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The EU at the world market

An impact assessment of the Uruguay Round Agreement on Agriculture

Siemen van Berkum
Pim Roza

Project code 20432

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Report 6.06.07

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The Agricultural Economics Research Institute (LEI) is active in a wide array of research which can be classified into various domains. This report reflects research within the following domain:

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The EU at the world market; An impact assessment of the Uruguay Round Agreement on Agriculture

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This report evaluates the effects of the Uruguay Round Agreement on Agriculture on EU's international agricultural trade position. EU's share in trade of total agricultural products has not changed over the period 1993-2003. Yet, the EU lost market shares in trade on cereals, sugar, and dairy and meat products. WTO commitments to reduce export support have contributed to these decreasing market shares. However, for some products demand developments have had greater impact on EU's market position than changes in trade policies due to the Uruguay Round Agreement on Agriculture.

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Preface

Some 150 countries affiliated with the World Trade Organization (WTO) negotiate on the rules governing international trade. The latest round of negotiations initiated during the WTO ministers meeting held in Qatar in November 2001 has resulted in the formulation of the Doha Development Agenda. This round of negotiations followed the GATT Uruguay Round which was initiated in Punta del Este, Uruguay, in 1986 and was concluded in 1994. The Uruguay Round was the first to address trade in agricultural products. Pursuant to these agreements, international trade in agricultural products would henceforth be governed by an internationally-agreed code of conduct. The adoption of this code of conduct resulted in a fundamental change in the approach adopted by the EU - and by the other affiliated countries. Until that time, the trade policy conducted by the EU pursuant to the Common Agricultural Policy offered the EU's major products virtually complete protection from the influences of international trade. Moreover, the export refunds granted pursuant to this policy enabled the EU to export products irrespective of the prevailing conditions in the international markets. The conclusion of the GATT Agreement in 1994 precluded the continued implementation of trade policies of this nature. Henceforth, the GATT (as of 1995, the WTO) agreements would constitute the preconditions to be met by the EU's trade policy, and they would increasingly determine the EU's position in the international trade in agricultural products.

The current endeavours to complete the negotiations pursuant to the Doha Round offer a suitable opportunity for a review of the movements in international trade now the trading partners are under the obligation to comply with the market-access and export-support regulations jointly agreed within the WTO context. The Ministry of Agriculture, Nature and Food Quality asked LEI to carry out a study of the consequences of the agreements reached during the Uruguay Round for the EU's position in the international trade in agricultural products. This evaluation provides an insight into the trade agreement's influence on trade positions and shifts in market shares. The study was monitored by a Steering Committee comprised of Roald Lapperre, Jan Schotanus and Bart Vrolijk from the Ministry of Agriculture, Nature and Food Quality. The study was carried out by Siemen van Berkum and Pim Roza, with assistance from Henk Kelholt (trade data) and Andrzej Tabeau (the regression analysis in section 5).



Dr J.C. Blom
Managing Director, LEI B.V.

Summary

International trends

Several trends are noticeable in international agricultural trade. An increasing share of agricultural production is internationally traded. This indicates a further integration of countries in international agricultural trade. Agricultural trade has increased over the last two decades, but its structure is changing. The share of traditional large export products (grains, sugar, tea, coffee) in total agricultural trade declined while those of fruits and vegetables, flowers, fish (or fish products) and beverages increased. Also, trade in processed agricultural products expands faster than trade in unprocessed products. The EU is the largest exporter of processed agricultural products. Further, trade in agricultural products is largely between developed countries. Developing countries, on the other hand, are largely dependent on developed countries for their exports and imports. Yet, this feature changes somewhat: the share of intra-developing countries trade in their total agricultural trade has increased substantially over the past decade.

EU position on world markets

In 2003 the EU had 19% market share in international agricultural trade (excluding EU intra trade). This share was the same in 1993. Throughout the period, though, there was a slight decline of EU's market share but in 2002/03 this trend reversed. Other big exporting regions such as NAFTA, Asia and Latin America lost market shares, while the smaller regions (new EU member states, Rest of Europe, Africa) gained somewhat. The group of developing countries did not change its position much as its market share fluctuated between 36 and 40% of total world trade in agricultural products during the period 1993-2003. The least developed countries have only a very small share in this trade. While overall its share did not change, the EU lost market shares in trade of grains (wheat), sugar, dairy and meat. This also holds for the Netherlands. The reason for declining market shares might be found in WTO export support commitments, as it appears that the ceilings for support to export dairy products (cheese and skimmed milk powder) and sugar were tight, implying that 90% or more of the maximum support levels were used. However, not only the Uruguay Round Agreement on Agriculture (URAA) explains the shifts in EU market shares on agricultural markets.

Impact of URAA on agricultural trade and EU market shares

Our quantitative (regression) analysis of the effects of URAA shows that autonomous demand developments have a greater impact on OECD exports than the changes in OECD trade policies. A decline of trade-distorting policies by OECD countries has rather limited impact on world agricultural exports. The reason may be the relative high ceilings for tariffs, export support and domestic support, which are agreed in the URAA. Because of these ceilings, protection remains effective despite the lowering of tariffs and support rates.

Outcomes from the regression analyses confirm the results on shifts in EU market shares based on the trade data analysis in the first part of the study: the EU loses shares in trade of (most) protected products. However, one cannot draw general conclusions pointing at the most important factor explaining the declines in market share: in some cases URAA measures are more important than autonomous demand developments (e.g. for sugar), in other cases it is the other way around (e.g. for dairy and poultry meat). When we focused on the impact of URAA measures we found that OECD policy changes have major effects on trade in sugar and beef, while 'other' URAA measures have most impact on EU market shares for dairy products and oilseeds.

Future

Several studies show the possible implications of the Doha Round for the EU agricultural sector, based on various scenarios and assumptions. Partial analyses, focused on primary agriculture, usually point at increasing imports into the European Union and further shrinking agricultural production in the EU. Other, broader studies claim benefits for the agricultural processing industry and the rest of the economy. Important in these projections is the assumption that market access will improve. Whether the Doha Round really leads to effective improvement of market access remains to be seen, given the binding overhang of tariffs and the option to exempt special or sensitive products from tariff reduction commitments.

Present WTO negotiations on further trade liberalisation have the aim to improve access to international markets for developing countries. Most model studies calculate significant trade and welfare gains for this group of countries. These results have come increasingly under criticism, pointing at big differences among developing countries in terms of starting positions (welfare levels, trade positions) and in terms of opportunities to gain from trade liberalisation in the short term. African and Caribbean countries, for instance, have substantial trade preferences with the EU. The benefits of these preferential trade agreements erode in the case of a general trade liberalisation. Moreover, the production and export potentials of a developing country depend on domestic factors, such as institutions. Model studies usually assume smoothly functioning markets without major institutional barriers. Besides, technical, sanitary and phytosanitary requirements play an increasing role in the international trade of agricultural products. The compliance with such requirements seems a bigger problem to many developing countries than import tariffs. Investment in capacity building focused on these areas is necessary to ensure that developing countries can really benefit from export opportunities following from further trade liberalisation.

1. Introduction

1.1 The motivation for this study and the objective

Agriculture has been governed by international trade regulations since 1995. The objective is to discipline national policy tools to an extent such that each country's market share mirrors the competitive strength of the relevant country, thereby ensuring an optimum (or at least improved) global division of labour for agricultural products.

On signing the Uruguay Round Agreement on Agriculture (URAA) in 1994, all WTO member states entered into a commitment to improve access to each other's markets, to reduce their export subsidies, and to cut back the level of their domestic support to the agricultural sector which distorts trade within a period of between 6 years (developed countries) and 10 years (developing countries). According to the OECD (2005), this has resulted in a substantial reduction of the richest countries' market protection - defined as the difference between the average national and international prices - during the period between 1986 and 2002. This is also applicable to the EU-15. A number of policy reforms implemented in the EU since 1992 have resulted in a decline in internal agricultural prices, whilst at the same time the EU has switched to an income support system of payments that are not related to production (decoupling). Similar developments to those of the EU have also taken place in countries including Norway, Switzerland, and Iceland. The OECD has calculated that the proportion of the elements of the support provided to the agricultural sector that caused the greatest distortion of trade - market-price support and payments related to production - in the total support the OECD countries provide to the sector decreased from 83% in 1986-88 to 65% in 2002-04 (OECD, 2005: 20-21). Consequently, the objective of the Uruguay Round, the increased market-orientation of the international agricultural trading system, would appear to have largely been achieved.

The increased market-orientation of the agricultural sector in the richer countries could have resulted in significant shifts in the positions of these countries in international trade; the trade agreements impose limits on the use of export subsidies that many countries granted to ensure the sale of their agricultural products in international trade. In addition, import tariffs have been reduced, and many countries have substantially reduced the market-price support they provided to their agricultural sector. Consequently, the competition in international trade in agricultural products will increasingly be based on the comparative benefits offered by the various players.

Nevertheless, a number of studies such as those by the FAO (2002), World Bank (2002) and OECD (2001) conclude that the shifts in positions in the international trade in agricultural products have remained limited. These studies emphasise that the OECD countries still have a high level of import protection due to the manner in which the agreements on tariff reductions were reached, and that improvements in market access are at most only modest. Although limits have been imposed on export subsidies and agreements have been reached on the reduction of these subsidies, the OECD in particular

emphasises that the agricultural sector still receives considerable support. In general, it is concluded that the policy reforms implemented by a number of rich countries have had few consequences for international trade. The conclusion is also drawn that the international prices of agricultural products do not exhibit the increasing trend that were a predicted effect of trade liberalisation in ex-ante evaluations. Consequently, the aforementioned organisations are of the opinion that the influence of the trade agreement is minor; however, at the same time they also state that it is very difficult to determine the influence of the trade agreement on trade flows, since macroeconomic and market factors also play a role in explaining trends in international trade (see figure 1.1).

On the basis of the various trading theories, a large number of factors can be cited in explaining the development of trade (see also Van Berkum, and Van Meijl, 1998).

- Natural resources: climate, soil, geographic location, etc.
- Demographic factors: the composition of and growth in the population.
- Production factors: the availability of land, labour, capital, 'human capital', and knowledge.
- Sector/goods: differentiated goods.
- Technology: international benefits of scale (at company level); external benefits of scale (at sector level); technological differences between countries; process innovations; product innovations, knowledge spill-over.
- Consumer preferences: trends, income elasticity.
- Market structure: full competition; imperfect competition.
- Government: national policy (physical infrastructure, knowledge infrastructure) EU policy, international policy, inclusive of WTO.
- Chance: disasters, wars, epidemics, and similar.

The actual developments in international agricultural trade will usually be related to a combination of product, country and market attributes.

Figure 1.1 Determinants of international trade

The aforementioned evaluations of the URAA are primarily based on an analysis of the initial years of the implementation of the trade agreement. This study analyses the EU's changed trading positions from the perspective of the trade agreements concluded in 1994, whereby account is taken of international market developments until the end of 2003. The objective of this study is to make a contribution to the insights into the potential consequences of agreements of this nature (both global and/or regional) for the EU's international trading position and for other major agricultural players in the international agricultural markets.

1.2 Definition of the problem

The main question addressed by this study is: What movements have occurred in the international market shares of the European Union and other major (groups of countries), and to what extent are these movements related to the trend towards trade liberalisation as laid down in the GATT/WTO agreements? This brings up the following secondary questions:

- Who are the major players in international agricultural trade, and what were their positions ten years ago?
- Whose market shares (of the major trading players) are increasing, and whose market shares are decreasing? Which trends can be identified in these movements?
- What are the causes of the observed movements in market shares? In the first instance, this will review a possible relationship with trade liberalisation; however, this review will also extend to a large number of other factors (determining supply and demand) which could also be of relevance.
- Is it also possible to make use of the identified trends and the significance of trade liberalisation to arrive at forecasts for future developments? In addition to the attention devoted to the EU's position, the review also extends to the possible significance of the Doha Round for developing countries.

1.3 Scope

The scope of this study is largely determined by the number of agricultural products and the number of (groups of) countries included in the review.

The study focuses on the international position of the EU-15 in a number of major markets for agricultural products. These positions are compared with those of other major market players. The EU's competitors can vary between markets; the major competitors are specified for each product/market.

This study devotes attention to the following (groups of) agricultural products: beef (SITC Code 011), poultry meat (0123), pork (0122), dairy products (022, 023, 024), wheat (041), oilseeds (22), sugar (061), potatoes (0541), vegetables (0542-0566), fruit (057-059) and ornamental plants (2926-7). The majority of these products undergo virtually no processing. Dairy products, sugar and some categories of fruit can be counted amongst processed agricultural products. LEI has developed a classification into unprocessed/processed products that provides an insight into the movements in the EU's market position in both categories.¹

Trade policies play a more important role for some products than for other products. In addition to the trading policy factor, the selection is also based on the importance of the products in agricultural exports from the EU, the Netherlands, and developing countries.

The analyses have been performed for the years between 1993 and 2003. The review also briefly examines the period(s) prior to 1993 to explain trends observed during the period under review that had already begun before 1993. However, it is not possible to begin the quantitative analysis before 1993, since our international trade-figures database does not contain any data prior to 1993.

¹ The 'unprocessed products' category is not identical to the EU's non-Annex 1 list of products. This list of products is more detailed than the SITC (Standard International Trade Classification) that needs to be used for the overviews into international trade flows. The available sources of trade data are not suitable for the determination of the international market positions with respect to non-Annex 1 products for the EU, or for other countries.

1.4 The approach to this study and the contents of the report

This study makes extensive use of international trade statistics from a variety of sources (FAO, ITC/WTO, EU). WTO notifications indicate how the EU (and other signatories to the URAA) comply with their obligations relating to export refunds. These notifications and literature studies constitute the basis for the assessment of the manner in which the trade agreement exerts an influence on the EU's market positions.

The layout of the report is as follows. Section 2 explains a number of significant trends in international agricultural trade, and illustrates these trends with figures. The emphasis is placed on large groups of agricultural products (including total agricultural, processed and unprocessed products) and regions over the world (in addition to the EU, these include NAFTA, Africa, etc.). Section 2 also briefly reviews the driving forces behind these trends; in addition, an explanation is sought for movements in the international trade flows and positions of (groups of) countries. Section 3 outlines the EU's changed position in international agricultural trade. Section 4 contains a more detailed review of the position of the EU-15 and their major competitors in the markets for agricultural products as distinguished in Section 1.3. The movements in the market positions are explained by relating these changed positions to the trade agreements on export refunds. Section 5 evaluates the consequences of trade liberalisation for the EU to date, with particular attention for the consequences for the developing countries. This also reviews the possible significance of continued trade liberalisation for the trading position of various (groups of) countries.

2. Trends in international trade

This section discusses a number of developments in the international trade in agricultural products in a review of the context of the application of the trade agreements pursuant to the Uruguay Round.

2.1 General developments

Agricultural exports are increasing more rapidly than agricultural production.

A long-term review of the international trade in agricultural products reveals that, in general, the trading volume is increasing more rapidly than the production volume (see figure 2.1). However, there are periods in which the growth in trade increases at a rate in excess of the average (3.6% per annum between 1950 and 2000), and years in which trade remains stable. This latter occurred in the years between 1974 and 1975, and between 1982 and 1986. The years since 1986 exhibit virtually uninterrupted growth in trade in agricultural products. The average annual growth during this period is higher than in the period between 1950 and 1985.

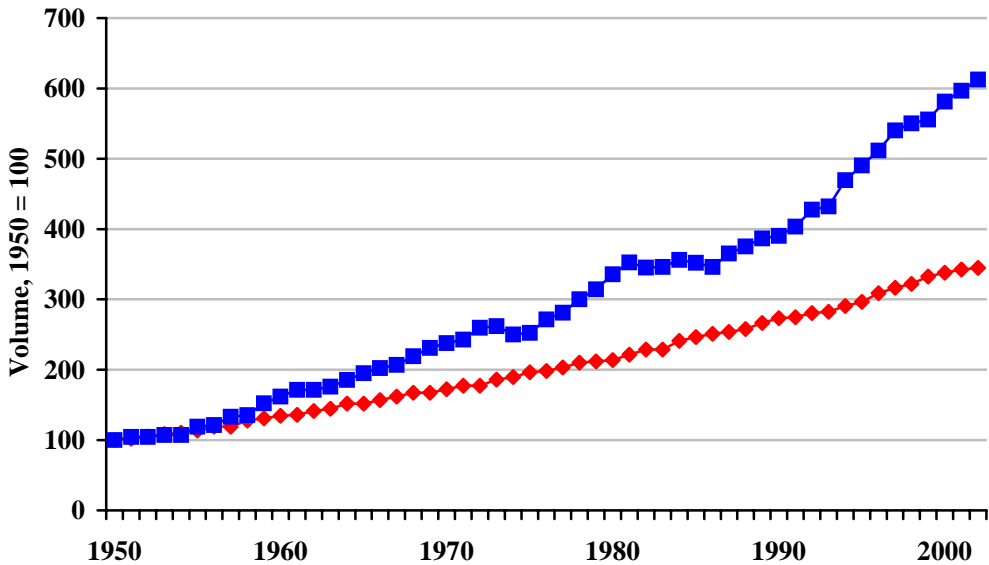


Figure 2.1 Developments in the trade in and production of agricultural products
Source: Tangermann (2004).

