americas are the following:

- consolidation of MERCOSUR with the completion of the adjustment of the tariffs to the CET for the four founding members which will comprise the Common Market of the South;
- extension of the free trade zone to include all countries in South America;
- a free trade zone between MERCOSUR and the European Union (MERCOSUR/EU)⁷ and
- the Free Trade Zone of the Americas (FTAA) to include the United States, Canada and Mexico.

172. To assess the impacts of the MERCOSUR, MERCOSUR/EUROPEAN UNION and the FTAA agreements on Brazil and Argentina we analyse three experiments with GTAP. The discussion excludes the South America agreement due to space limitations.

173. We begin with the analysis of the consolidation of MERCOSUR. The results shown below are the same as the ones presented in Brandão, Lopes and Valls (1995 and 1997)⁸.

7. There is already a protocol indicating the intention to create a free trade zone between MERCOSUR and the European Union.

8. The section MERCOSUR: experiment and results draws heavily on this paper.

Table 29. Ad-Valorem Tariffs: Argentina and Brazil

Commodities	Argentina*			Brazil*		
	Before MERCOSUR	After MERCOSUR	Percent change	Before MERCOSUR	After MERCOSUR	Percent change
NATRES	19.82	4.99	-74.82	1.27	4.99	292.91
MNFRES	28.86	13.49	-53.26	33.46	13.49	-59.68
MNFCAP	25.45	11.29	-55.64	31.69	11.29	-64.37
OTHMEQ	18.58	13.93	-25.03	44.69	13.93	-68.83
ALLGRN	18.12	5.52	-69.54	5.70	5.52	-3.16
NONGRN	17.37	8.65	-50.20	21.30	8.65	-59.39
LVSTCK	13.85	7.97	-42.45	23.54	7.97	-66.14
FOODPR	17.63	12.36	-29.89	43.86	12.36	-71.82
MILK	21.93	15.08	-31.24	36.19	15.08	-58.33

Source: For Tariffs Before Liberalisation: GTAP data base. For Common External Tariff, Ministério da Indústria, Comércio e Turismo, Brazil.

* Tariffs before MERCOSUR are simple averages.

MERCOSUR: experiment and results

174. The experiment consists of the elimination of all tariffs between Argentina and Brazil and of the implementation of a common external tariff (CET) for the two countries. The CET for 2006, the year where the customs union is completed, was chosen. The experiment thus simulates long run impacts after the adjustments in factor and product markets are completed and when MERCOSUR truly becomes a customs union. An additional consideration relevant for the interpretation of the results is that the data base of GTAP contains the tariff structure that existed in Brazil in 1989. In consequence, the results reflect both the unilateral reform initiated by Brazil during the period 1990-93, as well as those arising from membership of MERCOSUR.

175. Table 29 shows that substantial liberalisation of regional trade with the rest of the world will take place as a result of these developments. The average tariff reduction is of the order of 56 per cent for Brazil, disregarding the large increase in tariffs observed for natural resources, a commodity group for which Brazil is a net exporter and 49 per cent for Argentina. Another feature of these changes is the relatively small decline in the tariff on grains.

176. MERCOSUR represents a small trading bloc with respect to the world economy. In this experiment the changes in the world price indices (see Table 32) are insignificant.

177. Another characteristic of MERCOSUR is that the two largest partners have fairly closed economies⁹. The overall impact for Argentina and Brazil is accordingly relatively small. For example:

- the increase in GDP (volume) was 0.69 per cent for Brazil and practically zero for Argentina;
- the change in net primary factor income for Argentina and Brazil is respectively 1.44 and 0.44;

9. Trade (average of imports plus exports) are of the order of 7.5 per cent for Argentina and 8 per cent of GDP for Brazil.

- the change in aggregate expenditures in Argentina and Brazil is respectively 0.33 and -1.08; and
- the change in the value of GDP for Argentina and Brazil was 1.10 and -0.43 respectively, due to an increase of 1.10 per cent in the GDP price index for Argentina and a reduction of 1.12 per cent in this index for Brazil.

178. Welfare gains associated with MERCOSUR are consistent with results normally found in other general equilibrium models. The equivalent variation for Argentina is US\$713 million (approximately 0.3 per cent of GDP) and for Brazil it is US\$3 080 million, about 0.6 per cent of 1994 GDP, more than four times the gain for Argentina. For the world as a whole equivalent variation is US\$6 055 million. Thus, about half of the global welfare gain accrues to Brazil and about 12 per cent to Argentina.

179. The next two tables display the changes in exports (Table 30) and imports (Table 31) for Brazil. There is a generalised increase in imports, as a consequence of the reduction in domestic protection. Similarly, Brazilian exports increase. The increase is larger for imports from Argentina because of the complete elimination of tariffs will give an incentive for households and firms in that country to purchase more from the MERCOSUR partners. However, exports to the other regions of the model increase too. This takes place because cheaper imports lead to substitution of domestic goods not only in consumption, but also in production.

