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Significant Natural Resource Trade Flows into the EU

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1. Introduction

This report has been produced for the European Commission (DG Environment) project "Strengthening the Knowledge Base for the Implementation of the Thematic Strategy on the Sustainable Use of Natural Resources". It provides an overview of selected significant trade flows to the EU and is intended as a basis for assessment of environmental impacts given in the "Environmental Impacts of Significant Natural Resource Trade Flows into the EU" main report of the project. It has been researched and written by Metroeconomica in consultation with project colleagues about the usefulness of data provided for assessment of environmental impacts.

The definition of natural resources given in the "Thematic Strategy on the sustainable use of natural resources" (EC, 2005a) and discussed in the supporting "Zero Study: Resource Use in European Countries" (ETC-WMF, 2003) is quite broad including raw materials, environmental media, flow resources and space (land area). In the context of this study of natural resource *trade flows* we have focused on raw and simply refined materials traded as commodities and recorded in world trade statistics. Thus we have not included flows of raw materials in manufactured goods made from a number of component materials. The trade flows covered in this report include renewable and non-renewable raw materials covering the broad sectors of food and non-food agricultural commodities, fossil fuels, and metal and minerals. Standard International Trade Classification (SITC) revision 3 definitions of traded commodities have been used in the compilation of data for this report[1].

1.1. Selection of trade flows to be analysed

The collection of data on a total of 40 trade flows was undertaken in two phases. For the first 20 trade flows we focused on primary commodities. An OECD definition of primary commodities[2] has been used which corresponds, with some minor exceptions, to the SITC framework sections 0 to 4 (Food and live animals, Beverages and tobacco, Crude materials (inedible), Mineral fuels, and Animal and vegetable oils). The most significant commodity *groups* for each sector (for example, Cereals and Cereal Preparations for the food agricultural sector) were identified in terms of economic value and physical volume of trade. From these groups *specific* significant commodities were chosen to represent the groups (for example, wheat for Cereals and Cereal Preparations).

The selection of a second 20 trade flows was made on the basis of wider selection criteria agreed with project counterparts. The criteria included the likely significance of environmental impacts along with economic value and physical volume of trade flows, and some refined commodities were included, in particular where a comparison could be made to the unrefined commodity such as iron and steel with iron ore and concentrates, and cotton fabrics with cotton. A simple multi criteria analysis was used to finalise the selection from a candidate list.

1.2. Data collection

Key sources of data are the United Nations Commodity Trade Statistics database (Comtrade) and the Eurostat External Trade Database. Data for the year 2005 have been used in this report since this was the most recent year for which comprehensive data was available at the start of the project. This means that data refers to EU25 rather than EU27. Data on imports of commodities to the EU quoted throughout this report refers to "extra EU imports" and does not include trade between EU Member States.

[1] For full SITC definitions see: http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=14
[2] For definition of primary commodities see: http://stats.oecd.org/glossary/detail.asp?ID=6181

For each selected trade flow data on EU imports is reported at the most appropriate level of disaggregation for environmental impact research and policy relevance. In most cases this was the 3 digit level of SITC definitions, although in some cases the 4 and 5 digit level was most appropriate (further disaggregated data for each selected trade flow are given in Appendix 1).

Some inconsistencies between the two main sources were found in volume totals of EU imports for selected commodities, although not value totals. However, this does not affect conclusions regarding orders of magnitude of trade flows and main source countries. There were a few clear examples where, due to re-exporting, key source countries for EU imports were not the country of origin and, therefore, were not the country where environmental impacts of production had occurred (e.g. Switzerland is a key source of tea imports into the EU). These cases were generally clear to identify when reviewing environmental impacts in source countries.

Trend data for main source countries of selected trade flows cover the period 1999 to 2005 as data prior to this was not consistently available in the source databases. Figures for percentages of EU imports to total world imports are given for value only as key world trade data is presented for value in the Comtrade database.

Data on the volume of imports of the selected commodities for key receiving EU countries is available in the Comtrade database. However, we have not included this information in detail in the report because these are arrival ports and not necessarily the final country destinations. For most commodities analysed the key importing EU countries were consistently found to be western European (combinations of Germany, United Kingdom, France, Spain, Italy, Netherlands and Belgium).

1.3. Structure of report

Section 2 of this report provides main findings for selected trade flows in each sector (food and non-food agricultural products, fossil fuels, and metal and minerals) in terms of traded value and volume, main source countries for EU imports and current trends. This section also provides on overview analysis of findings for each sector and brief discussion of policy issues where these are particularly relevant to an understanding of recent trends in EU imports of selected commodities. In general, for all sectors liberalisation of world trade arrangements under World Trade Organisation (WTO) rules underpins reforms to existing trade agreements and arrangements related to specific commodities. Section 3 gives some overall conclusions.

Appendix 1 gives detailed quantitative data for the 40 trade flows and provides the basis for data summarized in the main report. For each trade flow Appendix 1 includes: (a) a table outlining the relevant divisions and sub divisions within the SITC framework in order to clarify the definition of the commodity on which we are focusing; (b) a table with value and volume of imports to EU; (c) a table of top source countries for extra EU imports with associated values and volumes and (d) chart showing recent trends in value of imports from top source countries.

Appendix 2 discusses the significance of EU imports of biofuels and biofuel feedstock. This has been included because biofuel trade is not as clearly recorded as the other selected trade flows in official statistics and needs greater explanation.

2. Analysis of Selected Trade Flows

2.1. Agricultural Food Products

Data on the value and volume of EU imports of the selected agricultural food products, their share of EU imports in total global trade and key source countries are shown in Table 2.1. Main exporting countries to the EU of the selected products are shown geographically in Figure 2.1.

Regional spread of source countries:
Figure 2.1 indicates the broad geographical and developmental spread of countries from which key EU imported agricultural food products are sourced. Within this overall spread key source countries for some commodities such as banana, bovine meat, cocoa and fresh fish are located in the same region. However, for more of the commodities selected there is regional diversity between top source countries.

Concentration of top source countries:
For almost all commodities studied the top three source countries represented at least 50 per cent of the total of EU imports by volume and in most case much more than 50 per cent. In the case of bananas, Ecuador, Colombia and Costa Rica accounted for about 70 per cent of all EU imports in 2005. Similarly, for wheat Ukraine, United States and Canada represent about 70 percent of total EU imports by volume. Argentina and Brazil accounted for about 80 per cent of the total EU imports by volume of fresh and chilled bovine meat.

EU imports of some commodities are dominated by only one or two source countries. Norway was by a large margin the most significant origin for fresh fish imported to the EU accounting for about 62 per cent of the total volume in 2005. The main source country for soybean is Brazil, accounting for 66 per cent of total EU imports, followed by the United States with 21 per cent[3] and 52 per cent of EU maize imports were from Argentina. The top source country for EU imports of raw cane sugar is Mauritius by a large margin, responsible for 33 per cent of all extra EU imports. There are a relatively large number of countries from across developing regions that export some raw cane sugar to the EU.

The main exception to this picture of a small group of source countries dominating EU imports was the case of fish (crustaceans, molluscs etc.). This may be due to the large range of species sub categories within the trade statistics for this overall SITC code.

Trends in volumes of EU imports:
Overall trends in total volumes of EU imports for the selected commodities over recent years are given in Table 2.1. More detailed charts showing trends in imports from key source countries for each commodity can be found in Appendix 1. In general, the selected food agricultural commodities showed either some overall growth or approximately level trends in EU import volumes in the 6 years up to 2005.

In some cases these recent trends represent a continuation of longer term growth in imports of agricultural food commodities. For example, there has been a steady growth in total banana import volumes to the EU15 countries from about 2 million tonnes in the 1960s to about 4 millions tonnes currently although with some flattening of this increase since the 1990s. The top three EU source countries for bananas, Ecuador, Colombia and Costa Rica, have remained the same in recent years, albeit with Colombia overtaking Costa Rica since 2004. In the case of fish, the trend over recent decades has been for increasing EU reliance

[3] Taking into account oil cake from soybean Argentina is also a significant source country. See Appendix 1.

on fish coming from outside EU borders, with more than 60 per cent of fish requirements now imported (Agritrade, 2007a).

In the case of bovine meat, following quite constant levels of EU imports in the 1990s there has been a rapid increase since 2002. This is the result of a number of factors including a strong recovery in EU beef consumption after the BSE crisis, a contraction in EU beef production and consumption trends in the EU favouring higher quality imported beef.

For some commodities there have been changes in the relative importance of source countries in recent trends, in particular:

- EU imports of soybean from the US have been overtaken by Brazil since 1999, reflecting issues of quality, availability and the European position on genetically modified soybeans from the US. Moreover, there have been reductions in soybean imports in 2005 and 2006 caused by a switch by EU crushers from soybeans to rapeseed due to improved margins for rapeseed brought about by the biodiesel boom (USDA, 2006).
- US sourced maize has also significantly reduced in recent years as a result of EU restrictions on GMO imports. At the same time there has been a corresponding increase in volume of Ukrainian and Serbian sourced maize.

It should be noted that significant increases in prices for some world food agricultural commodities have occurred since 2005, the reference year for this report, and may have impacts on trends in EU imports. Wheat prices rose to record levels in the summer of 2007 due to weather related reduced yields. The EU has been a consistent net wheat exporter with exports running at twice the level of imports. It has traditionally imported higher-quality wheat, including wheat for bread-making while exporting lower-quality wheat.

Importance of EU imports in world trade:
Table 2.1 also gives the proportion of EU imports to total world imports for each commodity in terms of value. Bananas, cocoa, coffee and fresh fish imports have the highest proportions with about 30 per cent or more of world imports. Thus the EU represents a main world market for these commodities. This trade is of particularly importance to the source country when there is income dependence on these commodities. This is the case for the main exporting countries of the banana trade. In Ecuador and Costa Rica, for example, bananas represented 17 per cent and 23 per cent of the total value of their exports in 2000.

Other commodities, while representing significant amounts of EU imports, are relatively less important in terms of total world trade in that commodity. For example, EU imports of maize represented 4 per cent of total global import value in 2005 and wheat represented 9 per cent.

Trade policy issues:
Specific trade arrangements between EU importing countries and source countries go some way to explaining trends in imports from source countries of selected commodities over recent years. Some key examples are as follows:

Bananas: Imports from ACP (African, Caribbean and Pacific) countries have traditionally been granted preferential access to the European market under the Lomé Convention and later the Cotonou Agreement, and Central American and South American bananas have been exported mainly to open market countries such as Germany. However, during the 1990s the EU trade for bananas suffered from uncertainties arising from the introduction of the EU Banana Regime and the modifications that resulted from the banana dispute at the WTO. Until 2006 prices in the EU market had been maintained by means of tariff quotas, which effectively limited the total volume of bananas on the market. In January 2006, this

system was replaced by unrestricted entry for all at a uniform tariff of 176 euros per tonne. This was intended to be broadly equivalent in its effect on the market to the previous tariff quota regime. However, the removal of restrictions on volume has resulted in greater import volumes, from both Latin American and ACP countries (total imports to EU up by about 12% on 2005 totals), and consequently to lower prices (Agritrade, 2007b).

Bovine Meat: High prices in the EU beef sector over recent decades have resulted in the maintenance of high levels of import tariffs, with currently an *ad valorem* duty and a specific duty per tonne. The WTO Uruguay Round agreement resulted in a 36 percent reduction in these duties over six years. Under the Doha Round proposals EU beef tariffs could be lowered further by between 60 and 70 percent. The combination of the Uruguay Round agreement limiting subsidised EU beef exports, the BSE crisis and the reform of the beef sector, has resulted in a sharp fall in EU beef exports. By 2004 these were about one-third of there levels in the 1990s.

Preferential quotas for chilled and frozen boneless beef and veal apply to ACP (Africa, Caribbean and Pacific) countries under the Cotonou Agreement. These quotas total 52,100 tonnes, amounting to about 14 per cent of total EU imports throughout the 1990s (Agritrade, 2007c). There has been a growing policy emphasis on food safety, partly as a consequence of the BSE crisis, and on food quality. Food-safety certification is necessary for beef exports to be allowed entry to the EU market which has financial implications for source countries.

Sugar: Preferential trading agreements for sugar have traditionally existed between EU and certain developing regions. In 2004, the WTO ruled that the EU sugar-régime and ACP-EU Sugar Protocol was not legal after representations from a group of cane-sugar exporting nations led by Brazil. In June 2005 the European Commission proposed a radical reform of the EU sugar regime, cutting prices dramatically. Further reforms are proposed to EU sugar prices with import tariffs to be phased out between 2006 and 2009.

Fish: The Common Fisheries Policy (CFP) has dealt with the EU's policies on fisheries over the last three decades, both internally and externally (international and third-country waters). The EU has concluded a number of agreements or granted tariff preferences to exporting countries. These include the Cotonou Agreements with ACP countries and the special General System of Tariff Preferences (GSP) and various free-trade agreements. Under WTO the present system of tariffs will be reduced or abandoned while other requirements such as rules on origin, health-and-hygiene, and traceability are increasingly coming into effect[4].

Wheat: The cereals sector is the most advanced in the process of EU CAP reform. The single EU market for cereals requires the maintenance of a regulated trading system at the external borders of the EU. The system operates import and export licences with duties charged on imports within the commitments made by EU in the cereals sector at the WTO (for details of EU external trade regime for cereals see DEFRA, 2006). EU has established various tariff-rate quotas for the import of medium- and low-quality wheat and barley. It is predicted that EU enlargement and CAP reform will reduce the cost of feeding grain to livestock compared to soybean meal with a resulting reduction in EU soybean meal consumption and imports (USDA, 2005).

A further trade issue for food agricultural products is the development of organic and fair trade products. Key products for which fair trade certification is being developed include banana, cocoa, sugar and tea. Although these are at low levels compared to EU total imports there has been a rapid increase from a low base five years earlier which seems likely to continue.