The trends indicated in figure 2.1 are also endorsed by the WTO. For example, according to the World Trade Report of 2004, the volume of trade in agricultural products increased by almost 4% per annum between 1990 and 2002, equivalent to roughly twice the growth in the production of agricultural products. When examined over a longer period of time, it can be seen that the (volume) growth in trade in agricultural products during the years between 1990 and 2002 was in excess of that in the 1970s and 1980s (2.4%), and was almost equal to the growth between 1963 and 1973 (WTO, 2004).

This increasing ratio of trade to production is indicative of the increasing agricultural integration between countries. The URAA endeavours to ensure this increasing integration by means of the agreements on the reduction of market protection and agricultural support measures that cause distortions to trade. However, the following two figures (figures 2.2. and 2.3) reveal that the importance of international trade varies greatly between agricultural products: a large proportion of some agricultural products are traded on an international scale, whilst international trade accounts for only a small fraction of other products. The latter products are primarily traded on domestic markets.

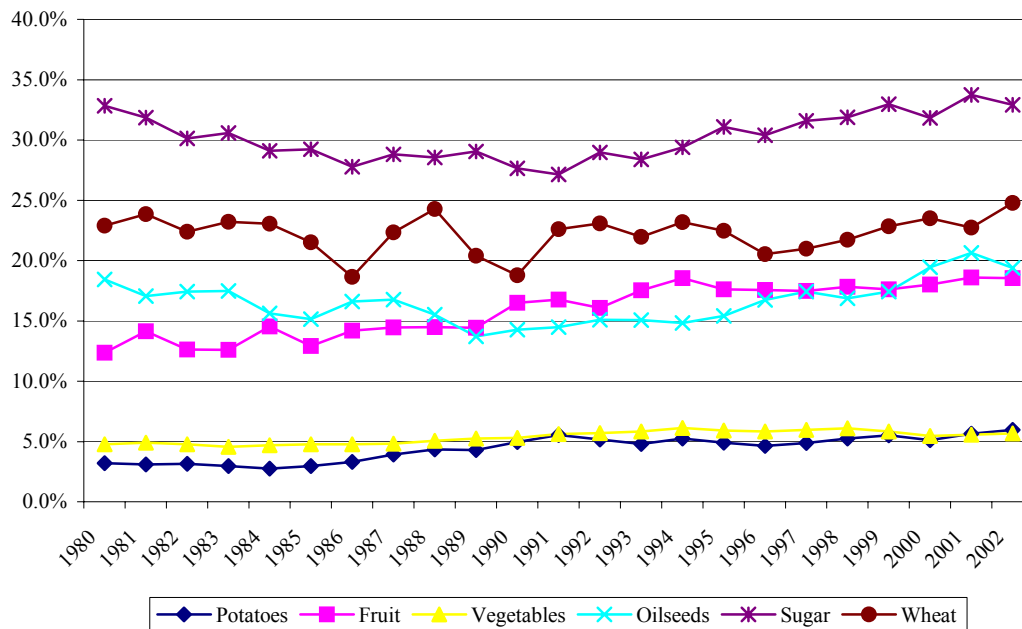


Figure 2.2 Share of exports in the global production of a number of vegetable agricultural products
Source: FAO Trade and Production Statistics.

For example, in 2002, about 33% of the world's sugar production was traded on the international markets, whilst the corresponding figures for potatoes and vegetables were just 6%. Almost all products included in this review (potatoes, fruit, vegetables, oilseeds, poultry meat, beef, sugar, wheat, and pork) exhibited a growth in exports in excess of the growth in production between 1980 and 2002, as a result of which the exports expressed as a percentage of the production also increased. However, exports of sugar and wheat grew

only slightly faster than production, as a result of which the ratios of exports to production were virtually unchanged. Milk powder exhibits a ratio of trade to production that fluctuates greatly over the course of time (see figure 2.3). This demonstrates how milk powder production and trade is determined by developments in the markets for other dairy products: less milk is processed and traded as milk powder during periods of favourable developments in the markets for other dairy goods.

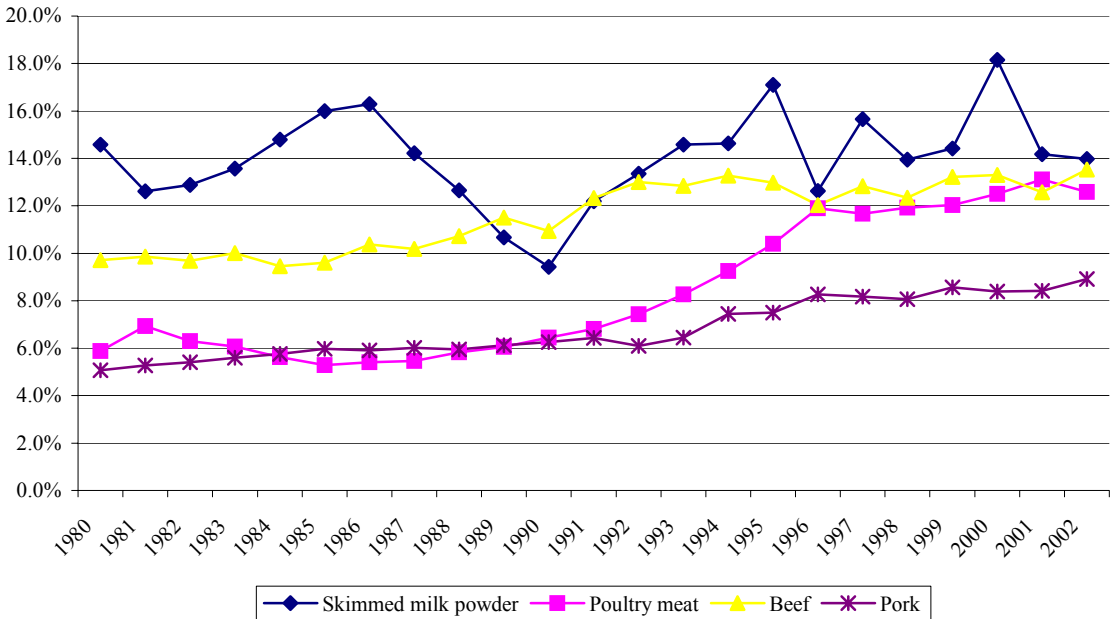


Figure 2.3 Share of exports in the global production of a number of animal agricultural products
 Source: FAO Trade and Production Statistics.

The total trade in agricultural products is increasing, but as not as rapidly as the total trade of all products

The total trade in agricultural products has increased greatly during the past ten years. In 1993, the (nominal) value of trade in agricultural products amounted to USD 379 billion; by 2003, the value had increased by 53% to almost USD 580 billion (figure 2.4). This growth took place mainly between 1993 and 1997 and in the years after 2000. The value of EU exports in particular decreased between 1997 and 2000, whilst those from the NAFTA decreased to a lesser extent. The economic crises in Asia, Russia and Latin America would appear to have been primarily responsible for the decline in the total export value. The crises in the aforementioned regions were accompanied by a drastic devaluation of the national currency of the relevant countries. This improved the competitive position of the Asian and Latin-American countries, whilst at the same time the relatively strong currencies of the EU and NAFTA weakened their competitive positions.

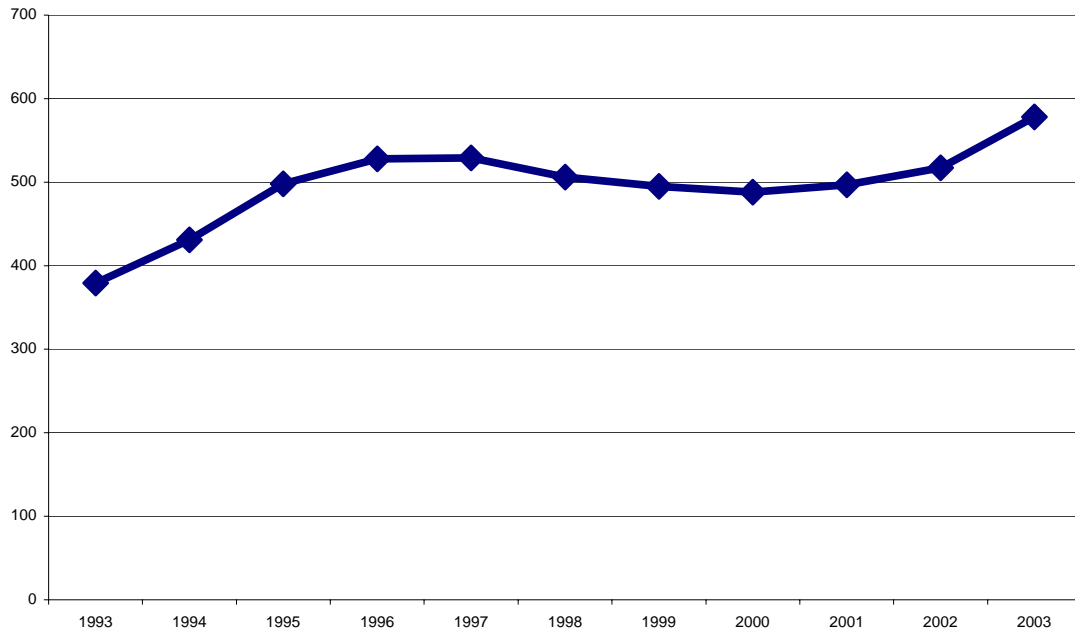


Figure 2.4 *Export value of agricultural products, world totals 1993-2003 (USD billion)*
 Source: ITC/WTO.

The growth in trade in non-agricultural products has for many years been greater than the growth in trade in agricultural products (see figure 2.5). This has in turn resulted in a marked decline in the share of agricultural products in the total trade; whilst agricultural products still accounted for 30% of the total trade at the beginning of the 1960s, by 2002 the share had fallen to below 10%. The declining share of agricultural products in the total trade is due to two differences between industrial and agricultural products. Firstly, there is a major difference in the market protection offered to the two categories, whereby industrial products are subject to much lower import tariffs. Secondly, income elasticity plays a role; a relatively smaller proportion of an increasing income is allocated to food.

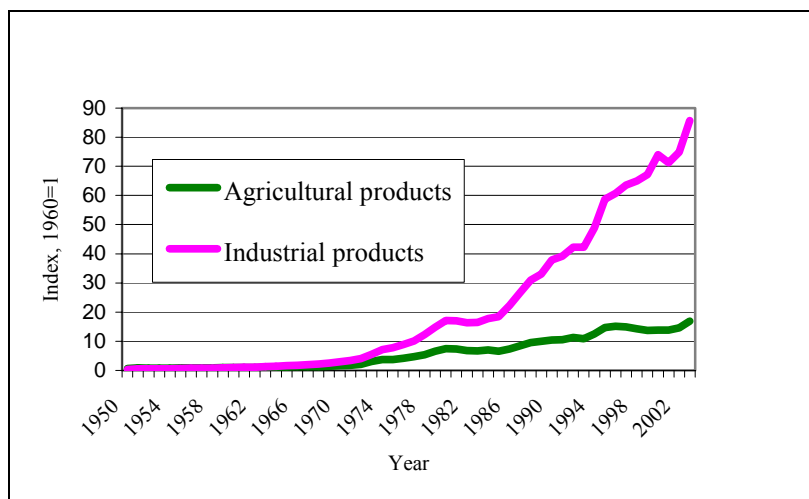


Figure 2.5 Growth in trade in agricultural and industrial products, 1950-2002

2.2 The structure of international agricultural trade

The structure of agricultural trade is changing

The World Bank uses a classification of agricultural trade into fifteen product categories to demonstrate that the structure of international agricultural trade changed greatly during the past two decades: the traditional major export products (cereals, coffee, cocoa, tea, sugar, and textile fibres) have lost share in the total trade in agricultural products in comparison with other categories (World Bank, 2004: 112). The product groups that have exhibited the greatest growth are fruit, vegetables and flowers (19% between 1980 and 2001), fish and fish products (+12%), and alcoholic and non-alcoholic beverages (+9%). In contrast with agricultural products, which exhibit a declining share in international agricultural trade, the latter products possess a pronounced income elasticity; moreover, both industrialised and developing countries have adopted reduced levels of border protection for these products as compared to traditional agricultural products. This last issue is also emphasised by the World Bank in its analysis of the agricultural export structure of the industrialised countries; the World Bank concludes that the products that have traditionally been protected account for an increasingly smaller proportion of the exports of these countries, whilst the proportion of beverages, vegetables and fruit in their exports is increasing.

Trade in processed products is increasing

The procedure used to make records of international trade is such that it is not possible to arrive at a precise classification of agricultural products according to the extent of their processing. In its World Trade Report, the WTO employs a classification into three categories, namely unprocessed, semi-finished, and processed. According to the WTO study, the proportion of processed products in global exports of agricultural products increased from 42% in 1990-91 to 48% in 2001-2002 (WTO, 2004: 17-19). Gehlhar and Coyle (2001) also observed this trend for the years between 1967 and 1997, a finding that was subsequently confirmed by the OECD (2003). On the basis of LEI's classification of processed and unprocessed products, we also come to the conclusion that the proportion of

processed agricultural products in the total trade in agricultural products is increasing (see figure 2.6), although the shift to processed products as determined by this product classification was limited between 1993 and 2003. These indications of a shift from unprocessed to processed products are in line with the general trend observed in international trade; (processed) industrial products account for a continually increasing proportion of trade at the expense of the share of primary products.

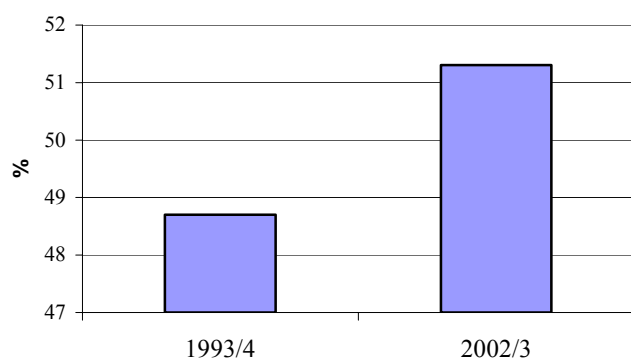


Figure 2.6 *Share of processed agricultural products in the international trade in agricultural products, 1993-2003*

Source: ITC/WTO data, LEI classification of products into processed/unprocessed categories (see appendix 1).

Two factors contribute to the relatively strong growth of processed products in international trade. Firstly, when incomes increase consumers are interested in a wider range of products and purchase more brand articles; in addition, the trend towards smaller families and double income families also promotes the consumption of processed products. Secondly, processed products offer more opportunities for product differentiation in comparison with unprocessed products. Countries that produce solely milk will not conduct a great deal of trade with each other; however, processing the milk to produce a range of types of cheese (in terms of flavour, shape, fat percentage, hard or soft, etc.) results in a variation that is appreciated by consumers. This results in intra-industry trade.

2.3 Regionalisation

Trade within blocks is becoming increasingly important

A major proportion of the total international trade is conducted within free trade areas and/or customs unions in which import tariffs are not imposed on mutual trade; the EU and NAFTA are examples par excellence. Some 70-75% of the imports of the EU-15 originate from other EU member states. About 70% of the EU member states' exports are to other member states. These mutual-trade percentages have remained relatively constant during the past decade. The formation of the NAFTA in 1994 has resulted in an increase in mutual

trade; in 2003, 50-55% of the three members' total trade in agricultural products was mutual trade. The value of the mutual trade conducted within these two major trading blocks has increased from 37% of the total international trade in agricultural products in 1993 to 44% in 2003. Of these, 33% points are internal EU trade.