180. Some additional aspects to note from Table 30 are:

- exports of manufactured goods to Argentina (MNFRES, MNFCAP and OTHMEQ) will more than double when all the adjustments from MERCOSUR are completed. Most other exports to Argentina will increase significantly, particularly those of *natural resources* (NATRES), *processed food* (FOODPR), and *dairy products* (MILK).
- exports of the aggregates *manufacture and capital* (MNFCAP) and *other mechanical equipment* (OTHMEQ) will increase by about 30 per cent for all the regions of the model, except, as noted above, to Argentina. This is quite significant in view of the fact that the tariff changes in countries outside MERCOSUR are zero in the experiment; and
- the increase in agricultural exports for regions of the model other than Argentina is small. The overall increase in exports of agricultural goods is less than 10 per cent. The notable exception is *dairy products* (MILK).

Table 30. Percentage Change in the Volume of Brazilian Exports

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World	Total
NATRES	6.53	6.37	116.58	6.39	6.40	6.31	6.43	10.60
MNFRES	11.29	11.15	132.94	10.83	10.97	10.43	11.30	18.56
MNFCAP	36.28	35.57	251.34	36.41	36.01	34.71	36.17	80.25
OTHMEQ	31.88	31.69	186.95	30.88	31.53	29.97	31.93	51.67
ALLGRN	6.37	6.18	46.62	6.60	5.87	6.41	6.09	8.78
NONGRN	5.76	5.73	67.19	5.76	5.52	5.59	5.75	6.82
LVSTCK	6.61	6.50	54.27	6.32	6.42	6.61	6.52	9.50
FOODPR	8.90	9.28	97.13	8.99	8.86	8.99	9.21	10.59
MILK	6.78	7.18	104.94	7.02	6.55	6.89	6.75	61.45
SERVIC	5.74	5.69	6.63	5.45	5.49	5.56	5.69	5.73

Source: Brandão, Lopes and Valls (1995, 1997)

181. We now turn to imports. As expected, there are large increases in imports from Argentina. This reflects the increase in the competitive position of that country vis-à-vis the rest of the world and the lower prices facing Brazilian households and firms.

182. Aspects to be noted from Table 31 are the following:

- except for *grains* (ALLGRN), *other agriculture* (NONGRN), and *services* (SERVIC), all imports from Argentina more than double and in some cases the increase is almost six fold - *manufactures and capital* (MNFCAP);
- imports of manufactured goods will generally increase more than imports of agricultural-based goods; and
- imports of *processed food* (FOODPR) increase by about 60 per cent. The bulk of this increase is in Argentina.

Table 31. Percentage change in the volume of Brazilian imports

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World	Total
NATRES	117.00	-14.50	135.62	-14.58	-9.85	1.62	-14.86	-8.61
MNFRES	77.95	104.77	421.79	-3.96	-28.34	-17.47	-13.57	57.91
MNFCAP	106.59	221.08	571.24	-5.45	-72.50	17.71	9.01	58.80
OTHMEQ	41.11	59.93	271.74	24.53	13.91	37.16	36.36	39.76
ALLGRN	73.55	74.65	6.33	-28.53	-11.26	40.20	3.80	2.14
NONGRN	56.25	14.15	2.59	-17.08	181.57	-1.63	-1.66	29.34
LVSTCK	41.13	-7.63	103.61	-52.87	-39.40	48.21	44.84	40.49
FOODPR	50.13	-16.74	202.15	-54.85	-45.50	-54.38	-52.05	59.81
MILK	28.45	29.07	135.25	-66.94	25.58	28.08	28.10	47.10
SERVIC	-2.47	-2.27	-4.68	-2.00	-1.89	-2.03	-2.11	-2.26

Source: Brandão, Lopes and Valls (1995, 1997)

183. Table 33 shows that production will fall in most sectors. This is an expected outcome of the reduction in tariffs. Three exceptions are *natural resources* (NATRES), for which the CET is actually higher than what was practised by Brazil, *services* (SERVIC) and *livestock* (LVSTCK), where the increment is small. In Argentina the output of the livestock sector diminishes slightly, by 0.27 per cent.

184. The MERCOSUR experiment indicates a significant increase in the domestic merchandise terms of trade for Brazil. The price indices of merchandise exports and imports decrease by 2.7 per cent and 14.7 per cent, respectively, giving rise to an increase in the domestic terms of trade of the order of 12 per cent. The corresponding numbers for Argentina are as follows: the change in merchandise export prices is zero and the change in merchandise import prices is -11.4 per cent, giving rise to an improvement in the terms of trade of 11.4 per cent. The changes in the domestic prices of imported and exported goods, for the ten commodities of the model, are shown in Table 32.