[4] For outline of fish import conditions and certification requirement see: http://ec.europa.eu/food/international/trade/im_cond_fish_en.pdf

Table 2.1: Summary of Economic Data for Selected Trade Flows: Agricultural Food Products (2005)

Commodity	SITC Code	% of EU Imports to World Imports (by value)	Value of Import to EU25 (million €)	Volume of Imports to EU25 (1000 Tonnes)	Overall Trend in Volume[5]	Top Source Countries for EU Imports (% of extra EU imports by volume)
Food Agricultural Products						
Bananas	057.3	35%	2,439	3,785	→	Ecuador (29%), Colombia (24%), Costa Rica (17%)
Bovine meat (fresh or chilled)	011.1	8%	830	182	↑	Brazil (46%), Argentina (35%), Uruguay (7%)
Cocoa	072	34%	2,658	1,802	↑	Cote D'Ivoire (39%), Ghana (22%), Nigeria (13%)
Coffee	071.11	31%	3,584	2,464	→	Brazil (29%), Vietnam (18%), Colombia (9%)
Fish (crustaceans, molluscs etc.)	036	22%	3,940	1,039	↑	India (11%), China (7%), Argentina (6%)
Fish, fresh, chilled, frozen	034.1	29%	2,377	606	↑	Norway (62%), Faroe Islands (9%), Iceland (8%)
Maize	044	4%	415	2,933	↑ ~	Argentina (52%), Ukraine (12%), Serbia (11%)
Milk products, butter, cheese	022, 023, 024	3%	656	278	→	Switzerland (37%), New Zealand (36%), Australia (8%)
Rice	042	6%	403	1,097	→	United States (26%), Thailand (23%), India (21%)
Soybean[6]	222.2	21%	3,062	10,869	→	Brazil (65%), United States (22%), Paraguay (6%)
Sugar raw and refined	061.11	17%	901	2,194	→	Mauritius (31%), Fiji (10%), Guyana (9%), Swaziland (9%).
Tea	074	17%	512	378	↑	Kenya (24%), Switzerland[7] (17%), India (10%)
Wheat and wheat flour	041	9%	1,107	6,909	↑↑ ~	Ukraine (25%), United States (23%), Canada (21%), Russia (10%), Australia (5%)

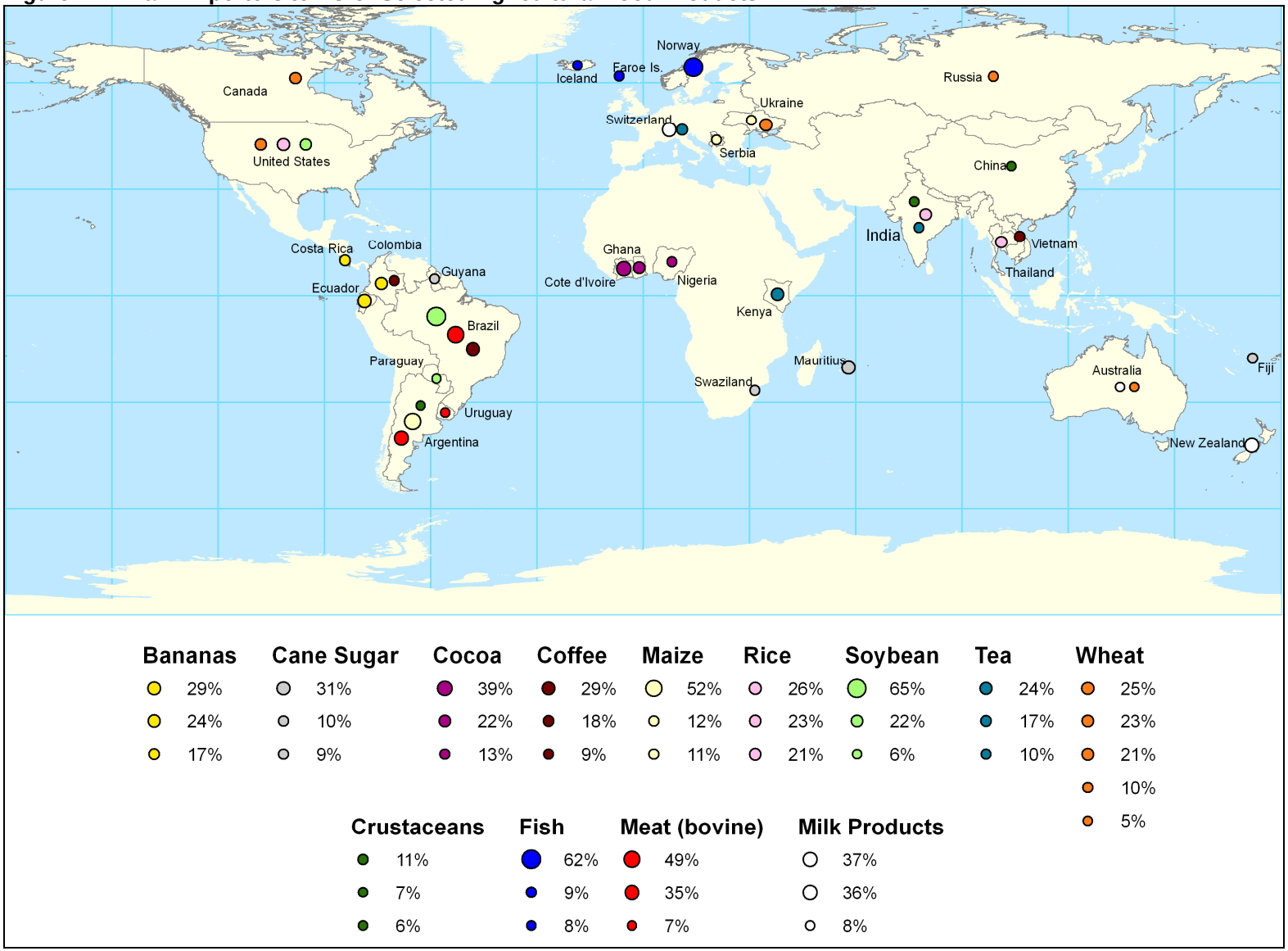
Overall Trend Key: ↑=up, ↑↑=up significantly, ↓=down, ↓↓=down significantly, →=level, ~ = volatile

[5] Overall trend is change in total volume of extra EU imports between 1999 and.2005. Further details on trends for main exporting countries within this period are given in charts in Appendix 1.

[6] Also of significance is "Oilcake from soya beans" (SITC 081.31) which accounted for 16,019 thousand tonnes in volume of imports to EU25 in 2005. Most of this total was sourced from Argentina and Brazil. EU countries accounted for 44 per cent of world imports of soybean meal in 2005 (further details are given in Appendix 1).

[7] It should be noted that Switzerland is not the country of origin for tea and its position as a top source country is due to re-exporting.

Figure 2.1: Main Exporters to EU of Selected Agricultural Food Products



2.2. Agricultural Non-Food Products

Data on the value and volume of EU imports of the selected agricultural non food products, their share of EU imports in total global trade and key source countries are shown in Table 2.2. Main exporting countries to the EU of the selected products are shown geographically in Figure 2.2.

Regional spread of source countries:
Figure 2.2 indicates the geographical spread of countries from which key EU imported agricultural non food products are sourced. Of particular importance as sources of a number of selected commodities are Brazil, United States and parts of South East and East Asia, while African countries do not feature as regularly as main sources. For most selected commodities there is regional diversity among main source countries. For example, in the case of cotton, leather and tobacco key countries exporting to the EU encompass at least three continents. The exceptions to this diversity are wood (mainly sourced from Russia and Eastern European former Soviet States), crude palm oil (mainly sourced from South East Asia) and natural rubber (also largely from South East Asia).

Concentration of top source countries:
As in the case of agricultural food commodities, in almost all non food agricultural commodities studied there was a concentration of a few exporting countries accounting for a large proportion of EU imports. In all cases the top three source countries represented about 50 per cent or more of the total of EU imports by volume with the exceptions of cotton (32 per cent) and Leather (38 per cent). In the cases of crude palm oil, natural rubber, wood and wood pulp the three main exporting countries to EU accounted for 70 per cent and above of the total EU imports. Imports of crude palm oil from Indonesia, Malaysia, Papua New Guinea and Colombia represented 94 percent of all extra EU imports. For most commodities selected there was no single source country which accounted for a large proportion of all EU imports. The exception to this is wood for which Russia is the dominating source by a large margin.

Trends in volumes of EU imports:
Overall trends in total volumes of EU imports for the selected commodities over recent years are given in Table 2.2, with detailed charts showing trends for key source countries for each commodity given in Appendix 1. Most of the selected non food agricultural commodities showed either some overall growth or approximately level trends in EU import volumes between 1999 and 2005. For example, imports of natural rubber showed a small increase, even though the global market has been eroded by synthetic rubber over recent decades and natural rubber now makes up only about 30 percent of the total world market.

Imports to EU of crude palm oil showed more significant overall growth in this period reflecting an accelerating rise in global production and trade since the 1970s. In particular, there has been a rapid recent expansion of imports from Malaysia which in 2005 almost equaled the volume of those from Indonesia. Part of the recent increase in palm oil imports is accounted for by biodiesel production. It is likely that some of the future increases in EU biodiesel production will use imported feedstocks, including palm oil, although the extent of this will depend on developing economic and trade conditions. Bioethanol imports also strongly increased from a low base level reflecting promotion of biofuels in the EU (for a more detailed discussion of biofuels and trade see Appendix 2). An exception to the upward overall trends was cotton for which EU imports fell by over 50 per cent between 2000 and 2005.

There have been some notably changes in the relative importance of source countries in recent trends for some non food agricultural commodities.

- Uzbekistan has plummeted over recent years from a commanding position in cotton exports to the EU to a position in 2005 where no single country dominated the EU market. This is connected to a decline in cotton yields and a switch to Asian markets. Brazil has seen an expansion of cotton trade with the EU over this period.
- The trend for raw tobacco over recent years has been a fall in the volume of EU imports from United States and more dramatically from Zimbabwe, while imports from Brazil have grown to become the leading exporting country to the EU.
- Recent trade trend for wood is for a steady increase in the value of EU imports from Russian Federation and a corresponding decrease in those from the United States.

Importance of EU imports in world trade:
Table 2.2 shows the proportion of EU imports to total world imports for each commodity in terms of value. Crude palm oil, raw tobacco and chemical wood pulp have the highest proportions with over 20 per cent of world imports. Thus the EU represents a main world market for these commodities. Other commodities are relatively less important in terms of total world trade in that commodity. For example, EU raw cotton imports only make up 6 per cent of the world market and cotton fabrics 10 per cent.

Trade policy issues:
Some key examples of how EU policy and world trade agreements have influenced trends in EU imports of non food agricultural commodities in recent years are as follows:

Bioethanol: EU imports from the main source countries for un-denatured ethanol pay Most-Favoured-Nation (MFN) tariffs, which in the case of Brazil amounted to 27 per cent of the pre tax price in 2006. Some critics argue that the effect of current tariff arrangements is to restrict imports of ethanol and that the EU is protecting its biofuel industry by use of tariffs on imported ethanol (ODI, 2008).

Cotton: As noted above there has been a significant fall in imports of raw cotton over recent years. This may be partly explained by changing patterns in world production. The phasing out of the Multifibre Agreement (MFA) which governed world trade in textiles and garments from 1974 to 2004 has contributed to lower demand for raw cotton in many developed countries including the EU and the expansion of market share in textiles in Asian countries (China, India and Pakistan).

While imports of cotton from developing countries comes under the EU established 'Everything But Arms' initiative and is tariff and quota free, the existence of subsidies to cotton producers in developed countries has been blamed for keeping down the world market price to the detriment of cotton farmers in developing countries. The United States subsidy to its cotton producers has been ruled against by the WTO. The EU has also been criticised for subsidising cotton production in Greece, Spain and Portugal. A reform of EU cotton policy under general reform of the common agricultural policy was introduced in 2004. However, this reform was cancelled after a legal challenge and a public consultation on EU cotton policy was launched in 2007. This issue is addressed also in the EU Action Plan on Agricultural Commodity Chains, Dependence and Poverty drawn up in 2004. A fair trade system for cotton was initiated in 2005 with producers from Cameroon, Mali and Senegal.

Tobacco: There is a significant difference between EU import duties for raw tobacco and manufactured tobacco products, which are likely to have an impact on patterns of EU trade. Imports of raw tobacco are subject to a duty according to type ranging from 11.2 per cent to 18.4 per cent of the imported value. Under existing preferential trading agreements imports

of raw tobacco from ACP countries[8], OCTs[9] and least developed countries in the SPG system do not pay import duties. Reduced duties are paid by Mexico, South Africa and other SPG countries (EC, 2003). On the other hand, manufactured tobacco imports (largely cigarettes) are charged an ad valorem duty of 57.6 percent.

Although tobacco trade comes under the scope of trade liberalisation agreements, there is continuing debate on the exclusion of tobacco in the interests of public health (see for example, McGrady, 2007). The development of tobacco related controls in the EU and globally should also be taken into account for their intended impact on tobacco demand and trade. In this context, the World Health Organization Framework Convention on Tobacco Control (FCTC), ratified by the EU in 2005, requires the implementation of a number of measures including on product regulation, labeling, advertising and the illicit trade

It should be noted that the illegal tobacco market is known to be considerable. In the EU the share of the illicit tobacco market was estimated at about 8 to 9 per cent in 2004 and much higher than this average in new Member States (FCA, 2007). We do not have estimates of the level of illicit non-EU imports for raw tobacco.

Wood: The high level of illegal timber trade is currently being addressed at policy level. The EU is preparing to implement a licensing scheme, “Forest Law Enforcement, Governance and Trade” (FLEGT) (EC, 2005b), to certify the legality of imported timber. This is a voluntary scheme and the impact on imports from different source countries remains to be seen. Forest product certification schemes (such as the Forest Stewardship Council label) also seek to verify the sustainability and legality of imported timber and thereby influence consumer choices. Currently most certified forests are in Europe and North America, and the level of certificated imports from outside the EU is low.

A further recently developing trade issue for nonfood agricultural products is the development of organic and fair trade products. These schemes are not as developed as for food agricultural products but are expanding, for example, for cotton products.

[8] Under the Cotonou Agreement current free trade agreements with ACP countries are being replaced by Economic Partnership Agreements (EPAs) in order to comply with WTO rules. These EPAs are due to be in place by the start of 2008, although at the time of writing agreement had not been reached between negotiating parties.
[9] The overseas countries and territories (OCTs) are twenty territories that have a special relationship with one of the Member States of the EU.

Table 2.2: Summary of Economic Data for Selected Trade Flows: Agricultural Non Food Products (2005)

Commodity	SITC Code	% of EU Imports to World Imports (by value)	Value of Import to EU25 (million €)	Volume of Imports to EU25 (1000 Tonnes)	Overall Trend in Volume[10]	Top Source Countries for EU Imports (% of extra EU imports by volume)
Food Agricultural Products						
Bioethanol[11]	512.15	11%	176	430	↑↑	Brazil (34%), Pakistan (17%), Guatemala (11%)
Cotton	263.1	6%	468	378	↓	Uzbekistan (13%), United States (10%), Brazil (9%), Syria (7%)
Cotton fabrics, woven	652	10%	1,737	386	→	China (22%), Pakistan (19%), Turkey (12%)
Leather	611	14%	2,206	519	↑	Brazil (21%), Russia (9%), United States (8%)
Natural rubber	231	19%	1,509	1,390	↑	Malaysia (26%), Thailand (24%) Indonesia (22%), Cote D'Ivoire (10%)
Crude palm oil[12]	422.21	37%	887	2,088	↑↑	Indonesia (38%) and Malaysia (37%), Papua New Guinea (12%) and Colombia (7%)
Tobacco, unmanufactured[13]	121	29%	1,676	725	→	Brazil (27%), United States (13%), Malawi (8%), Turkey (7%)
Wood, rough and simply worked[14]	247 and 248	15%	6,006	31,956	↑	Russia (62%), Belarus (6%), Ukraine (5%)
Chemical wood pulp	251.5	23%	3,500	8,172	↑	Brazil (29%), United States (26%), Canada (23%)

Key: ↑=up, ↑↑=up significantly, ↓=down, ↓↓=down significantly, →=level, ~ = volatile

[10] Overall trend is change in total volume of extra EU imports between 1999 and.2005. Further details on trends for main exporting countries within this period are given in charts in Appendix 1.