Trade is increasingly taking place between countries at the same level of development

The majority of trade in agricultural products is between countries at the same level of development. The developed countries export 80% of their agricultural products to other developed countries, and import 70% of their requirements from other developed countries. These percentages have increased slightly during the past 20 years (see figure 2.7). In contrast to the developed countries, developing countries are highly dependent on developed countries with respect both to their markets and the origins of their imports. Nevertheless, the situation is changing: a continually increasing percentage of the developing countries' exports and imports are destined for or obtained from other developing countries. The share of mutual trade between developing countries (intratrade) in agricultural exports increased from 31% in 1990 to 43% in 2002 (WTO, 2005:16), whereby the greatest increase occurred between 1990 and 1996. Intratrade accounted for almost half (48%) of the imports of the developing countries, 10% more than in 1990. The growth of this 'South-South' trade is promoted by regional integration (for example, via Mercosur in Latin America, the South African Customs Union in Southern Africa, and ASEAN in South-East Asia). Moreover, the group of developing countries includes countries with a booming economy, such as China, as a result of which there has been a substantial increase in the demand for agricultural products and raw materials. Much of this increased demand can be met by developing countries with a strong focus on exports, such as Brazil and Thailand.

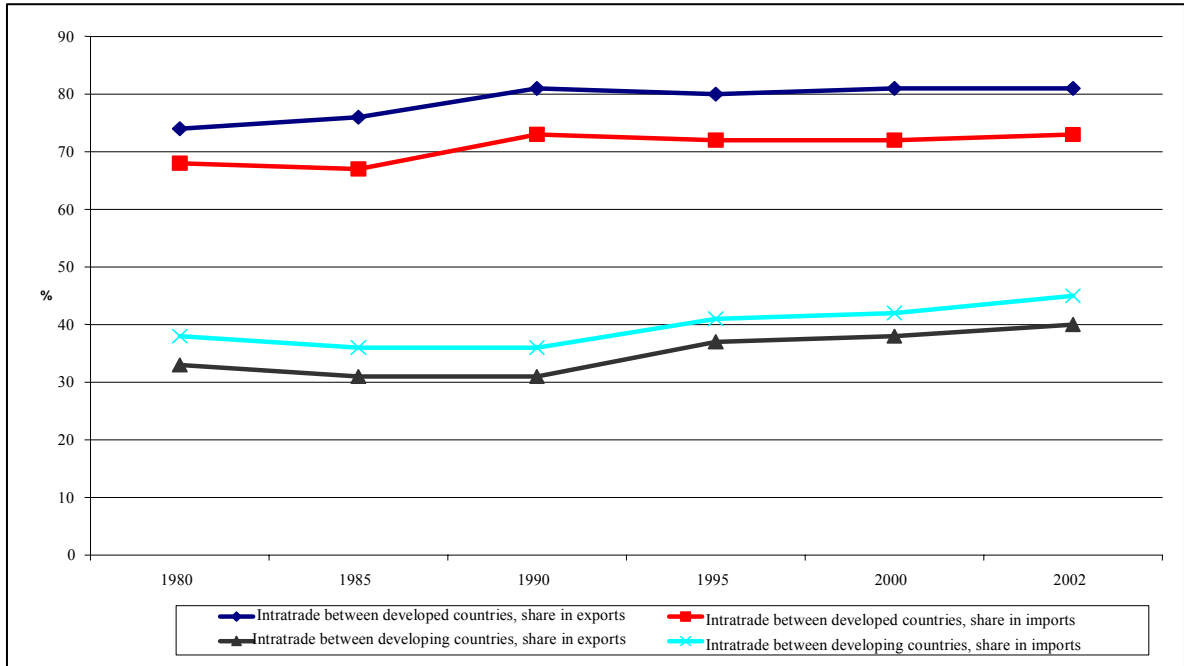


Figure 2.7 *Intratrade between developed countries and between developing countries*
 Source: FAO (2005).

3. Developments in the EU's international market position

This section reviews the changes in the EU's position in international agricultural trade during the past ten years. The EU is a major player in these markets; however, much of the trade conducted by EU member states is intratrade, whereby some 70% of the EU member states' agricultural imports and exports relates to mutual trade. Consequently, about 30% of the EU's international agricultural trade relates to trading relations with countries outside the EU. This section reviews the latter component of these trade flows.

3.1 The EU's position as an exporter of agricultural products

No loss in the EU's total share of the market...

In 2003, international trade (= world trade exclusive of the EU's intratrade) was equivalent to a value of USD 370 billion. The exports of the EU-15 amounted to a 19% share of this total (see figure 3.1). This share is virtually unchanged from the level in 1993/94. Although the EU's share decreased slightly in the period from 1993 to 2000 (to 16.5%), the share has increased again since 2001. The figures reveal that the shares of other major exporters have decreased over the years, whilst those of the smaller exporting regions have increased. Figure 3.2 shows the movements in the various regions' share of the market during the period from 1993/94 to 2002/03 inclusive.

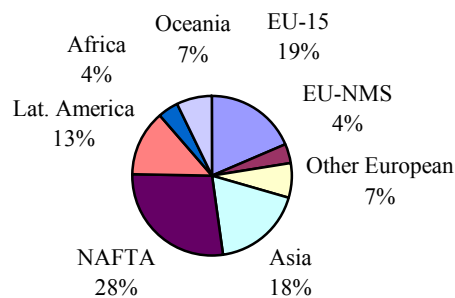


Figure 3.1 Shares of the EU and other regions in the total international trade in agricultural products, 2002/03

The EU's exports of agricultural products to countries outside the EU are focused on other developed countries. The USA is the largest market, and in 2002/03 European agricultural products worth almost USD 13 billion were exported to the USA. This amount

is equivalent to about 20% of the total EU exports to countries outside the EU in those years. Other major customers are Japan, Switzerland, Russia, and Norway.

... although the EU has lost market share in the NMS, Other European countries, Africa, and Latin America

Although the EU has retained its overall share in the international agricultural markets it has, nevertheless, lost share in some regions. This is, for example, the case for the new member states in middle and Eastern Europe (EU-NMS), where the EU's share in the total imports of agricultural products to this region has declined from 65% in 1993/94 to 56% in the most recent years (see table 3.1). At the same time, the EU-NMS' imports of agricultural products have doubled in ten years' time to USD 13.7 billion in 2002/03. The EU-NMS now provide for a greater proportion of their import needs from their colleague countries, and import more from Russia and Turkey.

The EU is also losing market share in the Other European countries: the EU's market share is now about 45%, whilst the share was still almost 60% in the first half of the 1990s. This region now also imports more products from countries in its own region (with Russia and Turkey as the major suppliers).

During this entire period, the EU-15 have also lost market share in the combined trade in all agricultural products in Latin America and Africa. In the mid 1990s, the EU's share of the Latin-American market fluctuated between 16 and 17%, a percentage that has since declined to between 13 and 14%. The NAFTA countries are by far the major exporters from outside the region, and have a 30 to 33% share of the Latin-American market. Although the EU is the major exporter of agricultural products to Africa, the EU has lost market share in recent years - in common with the NAFTA countries. Africa imports continually increasing volumes of agricultural products from Latin America and the countries in the region.

Table 3.1 Positions of the EU and the Netherlands in markets outside the EU

Region	Import movements averages for 1993/94- 2002/03 USD billion	Movements in markets share between 1993/94 and 2002/03, %	
		EU market share	NL market share
EU-NMS	6.1 → 13.7	65 → 56	10.6 → 7.3
Other European countries	21 → 31	57 → 48	6.6 → 6.6
Asia	100 → 122	14 → 14	1.8 → 1.9
NAFTA	53 → 87	16 → 18	2.2 → 2.8
Latin America	13.5 → 16	17 → 14	2.0 → 2.3
Africa	11 → 17	45 → 37	5.6 → 5.1
Australia/New-Zealand	3.5 → 5.5	20 → 25	2.0 → 1.9

During the past ten years, the EU-15 have been able to retain or even slightly expand their market share in the North-American and Asian markets. Since these regions both possess large markets, the EU's share in the total international agricultural trade has

remained virtually unchanged. However, the EU is not the largest extra-regional exporter in either of these two large markets: this role is played by Latin America in the NAFTA markets, and by the NAFTA countries in Asia. The EU has also gained market share in Australia and New Zealand, although both are small markets in absolute terms.

Table 3.1 also lists the Netherlands market shares in the various regions of the world. These figures reveal some striking differences in comparison with the movements in the EU's market shares. For example, the Netherlands' market share in the EU-NMS has declined much faster than that of the EU-15. However, the Netherlands has retained its market share in the Other European countries, whilst the EU-15 have lost market share. Moreover, the Netherlands' increase in market share in the NAFTA is in excess of the increase achieved by the EU-15, and in Latin America, the Netherlands has expanded its market share whilst that of the EU has deteriorated. The EU gained market share in Australia and New Zealand; however, the Netherlands did not follow this trend. The overall Dutch share in the international trade (exclusive of the EU intratrade) increased slightly from 2.6% in 1995/96 to 2.7% in 2002/03, following a slight decline (to 2.3% in 1998/99) during the middle of the period under review.

External competition in the EU market remains limited

It is also interesting to examine the movements in imports to the EU-15 to gain an impression of possible shifts in the shares of the various suppliers. The value of the imports to the EU-15 increased from an average of USD 180 billion in 1993/94 to USD 240 billion in 2002/03. The suppliers from outside the EU-15 have retained a virtually unchanged share of the market, which indicates that the EU is able to withstand the competition from suppliers outside the EU. The shares of the other regions are relatively small; Latin America, with 6-7%, is the largest of the non-EU-15 suppliers to the EU market. Although the shifts in these shares have been limited, a slight growth is apparent in the shares of the two European regions (EU-NMS and Other European countries), whilst the shares of the NAFTA and Latin America have decreased slightly.

3.2 Market positions and shares of other exporters

The NAFTA countries have been confronted with a slight decrease in their joint share in international agricultural trade, which declined from 31% in 1993/94 to 27.5% in 2002/03 (see Figure 3.2). It should be noted that a little less than half the exports of the NAFTA countries remain within the free trade zone; in analogy with the EU, the internal market is the largest market for the three NAFTA countries. NAFTA exports to outside the free trade zone were primarily destined for Asia. The EU is also an important market. Of the NAFTA countries, the USA has the greatest dependency on exports to outside the free trade zone; the majority of the exports from the other two member states, Canada and Mexico, remain within the free trade zone.

During the past ten years, Asia's share in international agricultural trade decreased slightly from 20.5% in 1993/94 to 18.3% in 2002/03. However, during the same period the

value of Asia's exports increased from more than USD 55 billion to USD 68 billion.¹ China, Thailand, Malaysia, Indonesia and India are the major Asian exporting countries. The majority of the exports from the Asian countries remain in Asia (more than 60% in 2002/03), whilst the EU and NAFTA countries are the most important markets outside Asia.

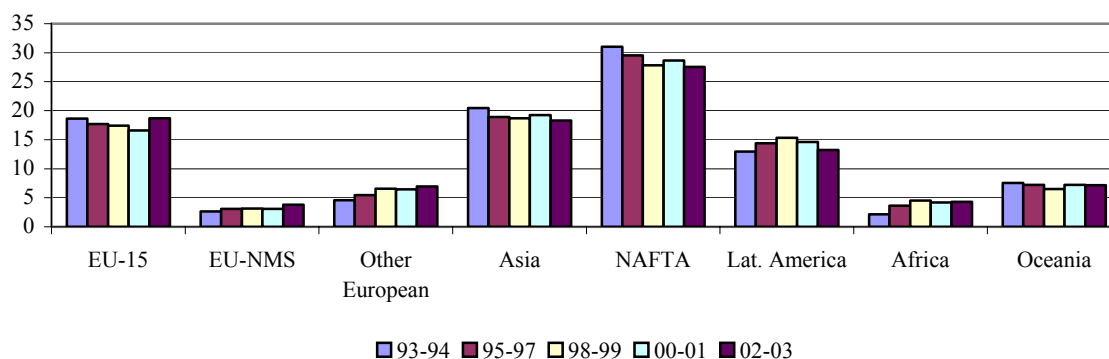


Figure 3.2 *Movements in the market share by region: total trade in agricultural products (in %), 1993-2003*

Latin America's market share of about 13% in 2002/03 was virtually the same as the region's market share in 1993/94, although the share peaked at more than 15% at the end of the 1990s.² Brazil and Argentina are traditionally the most important Latin-American exporters, and in 2002 they jointly accounted for almost 60% of the total Latin-American exports of agricultural products. In contrast with the situation in the other regions, only a small fraction of Latin-American exports (14% in 2002/03) remains within the region. The EU-15 (30%), Asia and the NAFTA countries (both more than 20%) are the most important markets for Latin-American agricultural products.

Alongside the NAFTA, the EU-15, Asia and Latin America (which jointly accounted for an almost 80% market share in 2002/03), the other regions of the world play a minor role. However, the market shares of the EU-NMS, Other European countries and Africa have increased. The EU-NMS' gain in market share was modest (from 2.7% in 1993/94 to 3.8% in 2002/03); however, Africa doubled its market share from 2.1% to 4.3%.³ Nevertheless, it should be noted that few figures were available for African exports in the early 1990s, and consequently the figures may be somewhat biased. The same is applicable to the Other European countries, where the market share increased from 4.6 to 7.0%; however, no figures were available for a number of net exporting countries (such as Russia

¹ It should be noted that the data for India (2003) and Thailand (2002) is incomplete. Asia's market share would probably have been larger if these figures had been included.

² This does not include the 2003 export figures for Argentina, since the data was not available at the time this report was prepared.

³ Africa's major exporters were the Ivory Coast (with cocoa beans as the major export product), Morocco (primarily fish, vegetables and fruit), and South Africa (primarily vegetables and fruit, sugar, and wine).

and the Ukraine) for the years between 1993 and 1996. Lastly, the market shares of Australia and New Zealand remained virtually unchanged at more than 7% during the past ten years.

3.3 Breakdown into unprocessed and processed products

The NAFTA is the largest exporter of unprocessed agricultural products...

As has already been indicated in section 2.2, trade in processed agricultural products is increasing more rapidly than trade in unprocessed products. The European Union plays an important role in this development. Table 3.2 indicates that the majority of agricultural exports from the EU - and from Asia - are comprised of products that have undergone some form of processing. Conversely, the majority of exports of agricultural products from the NAFTA countries and Latin America are comprised of unprocessed products (see appendix 1 for a classification of agricultural products into unprocessed and processed products).

Table 3.2 Value of exports of unprocessed and processed products, 2002/03, exclusive of EU intratrade (in USD billion)

	Unprocessed products	Processed products
EU-15	22	48
NAFTA	68	33
Asia	30	37
Latin America	28	20

Note: see appendix 1 for the classification into unprocessed and processed products.

The EU-15, with a market share of about 10% (almost USD 22 billion), play a modest role in trade in unprocessed products (see Figure 3.3). In this market, the NAFTA's market share is much larger than any of the other groups of countries; the market shares of the numbers two and three in this market, Asia and Latin America, are about half the NAFTA's market share. However, the NAFTA's market share is declining. More than 40% of the exports of unprocessed products remain within the free trade zone; however, the remainder (some USD 40 billion in 2002/03) is exported to countries outside the region. Asia is the most important market. In 2002/2003, the NAFTA countries exported unprocessed products with a value of USD 6.5 billion to the EU. The majority of US exports of unprocessed products are comprised of cereals and oilseeds.

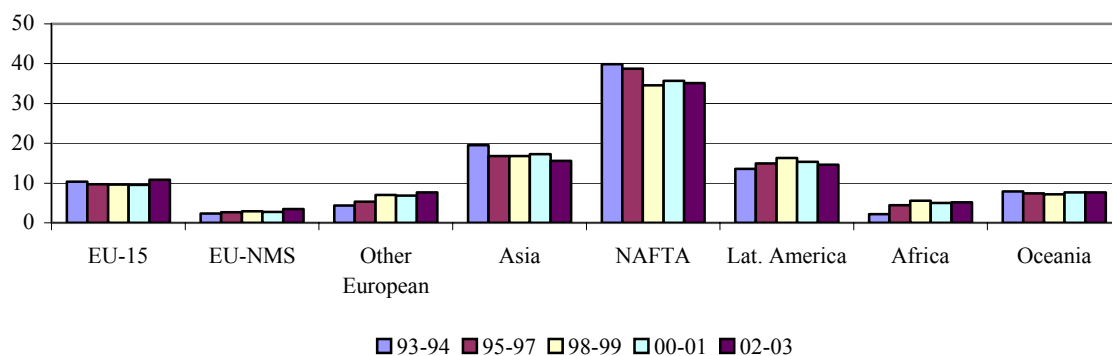


Figure 3.3 Movements in each region's market share in unprocessed agricultural products, 1993-2003 (in %)

...and the EU is the largest exporter of processed products

The EU's market share in trade in processed products fluctuates between 25-30%, as compared to some 20% for the NAFTA (see figure 3.4). The regions' shares differ less than those for unprocessed products; although the EU is the largest exporter in the market for processed products, the distance from the numbers two and three - Asia and the NAFTA - is much smaller compared to the rankings for unprocessed products.