Table 32. Changes in world and Brazil's domestic prices of exported and imported goods

Commodity	World price	Export prices	Import prices
NATRES	0.29	-1.29	3.30
MNFRES	-0.01	-1.94	-19.03
MNFCAP	-0.11	-4.73	-21.77
OTHMEQ	-0.03	-5.08	-21.80
ALLGRN	0.01	-1.45	-2.71
NONGRN	0.01	-1.50	-13.15
LVSTCK	0.01	-1.42	-14.00
FOODPR	0.02	-1.90	-29.56
MILK	0.01	-1.50	-18.04
SERVICE	0.02	-1.36	0.06
AVERAGE	-	-2.69	-14.68

Source: Brandão, Lopes and Valls (1995, 1997)

Table 33. Brazil: changes in production and in primary factor use

Commodity	Production	Land	Labour	Capital
NATRES	3.58	0.00	3.62	3.56
MNFRES	-0.13	0.00	-0.09	-0.16
MNFCAP	-1.60	0.00	-1.56	-1.63
OTHMEQ	-6.29	0.00	-6.27	-6.33
ALLGRN	-0.61	-0.24	-0.83	-0.86
NONGRN	-0.63	-0.25	-0.84	-0.87
LVSTCK	0.15	0.38	0.07	0.03
FOODPR	-0.60	0.00	-0.56	-0.62
MILK	-1.67	0.00	-1.64	-1.70
SERVICE	0.43	0.00	0.47	0.39

Source: Brandão, Lopes and Valls (1995, 1997)

185. The change in the import prices are consistent with the reductions in tariffs that take place in this experiment. The reduction in export prices is caused by the use of cheaper imports in the production of domestic (and exported) goods and the assumption of a fixed level of the current account.

186. The impact on total primary factor income has already been noted. Primary factor use increases in *natural resources* (NATRES), *livestock* (LVSTCK) and *services* (SERVIC) categories (this is shown in Table 33). Consistent with the change in output, labour and capital use in *other mechanical equipment*

(OTHMEQ) will be significantly reduced. Land use increases in the *livestock* (LVSTCK) sector and decreases in the other two agricultural groups, namely *grains* (ALLGRN) and *non grains* (NONGRN).

187. There are two types of primary factors in the model: labour and capital, which are fully mobile; and land which is sector specific. Accordingly, the price changes for the first two are the same in all commodity sectors, namely 0.37 per cent and 0.31 per cent, respectively. In the case of land, the changes in price differ slightly across sectors: 1.421 in *grains* (ALLGRN), 1.425 in *non grains* (NONGRN) and 0.810 in *livestock* (LVSTCK). This pattern is consistent with the observed changes in land use noted in Table 33. Additionally, because land in the model is assumed not be used outside agriculture, the decline in its price is larger than the drop in the price of labour and capital, which can also be employed in the expanding non agricultural sectors.

FTAA and MERCOSUR/EU

188. The two options that are more interesting for MERCOSUR countries at the moment are the *Free Trade of the Americas Agreement* (FTAA) and the creation of a free trade zone with the European Union. While these options are being considered and debated, several Latin American countries are establishing free trade zones with MERCOSUR, as is the case of Chile, Bolivia and more recently Peru and Venezuela. The economic impacts of these association agreements are relatively minor for Brazil and Argentina and in the interest of simplicity, will not be discussed here.

189. The experiments discussed below consisted of changing tariffs from the levels set in the previous experiment. That is, the experiments analyse the marginal impacts of the additional tariff changes to meet the likely characteristics of the two prospective free trade zones.

190. As shown in Table 34, the creation of either of the two free trade zones will not have significant additional impacts on world prices. It is notable, however, that the impact of the MERCOSUR/EU free trade zone is, in general, larger for agricultural commodities (*grains* and *non grains*) and for *livestock* products. The marginal impacts on prices of the creation of the FTAA are more evenly distributed among all commodity groups of the model.

Table 34. Percentage changes in world prices

Commodities	World Price	
	FTAA	MERCOSUR/EU
NATRES	0.37	0.07
MNFRES	0.29	0.12
MNFCAP	0.20	0.06
OTHMEQ	0.19	0.00
ALLGRN	0.25	0.21
NONGRN	0.43	0.86
LVSTCK	0.37	0.46
FOODPR	0.24	0.09
MILK	0.28	0.37
SERVICE	0.45	0.06

Source: Brandão, Lopes and Valls (1995, 1997)

Table 35. **Percentage changes in GDP and welfare for Brazil**

	GDP	Welfare
FTAA	2.0840	1 498.90
MERCOSUR/EU	5.0545	3 260.17

Source: Brandão, Lopes and Valls (1995, 1997)

191. As noted earlier the impact on the value of GDP for Brazil is slightly negative in the case of MERCOSUR. However, as shown in Table 35, for both the FTAA and MERCOSUR/EU, this impact is positive and larger than the initial negative effect of MERCOSUR. It is noticeable that the change in GDP is significantly larger for the MERCOSUR/EU integration than for the FTAA. The changes in welfare display a pattern similar to those of GDP, with the gains associated with the association with the European Union more than two times larger than those associated with FTAA. It should be pointed out that, consistent with results from other models of this nature, the welfare gains are relatively small since they do not capture the dynamic effects of the new competitive environment and the effects of new investments¹⁰.