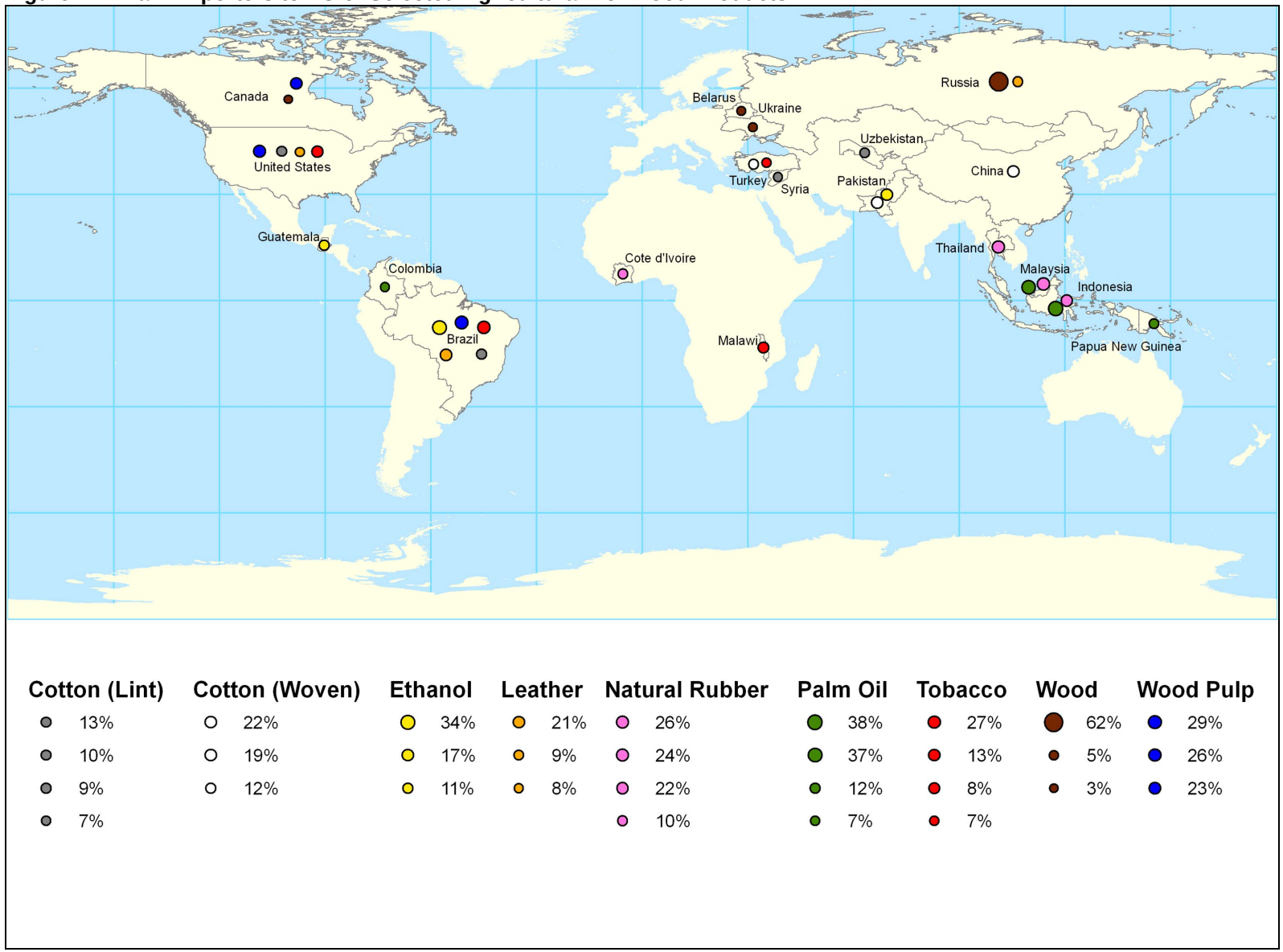
[11] Caution required in interpretation of bioethanol data because ethanol for biofuels does not have a separate code under international trade statistics. The data used here refers to trade of "Un-denatured ethyl alcohol" which may also be used for other purposes. See discussion in Appendix 2 of this report

[12] The focus here is on crude palm oil (SITC 422.21) which accounted for around 70 per cent of the volume of total imports to EU of crude and refined palm oil (SITC 422.29). There were also less significant EU imports of crude and refined palm kernel oil (SITC 422.4) sourced mainly from Indonesia. See Appendix 1 for further details.

[13] Trade in tobacco is divided between unmanufactured (raw) tobacco (SITC 121) and manufactured (SITC 122). Here we focus on raw tobacco which accounted for about 90 per cent by value and more than 95 per cent by tonnage of total EU tobacco imports in 2005.

[14] Data here combines wood in the rough (SITC 427) and wood, simply worked (SITC 428). Simply worked wood is the most important by value with about €4.4 billion of imports to EU countries in 2005, amounting to nearly 10 million tonnes by weight. However, while wood in the rough has a lower import value (about €1.6 billion), it has a greater import volume at about 22 million tonnes.

Figure 2.2: Main Exporters to EU of Selected Agricultural Non Food Products



2.3. Minerals and Metals

For mineral and metal trade flows we have focused mainly on ores and concentrates as the most unrefined commodities but also included some processed commodities such as iron and steel, and cement. The percentage of metal in a commercially exploited ore is a site specific parameter depending on issues such as size of operation, accessibility, ease of recovery, distance to market, commodity price, presence of problem contaminants, need to address local community concerns. These factors mean that the cost of production and cut of grade varies from one site to another. Consequently, there can be less correlation between value and tonnage in trade flow data in this sector than for other sectors studied in this report. In general, the range of grades that are exploited for iron ore, bauxite and phosphate is much larger than for zinc, copper and gold.

Summary data on the value and volume of EU imports of the selected mineral and metal commodities, their share of EU imports in total global trade and key source countries are shown in Table 2.3. For some selected ores and concentrates, the volume of trade in tonnage was much greater than for manufactured commodities. For example, tonnage of EU imports of iron ores are about four times greater than for iron and steel commodities (under SITC code 67) while only about 25 per cent of the value. Imports of copper ore were about 25 per cent greater than for copper manufactures (SITC 682) and imports of zinc ores about 6 times greater than zinc manufactures (SITC 686). On the other hand imports of aluminium ores and concentrates were only about 13 per cent of volume of processed aluminium commodities (SITC 684). In general, the volume of imports of waste and scrap metal was much lower than for the equivalent ores, for example in the cases of iron, copper, aluminium and zinc.

In the case of mercury, which was selected for study on the basis of environmental impacts rather than significance of trade flows, the quantities imported into the EU are largely from recycled sources or existing stocks rather than newly mined primary ores. This accounts for the prominent position of Switzerland as an exporting country due to the existence of its reprocessing plant.

In the case of gold, the SITC definitions do not allow us to isolate imports of gold ores and concentrates. These are included in the sub group “Ores and concentrates of precious metals, other than silver” (SITC code 289.19) but this classification also includes ores and concentrates of platinum group metals (PGM) and is not broken down further to individual ores[15]. Therefore, further research was necessary to indicate key source countries for gold ores and concentrates. We concluded that the three top source countries were likely to be South Africa, Indonesia and Greenland[16]. It should also be noted that the total value of EU

[15] Note that there is also a SITC code for confidential trade of ores and concentrates of precious metals (code 289.08). The Eurostat trade database gives total extra EU imports as €351 million in 2005, the main source countries being United States (€123m) and South Africa (€56).

[16] The clearly leading source countries for EU imports of ores and concentrates of precious metals in 2005 were South Africa, worth €343 million, and Indonesia, €187 million. In South Africa the value of all PGM exports overtook gold in 2000 but, while gold production is declining, it remains the leading producer in the world and we have assumed that gold ores and concentrates continue to make up a significant part of the overall total of precious metals exports to the EU. Indonesia doesn't have any significant PGM production and therefore most or all the precious metal ores trade flow total likely to be for Gold. The next most important EU source countries of precious metal ores are Canada, United States and Greenland. However, data sources for Canada indicate exports of gold ores and concentrates to EU in 2004 were negligible, most going to Japan and US. The only EU country featuring was Belgium with about $2.4m imports (See Table 2 in NRCan 2004). For the USA, using US data from the USGS yearbook 2005, we calculate total PGM exports to EU countries are about 21,300 kg and $235 m, compared to gold ores and concentrates totals of only 148kg and $1.7m. (USGS 2005). Therefore, we have concluded that Greenland is the third place country for gold ore and concentrate exports to EU. This comes from the Nalunaq Gold Mine which exports gold ore for processing in Spain (this accounts for the high volume to value ration for Greenland’s export compared to other source countries which export concentrates).

imports of gold ores and concentrates is not as significant as other minerals ores looked at in this report and the main values for gold come from the other more refined gold classifications.

Regional spread of source countries:
Figure 2.3 indicates the broad geographical spread of countries from which key EU imported mineral and metal commodities are sourced. For most of the analysed commodities there is great regional diversity among main source countries, with two or more different continents featuring in the top four source countries. For example, the four most significant source countries for iron ore and concentrates imports represent four different continents. There are some exceptions to this diversity of import sources in the studied commodities, for example, aggregates largely originate from non EU European countries, in particular, Norway and about 64 per cent of copper ore and concentrates imports came from South America in 2005, with Indonesia the only very significant non South American supplier.

Concentration of top source countries:
The trade flow data for mineral and metal commodities indicated that in general a small number of exporting countries account for a large proportion of EU imports. This finding is even more marked than for the agricultural commodities studied since for almost all commodities the top three source countries accounted for at least 60 per cent of total volume of EU imports and in some cases much more. For example, about 90 per cent of imported aluminium ores and concentrates originated from three countries and the four top source countries for zinc ore trade account for about 80 per cent of total imports to EU in 2005. Imports of iron and steel had the least concentration of source countries which may be due to the large number of different types of commodity within this SITC category.

Trends in volumes of EU imports:
General recent trends in total volumes of EU imports for the selected mineral and metal commodities are indicated in Table 2.3. Price variations for metal ores and concentrates can be significant and this helps to account for the instability in EU import values for selected metal ores from main source countries given in trend graphs in Appendix 1.

Trends for most of the selected commodities were for an overall growth in EU import volumes between 1999 and 2005 with cement and iron and steel showing significant growth. However, zinc ore, phosphates and mercury declined in overall import level over the period. Trends in imports for specific metal commodities should be seen in an overall context of the EU depending increasingly on imports of refined metals (except steel) as EU production is level or declining in comparison to consumption (EC, 2006b).

For a number of commodities there have been some clear variations in the relative importance of source countries in recent years. For example:

- Great volatility in the copper market over recent years has seen Chile taking over from Indonesia as the leading source country.
- Zinc ore trade has also not been stable in this period, the key trends being a decline in imports from Canada and a sharp rise in imports from Peru.
- For cement imports the rise in importance of Egypt as a source country is significant while there has been a steady fall in the value of phosphate imports from Russia.
- Mercury imports have been very volatile with key trends being the fall of trade with the US and rise in the importance of Switzerland.

- There has also been a fluctuation in the position of Indonesia and South Africa as the top source country by value for precious metal ores.

Importance of EU imports in world trade

The importance of EU imports relative to total world imports for each commodity in terms of value is shown in Table 2.3. The commodities for which EU imports represented the highest proportions of world imports (between 20 and 30 per cent) were aluminium ores, phosphates, zinc ore and aggregates (a figure of 70 per cent for ores and concentrates of precious metals is given in Table 2.3 but for reasons discussed above it cannot be assumed that this refers mainly to gold ores and concentrates). Lowest proportions in world imports are reported for mercury and iron and steel.

The general importance of non EU sources of raw materials to the EU primary metals industry is illustrated by the fact that it has a high dependency rate on these imports. About 80 per cent of zinc and aluminium ores and concentrates used in the EU primary metals industry is from non EU sources, with corresponding rates of 83 per cent for iron ores and concentrates used in the iron and steel industry and 74 per cent for copper production[17]. It should be noted, however, that between 40 and 60 per cent of EU unwrought metal production uses recycled metal and the use of metals scrap has reduced the EU's dependency on imported ores & concentrates.

Trade Policy Issues:

EU has generally low import duties and an open market for non-ferrous metals. Import duties for non-ferrous metals ranged between 0% (copper and nickel) and 6% (aluminium). Two examples of how EU policy and world trade agreements have influenced trends in EU imports of metal and mineral commodities in recent years are given below:

Cement: The EU-Egypt Association Agreement which dismantles EU customs duties, other charges and any quantitative restrictions, including for cement, came into effect in 2004. This combined with the expansion of cement production capacity in Egypt accounts for sharp increase in EU imports from Egypt since 2004.

Mercury: Increasing levels of legal restrictions on mercury use in the EU have contributed to declining imports into the EU over recent years. In particular, the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (2002/95/EC) bans mercury from specific electrical and electronic products, and limits the amount of mercury in other products. Moves towards an EU ban on all mercury imports and exports by 2010 continue.

The development of sustainable production certification schemes for minerals and metals is less developed than in the agricultural sector and has not influenced the trade flow trends in any significant way. It is more complicated to apply these schemes to the metals and minerals sectors where these products are generally used in combination with other components in final consumer products. However, sustainability certification is currently being explored in the mining sector, for example the Initiative for Responsible Mining Assurance (IRMA)[18] although the focus is more at mine site level rather the wider commodity supply chain.