The majority of the EU's exports of processed agricultural products are destined for the same countries that import the EU's unprocessed products. However, in contrast to exports of unprocessed products, the EU's exports of processed products are highly dependent on one country, the USA, which in 2002/2003 imported almost one-quarter of the EU's exports of processed products. In addition, Switzerland, Japan and Russia import processed products from the EU worth more than USD 2 billion every year.

The market shares of the NAFTA countries and Asia fluctuate around 20%, with the NAFTA's share just under this figure and Asia's share just above. Little change has occurred in the two market shares during the period under review. The NAFTA's major export markets are Asia (24% of the total exports), the EU, and Latin America. The majority of Asian exports of processed products, in analogy with those of unprocessed products, remain within the region; the EU and NAFTA are the major export markets outside Asia. The EU is also Latin America's most important export region outside the Latin-American region.

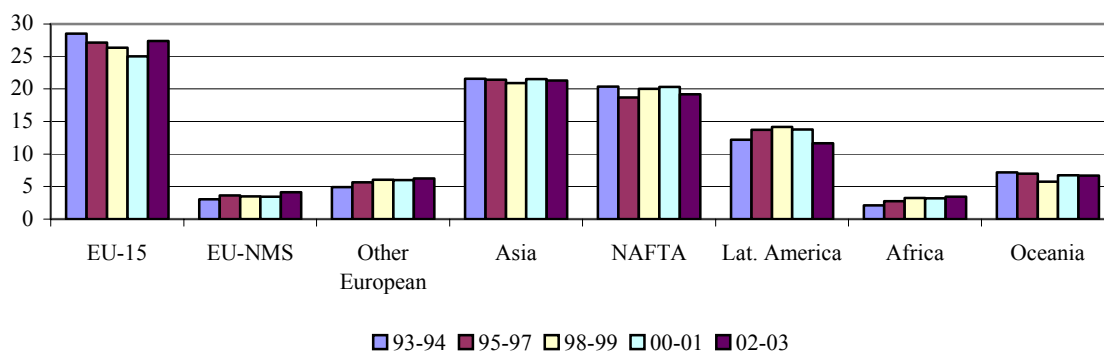


Figure 3.4 Movements in each region's market share in processed agricultural products, 1993-2003 (in %)

Dutch positions in markets outside the EU

It is also relevant to review the Netherlands' position in the markets for processed and unprocessed products. The majority of Dutch agricultural exports are in the form of processed products (see the Appendix for our definitions): in 2002/2003 almost two-thirds of the total value of exports of USD 10 billion can be classified as processed agricultural products. In the market for unprocessed products, the Netherlands has achieved a slight increase in market share during the years between 1993 and 2003, and the Dutch share in the international trade of unprocessed agricultural products is now 1.9%. With this percentage, the Netherlands is the EU-15's largest exporter of this category of products (to countries outside the EU). Ornamental products - one of the Netherlands' major export products - are classified in this category. The Netherlands has a larger share in the international trade in processed products, with a share fluctuating around 3.5%. The Netherlands has the same market share as the United Kingdom, Denmark, Germany, and Italy. France's market share of 5% in the international trade in processed products is the largest of all EU member states.

The positions of the developing countries

The developing countries are distributed between the various regions as defined in this study. As a group, the developing countries jointly exported agricultural products worth USD 144 billion in 2003, equivalent to almost 40% of the total international trade exclusive of EU intratrade. The developing countries' share in international trade has remained virtually unchanged during the past ten years (1993-2003). Virtually all the developing countries' exports originate from the middle-income countries; the 50 LDCs, or Least Developed Countries, as defined by the UN, jointly account for less than 2% of the developing countries' total exports of agricultural products (see table 3.3). Slightly more than half of the developing countries' total exports are in the form of unprocessed products. The EU-15 is a more important export market for the LDCs than for the middle-income countries.

Table 3.3 Exports from developing countries, 2003 (USD billion)

Group of countries	Destination	Total agricultural products	Processed agricultural products	Unprocessed agricultural products
Middle-income countries	World	141.5	67.8	73.7
	of which the Developed countries	78.1	32.9	45.3
	of which the EU-15	32.0	13.3	18.7
Least developed countries	World	2.6	1.9	0.7
	of which the Developed countries of which	1.6	1.2	0.4
	the EU-15	1.0	0.8	0.2

4. Market shares and the consequences of the URAA: an analysis at product level

This section reviews the positions of the EU and a number of other important players in the international trade of a range of (groups of) agricultural products. For the purposes of this analysis, a distinction is made between cereals (wheat), oilseeds, sugar, dairy products, meat (beef, pork, and poultry), fruit, vegetables, potatoes, and ornamental plants.¹ The analysis reviews the extent to which the reduction of subsidised exports may have exerted an influence on the EU's position in the international trade in the aforementioned (groups of) products. Self-evidently, this does not imply that a causal relationship is then established: as indicated in chapter 1, the explanation of trends in international trade and market shares depends on a large number of different factors.

4.1 Agreements relating to export refunds

The provisions of the URAA stipulate that the export subsidies will be reduced along two lines during a six-year period: namely a 36% reduction of export subsidy expenditure (budget) and a 21% reduction of the volume of export subsidies.² Within this context, a distinction is made between 22 product groups, whereby no exchanges (aggregation) are permitted. Ceilings were specified for the export subsidy expenditure and the volume of export subsidies for each product group for each year between 1995/96 and 2000/01. In principle, 1986-1990 serves as the reference period on which the reduction commitments are based. However, when the average exports were higher in 1991-1992 than in 1986-1990, then 1991-1992 serves as the reference period.

A number of studies by agencies such as ABARE (1999), FAO (2002) and OECD (2001) conclude that the consequences of the URAA agreements on the reduction of export subsidies have been limited. This is due to the level of the export subsidies in the reference period. During the reference period (1986-1990), the (export) support for a number of products was at quite a high level due to the low international prices for those products. Conversely, most rich countries made little use of export subsidies due to the relatively low international prices at the beginning of the reform period. Consequently, the OECD concludes that the countries that granted export support experience little difficulty in complying with this provision of the trade agreement.

However, Silvis, and Van Rijswijk (1999) demonstrate that in the EU-15's case the WTO export-refund commitments already constituted a bottleneck for vegetables and fruit, cheese and other dairy products, beef, and poultry in 1995/96. This was due to the fact that in 1995/96 the export support provided to these groups of products was already higher than

¹ For the SITC Codes see section 1.3.

² The developing countries are governed by a ten-year implementation period and by a two-thirds reduction percentage as compared to the developed countries' commitment (i.e. a 24% reduction of export subsidy expenditure and a 14% reduction of the volume of export subsidies).

the amount that was required for an incremental reduction of the support to a level in 2000/2002 that would not transgress the level specified in the WTO agreement. Many exports of dairy and beef products, in particular, were governed by export refunds as a result of the great difference between the EU prices and the international prices. The authors also draw attention to the continued low international sugar prices, as a result of which the EU rapidly attained the ceiling for the permitted expenditure on export refunds. At the beginning of the reform period, it did not appear that the export-refund ceiling for grains would be a problem in view of the relatively high international prices during the 1993-1997 period. However, international prices fell after 1997 and, according to the authors, the WTO export-support agreements also imposed restrictions on the EU's wheat exports.

The following sections review the shifts in the EU's market position for each of the product groups until the end of 2003, together with an indication of the extent to which these are related to the export-refund reduction agreements.

4.2 Cereals: wheat

During recent years, the value of international wheat trade has amounted to USD 14-15 billion. The value of the international wheat trade increased in the mid 1990s due to the growing demand for imports on the part of highly-populated countries such as Japan, Brazil, Egypt, and Indonesia. The USA and Canada, in particular, benefited from this development and succeeded in increasing their exports. In 1998/99, the value of international trade decreased slightly, and has remained stable at this level in subsequent years. At the beginning of the 1990s, the EU's share in the international wheat trade (exclusive of EU intratrade) amounted to 14%. During the years that followed, the EU's share declined to some 10-11% (see figure 4.1). Although with this share the EU is a major wheat exporter - after the NAFTA (the USA and Canada), Australia and New Zealand, and the Other European countries - the difference from the market share of the NAFTA in particular is very large. In addition to wheat exports, the EU also imports wheat from outside the region for its internal market (some 30% of the EU consumption in 2002/03).

During the past few years, the EU exported particularly large quantities of wheat to four North-African countries, namely Algeria, Morocco, Egypt, and Tunisia. In total, these four countries accounted for more than 50% of the EU's wheat exports. In the past, Cuba was also a major importer of EU wheat. However, Cuban imports have decreased continuously over the past few years. In the past, occasional large quantities of wheat were exported to a number of countries, including China, Iran, and Russia.

The market share of the NAFTA countries, traditionally the largest wheat exporters, has declined by 14 percentage points since 1993/94 to 48% in 2002/03. The increased self-sufficiency of Asian countries and the Other European countries has resulted in a substantial decline of the NAFTA's exports to these regions. In recent years, major customers for NAFTA wheat in the mid 1990s, such as China, Iran and Pakistan, have imported very little wheat from the USA and Canada. Conversely, mutual trade in wheat and exports to the EU increased slightly.

Since 1993/1994, Latin America has succeeded in expanding its market share from 6.5% to more than 10% in 2000/01. However, Latin America remains a net importer of wheat. About three-quarters of the exports are destined for intratrade between the various Latin-American countries. The majority of the remainder is exported to Africa and Asia.

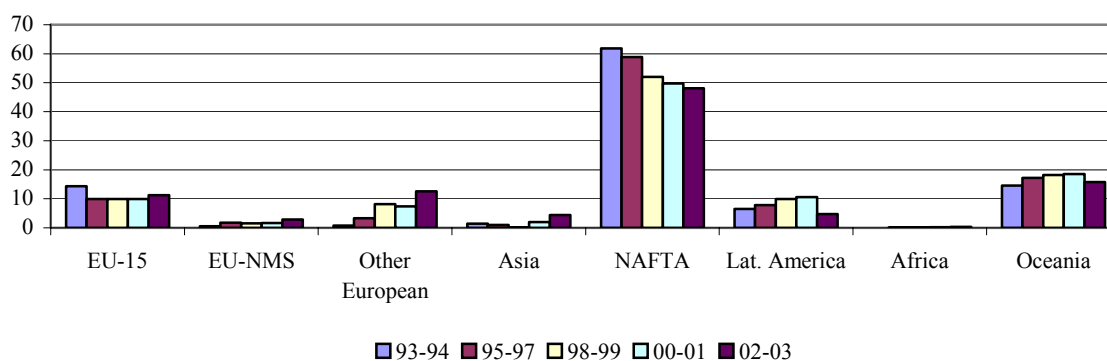


Figure 4.1 Developments in each region's market share in wheat (in %), 1993-2003

Africa and Asia are not major exporters of wheat; however, they are major importers of wheat. In combination, they imported 5.4 billion tonnes in 2002/03, equivalent to 44% of the total international trade. In some years, China and India also export wheat, although these exports are irregular.

During the past ten years, the market share of Australia/New Zealand in the international wheat trade has increased from 14.5 to almost 16% in 2002/03, with a peak of more than 18% at the end of the 1990s. The majority of this wheat is exported by Australia, since New Zealand does not play a role in the international wheat trade.

During recent years, exports from the Other European countries have exhibited a marked increase, and these exports accounted for almost 13% of the total exports in 2003. Kazakhstan and Russia in particular accounted for this increase, whereby Russia on its own accounts for nearly half the exports. Russian wheat exports fluctuate greatly from year to year, and this has exerted a marked influence on this regions' market share over the course of the years. The majority of these countries' exports are destined for the EU, Asia, and Africa. In addition, a substantial proportion is destined for intratrade.

Consequences of the reduction commitment for EU exports

According to the WTO notifications for wheat (and wheat flour) for the period 1995-2003, the utilisation of the volume was higher than that of the refund expenditure (averages of 64 and 14% respectively for the entire period); however, with the exception of 1999/2000 the reduction commitments for wheat have not really been a bottleneck. This is due to the relatively high international cereal prices in the 1993-1997 period, as a result of which relatively low refunds per tonne of cereal were required (see also Silvis and Van Rijswijk, 1999). Although the international prices decreased from 1998, the weak euro (against the US dollar) nevertheless enabled the EU to export large quantities of wheat with little or no

export refunds. Consequently, the EU's exports of cereals would not appear to have suffered to any great extent from the URAA commitments.

4.3 Oilseeds

Since 1993-94, the value of the international oilseed trade has almost doubled to USD 18.4 billion in 2002/03. The NAFTA is the major exporter of oilseeds. Exports from Latin America have increased extremely rapidly since 1998-99.

The EU's share in international trade, exclusive of the region's intratrade, is very small; the EU's share fluctuates around 2% (see figure 4.2). The EU is, above all, a major importer of oilseeds. In 2003 the EU's imports of oilseeds from outside the EU amounted to more USD 4.4 billion, the majority of which originated from the USA and Brazil.

The majority of the EU's exports of oilseeds to countries outside the region are destined for Asia, and in 2003 Pakistan, Bangladesh and Japan were the major importers of European oilseeds. The Other European countries and the EU-NMS are also relatively important markets. However, the EU's exports are virtually negligible in comparison with those of the major exporters, the NAFTA countries and Latin America, which jointly account for more than 85% of international oilseed trade (exclusive of EU intratrade). Asia is the most important market for both these exporters.

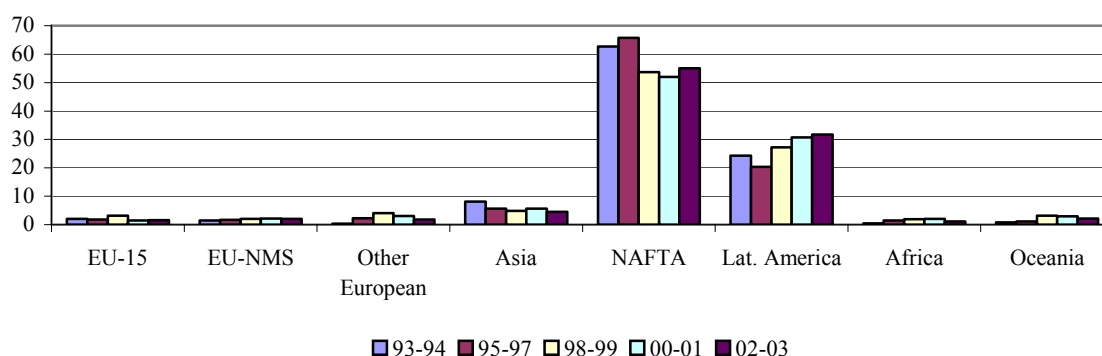


Figure 4.2 Developments in each region's market share in oilseeds (in %), 1993-2003

Asia's imports of large quantities of oilseeds from the NAFTA and Latin America account for almost 50% of international oilseed trade (exclusive of EU intratrade). China, in particular, has imported large quantities of oilseeds in recent years (primarily soya beans); Japan is also a major importer. Asia's oilseed exports are relatively small in view of the region's domestic oilseed needs.

Consequences of the reduction commitment for EU exports

Although ceilings have been imposed on export support for oilseeds (rapeseed), in practice these are of almost no relevance to European exports of oil seeds; there were no exports with export refunds in the years between 1995 and 2003.

4.4 Sugar

The value of the total international sugar trade exhibited major fluctuations due to the instable international sugar price. After increasing from USD 7.4 billion to USD 10.5 million between 1993 and 1996, the value of the international sugar trade has since fluctuated between USD 8.5 and USD 9.5 billion. Since 1993-94, Latin America's share of the international sugar trade, in particular Brazil's share, has increased greatly from 22% to almost 40% in the years since 1998. Upon Brazil's emergence as a major exporter, the EU was compelled to relinquish its position as the world's largest sugar exporter to Latin America. During this period, the EU's share of the international sugar trade declined from 25 to 16% in 2002/03 (see figure 4.3); the decline in the EU's share was particularly pronounced during the mid 1990s.

The majority of the EU's exports outside the region are destined for the Middle East (Syria, Israel, Libya), North Africa (Algeria, Tunisia), and the EFTA countries (Switzerland and Norway). In the past, occasional large quantities of sugar were exported to a number of other countries outside the EU, including Russia, Iran, and Turkey.