192. Table 36 presents the estimated impacts of the two agreements on Brazilian exports. For the FTAA, exports of manufactured products (MNFRES, MNFCAP) processed food (FOODPR) and dairy products (MILK) increase while those of grains (ALLGRN), non-grains (NONGRN) and livestock products (LVSTCK) decline. More interesting is how these changes come about as shown in Table 37. Brazilian exports will increase within the free trade zone (Mexico, North America and Latin America) and will decrease in all other regions contemplated in the model. For the agricultural commodities this decrease is not compensated by the expansion within the FTAA zone since the European Union is the most important destination for Brazilian exports of agricultural goods. The case of the food sector deserves special consideration since this sector includes sugar and orange juice, two commodities where Brazil is a larger exporter and a low cost producer. What is clear from the analysis of the impact on exports of the food sector is that there are indeed larger increases in exports of the order of 29 per cent for North America, of 29 per cent for Latin America and of 57 per cent for Mexico. Despite these changes, the reductions observed in the other regions lead to a net increase in the exports of this aggregate of only 1.5 per cent.

Table 36. **Percentage change in the volume of Brazilian exports**

Commodities	FTAA	MERCOSUR/EU
NATRES	-4.69	-13.06
MNFRES	14.17	-8.98
MNFCAP	10.36	2.55
OTHMEQ	2.96	-6.11
ALLGRN	-3.15	88.76
NONGRN	-2.99	114.22
LVSTCK	-2.40	141.46
FOODPR	1.50	8.17
MILK	12.32	-4.80
SERVIC	-5.23	-13.05

Source: Brandão, Lopes and Valls (1995, 1997)

10. These experiments have all been conducted assuming that the initial position of the current account remains unchanged. Variations in the international capital flows are not incorporated in the analysis.

Table 37. Brazilian exports to selected countries due to FTAA

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World
NATRES	-7.40	-7.70	-8.25	50.11	5.28	33.33	-7.60
MNFRES	-7.79	-8.16	-18.43	36.45	73.19	29.47	-8.01
MNFCAP	-6.68	-6.98	-17.09	62.91	56.77	53.83	-6.99
OTHMEQ	-3.56	-4.10	-23.47	47.31	7.90	30.53	-3.99
ALLGRN	-4.47	-4.47	-10.11	-35.20	-0.99	2.72	-4.55
NONGRN	-3.50	-4.23	-11.05	-0.87	-2.49	36.51	-4.52
LVSTCK	-6.49	-6.61	-6.73	94.37	66.98	41.24	-6.80
FOODPR	-6.05	-6.77	-13.94	56.88	29.12	28.77	-6.60
MILK	-7.12	-7.70	-12.71	-12.25	1037.29	94.76	-7.03
SERVIC	-6.06	-6.56	-4.67	0.19	-3.27	-0.68	-6.66

Source: Brandão, Lopes and Valls (1995, 1997)

193. The estimated impacts of the MERCOSUR/EU agreement on Brazilian exports (Table 38) indicates large increases in agricultural exports: for the *livestock* (LVSTCK) and *non grain* (NONGRN) sectors exports are more than two times larger, while for the grain sector the increase is of the order of 90 per cent. Additionally, the *food sector* (FOODPR) shows an increase of about 8 per cent. These effects come about mostly due to significant increases of exports to the European Union and reductions in Brazilian exports to all other regions of the model.

Table 38. Percentage change in the volume of Brazilian exports due to MERCOSUR/EU

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World
NATRES	-10.69	-15.77	-5.16	-16.41	-16.52	-15.48	-16.00
MNFRES	19.17	-16.74	-13.12	-16.67	-16.89	-15.75	-16.98
MNFCAP	110.02	-14.10	-12.82	-14.44	-14.35	-13.77	-14.36
OTHMEQ	28.18	-10.33	-17.67	-10.16	-10.34	-9.77	-10.38
ALLGRN	446.36	-32.26	-16.86	-34.88	-32.16	-29.34	-32.29
NONGRN	272.92	-37.66	-18.98	-37.38	-37.61	-37.02	-38.06
LVSTCK	333.84	-32.24	-0.87	-32.31	-32.05	-31.14	-32.44
FOODPR	46.42	-24.36	-16.93	-23.38	-23.98	-22.65	-24.39
MILK	2841.21	-26.13	-28.68	-26.09	-24.62	-24.64	-25.04
SERVICE	-13.76	-13.88	-3.40	-13.80	-13.86	-13.88	-13.92

Source: Brandão, Lopes and Valls (1995, 1997)

Table 39. Percentage change in the volume of Brazilian imports

Commodities	FTAA	MERCOSUR/EU
NATRES	6.12	4.56
MNFRES	12.38	15.17
MNFCAP	6.94	14.15
OTHMEQ	8.44	12.34
ALLGRN	6.17	11.95
NONGRN	9.70	29.66
LVSTCK	9.68	39.37
FOODPR	4.84	6.31
MILK	8.66	21.87
SERVICE	2.30	6.78

Source: Brandão, Lopes and Valls (1995, 1997)

194. The impact on imports are shown in Table 39. In both cases, Brazilian imports by all sectors increase. In the case of the MERCOSUR/EU free trade zone the increments are somewhat higher than in the case of the FTAA. Nevertheless, the fundamental difference is in the origin of these imports as shown in Tables 40 and 41. In the case of the FTAA, most of the additional imports come from North America, Mexico and Latin America. Interestingly, in the case of the MERCOSUR/EU free trade zone imports from other regions increase for selected commodities. Another interesting aspect of the comparison of the impacts on Brazilian imports is that in the MERCOSUR/EU case imports from North America do not diminish across the border. In fact, imports of *grains* (ALLGRN) and *non grains* (NONGRN) from North America increase more in this experiment than in the FTAA experiment.