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[17] Source: DG Enterprise and Industry calculation from European Minerals Statistics 1999-2003, quoted in EC (2006b)

[18] Further information on IRMA can be found at http://www.responsiblemining.net/

Table 2.3: Summary of Economic Data for Selected Trade Flows: Metals and Minerals (2005)

Commodity	SITC Code	% of EU Imports to World Imports (by value)	Value of Import to EU25 (million €)	Volume of Imports to EU25 (1000 Tonnes)[19]	Overall Trend in Volume[20]	Top Source Countries for EU Imports (% of extra EU imports by volume)
Food Agricultural Products						
Aggregates	273.4	23%	356	18,829	↑	Norway (65%), Croatia (15%), Ukraine (7%)
Aluminium	684	16%	9,870	5435	↑	Norway (31%), Russia (18%), Mozambique (10%)
Aluminium ores and concentrates	285.1	31%	547	14,152	↑	Guinea (64%), Australia (19%), Brazil (8%), China (4%)
Cadmium, unwrought	689.82	20%	6	3	↑ ~	Russia (30%), Mexico (26%), Canada (21%)
Cement	661.2	12%	746	15,510	↑↑ ~	Turkey (29%), Egypt (22%), China (18%), Russia (6%)
Copper ores and concentrates	283	15%	1,948	3,195	↑	Chile (34%), Indonesia (26%), Peru (15%), Argentina (11%)
Gold Ores and concentrates[21]	289.19 (with other precious metals)	70%	631	120	↑↑ ~	South Africa, Indonesia, Greenland
Iron and steel	67	9%	22,525	37,029	↑↑	Russia (24%), Ukraine (13%), Turkey (7%), South Africa (6%)
Iron ores and concentrates	281	18%	5,897	152,342	↑	Brazil (45%), Australia (8%), Ukraine (7%), Canada (7%)
Mercury	522.27	7%	2	0.3	↓~	Switzerland[22] (68%), Russia (11%), United States (11%), China (7%)
Natural calcium phosphates…	272.3	27%	389	8312	↓	Morocco (48%), Russia (23%), Syria (11%)
Zinc ore and concentrates	287.5	24%	749	2,900	↓	Peru (34%), Australia (23%), United States (16%), Canada (8%)

Key: ↑=up, ↑↑=up significantly, ↓=down, ↓↓=down significantly, →=level, ~ = volatile

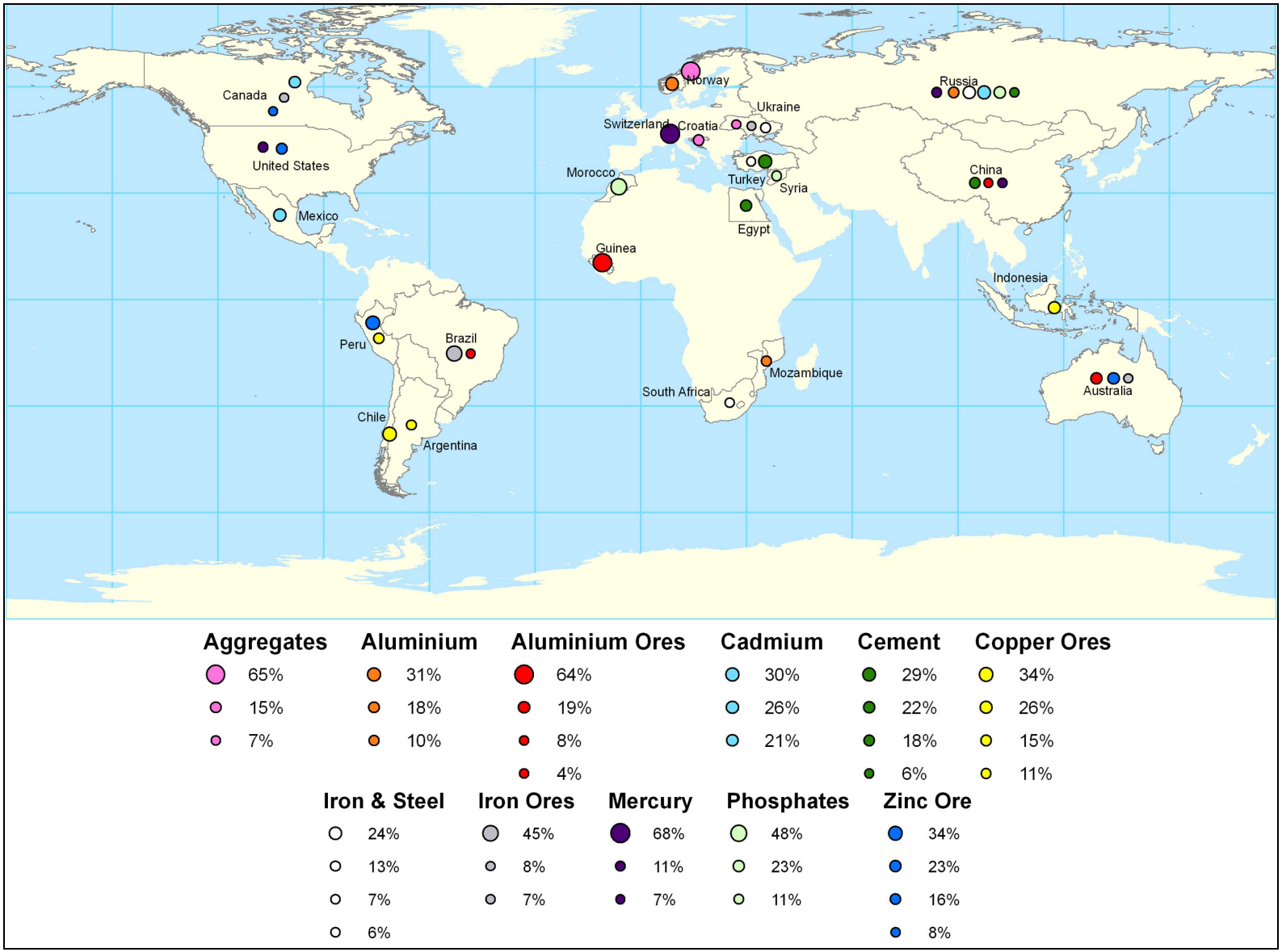
Figure 2.3: Main Exporters to EU of Selected Metals and Minerals

[19] Data sourced from Comtrade database except for aluminium ores and concentrates, precious metals ores and concentrates and natural calcium phosphates which are sourced from Eurostat External Trade Database.

[20] Overall trend is change in total volume of extra EU imports between 1999 and.2005. Further details on trends for main exporting countries within this period are given in charts in Appendix 1.

[21] Caution is needed in interpreting the data here for gold ores and concentrates due to the SITC code also including some other precious metal ores and concentrates. Also, percentages of EU imports by source countries are not given here because tonnages are not comparable as Greenland exports ores and other countries export concentrates.

[22] Mercury exported from Switzerland to the EU is recovered from spent products and waste from industrial processes at a modern reprocessing plant.


Canada
United States
Mexico
Norway
Ukraine
Switzerland
Croatia
Morocco
Turkey
Syria
Egypt
Guinea
Russia
China
Indonesia
Peru
Brazil
Chile
Argentina
South Africa
Mozambique
Australia
Aggregates
65%
15%
7%
Aluminium
31%
18%
10%
Aluminium Ores
64%
19%
8%
4%
Cadmium
30%
26%
21%
Cement
29%
22%
18%
6%
Copper Ores
34%
26%
15%
11%
Iron & Steel
24%
13%
7%
6%
Iron Ores
45%
8%
7%
Mercury
68%
11%
7%
Phosphates
48%
23%
11%
Zinc Ore
34%
23%
16%
8%

2.4. Fossil Fuels

For fossil fuel trade flows the study has focused on the three key imported commodities (crude petroleum, natural gas and coal) but also includes consideration of some downstream refined commodities (petroleum oils other than crude, liquefied propane and butane gas) along with synthetic rubber for comparison with natural rubber. Summary data on the value and quantity of EU imports of the selected commodities, the share of EU imports in total global trade and key source countries are given in Table 2.4.

Total EU imports of crude petroleum, natural gas and coal were much greater in terms of tonnage than the refined fossil fuel commodities. For example, imports of crude petroleum were over five times the quantity of those of petroleum oils other than crude in 2005. Imports of the three main fossil fuels were also much greater than all selected commodities from other sectors studied, with the exception of iron ore.

It is interesting to note that despite the rise in importance of synthetic rubber in world trade in recent decades, the tonnage of EU imports of natural rubber was about 60 per cent higher than synthetic rubber in 2005 and both commodities have seen a rise in EU imports in the period since 1999.

Regional spread of source countries:
The map of source countries given in Figure 2.4 indicates that while there is a wide global spread for fossil fuel import sources (for example, the top five countries for EU coal imports in 2005 represented five different continents), there is less overall diversity of countries of origin than for the other sectors studied. This is due to the smaller number of key imported commodities in this sector and the specificity of location for exploited fossil fuel reserves, resulting in the dominance of particular regions and countries of origin, with Norway, Russia, Saudi Arabia, Libya and Algeria featuring prominently as significant EU sources for a number of fossil fuel commodities.

Concentration of top source countries:
As in the case of mineral and metal commodities, the tendency for a small number of source countries to account for a large proportion of EU fossil fuel imports was more marked than for the agricultural commodities studied. In most cases the top three source countries accounted for around 60 per cent or more of the total volume of EU imports. Five countries provided about 84 per cent of all EU imports of coal in 2005. In the case of liquefied propane and butane gas, and synthetic rubber the equivalent figures were 75 per cent and 72 per cent. The picture for natural gas sources is less clear because 44 per cent of EU imports are from countries not specified in official statistics.

Trends in volumes of EU imports:
Overall recent trends in total volumes of EU imports for fossil fuel commodities are indicated in Table 2.4 and trend graphs for key source countries are given in Appendix 1. For all the selected commodities the trend in recent years is for overall growth. There are fewer examples than in other sectors of significant changes in the relative importance of different source countries in recent years. The most notable trend is the strengthening role of Russia in share of EU imports of fossil fuels. There has been an accelerating leading role for Russia in EU imports of crude petroleum and a rise in its contribution to coal imports, although it was still behind South Africa in 2005. Dominance of Russia in EU imports of petroleum oils other than crude has strengthened in recent years, while it has also had an increasing role in the synthetic rubber market behind the United States. The only selected commodity for that Russia did not feature as a key trading partner was liquefied propane and butane gas, for which the leading sources are Algeria and Norway.

Importance of EU imports in world trade:
The importance of EU imports in proportion to total world import values for each fossil fuel commodity is shown in Table 2.4. EU imports of crude petroleum, natural gas and coal each account for about 25 per cent of world imports. The equivalent percentages for the selected commodities which had undergone some refining were much lower, in the range 1 to 15 per cent.

In 2004, EU import dependency for oil was about 80 per cent, for natural gas about 55 per cent and for solid fuel about 38 per cent (WEC, 2008). It is forecast that the EU will experience a significant rise in import dependency for all three key fossil fuels.

Trade Policy Issues:
Two policy areas of particular relevance to trends in EU imports of fossil fuels in the long term are:

- *Climate change*, specifically policies in support of greenhouse gas emission reduction targets agreed under the United Nations Framework Convention on Climate Change. There are a great range of policies in support of emission targets, for example, the Directive on Electricity Production from Renewable Energy Sources 2001/77/EC and the Directive on Biofuels, that are aimed at reducing EU fossil fuel use and by extension their imports. Proposals for a carbon import tax based on greenhouse gas emissions related to commodity exploitation and production in source countries are also under consideration.

- *Energy security*. The Energy Charter Treaty, which came into effect in 1998, aims to build a legal foundation for European energy security, based on open markets and sustainable development and contains a declaration of principles for international energy including trade provisions. However, the key regional fossil fuel exporter Russia has not yet ratified the treaty despite the aims of the on-going EU-Russia energy dialogue. The importance of energy security issues to EU fossil fuel imports is illustrated by: (1) the Russia-Belarus energy dispute in 2007 which indirectly reduced supply to several EU countries (there was a reduction of about 4 per cent in total EU petroleum imports in that year) and (2) the Russia-Ukraine gas dispute in 2006 which effected natural gas supplies to some European countries.

EU energy policy objectives adopted by the European Council explicitly include the reduction of import dependence (EC 2006c). However, as noted above the recent trend for all the selected fossil fuel commodities is continued overall growth of imports. Petroleum, gas and coal are likely to remain a key energy sources for coming decades and significant quantities will be imported. Indeed, there are proposals for further major supply pipelines into the EU, such as the expansion of the Yamal-Europe II gas pipeline from Russia to Poland and Germany and the Nordstream Pipeline (or North European Gas Pipeline) from Russia to Finland and the United Kingdom.

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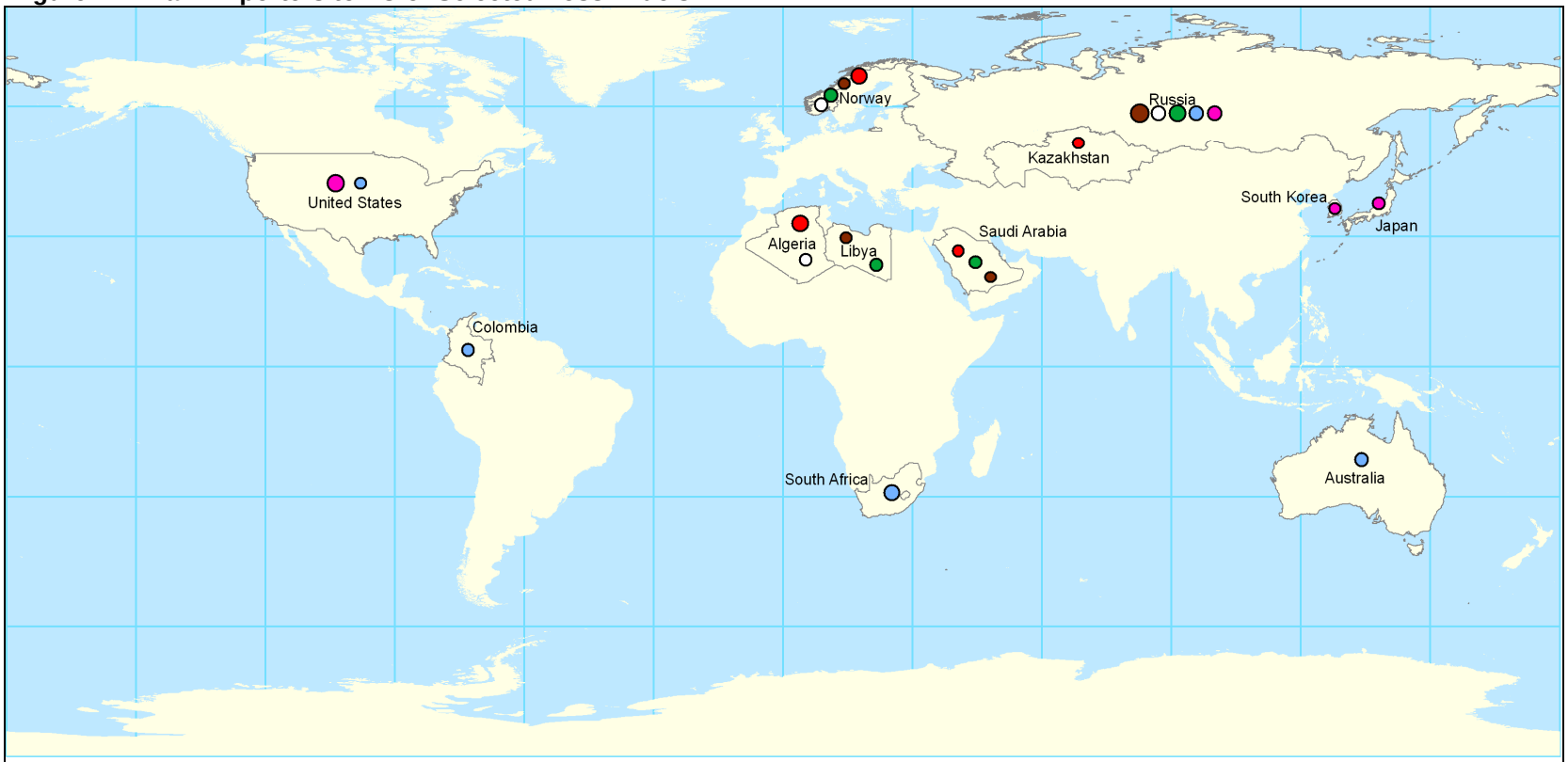
Table 2.4: Summary of Economic Data for Selected Trade Flows: Fossil Fuels (2005)

Commodity	SITC Code	% of EU Imports to World Imports (by value)	Value of Import to EU25 (million €)	Volume of Imports to EU25 (1000 Tonnes)[23]	Overall Trend in Volume[24]	Top Source Countries for EU Imports (% of extra EU imports by volume)
Fossil Fuels						
Coal	321	25%	11,886	212,828	↑	South Africa (27%), Russia (23%), Australia (14%), Colombia (12%), United States (8%)
Crude petroleum	333	26%	164,752	557,193	↑	Russia (31%), Norway (17%), Saudi Arabia (10%), Libya (9%)
Natural gas, whether or not liquefied	343	24%	28,855	157,236	↑	Countries not specified (44%), Russia (20%), Norway (14%), Algeria (10%)
Liquefied propane and butane gas	342	13%	2,934	7,976	↑	Algeria (32%), Norway (29%), Saudi Arabia (8%), Kazakhstan (6%)
Petroleum oils other than crude	334	14%	35,264	96,247	↑	Russia (42%), Libya (7%), Norway (5%), Saudi Arabia (5%)
Synthetic rubber	232	11%	1,195	824	↑	United States (37%), Russia (22%), Japan (9%), South Korea (4%)

Key: ↑=up, ↑↑=up significantly, ↓=down, ↓↓=down significantly, →=level, ~ = volatile

[23] Data sourced from Comtrade database except for crude petroleum which are sourced from Eurostat External Trade Database.
[24] Overall trend is change in total volume of extra EU imports between 1999 and.2005. Further details on trends for main exporting countries within this period are given in charts in Appendix 1.