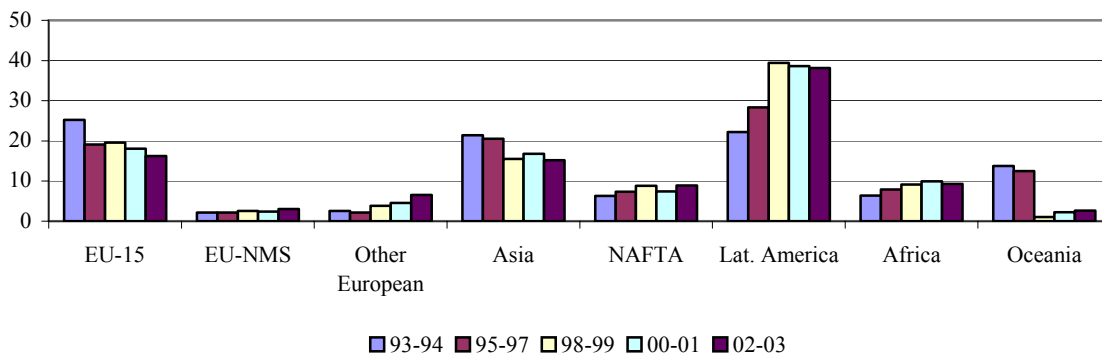


Figure 4.3 Developments in each region's market share in sugar (products) (in %), 1993-2003

The NAFTA's share of the international sugar trade increased by a moderate amount from more than 6 to about 9% during the years between 1993/94 and 2002/03. However, the majority of this increase was due to the growth of intratrade. In addition, the NAFTA's exports of 'other sugars' (lactose, glucose and fructose) to Asia and the EU exhibited a rapid rate of growth.

In the mid 1990s, Latin America became the major player in the international sugar trade. Brazil accounts for more than two-thirds of this region's total sugar exports. The

major markets for Latin-American sugar are the USA and Canada, Russia, and a number of oil states in the Middle East.

Latin America's expanding exports have also resulted in Asia losing market share, which amounted to 15% in 2002/03 as compared to more than 21% in 1993/94. The value of these exports increased substantially in the mid 1990s, but decreased again in later years.

The majority of Asian exports - with China and India as the major exporters - are destined for intratrade.

When the figures for the other regions are examined, the marked decline of the share of Australia/New Zealand is particularly striking; whilst these countries still had a share of almost 14% at the beginning of the 1990s, by 2002/03 the share had declined to just 2.6%. The majority of Australia's lost market share was in exports to the North-American and East-Asian markets. During this same period, Africa's share increased by 3% to more than 9%. The majority of African sugar exports are destined for the EU and intratrade. The Other European countries' share increased from 4 to more than 6%. In 2002/03, the major exporters were Belorussia, Croatia and Turkey; the majority of their exports were destined for intratrade and the EU.

Consequences of the reduction commitment for EU exports

The EU's sugar exports are largely determined by the WTO's export restrictions. The EU is permitted to allocate about 0.5 billion euros to export refunds, and once this ceiling is reached the EU is required to export sugar without export refunds. The EU's export opportunities are then limited by the great difference between the international sugar price and the EU's internal sugar price (the latter is between double and triple the international sugar price). The WTO notifications indicate that the EU has continually utilised much (or all) of its sugar-export refund allocation, whereby the export subsidy expenditure has often been the bottleneck due to the low international sugar price. However, between 1995 and 2003, an average of just 22% of the total European sugar exports were supported by refunds - or, at least, according to the EU this was the percentage governed by the reduction commitment; re-exports of ACP sugar were not taken into account. However, an independent WTO panel recently concluded that a different interpretation is applicable. In addition, the panel concluded that this constitutes an indirect subsidy of C sugar, i.e. the production outside the production quota that must be exported without export refunds. Since this 'cross-subsidy' was deemed to be in violation of the agreement, the EU will not be able to export this sugar in the future. During the years between 1995 and 2002, the EU's share of the international sugar trade had already decreased from 25 to 15%, and both the WTO panel's ruling and the pending reform of EU Sugar Policy will probably result in a further substantial decline in the EU's share. In the short term, the EU could even become a net importer.

4.5 Dairy products

The international dairy-product trade is relatively small in terms of the production value. Moreover, the trade is of a regional nature, in part due to the limited shelf life of many

dairy products. During the past ten years, the value of the international trade in dairy products (excluding EU intratrade) has increased by 40% from USD 9.3 billion to USD 13.0 billion. More than half this value (more than USD 7 billion) relates to international trade in milk powder and other dairy products (SITC 022). The two other major product groups are cheese (USD 4.4 billion) and butter (USD 1.3 billion). Exports of cheese, milk powder and other dairy products grew rapidly during the first half of the 1990s, although the growth decreased again at the end of the decade.

The EU is by far the most important exporter of dairy products, although the EU's share in international trade (exclusive of EU intratrade) decreased from 47% to 35% between 1993/94 and 2000/01 (see figure 4.4). However, during the past two years, the EU's position in international dairy trade has recovered slightly. In 2002/03, the majority of the EU's dairy exports were destined for the USA, Saudi Arabia, Russia, Algeria, Japan, and Switzerland. Nigeria would also appear to be developing into a major market.

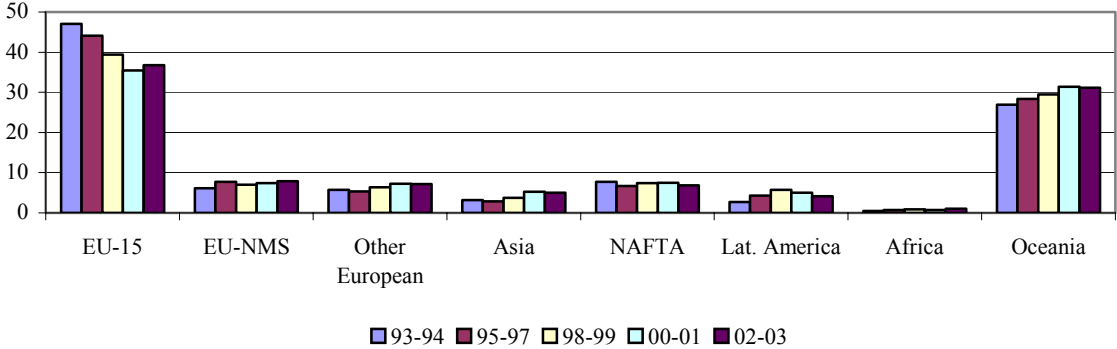


Figure 4.4 Developments in each region's market share in all dairy products (in %), 1993-2003

Alongside the EU, Australia and in particular New Zealand are major exporters of dairy products. During the past ten years, the market share of Australia/New Zealand increased from almost 27 to more than 31%, primarily as a result of the increased exports to the major Asian markets (Japan, the Philippines, and Malaysia). In so doing, Australia/New Zealand have continuously been closing the gap with the EU, the largest exporter.

During the years between 1993/94 and 2002/03, the NAFTA's market share decreased slightly from 8 to 7%. Since 44% of these exports were destined for intratrade, the NAFTA is a minor player in international dairy trade. In contrast, the EU-NMS and Other European countries are acquiring an increasingly important role. During the past ten years the EU-NMS' share increased from 6 to almost 8%, and the Other European countries' share increased from 6 to 7%. Poland is the major EU-NMS exporter, and Switzerland is the major exporter of the Other European countries. Alongside their intratrade, the EU is a particularly important market for both groups of countries.

The market shares of the other groups of countries (Africa, Asia, and Latin America) also increased, albeit on a more modest scale. Although Latin America had achieved a

promising growth in its market share at the end of the 1990s, its share has since fallen in recent years.

Consequences of the reduction commitment for EU exports

During the years between 1995 and 1999, the total EU exports of cheese to countries outside the EU decreased from almost 530,000 tonnes to 400,000 tonnes. Exports have since recovered gradually to a level of 510,000 tonnes in 2003. According to the WTO notifications, the average annual utilisation of the EU's maximum volume of export subsidies was 90%. The utilisation rate of the volume quota was particularly high in 1995, 1996, 2000 and 2003. The restrictions on the volume of export subsidies have probably contributed to the decline of the EU's share in the international cheese trade from 53 to 44% in 2002/03 (see figure 4.5). Export subsidy expenditure, with an average utilisation rate of almost 60%, was much less of a bottleneck. However, the EU has succeeded in exporting continually increasing quantities of cheese without export refunds, and the proportion of exports without refunds has grown from just 18% in 1995 to 30% in 2002. This increasing percentage has been achieved as a result of bilateral trade agreements with countries that have similar cheese prices to those of the EU. Pursuant to these agreements the importing countries do not impose levies, and the EU does not grant refunds.

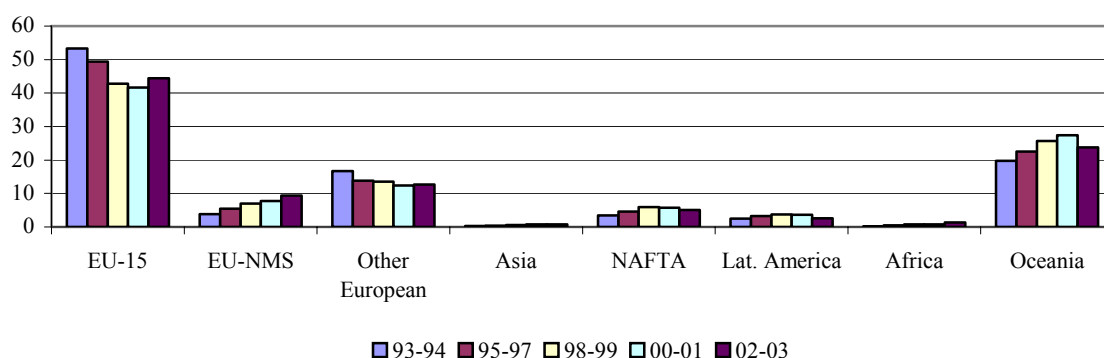


Figure 4.5 Developments in each region's market share in cheese (in %), 1993-2003

The export-subsidy reduction agreements have also constituted a fairly large bottleneck for skimmed milk powder and other dairy products. The utilisation rates for export support of the 'other dairy products' have been particularly high (on average, almost 95%). The total exports of both (groups of) dairy products have decreased since 1995, whilst the volume of international trade increased. As a result, the EU's share of international trade in milk powder and other dairy products has declined from 47% to almost 33% (see Figure 4.6). By far the largest proportion of the exports of these dairy products - and much more than is the case with cheese - are exported with the assistance of export refunds. The high utilisation rates in combination with the marked decrease in market share reflect the great dependency of these dairy products on export refunds. Exports would appear to be feasible solely when the international and internal prices are

closer to each other. Price adjustments within the scope of the EU Dairy Policy shall be implemented from 2005 onwards (pursuant to the agreements concluded in Agenda 2000 and the Luxembourg Agreement, 2003). In so doing, the European prices will be brought more into line with the international prices. However, as a result of the lower internal prices the production of skimmed milk powder and butter will become less and less interesting for European manufacturers. This will enhance the current trend whereby the West's dairy industry is increasingly focusing on the production of cheese and non-skimmed milk powder. Nevertheless, higher international prices would render exports of skimmed milk powder without refunds a feasible proposition. This is also illustrated by the developments that took place in 2004 and 2005. A decline in the dairy production of both Australia and New Zealand (due to the weather) and an increasing demand from the oil states, in particular (which profited from the increasing oil price), resulted in an increase in international dairy prices. This in turn enabled the EU to export skimmed milk powder with a relatively low level of export support.

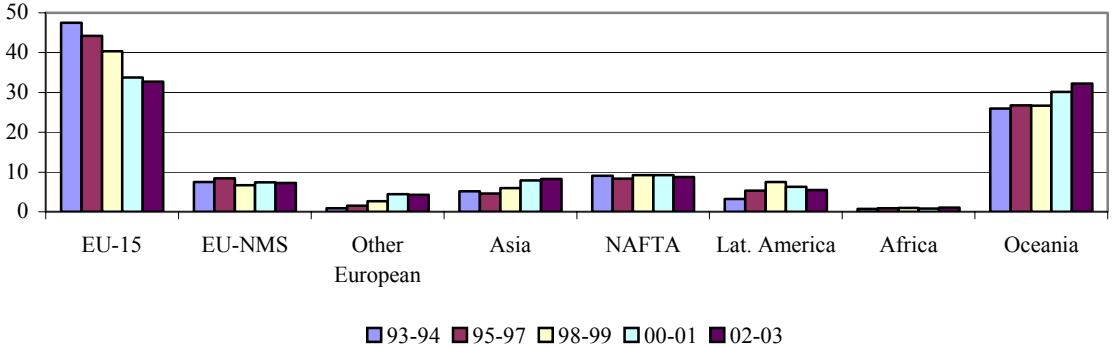


Figure 4.6 Developments in each region's market share in milk powder and other dairy products (in %), 1993-2003

Dutch positions

The Dutch dairy sector has a strong focus on exports, and although the major markets are other EU member states, a number of markets outside the EU are also of great importance to Dutch dairy exports. For example, almost half of the Netherlands' total exports of milk powder and other dairy products are destined for countries outside the EU (in particular, to countries in the Middle East). The majority of cheese and butter exports are destined for other EU member states; some 20% of the total Dutch exports of cheese and butter are destined for countries outside the EU. Although the Netherlands has a large market share in the three groups of dairy products in markets outside the EU, these shares are nevertheless declining.¹ The Netherlands is the EU's largest exporter of milk powder and butter to countries outside the EU. The Netherlands' market share in international cheese trade is smaller than those of France, Italy, Germany, and Denmark.

¹ During the period between 1993 and 2003, the Netherlands' market share in the trade in cheese decreased from 8 to 5%, in butter from 15 to 10%, and in milk powder and other dairy products from 11 to 8%.

4.6 Meat

The international meat trade is a fairly dynamic market in which the NAFTA (in particular, the USA) and the EU play a leading role. In 2002/03, the value of the international meat trade (exclusive of EU intratrade) amounted to almost USD 29 billion. More than 70% of this trade is comprised of fresh, chilled or frozen meat, and the remainder falls within the 'processed products' category. Beef constitutes the largest category of meat in the international meat trade (some 45%); pork and poultry meat account for approximately equal shares of the trade. However, the international pork trade is exhibiting the most rapid rate of growth, followed by that of the international trade in poultry meat. The total value of the trade in meat to other regions exhibited a particularly rapid rate of growth in the first half of the 1990s, although the economic recession in a number of the world's regions subsequently slowed down the rate of growth.

During the past ten years, the EU's share in the international meat trade has gradually declined from more than 21% in 1993/94 to almost 14% in 2002/03 (see Figure 4.7). During this same period, the value of the exports has decreased from more than USD 4.3 billion to just under USD 4.0 billion. In 2002/2003, more than half of the EU exports to countries outside the EU were destined for four countries, namely Japan, Russia, the USA, and Switzerland. Although Saudi Arabia had always been a major importer of European meat, sales to this country have declined in recent years.

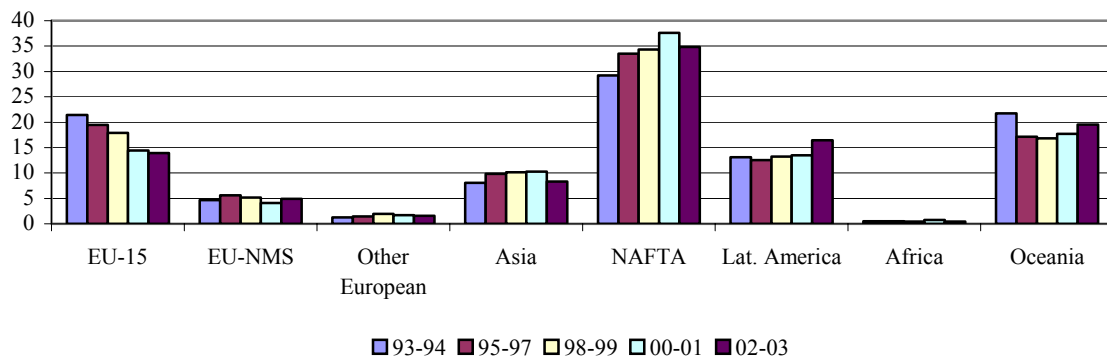


Figure 4.7 Developments in each region's market share in all meat products (in %), 1993-2003

The NAFTA region, in contrast to the EU, has succeeded in expanding its already large market share of 29% in 1993/94 to almost 38% in 2000/01. However, since 2001, the NAFTA would appear to be losing ground to Latin America and Australia/New Zealand. Exports of poultry meat, in particular, from Latin America are increasing rapidly; the regions' share of the international market has already grown to 30% (see also figure 4.8). Virtually all of Latin America's exports originate from Brazil. The largest markets for these exports are in Asia, although exports to the EU are also increasing. The Latin American countries are also playing an increasingly greater role in the international beef and pork trade. Australia and New Zealand export virtually no pork or poultry meat, although they

do export beef (alongside lamb/mutton). The majority of exports from Australia and New Zealand, in analogy with the NAFTA countries, are destined for Asia; however, in recent years exports to the NAFTA region have also increased.