195. The impacts on production, shown in Table 42, are consistent with the changes in the trade flows. In both cases there is a reduction in production in most sectors. Nevertheless, the impacts are smaller in the FTAA case, where production of manufactured goods, which are intensive in natural resources, increase 1.2 per cent and production of capital goods increase 0.5 per cent. In the MERCOSUR/EU experiment, the impacts on production are larger. Production increases in the grain (1 per cent), non grain (18 per cent), livestock (9 per cent) and food (1.6 per cent) sectors. These are counterbalanced by relatively larger reductions in manufactured goods, where the production of machinery is reduced 8 per cent and that of capital goods is reduced by 3 per cent.

Table 40. Percentage change in the volume of Brazilian imports -- FTAA

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World
NATRES	1.91	2.29	-1.44	16.53	25.39	15.30	1.30
MNFRES	-6.35	-6.04	-8.54	81.81	84.59	62.72	-6.97
MNFCAP	-4.47	-4.12	-4.01	97.59	89.83	100.81	-5.23
OTHMEQ	-14.86	-14.58	-12.98	71.33	65.91	79.10	-15.42
ALLGRN	0.98	0.90	-4.13	14.24	21.40	21.72	0.40
NONGRN	-3.94	-3.79	-7.44	24.86	32.21	27.08	-4.38
LVSTCK	-0.49	-0.43	-5.06	27.22	37.60	29.01	-1.10
FOODPR	-0.96	-0.93	-3.89	64.61	67.62	63.93	-1.52
MILK	-1.10	-0.97	-3.87	64.46	75.80	70.17	-1.68
SERVIC	5.67	5.98	2.97	-4.84	-0.36	-4.74	5.04

Source: Brandão, Lopes and Valls (1995, 1997)

Table 41. Percentage change in the Brazilian imports -- MERCOSUR/EU

Commodity	European Union	Pacific Countries	Argentina	Mexico	North America	Latin America	Rest of the World
NATRES	37.46	4.76	-20.47	4.65	4.75	5.12	5.02
MNFRES	98.39	-5.77	-28.81	-5.93	-5.77	-5.85	-5.54
MNFCAP	76.98	-16.94	-35.67	-17.17	-16.95	-16.98	-16.74
OTHMEQ	64.79	-20.47	-34.84	-20.62	-20.48	-20.62	-20.30
ALLGRN	78.88	40.25	-11.72	39.83	40.06	40.16	41.09
NONGRN	96.89	35.00	-22.83	34.29	34.84	37.32	36.02
LVSTCK	79.47	22.76	-24.35	22.39	22.56	23.21	23.36
FOODPR	116.47	19.54	-15.89	19.24	19.54	19.72	20.00
MILK	98.89	6.44	-20.81	6.22	6.35	6.62	6.79
SERVICE	7.64	7.82	-12.49	7.70	7.81	8.04	8.02

Source: Brandão, Lopes and Valls (1995, 1997)

Table 42. Percentage changes in production

Commodity	FTAA	MERCOSUR/EU
NATRES	-1.31	-4.57
MNFRES	1.24	-2.92
MNFCAP	0.47	-3.24
OTHMEQ	-3.09	-8.15
ALLGRN	-0.23	0.90
NONGRN	-1.06	18.68
LVSTCK	-0.27	9.12
FOODPR	0.11	1.62
MILK	-0.34	-1.92
SERVIC	0.03	-0.01

Source: Brandão, Lopes and Valls (1995, 1997)

196. Both agreements will have favourable impacts for Brazil. In order for these gains to materialise however, significant adjustment costs will be experienced internally. To manage these costs politically will require close attention to the sectoral impacts and the factor movements that follow up the process. The MERCOSUR/EU experiment is essentially a favourable shock to the agricultural sector of Brazil, which will increase the use of labour and capital in the rural sector (Table 43).

197. The prices of labour and capital, the sectorally mobile factors of production, increase in the two experiments, but the increase is significantly larger in the MERCOSUR/EU agreement. Table 44 shows that land prices increase in the two experiments but the increase is also larger in the MERCOSUR/EU experiment. It should be stressed that land is assumed to be immobile among sectors (and appears only in the production functions of the agriculture commodities) and therefore the price changes differ among grains, non grains and livestock sectors.