Figure 2.4: Main Exporters to EU of Selected Fossil Fuels



Coal	Crude Petroleum	Natural Gas	Petroleum Oils	Propane & Butane	Synthetic Rubber
27%	31%	20%	42%	32%	37%
23%	17%	14%	7%	29%	22%
14%	10%	10%	5%	8%	9%
12%	9%			6%	4%
8%					

3. Conclusions

From the analysis of EU imports for the four sectors given in Section 2 the key conclusions are as follows:

Regional spread of source countries:

For all the sectors studied there is a broad geographical spread of source countries as illustrated in Figures 2.1 to 2.4. There is less overall diversity of countries of origin in the case of fossil fuel commodities reflecting the smaller range of key imported commodities in this sector and the specificity of location for exploited reserves, with Norway, Russia, Saudi Arabia, Libya and Algeria featuring prominently as exporters to the EU.

For a few of the studied commodities the main origin countries are centred on a particular region, for example Latin America for bananas and South East Asia for palm oil. However, the general geographical diversity of source countries, as well as variations in the level of economic development and type of regime, has ensured a wide representation of different country types in the analysis of environmental impacts.

Concentration of top source countries:

In general, for each commodity a small number of countries account for a large proportion of imports. There is usually a clear group of three to five leading source countries which account for most extra EU imports. For many of the commodities studied the top three source countries represented at least 50 per cent of the total of EU imports by volume and for minerals and metals and fossil fuel commodities this concentration was in general even greater. For example, about 90 per cent of imported aluminium ores and concentrates originated from three countries. In a few cases one country dominates all others, such as Mauritius for raw cane sugar.

The countries featuring most regularly in the top 3 sources for EU imports for the selected commodities were Russia, US, Brazil, Norway, Canada, Australia and Ukraine.

Trends in volumes of EU imports:

For most of the studied commodities in all sectors the overall trend in imported volumes in recent years was upwards or level. Some commodities have seen significant increases in total imported tonnages, for example crude palm oil and iron and steel. Exceptions to the overall trend are reductions in total EU imports of cotton and some metals and minerals such as mercury.

For some commodities there have been significant changes in the relative importance of source countries in recent years. Clear examples are the reduction in soybean imports from the United States and cotton imports from Uzbekistan. There has also been great volatility over recent years in some minerals and metals markets, as well as for sugar, resulting in significant year by year changes in the import values from leading source countries.

Importance of EU imports in world trade:

For the commodities examined it is clear that the EU is often a significant importer in terms of global share. Each of the sectors studied had a number of commodities for which EU imports represented over 20 per cent of total world imports and imports of crude palm oil, bananas, cocoa, coffee and aluminium ores and concentrates represented over 30 per cent. Other commodities are relatively less important in terms of total world trade in that commodity. For example, EU maize and raw cotton imports only make up 4 per cent and 6 per cent respectively of total world imports.

Trade policy issues:
To some extent the dominance of a few source countries in imports of the studied commodities reflect long standing trading partnerships and historical links with specific EU countries. Against this background the liberalisation of world trade arrangements under WTO rules has led to a number of on-going reforms to existing trade agreements and arrangements related to specific commodities, such as for sugar and bananas, which have implications for trends in the relative importance of source countries.

There are also some examples of recent international developments significantly affecting EU imports of particular commodities or trade with particular countries. Examples are the reduction in soybean imports from the United States due to GMO issues and the reduction in cotton imports from Uzbekistan due to yield reductions and changes in trading relations.

Value and volume of imports:
In the trade flow analysis data was collected on both value and volume of imports to the EU. When deciding on the top source countries for the purposes of environmental impacts assessment, it was more valid to rank by volume in tonnage. However, data collected for the 40 trade flows indicates that the top three or four source countries for EU imports by value are in most cases the same as by volume. This reflects the usual picture of dominance of the EU market for each commodity by a small group of source countries as noted above.

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Appendix 1: Economic Data on Significant Trade Flows to EU

Introduction

This appendix gives detailed quantitative data for the 40 selected trade flows and is the basis of the summary given in the main text of the “Significant Natural Resource Trade Flows into the EU” report and for assessment of environmental impacts in key source countries undertaken in the “Environmental Impacts of Natural Resource Trade Flows into the EU” report". The following points should be noted:

- Data for the year 2005 have been used throughout. Although some data for 2006 are now available in the source databases, not all countries have yet reported making these results unreliable for our purposes.
- Total European Union trade data are for EU25 prior to Bulgaria and Romania joining the EU. For the commodities analysed, this does not seem to affect general conclusions on size of trade flows and source countries.
- Some inconsistencies between the two main sources were found in volume totals of EU imports for selected commodities, although not value totals. However, for the purposes of providing input for subsequent tasks this does not affect conclusions regarding orders of magnitude of trade flows and main source countries.
- Figures for percentages of EU imports to total world imports are given for value only as key world trade data is presented for value in the Comtrade database.
- Import values quoted in tables taken from UN Comtrade database have been converted from US$ to Euros using standard exchange rates for the relevant year[25].
- Trend charts for main source countries cover the period 1999 to 2005. Earlier data was not consistently available in the source databases.

[25] For 2005 a standard exchange rate of $1 = €0.804 has been used.

1. Food Agricultural Products

1.1. Bananas

Table 1.1.1: Definition of banana products in SITC

Section	0 Food and live animals
Division	05 Vegetables and fruit
Groups and sub groups	057 Fruit and nuts (not including oil nuts), fresh or dried
	057.3 Bananas (including plantains), fresh or dried

Table 1.1.2: Imports to EU of bananas (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Flour, meal and powder of the products of any heading of group 057 (056.48)	32	N/a
Bananas (including plantains), fresh or dried (057.3)	**2441**	**4,483**
Fruits or edible parts of plants, n.e.s. (058.96)	244	211

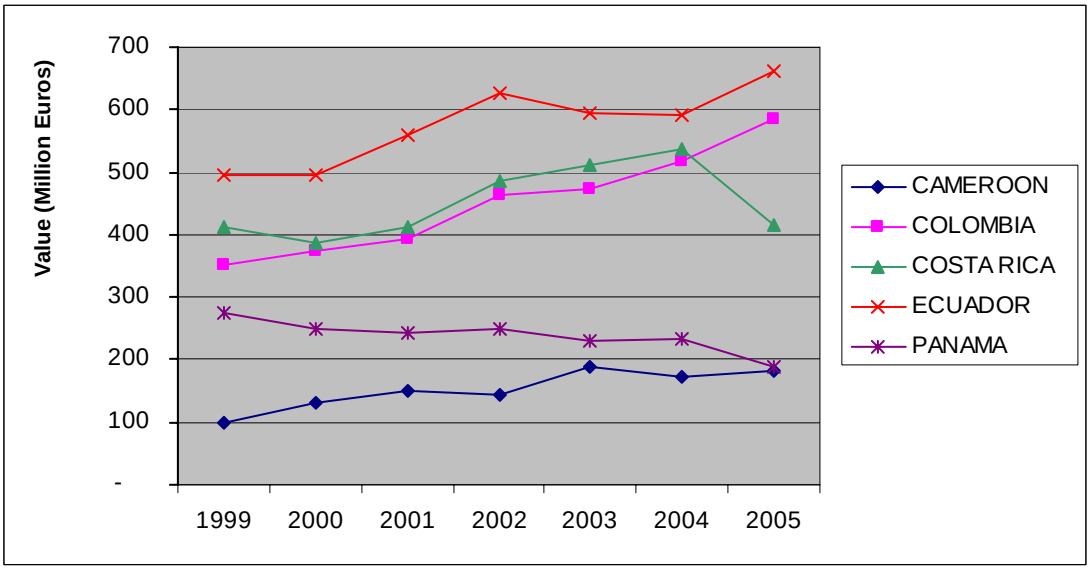
Source: UN Comtrade Database

Table 1.1.3: Top source countries for extra-EU25 imports (2005) – Bananas (SITC 057.3)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Ecuador	661	1,097
Colombia	586	896
Costa Rica	415	627
Panama	188	282
Cameroon	182	253
Cote D'Ivoire	132	184
Dominican Republic	84	145
Belize	48	74
Brazil	33	63
Honduras	19	19
St Lucia	18	28
Venezuela	15	17
Total of Above	2,383	3,685
Total EU 25 (Extra)	2,439	3,785

Source: Eurostat External Trade Database

Figure 1.1.1: Changes in the value of imports of bananas (057.3) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.2. Bovine Meat

Table 1.2.1: Definition of bovine meat and related products in SITC

Section	0 – food and live animals
Division	00 - Live animals
Groups and sub groups	001.1 - Bovine animals, 001.11 - Pure-bred breeding animals 001.19 - Other than pure-bred breeding animals
Division	01 - Meat and meat preparations
Groups and sub groups	011 - Meat of bovine animals, fresh, chilled or frozen
	011.1 - Meat of bovine animals, fresh or chilled 011.11 - ....with bone in 011.12 - ....boneless
	011.2- Meat of bovine animals, frozen 011.21 - ....with bone in 011.22 - ....boneless
	012 - Other meat and edible meat offal, fresh, chilled or frozen
	012.5 - Edible offal … fresh, chilled or frozen 012.51 - ....of bovine animals, fresh or chilled 012.52 - ....of bovine animals, frozen
	016 - Meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal 016.81 - Meat of bovine animals
	017 - Meat and edible meat offal, prepared or preserved, n.e.s. 017.6 - Meat and offal (other than liver), of bovine animals, prepared or preserved, n.e.s.

Table 1.2.2: Imports to EU of bovine meat (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Meat of bovine animals, fresh, chilled or frozen (011)	1,178	183
Meat of bovine animals, fresh or chilled (011.1)	830	182.5
....with bone in (011.11)	9	3
....boneless (011.12)	**821**	**179.5**
Meat of bovine animals, frozen (011.2)	348	0.5
....with bone in (011.21)	1	0.5
....boneless (011.22)	**347**	**n/a**
....of bovine animals, fresh or chilled (012.51)	3	n/a
....of bovine animals, frozen (012.52)	7	7
Meat and edible meat offal, salted, in brine, dried or smoked… of bovine animals (01681)	15	n/a
Meat and offal (other than liver), of bovine animals, prepared or preserved, n.e.s (017.6)	**249**	**94**

Source: UN Comtrade Database

Table 1.2.3: Top source countries for extra EU25 imports (2005): Meat of bovine animals, fresh or chilled, boneless (011.12)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Argentina	325	58
Brazil	323	78
Uruguay	62	12
Namibia	37	7
Australia	36	6
Botswana	22	4
Total of above	805	165
Total EU25 (Extra)	822	168

Source: Eurostat external trade database

Table 1.2.4: Top source countries for extra EU25 imports (2005): Meat of bovine animals, frozen, boneless (011.22)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	269	100
Uruguay	29	7
Argentina	25	9
Botswana	9	4
Namibia	8	3
Total of above	340	123
Total EU 25 (Extra)	348	125

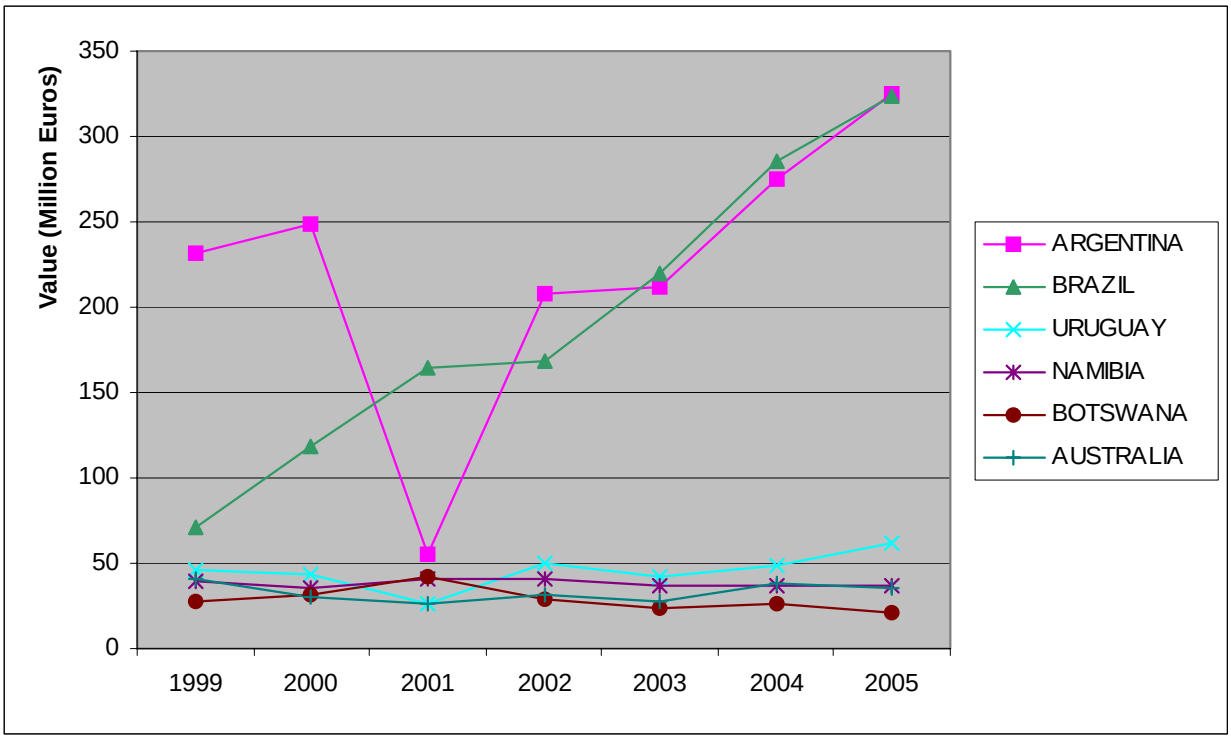
Source: Eurostat external trade database

Table 1.2.5: Top source countries for extra EU25 imports (2005): Meat and offal (other than liver), of bovine animals, prepared or preserved, n.e.s (017.6)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	191	86
Argentina	39	17
Uruguay	12	6
United States	2	0.3
Total of above	244	109.3
Total EU 25 (Extra)	249	110

Source: Eurostat external trade database

Figure 1.2.1: Changes in the value of imports of meat of bovine animals, fresh or chilled, boneless (011.12) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.3. Cocoa