Consequences of the reduction commitment for EU exports

According to the WTO notifications, on average the EU has utilised as much as 95% of the volume of exports of poultry meat that may be exported with export refunds. The trading figures reveal that the EU has succeeded in increasing its total exports of poultry meat to countries outside the EU. An increasingly smaller fraction of these exports (just 24% in 2002) are governed by export support. However, the EU's market share in countries outside the EU has declined from 19% in 1993 to almost 15% in 2003 (see figure 4.8). Although European exporters have succeeded in exporting more produce to countries outside of the EU, the high utilisation rates nevertheless indicate that in the absence of WTO ceilings for export support, the exports could well have been even greater.

About one-sixth of Dutch poultry-meat exports are destined for countries outside the EU. The value of these exports has increased slightly during the past ten years. The share of Dutch exports in international trade (exclusive of EU intratrade) amounted to a little less than 3% in 2002/03.

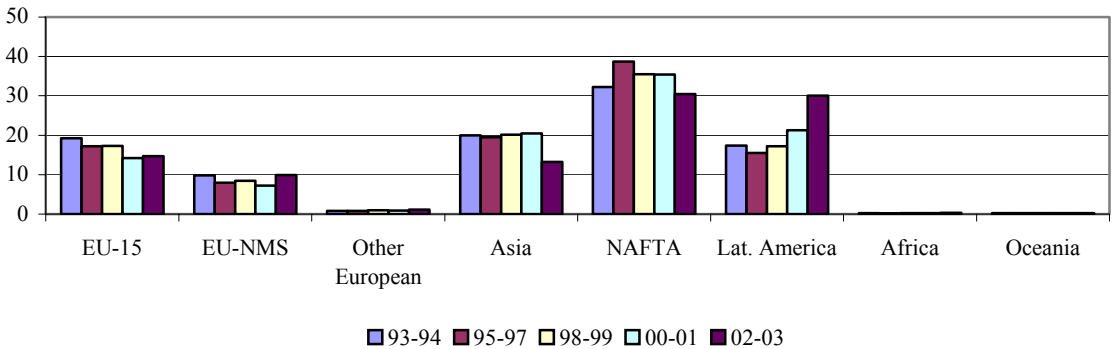


Figure 4.8 Developments in each region's market share in poultry meat (in %), 1993-2003

In contrast to poultry meat, almost all exports of beef are governed by export support. During the period under review, the average utilisation rate of the volume quota was 77%, thereby indicating that there was still scope for exports with support. However, European beef would not appear to be able to compete fully against beef from other regions; this is demonstrated by the absolute decline in the value of exports of EU beef to countries outside the EU, and by the 10% decline in the market share to 4.5% in 2003 (see figure 4.9). Dutch beef exports declined, in parallel with the rest of the EU, from 1.5% in 1993 to 0.3% in 2003. The reduction of the EU's production of beef - in part due to policy reforms within the context of the CAP, and in part due to the outbreaks of BSE and foot-and-mouth disease - also played a role in the deterioration of the market share in the international beef trade.

The majority of the exports of pork, in analogy with those of poultry meat, are completed without export refunds. Moreover, only part of the volume quota was utilised during the period under review, and it has transpired that the EU is able to export the majority of its pork without export support. Nevertheless, the EU's market share has exhibited a substantial decline from more than 48% to almost 31% in 2003 (see Figure 4.10). However, the Dutch market share of 2% of the international pork trade has declined only slightly during the period under review.¹ In this instance, it would also appear that the decline in the share of international trade is due more to outbreaks of animal diseases such as swine fever and foot-and-mouth disease than to limitations caused by export-support ceilings. In their analysis of the international meat trade, Dyke and Nelson (2003) emphasise the influence of animal diseases such as foot-and-mouth, BSE and fowl plague on international trade. They draw attention to factors such as the fact that a given country's importance in international trade is related to that country's status with respect to animal diseases, in particular foot-and-mouth. Other than the trade within the EU the majority of the trade in unprocessed beef and pork is distributed between the major countries that are free of the foot-and-mouth virus, i.e. the USA, Canada, Australia, New Zealand, Japan, South Korea, Taiwan, and Denmark.

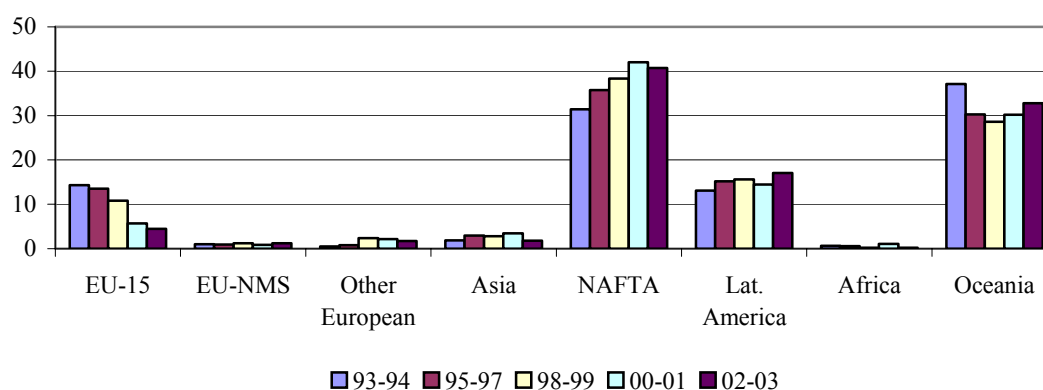


Figure 4.9 Developments in each region's market share in beef (in %), 1993-2003

¹ The majority of Dutch exports are destined for markets within the EU. Exports did decline substantially after 1997 (swine fever).

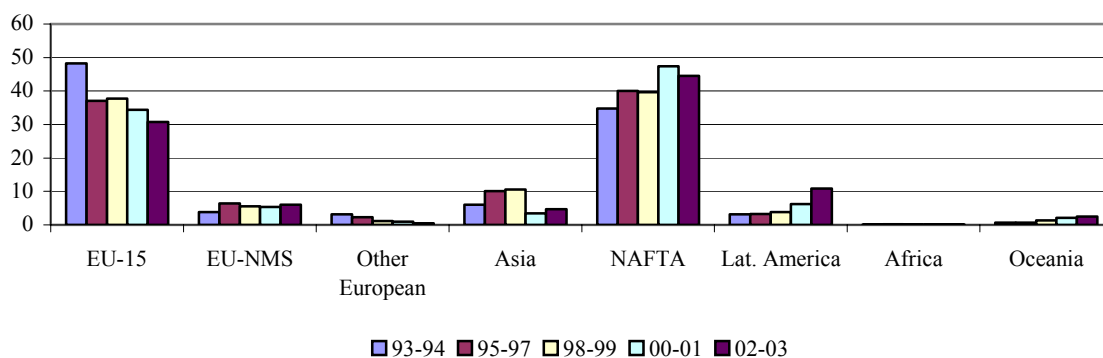


Figure 4.10 Developments in each region's market share in pork (in %), 1993-2003

4.7 Fruit and vegetables

Market positions of fruit exporters

During the period under review, the total value of the international fruit trade exclusive of EU intratrade exhibited a substantial increase - particularly in the mid 1990s - and amounted to more than USD 27 billion in 2002/03. The EU, with a share of almost 11%, plays a relatively modest role in markets outside the EU (see figure 4.11). The major fruit exporters are Latin America and NAFTA, whereby it should be noted that the majority of the NAFTA's exports are for intratrade purposes.

The most important markets for the EU's exports are Switzerland, Russia, and the USA. Most of the other importers of European fruit are Western countries. The majority of the NAFTA region's exports are destined for intratrade (45% of the total exports) and for markets in Asia and the EU.

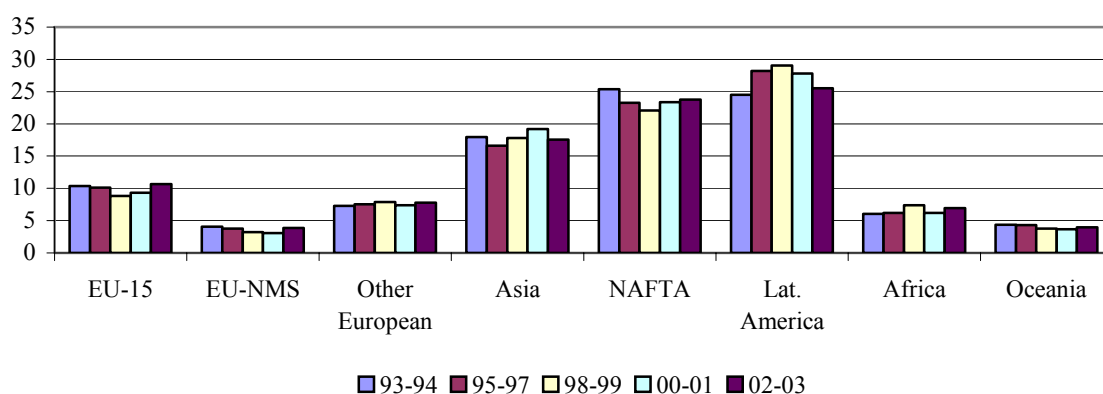


Figure 4.11 Developments in each region's market share in fruit (in %), 1993-2003

After a number of years' growth in Latin America's market share, the share has declined again slightly in recent years. In 2002/03, the major exporters were Chile, Brazil and Ecuador (bananas). The major markets were the EU and NAFTA.

Asia is the third largest fruit producer, with a market share of more than 17% in 2002/03. About half the region's exports were destined for intratrade, whilst the EU and the NAFTA were major markets for exports outside the region.

During the past ten years, the joint market share of the EU-NMS and the Other European countries remained virtually unchanged at between 11 and 12%. The majority of exports from these two regions, of which Poland and Turkey respectively are the most important exporting countries, are destined for the EU. During the past decade, the market share of Australia and New Zealand was about 4%. The majority of these countries' fruit exports are destined for Asia and, to a lesser extent, for the EU and the NAFTA.

The value of Africa's fruit exports increased gradually throughout the 1990s; however, the situation has fluctuated somewhat during the past years, and in 2002/03 the market share amounted to almost 7%. The majority of African fruit is exported to the EU and Asia.

Market positions of vegetable exporters

During the past ten years, the value of the international vegetable trade (exclusive of EU intratrade) has increased from almost USD 6.5 billion in 1993/94 to USD 11.5 billion in 2002/03. The trade figures indicate a fairly regular rate of growth. The EU's share in the international vegetable market increased slightly from 11% in 1993/94 to 13% in 2002/03 (see Figure 4.12). The NAFTA and Asia are the major exporters of vegetables.

During the past ten years, the total value of the EU's exports of vegetables in international trade has more than doubled to almost USD 1.5 billion in 2002/03. The EU's major export markets, other than intratrade, are Switzerland, the USA, Russia, and Norway.

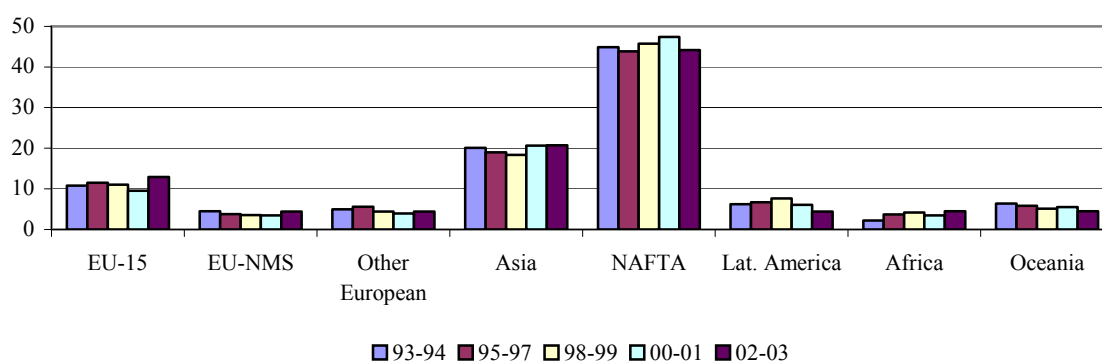


Figure 4.12 Developments in each region's market share in vegetables (in %), 1993-2003

During the past ten years, the market share of the NAFTA countries amounted to about 45%. However, these figures give a biased impression, since between 70 and 80% of

the NAFTA exports are destined for intratrade. Whereas the USA is the major NAFTA exporting country for most agricultural products, Mexico is the largest exporter of vegetables in the NAFTA. After the internal market, Asia and the EU are the major markets for vegetables exported by the NAFTA countries.

In addition to NAFTA, Asia is also an important vegetable exporter; Asia's market share is about 20%. However, and in analogy with the NAFTA, during the past ten years the majority of the exports (more than 70%) were destined for intratrade. China is the main exporting country in the region, and accounts for 60% of Asia's total vegetable exports. In recent years in particular, China has succeeded in achieving a substantial growth in its vegetable exports. The EU is Asia's major export market outside the region, although Asia has also achieved a marked increase in vegetable exports to NAFTA.

In 2002/03, the market shares of the other five regions of the world were all roughly equal to each other, at about 4.5% for each region. These figures imply a deterioration of the market positions of Latin America and Australia/New Zealand in comparison with previous years (see figure 4.12). Latin America was confronted with a particularly marked decline of intratrade, whilst Australia and New Zealand were confronted with reduced levels of exports to Asia, the latter region's major markets.

Both the EU-NMS and the Other European countries observed a substantial increase in the value of their trade in the years after 1993/94; however, during the past ten years, their market shares remained virtually unchanged. The majority of both regions' exports were destined for the EU and for intratrade. Africa achieved a substantial growth in the region's exports, whereby the market share doubled in the years after 1993/94. The EU is the major market for African vegetable exports.

Consequences of the reduction commitment for movements in fruit and vegetable exports

The agreements within the scope of the export support reduction commitments for fruit and vegetables are applicable to the combined groups of products. The majority of the refunds are allocated to exports of fresh fruit and vegetables, and a smaller amount of the export subsidy expenditure (about one-sixth) is allocated to processed products. For fresh products, the volume of the export subsidies formed the bottleneck; during the years between 1995 and 2003, the average utilisation of the volume quota was 98%, as compared to 56% of the ceiling for export subsidy expenditure. On average, 37% of the exports of fresh fruit and vegetables received export subsidies. Of the processed products, 29% received export subsidies, and the reduction commitments were less of a bottleneck. On average, the utilisation rate of both ceilings was 60%, whereby there was virtually no difference between the utilisation rates of the volume of export subsidy and the export subsidy expenditure commitments over the entire period under review.

4.8 Other products: potatoes and ornamental plants

This series of product sections concludes with an outline of the movements in market shares in the international trade of agricultural products in which export support does not play a role. This relates to potatoes and ornamental plant products, both groups of products

that are of great importance to the Dutch agricultural sector but that are not governed by export refunds.

Potatoes

In 2002/03, the total value of the international potato trade (fresh, and chilled) was a relatively low USD 1.8 billion. During the past ten years, the EU's market share in the international potato trade was about 70%. During the past decade, the NAFTA countries and the EU accounted for more than 80% of the total international potato trade. In the years since 1993, exports to countries outside the EU have risen slowly from 20 to 26% of the EU's total exports. However, EU intratrade still accounts for a large part of the total international potato trade. This clearly reveals that the majority of potatoes are consumed in Europe and North America.

When EU intratrade is not taken into account in the figures, then the EU's market share is seen to have remained at a very constant level of 32-33% during the past years, although the market share did suddenly increase to 41% in 2002/03 (figure 4.13. In 2002/03, the Netherlands' market share in the international potato trade was 25%). This growth was to the detriment of almost all other major exporters. Outside of EU intratrade, the most important market for EU exports is Russia. In addition, Algeria, Egypt and Morocco also import substantial quantities of potatoes from the EU. In combination, these four countries accounted for some 40% of total EU exports in 2002/03. During the past ten years, the NAFTA countries' market share fluctuated between 25 and 30%, as a result of which the NAFTA countries have been able to remain in line with the EU. The great majority of the exports are destined for intratrade, with Latin America and Asia as the major markets for exports outside the NAFTA.