Table 43. Percentage changes in primary factor use

Commodity	FTAA			MERCOSUR/EU		
	Land	Labour	Capital	Land	Labour	Capital
NATRES	0.00	-1.31	-1.32	0.00	-4.27	-4.72
MNFRES	0.00	1.25	1.23	0.00	-2.62	-3.17
MNFCAP	0.00	0.47	0.46	0.00	-2.93	-3.48
OTHMEQ	0.00	-3.08	-3.09	0.00	-7.95	-8.46
ALLGRN	0.18	-0.49	-0.49	-5.70	5.74	5.47
NONGRN	-0.43	-1.43	-1.43	6.34	27.53	27.21
LVSTCK	0.27	-0.50	-0.51	-2.35	15.16	14.80
FOODPR	0.00	0.11	0.10	0.00	1.95	1.44
MILK	0.00	-0.34	-0.35	0.00	-1.67	-2.16
SERVICE	0.00	0.03	0.02	0.00	0.24	-0.38

Source: Brandão, Lopes and Valls (1995, 1997)

Table 44. Percentage changes in primary factor prices in the agricultural sectors

	FTAA			MERCOSUR/EU		
	Land	Labour	Capital	Land	Labour	Capital
ALLGRN	0.94	2.15	2.16	27.61	4.02	4.48
NONGRN	0.33	2.15	2.16	43.89	4.02	4.48
LVSTCK	1.02	2.15	2.16	32.14	4.02	4.48

Source: Brandão, Lopes and Valls (1995, 1997)

G. MERCOSUR: issues for the future

198. The next steps in the development of MERCOSUR involve issues of two different kinds :

- the enlargement of the bloc through the inclusion of new members; and
- the deepening of integration among the member countries.

199. As noted earlier, Chile and Bolivia have already joined the free trade area of MERCOSUR. The discussions with Peru and Venezuela are advanced and they are likely to join the free trade zone in the next 12 to 18 months. There seems to be an agreement among MERCOSUR members, mainly Argentina and Brazil, that this is the correct strategy to pursue at the present time.

200. From an economic point of view, the main issues are related to deepening the integration among the member countries. It should be noted at the outset that since agricultural discussions have reached a standstill, as noted in the paper, there are few agricultural issues per se in the deepening of integration. The key question concerning agriculture is the creation of a *common system of commercial defence* to deal with unfair trade practices. The creation of such a mechanism will allow further progress in the agricultural negotiations by reducing concerns of local producers with the impact of imports of agricultural goods which have been subsidised at their origin.

201. Other elements of the deepening of integration go beyond the agricultural sector. Developments in the areas indicated below are key to moving the process forward.

- consolidation of macroeconomic stability;
- inconsistencies among the tax systems; and
- labour market issues.

Macroeconomic stability

202. With the decline in inflation rates in the four founding members of MERCOSUR the volatility of the exchange rates has decreased significantly. This has contributed to the spectacular increase in the trade flows among the member countries, especially between Brazil and Argentina.

203. At the same time, however, the implementation of the national macroeconomic stabilisation plans can potentially delay the integration schedule. The measures taken by Brazil, for instance, to cope with the increase in the trade deficit since the beginning of the Real Plan illustrate the point. The restrictions applied to automobile imports gave rise to several criticisms from Argentina (and other non MERCOSUR members) since this had a large negative impact on Brazilian imports from that country. Similarly, the Brazilian prohibition on financing textiles imports hit Uruguay severely.

204. It appears, therefore, that consolidation of macroeconomic stability is essential to smooth the path of integration. Particularly important is the achievement of a sustainable position in the external accounts. For Brazil, this means reducing the current account deficit. For Argentina it boils down to the sustainability of its fixed exchange rate. Another important aspect of the problem is the reduction in the public deficit in Brazil which will allow lower interest rates and, consequently, a *natural* adjustment of the (overvalued) exchange rate.

Fiscal harmonisation

205. In this area lies another important constraint to the process of integration. Brazil still has an unnecessarily complex tax system vis-à-vis its other MERCOSUR partners. The Brazilian tax system still depends significantly on taxes that are levied on revenues (with a consequent *cascade* effect) and is comprised by a large number of taxes managed by three levels of governments (federal, state and municipal), a fact that increases administrative costs significantly (keeping records, honouring payment dates and so on) for domestic companies.

206. This system must be changed mostly for domestic reasons. Nevertheless, until the system is revised, Brazilian firms are at a tax disadvantage vis-à-vis those from the other economies. Additionally, the impacts of these distortions for the attraction of new investment can be very significant too.

Labour market

207. This is likely to be the most difficult issue for the future of integration in this region. The Brazilian population is much larger than those of the other countries and average wages in Brazil are lower than in Argentina and Uruguay. The large potential for migration towards the two countries conspires, understandably, against the free movement of labour in MERCOSUR in the foreseeable future.

208. Having said this, however, we would like to point out that differences in labour legislation are also an important element to delay the process of integration. Here, it should be noted, it appears that the Brazilian legislation is one of the most restrictive, reducing competitiveness of companies, and distorting incentives for the attraction of investment. One important feature of the Brazilian legislation in this respect is the system of payroll taxes that can increase labour costs by up to 50 per cent.