Table 1.3.1: Definition of Cocoa products in SITC

Section	0 Food and live animals
Division	07 Coffee, tea, cocoa, spices, and manufactures thereof
Groups and sub groups	072 Cocoa
	072.1 - Cocoa beans, whole or broken, raw or roasted
	072.2 - Cocoa powder not containing added sugar or other sweetening matter
	072.3 - Cocoa paste, whether or not defatted 072.31 - ....not defatted (liquor) 072.32 - ....wholly or partly defatted (cocoa cake)
	072.4 - Cocoa butter, fat and oil
	072.5 - Cocoa shells, husks, skins and other cocoa waste

Table 1.3.2: Imports to EU of Cocoa products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
072 Cocoa	**2,616**	**1613**
072.1 - Cocoa beans, whole or broken, raw or roasted	**1,840**	**1305**
072.2 - Cocoa powder not containing added sugar or other sweetening matter	32	17
072.3 - Cocoa paste, whether or not defatted	275	140
072.31 - ....not defatted (liquor)	222	107
072.32 - ....wholly or partly defatted (cocoa cake)	53	32
072.4 - Cocoa butter, fat and oil	453	152
072.5 - Cocoa shells, husks, skins and other cocoa waste	16	n/a

Source: UN Comtrade Database

Table 1.3.3: Top source countries for extra-EU25 imports (2005) – Cocoa (SITC 072)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Cote D'Ivoire	1045	706
Ghana	544	391
Nigeria	320	239
Cameroon	197	155
Indonesia	86	48
Malaysia	83	30
Togo	75	64
Ecuador	72	38
Brazil	40	15
Guinea	21	21
Total of the above	2483	1707
EU25_extra	2658	1802

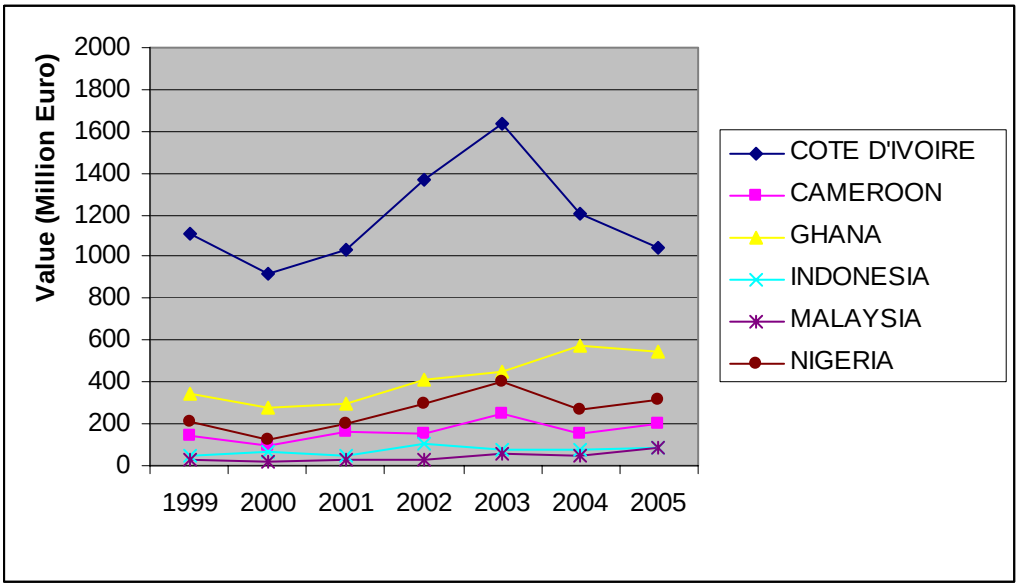
Source: EU External Trade Database

Table 1.3.4: Top source countries for extra-EU25 imports (2005) - Cocoa beans, whole or broken, raw or roasted (SITC 072.1)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Cote D'Ivoire	678	502
Ghana	481	347
Nigeria	294	227
Cameroon	179	146
Togo	73	62
Ecuador	47	31
Guinea	20	19
Indonesia	19	15
Papua New Guinea	18	12
Dominican Republic	15	9
Total of the above	1824	1370
EU25_extra	1877	1409

Source: EU External Trade Database

Figure 1.3.1: Changes in the value of imports of Cocoa (SITC 072) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.4. Coffee

Table 1.4.1: Definition of Coffee products in SITC

Section	0 Food and live animals
Division	07 Coffee, tea, cocoa, spices, and manufactures thereof
Groups and sub groups	071 Coffee and coffee substitutes
	071.1 - Coffee, not roasted, whether or not decaffeinated; coffee husks and skins 071.11 - Coffee, not roasted, not decaffeinated 071.12 - Coffee, not roasted, decaffeinated 071.13 - Coffee husks and skins
	071.2 - Coffee, roasted
	071.3 - Extracts, essences and concentrates of coffee and preparations with a basis of 071.13 - Coffee husks and skins these products or with a basis of coffee; coffee substitutes and extracts, essences and concentrates thereof 071.31 - Extracts, essences and concentrates of coffee and preparations with a basis of these products or with a basis of coffee 071.32 - Coffee substitutes containing coffee in any proportion

Table 1.4.2: Imports to EU of Coffee products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
071 Coffee and coffee substitutes	3,896	3,058
071.1 - Coffee, not roasted, whether or not decaffeinated; coffee husks and skins	3,579	2,996
071.11 - Coffee, not roasted, not decaffeinated	**3,575**	**2,996**
071.12 - Coffee, not roasted, decaffeinated	4	-
071.13 - Coffee husks and skins	No data	No data
071.2 - Coffee, roasted	105	26
071.3 - Extracts, essences and concentrates of coffee and preparations with a basis of these products or with a basis of coffee; coffee substitutes and extracts, essences and concentrates thereof	212	37
071.31 - Extracts, essences and concentrates of coffee and preparations with a basis of these products or with a basis of coffee	208	35
071.32 - Coffee substitutes containing coffee in any proportion	0.1	0.03

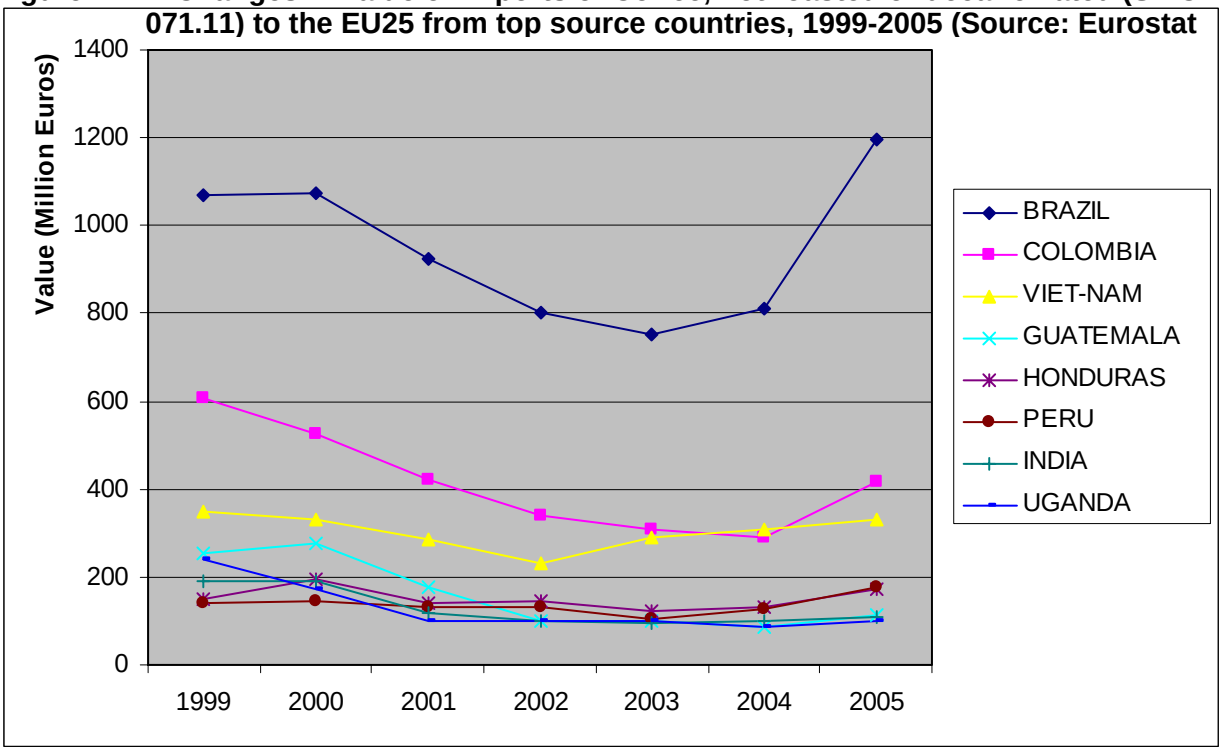
Source: UN Comtrade Database

Table Error! No text of specified style in document.**.3: Top source countries for extra-EU25 imports (2005) - Coffee, not roasted, not decaffeinated (SITC 071.11)**

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	1,197	720
Colombia	417	217
Viet-nam	332	434
Peru	175	96
Honduras	173	88
Ethiopia	156	81
Indonesia	152	164
Guatemala	112	51
India	108	89
Uganda	100	96
Total of the above	2,921	2,036
EU25_extra	3,584	2,464

Source: EU External Trade Database

Figure 1.4.1: Changes in value of imports of Coffee, not roasted or decaffeinated (SITC 071.11) to the EU25 from top source countries, 1999-2005 (Source: Eurostat



1.5. Fish (Crustaceans, molluscs etc.)

Table 1.5.1: Definition of crustaceans, molluscs etc. in SITC

Section	0 Food and live animals
Division	03 Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof
Groups and sub groups	036 – Crustaceans, molluscs etc.
	036.1 - Crustaceans, frozen 036.11 - Shrimps and prawns, frozen 036.19 - Other crustaceans, frozen, including flours, meals and pellets of crustaceans, fit for human consumption
	036.2 - Crustaceans, other than frozen, including flours, meals and pellets of crustaceans, fit for human consumption
	036.3 - Molluscs and aquatic invertebrates, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption 036.31 - Oysters 036.33 - Cuttlefish, octopus and squid, fresh or chilled 036.35 - Other molluscs and aquatic invertebrates, fresh or chilled 036.37 - Cuttlefish, octopus and squid, frozen, dried, salted or in brine; flours, meals and pellets thereof, fit for human consumption 036.39 - Other molluscs and aquatic invertebrates, frozen, dried, salted or in brine, including flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption
	037 - Fish, crustaceans, molluscs , etc. prepared or preserved, n.e.s.

Table 1.5.2: Imports to EU of crustaceans, molluscs etc. (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
036 – Crustaceans, molluscs etc.	**3918**	**971**
036.1 - Crustaceans, frozen and pellets of crustaceans, fit for human consumption	2158	387
036.11 - Shrimps and prawns, frozen	**1967**	**383**
036.19 - Other crustaceans, frozen, including flours, meals	191	4
036.2 - Crustaceans, other than frozen, including flours, meals and pellets of crustaceans, fit for human consumption	221	16
036.3 - Molluscs and aquatic invertebrates, fresh, chilled, frozen, dried, salted or in brine; flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption	1539	568
036.31 - Oysters	1	0
036.33 - Cuttlefish, octopus and squid, fresh or chilled	18	6
036.35 - Other molluscs and aquatic invertebrates, fresh or chilled	41	11
036.37 - Cuttlefish, octopus and squid, frozen, dried, salted or in brine; flours, meals and pellets thereof, fit for human consumption	**1021**	**465**
036.39 - Other molluscs and aquatic invertebrates, frozen, dried, salted or in brine, including flours, meals and pellets of aquatic invertebrates other than crustaceans, fit for human consumption	457	86
037 - Fish, crustaceans, molluscs , etc. prepared or preserved, n.e.s.	**2447**	**829**

Source: UN Comtrade Database

Table 1.5.3: Top source countries for extra-EU25 imports (2005) – Crustaceans, molluscs etc. (SITC 036)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
India	342	111
Morocco	303	53
Argentina	222	65
China	204	71
United States	187	25
Ecuador	187	43
Bangladesh	157	24
Canada	152	31
Brazil	146	41
Indonesia	129	27
Total of the above	2029	491
EU25_extra	3940	1039

Source: EU External Trade Database

Table 1.5.4: Top source countries for extra-EU25 imports (2005) – Shrimps and Prawns (SITC 036.11)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Ecuador	186	43
India	185	39
Bangladesh	156	24
Brazil	141	40
China	121	34
Indonesia	111	20
Madagascar	91	10
Greenland	79	58
Vietnam	77	13
Argentina	73	7
Total of the above	1220	288
EU25_extra	1980	430

Source: EU External Trade Database

Table 1.5.5: Top source countries for extra-EU25 imports (2005) – Cuttlefish, octopus and squid…. (036.37)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Morocco	202	40
India	147	68
Thailand	99	37
Falkland Islands	90	43
China	56	27
Mauritania	52	15
South Africa	46	12
Senegal	40	11
Malaysia	33	14
Vietnam	33	17
Total of the above	798	284
EU25_extra	1025	386

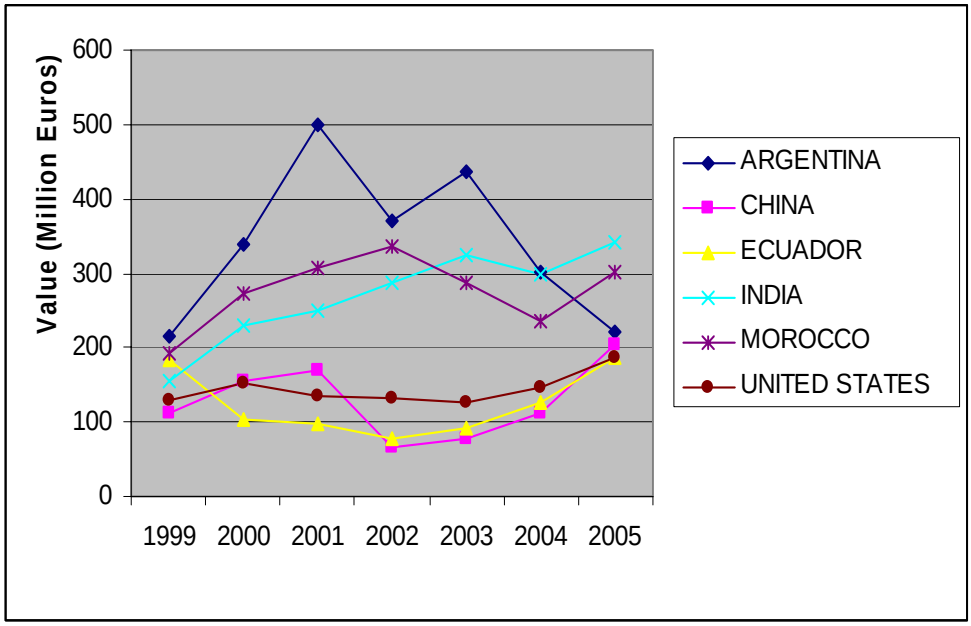
Source: EU External Trade Database

Table 1.5.6: Top source countries for extra-EU25 imports (2005) – Fish, crustaceans, molluscs , etc. prepared or preserved, n.e.s. (037)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Thailand	245	106
Morocco	227	68
Ecuador	211	87
Seychelles	148	58
Canada	134	28
Greenland	106	24
Iceland	106	24
Norway	104	28
Colombia	85	26
China	84	29
Total of the above	1450	478
EU25_extra	2454	835