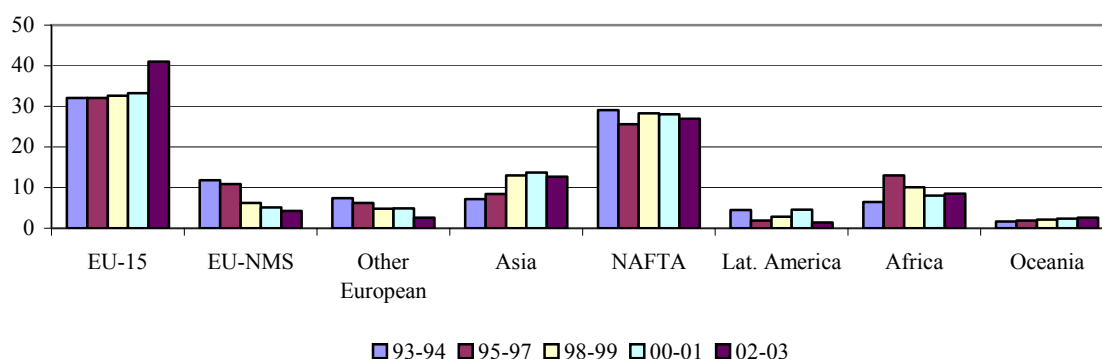


Figure 4.13 Developments in each region's market share in potatoes (in %), 1993-2003

Ornamental plants

During the 1993-2003 period, the total value of the international trade in ornamental plants has increased from USD 6.9 billion to USD 10.5 billion. The majority of this growth occurred between 1993-1996 and 2001-2003. The EU and Latin America in particular profited from this growth; the two regions jointly account for about 85% of the total international trade. However, a large part of the international trade is EU intratrade. In

2002/03, the value of the international trade in ornamental plants exclusive of EU intratrade was more than USD 4.4 billion, of which the EU's market share was 36% and Latin America's market share was 27% (see figure 4.14). The Netherlands is by far the largest exporter of ornamental plants in the EU, and on its own the Dutch market share is 27-28%.

EU exports of ornamental plants to countries outside the EU increased from almost USD 900 million in 1993/94 to more than USD 1.6 billion in 2002/03. However, in the first instance the EU's market share declined from more than 38 to 32% at the end of the 1990s, thereafter recovering to almost 36%. Consequently, over the entire period under review, the EU's market share declined slightly. The most important markets for EU exports other than intratrade are Switzerland, the USA, Russia, Japan, and Norway. In 2002/03, these five countries jointly accounted for 63% of the exports. Poland and the Czech Republic have also become important markets.

Of the other groups of countries, Latin America is the major exporter of ornamental plants, with exports that increased from about USD 550 million in 1993/94 to USD 1.2 billion in 2002/03. During this period, the region's market share increased from 23.5 to 27%. However, Latin America's market share has not increased further in recent years. In 2002/03, the majority of Latin-American exports of ornamental plants were destined for the NAFTA (73%), whilst the EU accounted for 17%.

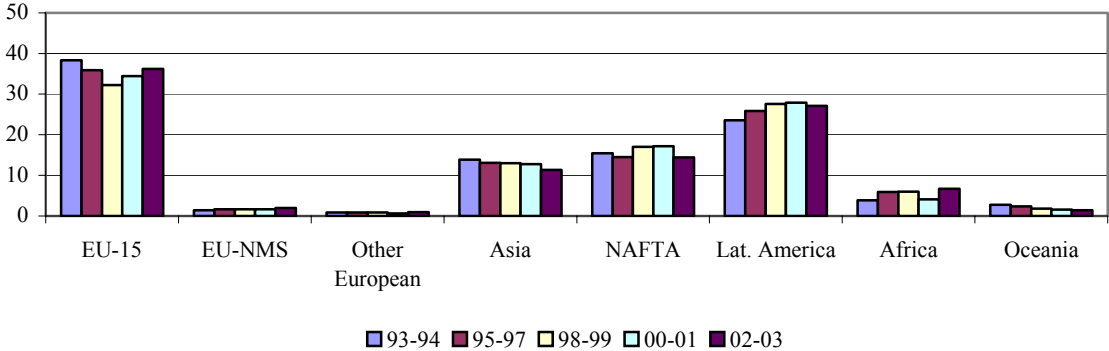


Figure 4.14 Developments in each region's market share in ornamental plants (in %), 1993-2003

During the past ten years, Africa has succeeded in gradually increasing the region's exports of ornamental plants. Africa's market share increased from almost 4% in 1993/94 to almost 7% in 2002/03. The majority of African ornamental-plant products originate from Kenya, although South Africa and Zimbabwe are emerging producers. Although Africa exports produce to every continent, the EU is by far the most important export market (with 87% in 2002/03). These figures reflect the activities of many foreign investors (often Dutch companies) that make use of Africa's local production circumstances (the climate, labour) to cultivate produce for the European markets.

4.9 Conclusions

Although the EU's market share decreased slightly during the 1995-2000 period, the EU did not - generally speaking - lose market share in the total international trade in agricultural products; the share remained at 19%. In the other regions, the market shares of major exporters such as NAFTA, Asia and Latin America declined, whilst those of the smaller exporting regions (EU-NMS, the Other European countries, Africa) exhibited an increase.

However, the EU has evidently lost market share for a number of products, such as dairy products, meat (beef, pork and poultry), sugar, and cereals. The Netherlands has also lost market share in the international sub-trade in dairy products and meat. The WTO commitments may have played a role in the decline in these market shares in view of the mandatory reduction of export refunds. Ceilings imposed on the facilities for export support are regarded as bottlenecks for sugar, cheese, milk powder and other dairy products, poultry meat, and beef. However, it should be noted that alongside the agreements on the reduction of export support, the outbreaks of animal diseases in the EU have exerted at least an equal influence on the loss of the EU's international positions in the beef and pork markets. It is also possible that factors other than export support could also have played a role in exports of other products to countries outside the EU. This is discussed in more detail in the following section.

Notwithstanding the loss of market share in international trade in a number of important products, the EU's overall position in the international trade in agricultural products has not deteriorated over the period under review. This gives rise to the question as to the areas in which the EU has improved its position in the international trade in agricultural products. Of the groups of products reviewed in this section, the EU has succeeded in increasing its market share solely in the international trade in fruit and vegetables, and in potatoes. Other groups of products (at a 3-digit level) that compensate for the loss of market share in international trade in the aforementioned products include fish, coffee, animal feeds, processed tobacco, processed wood, vegetable materials (inclusive of seeds, pot plants, bulbs, and ornamental plants), oil from oilseeds, and food additives.¹ A number of these products are primarily comprised of raw materials that are imported from outside the EU, processed, and then exported to countries outside the EU.

¹ A collective term used to refer to ingredients added to foods and beverages. The value of the EU's exports of food additives amounts to more than USD 3.7 billion.

5. The influence of the URAA on trade flows and the possible implications of further trade liberalisation

5.1 Evaluation of the effects of the trade URAA

The objectives of the URAA included the improvement of market access to promote international trade. However, it is difficult to determine whether the trade agreement has had a beneficial effect on the volume of international trade. From a comparison of the growth in exports between 1980-1995 and 1995-2002 (figures 5.1 and 5.2), it can be concluded that the average annual growth in exports was significantly higher in the years after 1995 as compared to the years prior to 1995 for just four of the ten groups of products, namely oilseeds, sugar, wheat, and skimmed milk powder. During the years from 1995 to 2002, the annual growth in exports of potatoes was only marginally higher than during the years from 1980 to 1995. For the other (groups of) products, i.e. fruit, vegetables, poultry meat, beef and pork, the average growth in exports during the years from 1995 to 2002 was actually lower than during the years from 1980 to 1995. Consequently, it would appear that there is a positive correlation between the URAA and an increase in trade for only a limited number of products. However, this finding is in turn dependent on the years selected to define the evaluation period.

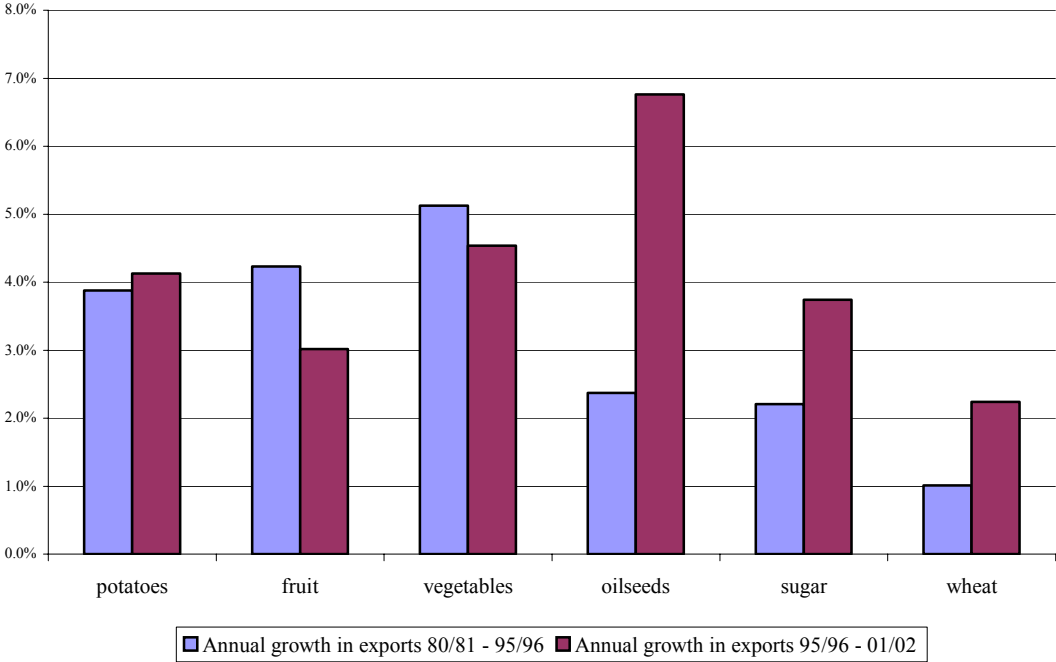


Figure 5.1 Comparison of the growth in exports (in %) of a number of (vegetable) agricultural products

It should be noted that a positive correlation does not imply that the trade agreement actually caused the increase in international trade. Moreover, in situations in which exports did not increase, this does not imply that the trade agreement failed to encourage international trade. Many factors other than trade policy also play a role in explaining the effect of the trade agreement on international trade and market positions. An endeavour has been made to quantify the influence of a number of relevant factors for a somewhat more detailed review of the possible consequences of the Uruguay Round for trade flows and market positions.

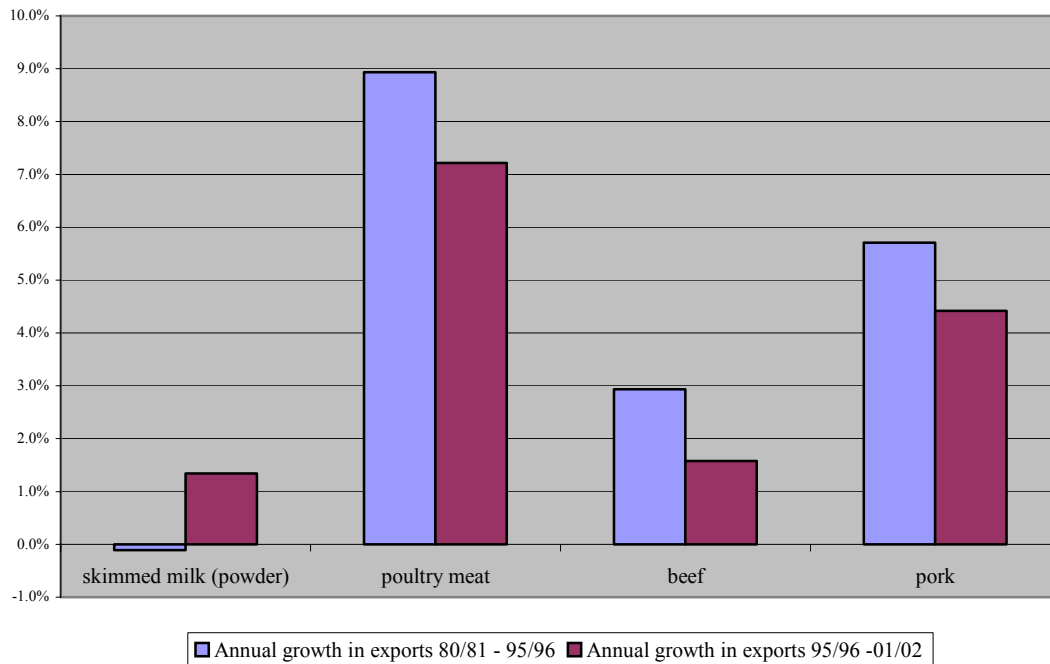


Figure 5.2 Comparison of the growth in exports (in %) of a number of (animal) agricultural products

Regression analysis of the effects of the URAA

A regression analysis was performed to quantify the effects of the agreements pursuant to the Uruguay Round.¹ This analysis was carried out in two parts. Firstly, the effect of the URAA on the total international trade was quantified for a number of agricultural products. This analysis also makes a sub-division into the consequences for the exports of OECD and non-OECD countries. Secondly, the effect of the trade agreements on the market shares of the EU and a number of other major exporters of agricultural products was quantified for the same agricultural products examined in the first part of the regression analysis.

¹ The contents of this report are restricted to the most important assumptions for and results from the analysis. A more detailed document is available which gives a comprehensive explanation of the approach, the assumptions, and the results.

Both analyses made use of the Nominal Protection Coefficient (NPC) as the proxy for the effects of trade policy. The NPC is obtained from the OECD database and is used to compile the PSE (Producer Support Estimate) figures. In essence, the NPC is the ratio between the average price received by domestic producers in OECD countries and the international price, and is a measure of the net effect (or the joint effect) of market and price policies and other types of support. The hypothesis to be tested is as follows: a decrease in OECD export subsidy pursuant to the trade liberalisation in the Uruguay Round decreases the appeal of exports from OECD countries and, consequently, reduces the level of those exports. Conversely, non-OECD countries will gain increased access to international markets and consequently observe an increase in their exports. The total effect on international trade depends on the ratios of the market positions of OECD and non-OECD countries and the response to the phasing out of the various tools, such as export subsidies and import tariffs.

The first part of the analysis quantifies the effects of the Uruguay Round on international trade and on the exports of OECD and non-OECD countries. For this part, additional variables alongside the Nominal Protection Coefficient were included in the regression equation: a further distinction is made between the autonomous development¹ of international trade and 'other URAA measures.' This latter is understood as: a) all measures in OECD countries that are not covered by the NPC, and b) all measures implemented by the non-OECD countries subsequent to the URAA.

The regression analysis revealed that, in general, the trade flows are not very sensitive to the reduction of export support by OECD countries. The greatest influence is on the trade flows of wheat, beef and pork: calculations indicate that, for these products, a 1% reduction of the NPC results in a reduction of the OECD export volume of 0.27, 1.55 and 0.84% respectively. With the non-OECD countries, the most marked effects of a reduction of the OECD countries' support are observed for dairy products and pork: a 1% reduction of the price gap by the OECD results in an increase in the non-OECD countries' export volume of 1.52 and 2.33% respectively.

The results from this analysis reveal that in general the autonomous development (in demand) has a greater influence on the OECD countries' exports than amendments of the OECD countries' trade policy (see table 5.1: compare column 'd' with 'a'). This conclusion is in any case valid for five of the eight products examined in this analysis. In addition, the combination of the implementation of the URAA and the autonomous developments generally results in increased international trade. However, beef is a major exception, whereby the influence exerted by the autonomous factors plays a particularly large role in the reduction of international exports (for example, the BSE crisis). Table 5.1 summarises the results from the regression analysis. These results demonstrate the variation in the influence exerted by the various factors incorporated in this analysis, as well as the differences in the consequences for the OECD countries and non-OECD countries.

As such, the influence of the URAA on the volume of international trade in wheat, oilseeds, sugar and pork is positive. Negative effects were found for potatoes, beef, dairy

¹ The autonomous development of international trade depends on income and population developments, and on changing consumer preferences. These are factors that determine the demand for agricultural products.

products, and poultry meat. The negative effect on potatoes and dairy facts can be explained by the OECD countries' dominance in these markets.