Bibliography

- Argentina. *Annual Report*. Published by Business Monitor International LTD, London, 1993.
- Brandão, Antônio Salazar P. and Will Martin. "Implications of Agricultural Trade Liberalization for the Developing Countries". *Agricultural Economics*, vol.8, No. 4, 1993.
- Brandão, Antônio Salazar P., Thomas W. Hertel and Antônio C. Campos. "Distributional Implications of International Agricultural Trade Liberalization: A Case Study of Brazil", in Goldin, Ian; Odin Knudsen and Antônio Salazar P. Brandão. *Modeling Economy-Wide Reforms*, Development Center Studies, OECD, Paris, 1994.
- Brandão, Antônio Salazar P., Mauro de Rezende Lopes, and Lia Valls Pereira. "Trade Liberalization in Brazilian Agriculture: Qualitative and Quantitative Analysis". Implementing The Uruguay Round Agreement in Latin America: The Case of Agriculture. FAO-World Bank Workshop. Santiago. Chile. November. 1995.
- Brandão, Antônio Salazar P., Lopes, Mauro de Rezende and Lia Valls Pereira. "The Impacts of MERCOSUR on Brazil", in Valdés, Constanza and Terry Roe *Economic Integration in the Western Hemisphere*, Proceedings of a Symposium Sponsored by the International Agricultural Trade Research Consortium and The Inter-American Institute for Cooperation on Agriculture, June 7-9, 1995. San José, Costa Rica, April 1997.
- Brazil. *Balança Comercial*. Several Issues. Ministério da Indústria, Comércio e Turismo - Secretaria de Comércio Exterior.
- Burnquist, H. Lee et alii. *Liberização Comercial: Um Fator de Desenvolvimento do Setor Agrícola Brasileiro*. IPEA. Projeto PNUD/BRA/91/014. 1994. 216 p. Brasília. D.F.
- CEPAL - *Desarrollo Reciente de los Procesos de Integración en América Latina y El Caribe*, LC/R 1381, May 1994.
- Charriquiry, M. R. "Políticas Agrícolas e Integração Econômica: O Caso do MERCOSUR". in *Políticas Agrícolas e o Comércio Mundial*. Fagundes, M. H. (Ed.) IPEA. Projeto PNUD/BRA/91/014. 1994. pp. 239-258. Brasília. D.F.
- David, Maria Beatriz A. and Marcelo Jose Braga Nonnemberg. "MERCOSUR: Integração Regional e o Comércio de Produtos Agrícolas". IPEA. Rio de Janeiro. May, 1997
- Edições Aduaneiras. *Tarifa Externa Comum*. Sao Paulo, 1995.
- Goldin, Ian; Odin Knudsen and Dominique van der Mensbrugge. *Trade Liberalization: Global Economic Implications*. OECD and The World Bank, Paris and Washington, 1993.
- Goldin, Ian; Odin Knudsen and Antônio Salazar P. Brandão (eds.) *Modelling Economy-Wide Reforms*. OECD, Paris, 1994.
- Guimaraes, E. P. and Lia Valls Pereira. *O Impacto do Nafta Sobre as Relações do Brasil com a América Setentrional: O Caso dos Produtos Agrícolas*. IPEA. Projeto PNUD/BRA/91/014. 1994. 123 p.

- Henz, Renato. "Situação das Negociações Agrícolas no MERCOSUR". *Revista de Política Agrícola*. Ano III. No. 3. July-August-September. 1994. pp.29-34.
- Henz, Renato. "A Agricultura e a Política Agrícola no MERCOSUR". *Revista de Política Agrícola*. Ano IV. No. 3. July-August-September. 1995. pp.12-18.
- Henz, Renato. "O Conceito de Segurança Alimentar na Organização Mundial do Comércio (OMC)". *Revista de Política Agrícola*. Ano V. No. 2. April-May-June. 1996. pp.3-10.
- Hertel, Thomas W. and Marinos E. Tsigas "GTAP Model Documentation" in T. W. Hertel (ed.) *Short Course in Global Trade Analysis*, Purdue University, July 25 - 31, 1993.
- Jank, M. (1993). "Mercosul: efeito das políticas públicas sobre a competitividade". *Revista de Economia e Sociologia Rural*, 31:349-69.
- Kume, Honório e Markwald, Ricardo A. "As Perspectivas do MERCOSUR: Configuração da Estrutura Produtiva e Convergência Macroeconômica" in *Perspectivas da Economia Brasileira 1994*, IPEA, Rio de Janeiro, 1993.
- Lattimore, R. G. and S. Weedle, "The Impact of Multilateral Free Trade in Dairy Products". *Economic Working Papers*. Agriculture Canada. Ottawa. 1981.
- Lavagna, Roberto. "Integração Argentina - Brasil: Origem, Resultados e Perspectivas" in Veiga, P. da Motta (ed). *CONE SUL: A Economia Política da Integração*. Fundação Centro de Estudos de Comércio Exterior, Rio de Janeiro, 1991.
- Lopes, Mauro de Rezende. "Mercados Agrícolas e o Processo de Integração no MERCOSUR". In Brandão, Antônio Salazar P. and Lia Valls Pereira (eds.) *MERCOSUR: Perspectivas da Integração*. Fundação Getulio Vargas, March 1996.
- Lopes, Mauro de Rezende. *Instrumentos de Política Comercial para Produtos Agropecuários no MERCOSUR*. Inter American Development Bank. Technical Cooperation Agreement. Program ATN/SF - 4130. Research Report. 1995.
- Lopes, Mauro de Rezende. "Rodada Uruguai e Exportações Brasileiras". *Conjuntura Econômica*. Fundação Getulio Vargas. June 1994. pp.56-60.
- Lopes, Mauro de Rezende, Marcos Jank and Marc Etienne Montrigaud. "O NAFTA Agrícola e suas Implicações para o Brasil". *Agroanalysis*. Fundação Getulio Vargas. June 1994. pp. 8-12.
- Lucangeli, Jorge "Integración Comercial, Intercambio Intra-Industria y Creacion y Desvio de Comercio: El Intercambio Comercial entre Argentina y Brasil en los Años Recientes", Informe preparado a requerimiento del Proyecto Integración Económica de la Subsecretaria de Estudios Económicos de la Secretaria de Progración Económica. Argentina, Buenos Aires, September 1992.
- Pereira, Lia V. "O Projeto MERCOSUR: Uma Resposta aos Desafios do Novo Quadro Mundial ?" in E. Battaglini and others. *MERCOSUR: Integração na America Latina e Relações com a Comunidade Européia*, Editora Caja, Sao Paulo, 1993.