Source: EU External Trade Database

Figure 1.5.1: Changes in the value of imports of crustaceans, molluscs etc. (SITC 036) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.6. Fish (Fresh, chilled Frozen)

Table 1.6.1: Definition of fishery products in SITC

Section	0 Food and live animals
Division	03 Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof
Groups and sub groups	034 - Fish, fresh (live or dead), chilled or frozen
	034.1 - Fish, fresh (live or dead) or chilled (excluding fillets and minced fish) 034.11 - Fish, live 034.12 - Salmonidae, fresh or chilled (excluding livers and roes) 034.13 - Flat-fish, fresh or chilled (excluding livers and roes) 034.14 - Tunas, skipjack or stripe-bellied bonito, fresh or chilled (excluding livers and roes) 034.15 - Herrings, sardines, sardinella, brislings or sprats, fresh or chilled (excluding livers and roes) 034.16 - Cod, fresh or chilled (excluding livers and roes) 034.17 - Mackerel (scombrids), fresh or chilled (excluding livers and roes) 034.18 - Other fish, fresh or chilled (excluding livers and roes) 034.19 - Fish livers and roes, fresh or chilled
	034.2 - Fish, frozen (excluding fillets and minced fish) 034.21 - Salmonidae, frozen (excluding livers and roes) 034.22 - Flat-fish, frozen (excluding livers and roes) 034.23 - Tunas, skipjack or stripe-bellied bonito, frozen (excluding livers and roes) 034.24 - Herrings, sardines, sardinella, brislings or sprats, frozen (excluding livers and roes) 034.25 - Cod, frozen (excluding livers and roes) 034.26 - Mackerel (scombrids), frozen (excluding livers and roes) 034.27 - Hake, frozen (excluding livers and roes) 034.28 - Other fish, frozen (excluding livers and roes) 034.29 - Fish livers and roes, frozen
	034.4 - Fish fillets, frozen
	034.5 - Fish fillets, fresh or chilled, and other fish meat (whether or not minced), fresh, chilled or frozen 034.51 - Fish fillets and other fish meat, fresh or chilled 034.55 - Fish meat (other than fillets), frozen
	035 - Fish, dried, salted, smoked
	036 – Crustaceans, molluscs etc.
	037 - Fish, crustaceans, molluscs , etc. prepared or preserved, n.e.s.

Table 1.6.2: Imports to EU of fishery products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Fish, fresh, chilled or frozen (034)	**6,761**	**2,350**
Fish,fresh,chilled,whole (034.1)	**2,377**	**606**
Fish, live (034.11)	100	6
Salmonidae, fresh or chilled (excluding livers and roes) (034.12)	**1,390**	**402**
Flat-fish, fresh or chilled (excluding livers and roes) (034.13)	63	n/a
Tunas, skipjack or stripe-bellied bonito, fresh or chilled (excluding livers and roes) (034.14)	25	n/a
Herrings, sardines, sardinella, brislings or sprats, fresh or chilled (excluding livers and roes) (034.15)	24	53
Cod, fresh or chilled (excluding livers and roes) (034.16)	117	n/a
Mackerel (scombrids), fresh or chilled (excluding livers and roes) (034.17)	10	9
Other fish, fresh or chilled (excluding livers and roes) (034.18)	**649**	**136**
Fish livers and roes, fresh or chilled (034.19)	2	n/a
Fish, frozen, excluding fillets (034.2)	**1,115**	**646**
Salmonidae, frozen (excluding livers and roes) (034.21)	71	25
Flat-fish, frozen (excluding livers and roes) (034.22)	90	n/a
Tunas, skipjack or stripe-bellied bonito, frozen (excluding livers and roes) (034.23)	160	147
Herrings, sardines, sardinella, brislings or sprats, frozen (excluding livers and roes) (034.24)	33	n/a
Cod, frozen (excluding livers and roes) (034.25)	227	95
Mackerel (scombrids), frozen (excluding livers and roes) (034.26)	10	14
Hake, frozen (excluding livers and roes) (034.27)	109	101
Other fish, frozen (excluding livers and roes) (034.28)	396	265
Fish livers and roes, frozen (034.29)	21	n/a
Fish fillets, frozen (034.4)	**2,376**	**817**
Fish fillets,frsh,chilld (034.5)	892	280
Fish fillets and other fish meat, fresh or chilled (034.51)	646	121
Fish meat (other than fillets), frozen (034.55)	246	159
Fish, dried, salted, smoked (035)	799	142
Fish,dried,salted (035.1)	371	67
Fish fillets, dried, salted or in brine, but not smoked (035.12)	127	29
Fish salted or in brine (035.2)	371	70
Crustaceans, molluscs etc. (036)	3,918	971
Fish, crustaceans, molluscs , etc. prepared or preserved, n.e.s. (037)	2,447	829
Fish,prepard,presrvd,nes (037.1)	1,696	678

Source: UN Comtrade Database

Table 1.6.3: Top source countries for extra EU27 imports (2005): Fish, fresh, chilled or frozen (034)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Norway	1791	620
Iceland	637	193
China	565	242
United States	400	192
Russian Federation	312	119
Chile	309	91
Faroe Islands[26]	253	103
Namibia	215	79
South Africa	171	56
Argentina	161	91
Total of above	4814	1786
Total EU 27 (Extra)	6492	2403

Source: Eurostat external trade database

Table 1.6.4: Top source countries for extra EU25 imports (2005): Fish, fresh, chilled, whole (034.1)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Norway	1239	427
Faroe Islands	125	59
Iceland	124	57
Morocco	96	26
South Africa	66	17
Turkey	61	15
Namibia	27	7
China	3	0
Total of Above	1740	609
EU25_Extra	2092	693

Source: Eurostat external trade database

Table 1.6.5: Top source countries for extra EU27 imports (2005): Salmonidae, fresh or chilled (excluding livers and roes) (034.12)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Norway	1059	313
Faroe Islands	28	9
Iceland	11	3
Total of above	1098	325
Total EU 27 (Extra)	1100	326

Source: Eurostat external trade database

[26] Note that, although the Faroe Islands are an autonomous region of Denmark, the treaty of accession of Denmark to the EC stipulates that the Faroe Islands are not part of the EU.

Table 1.6.6: Top source countries for extra EU27 imports (2005): Other fish, fresh or chilled (excluding livers and roes) (034.18)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Morocco	84	23
Iceland	76	42
South Africa	64	17
Faroe Islands	62	32
Turkey	61	15
Norway	60	30
Chile	40	13
Senegal	37	5
Namibia	25	6
Mauritania	17	4
Total of above	526	187
Total EU 27 (Extra)	652	224

Source: Eurostat external trade database

Table 1.6.7: Top source countries for extra EU27 imports (2005): Frozen fish excluding fillets (034.2)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russian Federation	145	59
United States	117	51
Norway	106	61
Namibia	53	20
Greenland	50	19
South Africa	47	21
Seychelles	43	38
Chile	40	13
Argentina	40	26
China	33	20
Total of above	674	328
Total EU 27 (Extra)	1121	528

Source: Eurostat external trade database

Table 1.6.8: Top source countries for extra EU27 imports (2005): Frozen fish fillets (034.4)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
China	514	212
Iceland	318	86
Norway	233	71
United States	210	103
Chile	202	50
Russian Federation	150	50
Namibia	117	43
Argentina	103	57
Vietnam	102	43
Faroe Islands	93	25
Total of above	2042	740
Total EU 27 (Extra)	2383	844

Source: Eurostat external trade database

Figure 1.6.1: Changes in value of imports of Fish, fresh, chilled or frozen (034) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

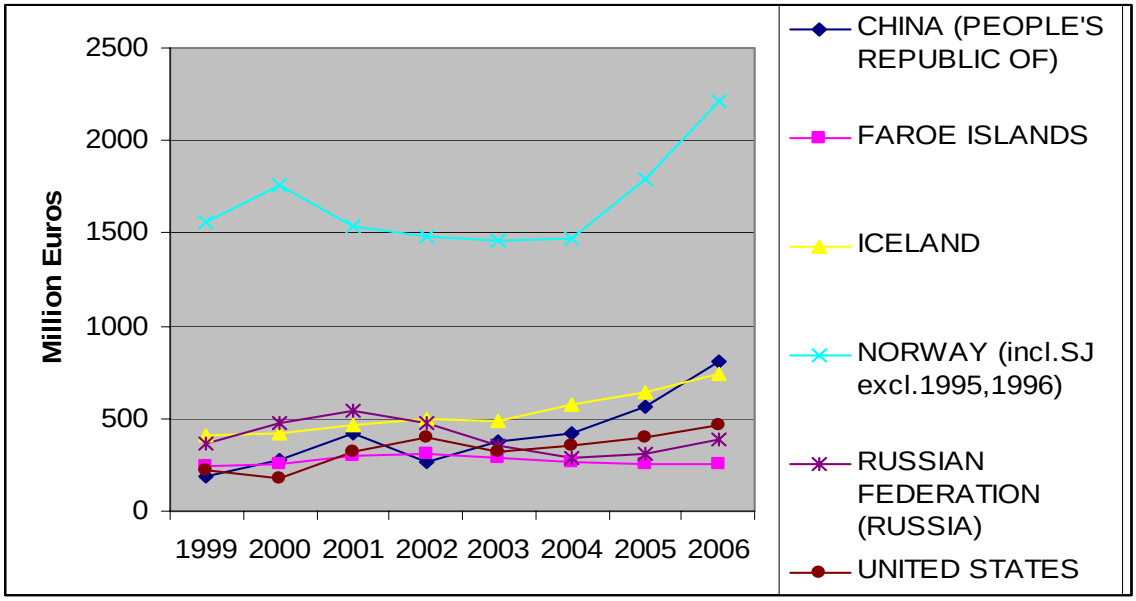
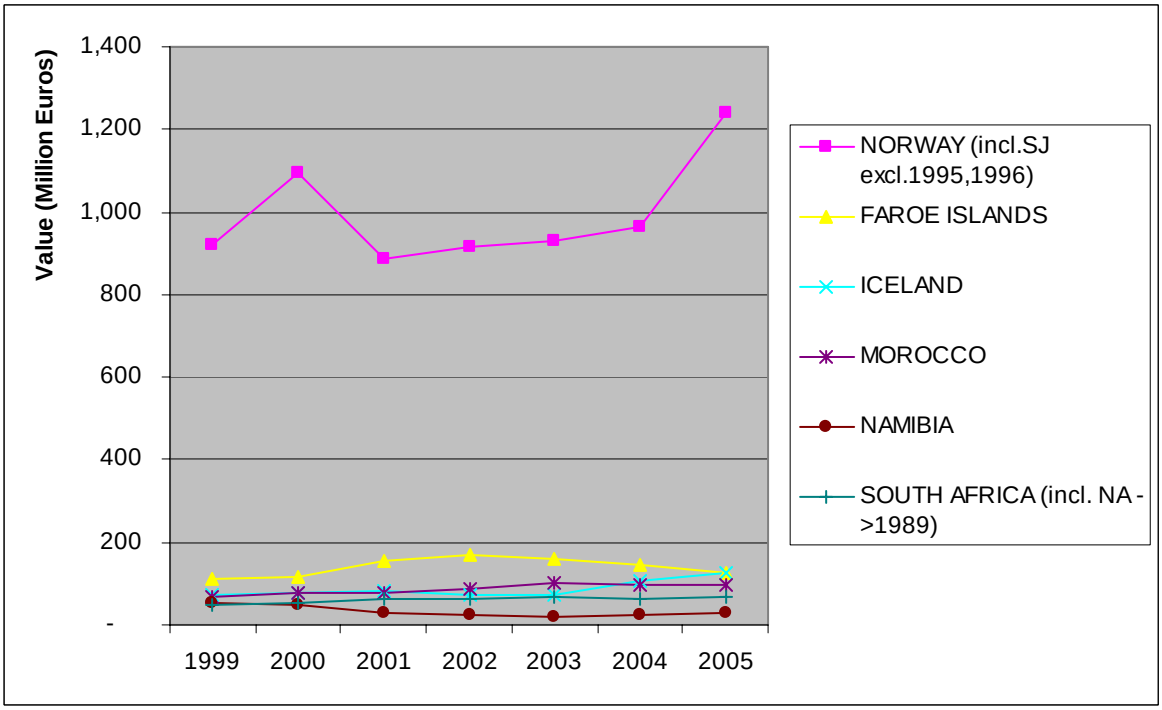


Figure 1.6.2: Changes in the value of imports of Fish, fresh, chilled, whole (034.1) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.7. Maize

Table 1.7.1: Definition of Maize in SITC

Section	0 Food and live animals
Division	04 Cereals and cereal preparations
Groups and sub groups	044 Maize (not including sweet corn), unmilled
	044.1 - ....seed
	044.9 - ....other
	047 Other cereal meals and flours
	047.11 Maize (corn) flour
	047.21 Groats and meal of maize (corn)

Table 1.7.2: Imports to EU of Maize (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
044 Maize (not including sweet corn), unmilled	**409**	**2234**
044.1 - ....seed	84	45
044.9 - ....other	325	2188
047.11 Maize (corn) flour	4	11
047.21 Groats and meal of maize (corn)	2	8

Source: UN Comtrade Database

Table 1.7.3: Top source countries for extra-EU25 imports (2005) – Maize (SITC 044)[27]

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Argentina	168	1522
United States[28]	49	44
Serbia (EU Data From 01/06/05 Ex CS)	37	319
Ukraine	34	340
Chile	22	15
Serbia And Montenegro (CS)(E//31/05/05)	19	146
Brazil	13	117
Croatia	8	54
Turkey	7	5
Peru	4	5
Total of the above	361	2567
EU25_extra	415	2933

Source: EU External Trade Database

[27] Note that Romania and Bulgaria both featured in top 10 non EU source countries prior to joining EU in 2005.

[28] Note that there is a big difference in the position of US depending on whether we take value (in which it is second most important source country) or volume (in which case it is seventh). This seems to be because the import price of US maize seed is much greater than for other source countries which may be due to its GMO nature. However, US sourced maize has significantly reduced in recent years (see trends graph below) and continued to do so in 2006.