Table 5.1 *Estimate of the consequences of the URAA and autonomous developments on exports of a number of agricultural products for the world and for OECD and non-OECD countries (% change in 2002 vs. 1995)*

	Region	Influence of URAA			Autonomous factors (d)	Total effect on export volume (e)
		Total (a) (b) + (c)	Change in OESO-trade policy (NPC) (b)	Change in 'other URAA-measures' (c)		
Wheat	OESO	-4.4	-2.9	-1.5	8.2	3.4
	Non-OESO	55.5	0.3	55.2	42.7	121.8
	World	5.5	-2.6	8.1	15.0	21.3
Oilseeds	OESO	64.2	0	64.2	-3.5	58.5
	Non-OESO	79.9		79.9	42.8	156.8
	World	70.4		70.4	11.6	90.2
Sugar	OESO	4.2	1.4	2.7	6.6	11.0
	Non-OESO	57.9	-0.5	58.5	-9.4	43.1
	World	45.7	0.1	45.6	-7.1	35.3
Potatoes	OESO	-10.2		-10.2	8.6	-2.5
	Non-OESO	-43.0		-43.0	118.8	24.6
	World	-21.9		-21.9	24.9	-2.4
Beef	OESO	-2.0	2.4	-4.4	-35.5	-36.8
	Non-OESO	-42.7	0.3	-43.0	8.0	-38.1
	World	-14.4	1.6	16.0	-29.7	-39.9
Dairy products	OESO	-15.9	-0.4	-15.5	28.7	8.2
	Non-OESO	-54.4	3.0	-57.5	305.5	84.7
	World	-27.1	1.2	-28.3	46.9	7.1
Pork	OESO	22.3	5.6	16.6	8.0	32.1
	Non-OESO	1072	-164	1237	-58.6	385.3
	World	46.6	6.2	40.4	-16.8	22.0
Poultry meat	OESO	-31.3	1.6	-33.0	114.5	47.3
	Non-OESO	9.4	1.1	8.3	139.9	162.4
	World	-18.2	1.6	-19.8	124.7	83.8

Source: LEI calculations.

The second part of the regression analysis examined the extent to which the trade agreements pursuant to the Uruguay Round have been responsible for the changes in the EU's market shares. The results from this analysis are largely in agreement with the findings based on the analysis of the data reported in chapters 3 and 4. The EU's market share has decreased in the international trade in wheat, oilseeds, beef, dairy products and

poultry meat (see table 5.2, 4th column).¹ During the same period, the market shares in the international trade in potatoes and pork have increased by 2.9 and 6.9 percentage points respectively. The influences of the trade agreements on the EU's market share vary between products. Half of the changes in the market share in the international wheat trade are due to the trade agreements, whereby the reduction in domestic protection has exerted a particularly marked influence (column 'e' in comparison with column 'd' in table 5.2). In principle, the changes to the export support provided to beef exports has resulted in an extremely large decline in the market share; however, this decline is partially compensated by the autonomous factors and the indirect effects of the trade agreements on international trade. Almost the converse is the case for dairy products, where the beneficial effects of the trade agreements are nullified by the negative effect of the autonomous factors. This is also the case for poultry meat, although in this instance the beneficial effect of the trade agreements is slightly smaller. In summary, the regression analysis indicates that the reduction of the OECD countries' protection has (had) relatively few consequences for the international trade flows of agricultural products. This could be due to the fact that the ceilings for the tariffs, export support and domestic support have been set at levels that have in effect resulted in the retention of the original protection (see, for example OECD, 2001). The autonomous factors and the other URAA measures are more determinative, whereby in many instances (i.e. products) the autonomous factors have exerted the greatest influence in movements in shares of exports. The calculations relating to the shifts in the EU's market shares confirm the findings from the analysis of the data in the previous two sections. However, the results do indicate the extent to which the influences exerted by the URAA and autonomous developments can vary between products.

5.2 What is the significance of a further liberalisation for the agricultural sector in the EU and the developing countries?

The WTO agreements specify preconditions to be met by internal policy

Since the formal launch of the Uruguay Round in 1986, the GATT/WTO negotiations on trade in agricultural products have addressed the improvement of mutual access to the affiliated countries' markets. The pressure imposed by the negotiations in this international forum is in part the reason for the EU's continual modification of its agricultural policy to comply with the preconditions stipulated by the international trade agreements. The EU's Mac Sharry reforms of 1992 anticipated the international trade agreement by replacing part of the internal support provided to the agricultural sector with other tools that cause less distortion of trade. The decisions pursuant to Agenda 2000 (Berlin 1999) and the Luxembourg Agreements of 2003 are a continuation of the policy reforms entailing a shift from price support to income payments (decoupled from production). Consequently, in addition to its direct effects on markets and market positions, the URAA has also resulted in the restriction of the policy scope of the EU (and other member states affiliated with the

¹ Sugar has not been included in this analysis in view of the major influences of the production quotas and trade preferences on the EU trade flows.

WTO), as well as the EU's submission to pressure from the WTO relating to the improvement of market access and the reduction of export support.

Table 5.2 *Effects of the URAA on the EU export share in the total international trade: movements in 2002 as compared to 1995*

Product	Percentage growth in EU exports 1995-2002	Export share in international trade in 2002 (calculated in accordance with the model)	Total growth in export share in % points	Effect of autonomous factors on the movements in the export share in international trade, in % points	Effect of autonomous factors on the movements in the export share in international trade, in % points		
					Total	Via international trade (indirect)	Via changes in OECD trade policy/ NPC (direct) (e)
			(a) = (b) + (c)	(b)	(c)=(d) +(e)		(d)
Wheat	6.15	8.4	-1.0	-0.5	-0.5	0.3	-0.8
Potatoes	37.58	11.7	2.9	0.9	2.0	-0.9	2.9
Oilseeds	27.92	0.7	-5.5	0.1	-5.6	-5.6	0.0
Beef	-51.46	29.1	-8.6	6.5	-15.1	3.5	-18.6
Dairy products	7.15	59.3	-6.4	-17.1	11.7	11.0	0.7
Pork	143.44	25.0	6.9	0.3	6.6	0.7	5.8
Poultry meat	43.34	13.8	-3.7	-4.3	0.6	1.0	-0.4

Source: LEI calculations.

Consequences of the Doha Agreement for the EU

A variety of studies, based on more-or-less realistic assumptions and scenarios, have endeavoured to provide an impression of the possible effects of the Doha Round on EU agriculture. Partial analyses focused primarily on agriculture usually indicate unfavourable consequences, i.e. imports from countries outside the EU increase and the EU's agricultural production decreases. For example, according to Lips (2004) the effect of what is referred to as the Harbinson proposal (of March 2003) is a decrease of approximately 10% in the production of cereals, sugar and beef, as well as a decrease in the production of other major agricultural products. The overall result would be a 10% decrease in the income of the EU's primary agricultural sector. Other studies that extend beyond a review of solely the agricultural sector calculate benefits for the processing segment of the agricultural sector and other segments of the economy, and consequently arrive at a more favourable view of the consequences of the trade liberalisation for the EU. One example is the study by Francois et al. (2005). This study assumes a 50% reduction of import tariffs and export support, as well as a 50% reduction of the OECD countries' domestic support that causes a distortion of trade. Although the EU-25 would then import more agricultural products, their exports would also increase, in particular exports of processed agricultural products. The overall income effects on the economy would be favourable since more efficient use

would be made of the means of production due to developments such as an expansion of the service sector. The processing link in the agricultural sector would benefit from lower prices of raw materials and economies of scale. This would in turn result in improved trading conditions for the overall agricultural sector and, ultimately, enhance the prosperity of the sector.

A crucial assumption of these projections is the implementation of effective tariff reductions. The negotiations are focused on a reduction of the bound tariffs, i.e. the import-tariff ceilings as agreed in the URAA. It is known that there is a large degree of binding overhang; in many instances the average bound tariffs are considerably in excess of the actual tariffs (see, for example, Jean et al., 2004, and Francois et al., 2005). Consequently, the bound tariffs would need to be reduced by a substantial amount before improved market access is achieved. For example, in some markets, Dutch exporters are confronted with substantial tariffs whereby an average reduction of 63% of the bound tariffs would be required in the export markets of importance to the Netherlands before exporters note an actual reduction of the tariffs on their products (Kelholt et al., 2005). In practice, the import protection in the EU is also substantial for some products (such as beef, wheat products, and glucose) due to the application of non-ad valorem tariffs (a fixed charge per unit of product). When the ad valorem (a percentage of the product's value) and non-ad valorem tariffs are brought into line - WTO members agreed on the method for the conversion to ad valorem tariffs in May 2005 - a substantial reduction of the ad valorem tariff will be required to bring the bound tariff for these products to the level of the tariff applied in practice (Kelholt et al., 2005:28).

In addition to the need for the reduction of the difference between the bound and applied tariffs, the status of sensitive products is also of importance to improved market access; sensitive products - designated by the relevant WTO member - can be exempted from tariff reduction. This option can be used to retain the protection of specific products when a generic tariff reduction governs the main group that includes the specific product. However, certain conditions are attached to the designation of sensitive products; in exchange for the exemption from tariff reduction, the member state is required to permit an expansion of the tariff rate quota (TRQ) for the sensitive product. The details of this exchange were not known at the time this report was written.

Does trade liberalisation improve market access for developing countries?

The primary objective of the Doha Development Round is to strengthen the international trade position of developing countries by improving their access to international markets. However, will this be the result of the Doha Development Round? The protective agricultural policy of OECD countries is often held responsible for the inability of developing countries to enjoy the benefits of international trade and specialisation whilst the developing countries would, in the first instance, appear to possess a relative advantage in the agricultural sector. According to critics, the developing countries would be able to do so if the OECD countries eliminated their protective barriers. Many studies arrive at optimistic estimates of the improvements in the developing countries' trade and prosperity resulting from further trade liberalisation for agricultural products, thereby implying that developing countries will make full use of the benefits offered by trade liberalisation (such as Hertel et al., 2003, and World Bank, 2004). Francois et al. (2005) concur with this

conclusion, whereby they state that developing countries will benefit most from trade liberalisation when they themselves participate in the reduction of measures that distort trade.

However, a number of studies state that the beneficial effects of the richer countries' elimination of agricultural subsidies are overestimated (such as Bouet et al., 2004; Panagaryia, 2004). The benefits offered to the developing countries as calculated using economic models were criticised since they are based on a number of specific assumptions - such as markets that operate in a perfect manner - and since the aggregation of countries conceals the occasionally major differences in the consequences between various developing countries. With respect to the latter point, the consequences for the net-importing LDCs will be very different from those for the Cairns Group, almost all of which are exporting middle-income countries. In addition, it should be noted that a large number of preferential trade agreements have been concluded between the developed countries (in particular, the EU and the USA) and (groups of) developing countries. A reduction of the multilateral tariffs will result in the erosion of these trade preferences. In practice, preferential agreements have proven to be of particular importance to countries in Africa and the Caribbean (Bouet, 2005).

The EU export refunds are criticised since these enable the EU to offer its surpluses on the international market below cost price, thereby cutting out competition from other countries in the international markets and driving the developing countries' domestic production out of their markets. However, at a global level, the elimination of EU export support will not have any really marked effects: according to Bouet et al. (2004) the only significant effect will be an increase in the international prices of sugar and dairy products. Within this context, it should be noted that a minor price effect on sugar will have virtually no (favourable) effects for developing countries that export sugar pursuant to preferential trade agreements. Furthermore, virtually all developing countries (with the possible exception of Argentina) are net importers of dairy products, and they possess too little production potential to meet their needs.

The question as to whether developing countries will make improved use of their potential agricultural production capacity following trade liberalisation depends on a large number of national factors of a primarily institutional nature, such as the abolition of national trade monopolies, the efficient processing of exports, and an appropriate administrative system. In the absence of institutional development, many developing countries will be unable to benefit from the increased export opportunities in international trade. However, most model studies of trade liberalisation neglect this issue. When viewed from this perspective, it would appear that the consequences of the abolition of export support for developing countries have often been overestimated.

Nor does the OECD countries' abolition of import tariffs necessarily need to result in a direct improvement in market access for developing countries. Bureau et al. (2004) point out that for many African countries the European import tariffs are not the major impediment to expanding exports to the EU; agreements with ACS countries and with LDCs have already resulted in the reduction of these import tariffs to relatively low levels, or even to their complete elimination. One of the most important reasons for the poor integration of the developing countries in international trade is the complex of technical, sanitary and phytosanitary requirements imposed on the (production of) agricultural

products and food. Moreover, these are not solely requirements imposed by the authorities; the private sector (traders, supermarket chains) is increasingly imposing requirements relating to the production process, certification, and traceability. Although professional agricultural concerns in Argentina and Brazil are often able to comply with these technical requirements, these non-tariff factors are a particularly major problem for the countries with a weaker economy. For the developing countries, the technical conditions to be met by exports could nullify the possible favourable effects of the reduction of import tariffs on export opportunities. Investments in the development of the appropriate knowledge and infrastructure (for example, in the form of implementation organisations) are required if the developing countries are to be able to benefit from the agreements on tariff reductions by ensuring for compliance with international food safety and health requirements. A World Bank study demonstrates that countries that make investments of this nature - with foreign injections - can certainly improve their export opportunities (World Bank, 2005). The study implicitly draws attention to the important precondition of the development of an institutional organisation if the developing countries are to benefit from trade liberalisation via tariff reductions and improve their access to international trade.

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Appendix 1 List with classification into unprocessed and processed products

<i>Agricultural products - detailed</i>	<i>Unprocessed</i>	<i>Processed</i>
001 - Live animals	x	
011 - Bovine meat	x	
012 - Other meat, meat offal	x	
016 - Meat, edible offal, dried, salted, smoked		x
017 - Meat, edible offal, prepared, preserved, NSE		x
022 - Milk and cream		x
023 - Butter, other fat or milk		x
024 - Cheese and curd		x
025 - Eggs, birds, yolks, albumin	x	
034 - Fish, fresh, chilled, frozen	x	
035 - Fish, dried, salted, smoked		x
036 - Crustaceans, molluscs, etc.	x	
037 - Fish, etc., prepared, preserved, NSE		x
041 - Wheat, meslin, unmilled	x	
042 - Rice	x	
043 - Barley, unmilled	x	
044 - Maize, unmilled	x	
045 - Other cereals, unmilled	x	
046 - Meal, flour of wheat, meslin		x
047 - Other cereal meal, flours		x
048 - Cereal preparations		x
0541 - Potatoes, fresh, chilled	x	
0542 - Legumes, dried, shelled	x	
0544 - Tomatoes, fresh, chilled	x	
0545 - Other fresh, chilled vegetables	x	
0546 - Vegetables, frozen		x
0547 - Vegetables, provisionally preserved		x
0548 - Vegetable products, roots, tubers	x	
0561 - Vegetables, dried		x
0564 - Fruit& vegetable flour, meal, flakes		x
0566 - Vegetables, not pickled, frozen		x
0567 - Vegetables, prepared, preserved, NSE		x
057 - Fruit, nuts, exclusive of oil nuts	x	
058 - Fruit, preserved, prepared		x
059 - Fruit, vegetable juices		x
061 - Sugars, molasses, honey		x
062 - Sugar confectionery		x
071 - Coffee, coffee substitute		
0711 - Coffee, not roasted	x	
0712 - Coffee, roasted		x
0713 - Extracts, etc., of coffee		x
0721 - Cocoa beans	x	

<i>Agricultural products - detailed</i>	<i>Unprocessed</i>	<i>Processed</i>
0722 - Cocoa powder, unsweetened		x
0723 - Cocoa paste		x
0724 - Cocoa butter, fat or oil		x
0725 - Cocoa shells, husks, skins		x
073 - Chocolate, other cocoa preparations		x
074 - Tea and mate		x
075 - Spices		x
081 - Animal feed stuff		x
091 - Margarine and shortening		x
098 - Edible products and preparations, NSE		x
111 - Non-alcoholic beverage, NSE		x
112 - Alcoholic beverages		x
121 - Tobacco, unmanufactured	x	
122 - Tobacco, manufactured		x
211 - Hides, skins (exclusive of furs), raw	x	
212 - Fur skins, raw	x	
222 - Oilseeds (soft fixed vegetable oil)	x	
223 - Oilseeds (other fixed vegetable oils)	x	
244 - Cork, natural, raw; waste	x	
245 - Fuel wood, wood charcoal	x	
246 - Wood in chips, particles	x	
247 - Wood rough, rough squared	x	
248 - Wood, simply worked	x	
261 - Silk	x	
263 - Cotton	x	
264 - Jute, other textile bast fibre		x
265 - Vegetable textile fibres		x
268 - Wool, other animal hair		x
291 - Crude animal materials, NSE	x	
292 - Crude vegetable materials, NSE		
2922 - Natural gums, resins, etc.	x	
2923 - Vegetable materials for plaiting	x	
2924 - Plants, pharmaceuticals, perfume, etc.	x	
2925 - Seeds, etc., for sowing	x	
2926 - Bulbs, cuttings, live plants	x	
2927 - Cut flowers and foliage	x	
2929 - Materials of vegetable origin, NSE	x	
411 - Animal oils and fats		x
421 - Fixed vegetable fats and oils, soft		x
422 - Fixed vegetable fats and oils, other		x
431 - Animal or vegetable fats and oils, NSE		x
999 - Miscellaneous agricultural products		x
NSE = not specified elsewhere		