- Teixeira, E. C. "Impact of the Uruguay Round Agreement on the Brazilian Economy: a GTAP Application". Department of Agricultural Economics. University of California-Davis. Paper presented at the North American Forum. Institute for International Studies. Stanford University. May 6, 1995.
- Teixeira, E. C. and Garth J. Holloway. "Impact of the Uruguay Round Agreement and MERCOSUR on the Brazilian Economy". Department of Agricultural Economics. University of California-Davis. 1996. pp. 145-161.
- The World Bank. "Getting Beyond the *National Institute Model* for Agricultural Research in Latin America: A Cross-Country Study of Brazil, Chile, Colombia, and Mexico". Report No. 10397-LAC. Washington D.C. February 28, 1992.
- Waquil, P. and T. Cox. *Spatial equilibrium with intermediate products: implementation and validation in the MERCOSUR*. University of Wisconsin - Madison, Department of Agricultural Economics: Staff Paper no. 388.
- Yeats, Alexander. "Does Mercosur's Trade Performance Raise Concerns About the Effects of Regional Trade Arrangements?". Policy Research Working Paper No. 1729. The World Bank, February 1997.

APPENDIX 1 - GTAP: A Simplified Description and Abbreviations for Tables 30-44

The implications of MERCOSUR are derived from an exercise using a model of global trade analysis (GTAP). GTAP is a worldwide general equilibrium model developed by Hertel and associates at Purdue University. The aggregation used for this paper consists of ten commodities and eight regions, namely:

Regions: **EU:** European Union; **PAC:** Pacific Countries; **BRA:** Brazil; **ARG:** Argentina; **MEX:** Mexico; **NAM:** United States and Canada; **LAM:** Other Latin American Countries; and **ROW:** Rest of the World.

Commodities: **NATRES:** Natural Resources; **MNFRES:** Manufactures intensive in Natural Resources; **MNFCAP:** Manufacture and Capital Goods; **OTHMEQ:** Other Mechanical Equipment; **ALLGRN:** Grains; **NONGRN:** Other Agriculture; **LVSTCK:** Livestock; **FOODPR:** Processed Food Sector; **MILK:** Dairy products; **SERVIC:** Services.

The model contains a full set of accounting relations to guarantee consistency. It also includes behavioral and technological restrictions and a set of price equations.

The numeraire is the price of capital goods to savers. Except for the numeraire, all other prices are flexible. The closure of the foreign sector is a fix current account at the regional level. In the factor markets, endowments are fixed with capital and labour being fully mobile among sectors. Land is used only in the agricultural sectors and it is not allowed to move freely.

GTAP also generates welfare measures that permit an accurate evaluation of well being. This allows the effects of policy changes to be directly connected to the ultimate objective of trade liberalisation, which is improved national welfare and distribution. This avoids the need to concentrate the analysis on approximate measures like trade creation and trade diversion.

The production structure of the model is quite conventional. It is a nested CES (constant elasticity of substitution between factors), where imported inputs are differentiated by source and where the imported goods are also differentiated from the domestic goods. Value added is also produced through a CES which, in turn, is combined (zero substitution) with the aggregate input to generate output.

Two types of primary factors are considered. Capital and labour are fully mobile and, as a consequence, they have the same price in all sectors. Land, however, which is only used in the agricultural and livestock sectors, is not fully mobile. This is captured in the model using a CET (constant elasticity of transformation) function to reflect the costs of transforming land used in, say, grain production to different livestock uses.

In this application GTAP keeps the regional allocation of capital unaltered. This is equivalent to fixing the current account of the balance of payment. The policy instruments in the model are output, input, primary factors, and trade taxes and subsidies (tariffs, export taxes and subsidies).