Figure 1.7.1: Changes in the value of imports of Maize (SITC 044) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

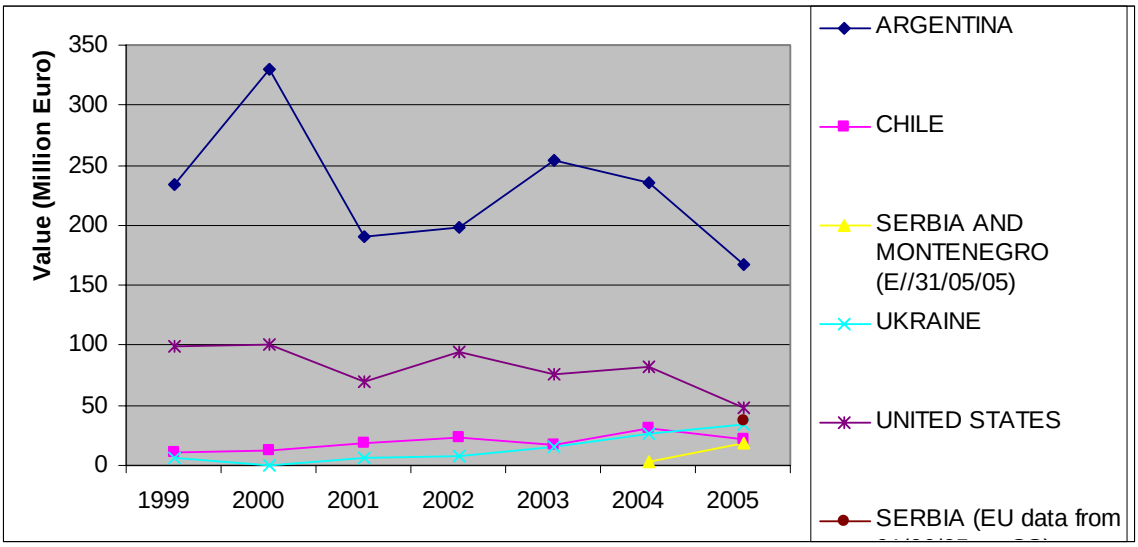
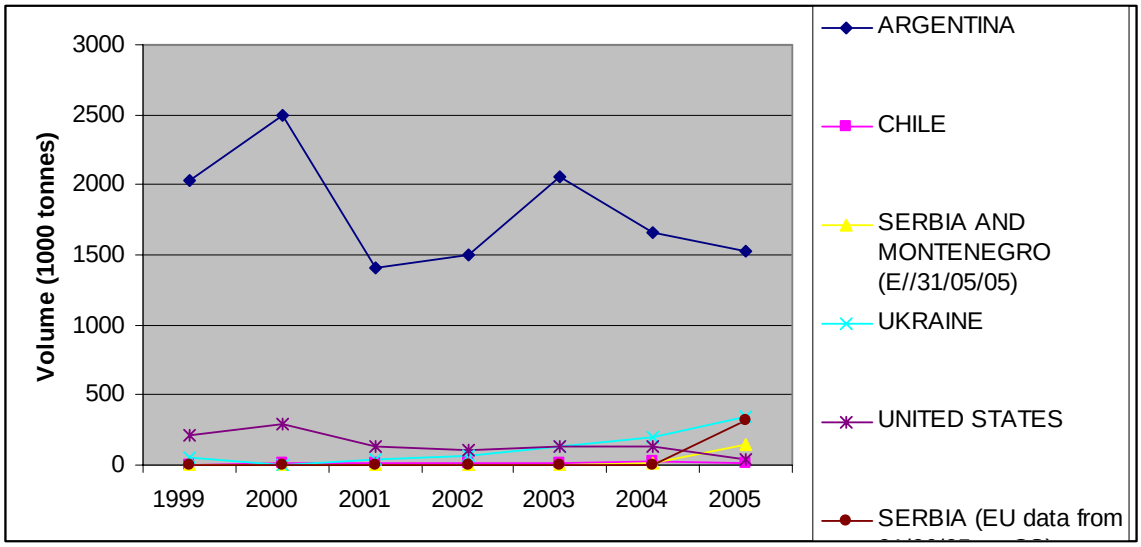


Figure 1.7.2: Changes in the volume of imports of Maize (SITC 044) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.8. Milk Products

Table 1.8.1: Definition of Milk Products in SITC

Section	0 Food and live animals
Division	02 Dairy products and birds' eggs
Groups and sub groups	022 Milk and cream and milk products other than butter or cheese
	022.1 - Milk (including skimmed milk) and cream, not concentrated or sweetened
	022.2 - Milk and cream, concentrated or sweetened
	022.3 - Yogurt; buttermilk, curdled, fermented or acidified milk and cream; ice-cream
	022.4 - Whey; products consisting of natural milk constituents, n.e.s.
	023 - Butter and other fats and oils derived from milk
	024 - Cheese and curd

Table 1.8.2: Imports to EU of Milk Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
022 - Milk and cream and milk products other than butter or cheese	**95**	**9**
022.1 - Milk (including skimmed milk) and cream, not concentrated or sweetened	15	n/a
022.2 - Milk and cream, concentrated or sweetened	21	9[29]
022.3 - Yogurt; buttermilk, curdled, fermented or acidified milk and cream; ice-cream	50	n/a
022.4 - Whey; products consisting of natural milk constituents, n.e.s.	10	n/a
023 - Butter and other fats and oils derived from milk	**88**	**42**
024 - Cheese and curd	**423**	**136**

Source: UN Comtrade Database

Table 1.8.3: Top source countries for extra-EU25 imports (2005) – Milk Products (SITC 022)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Switzerland	48	59
United States	8	4
Norway	6	3
Australia	4	2
Macedonia	4	11
New Zealand	4	1
Croatia	4	3
Israel	4	1
Romania	4	4
Canada	2	2
Total of Above	89	90
EU25_Extra	95	93

Source: EU External Trade Database

[29] In the absence of data on the other milk product sub-groups it appears that all tonnage has been assigned to 022.2 in the source database. This is not consistent with value data and is therefore likely to be inaccurate.

Figure 1.8.1: Changes in the value of imports of Milk Products (SITC 022) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

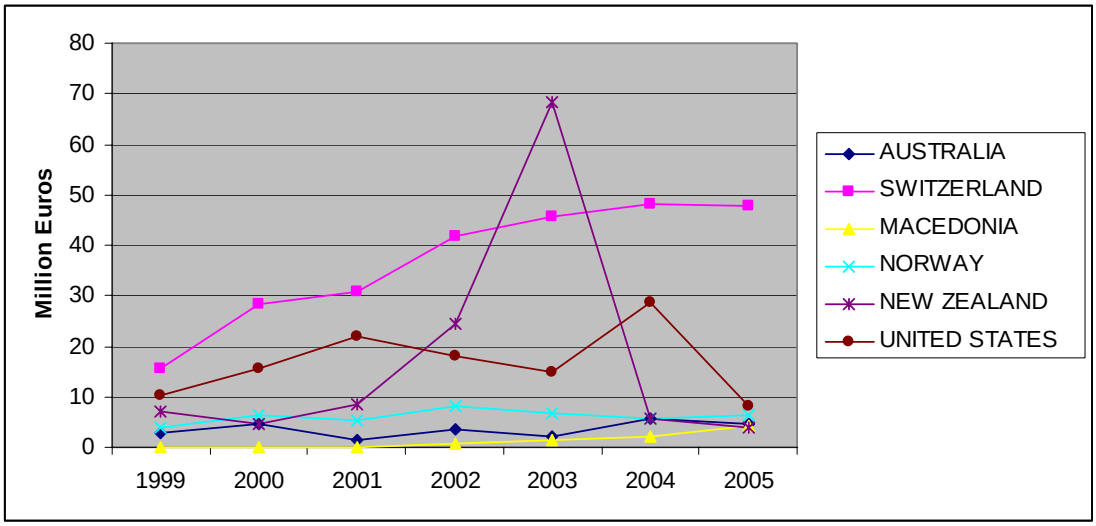


Figure 1.8.2: Changes in the volume of imports of Milk Products (SITC 022) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

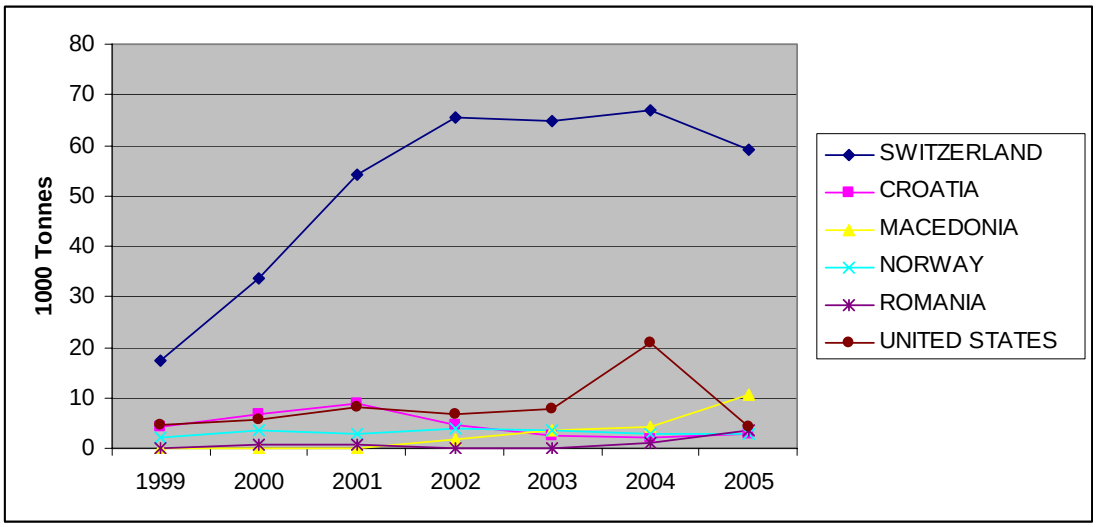


Table 1.8.4: Top source countries for extra-EU25 imports (2005) – Milk Products, butter and cheese in total (SITC 022, 023 and 024)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Switzerland	301	102
New Zealand	186	100
Australia	52	22
Canada	25	6
Norway	23	7
Romania	13	6
United States	9	5
Croatia	5	3
Israel	5	2
Macedonia	4	11
Total of Above	623	264
Total Extra EU 25	656	278

Source: EU External Trade Database

1.9. Rice

Table 1.9.1: Definition of Rice in SITC

Section	0 Food and live animals
Division	04 Cereals and cereal preparations
Groups and sub groups	042 Rice
	042.1 - Rice in the husk (paddy or rough rice)
	042.2 - Rice, husked but not further prepared (cargo rice or brown rice)
	042.3 - Rice, semi-milled or wholly milled, whether or not polished, glazed, parboiled or converted (including broken rice)

Table 1.9.2: Imports to EU of Rice (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
042 Rice	**395**	**927**
042.1 - Rice in the husk	2	n/a
042.2 - Rice, husked but not further prepared…	267	576
042.3 - Rice, semi-milled or wholly milled…	126	351

Source: UN Comtrade Database

Table 1.9.3: Top source countries for extra-EU25 imports (2005) – Rice (SITC 042)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
India	117	234
Thailand	99	256
United States	82	290
Pakistan	48	99
Guyana	28	106
Egypt	7	41
Suriname	7	28
Vietnam	3	11
Uruguay	3	10
Netherlands Antilles	2	9
Total of Above	397	1083
EU25_Extra	403	1097

Source: EU External Trade Database

Figure 1.9.1: Changes in the value of imports of rice (SITC 042) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

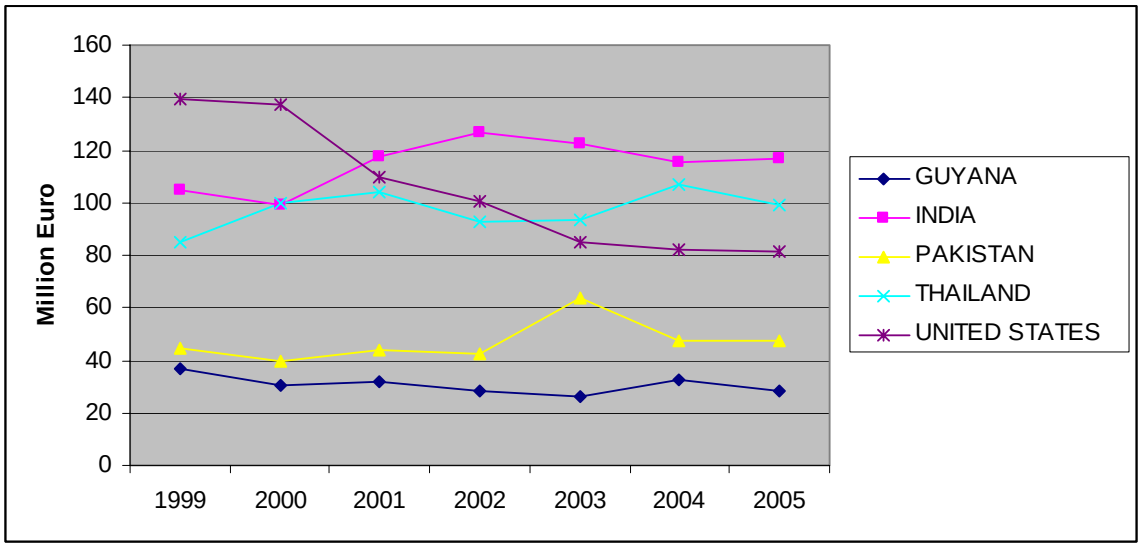
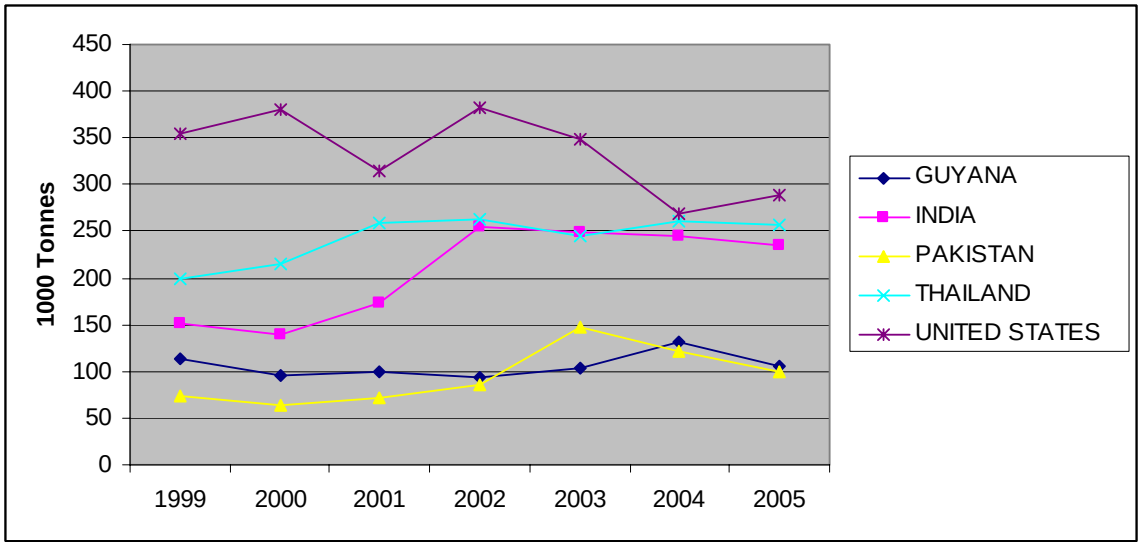


Figure 1.9.2: Changes in the volume of imports of rice (SITC 042) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.10.Soybean

Table 1.10.1: Definition of soybean and related products in SITC

Section	0 – food and live animals
Division	08 - Feeding stuff for animals (not including unmilled cereals)
Groups and sub groups	081 - Feeding stuff for animals (not including unmilled cereals) 081.3 - Oilcake and other solid residues (except dregs), whether or not ground or in the form of pellets, resulting from the extraction of fats or oils from oil-seeds, oleaginous fruits and germs of cereals 081.31 - ....of soya beans
Section	2 - Crude materials, inedible, except fuels
Division	22 - Oil-seeds and oleaginous fruits
Groups and sub groups	222 - Oil-seeds and oleaginous fruits of a kind used for the extraction of "soft" fixed vegetable oils (excluding flours and meals) 222.2 – Soya beans

Table 1.10.2: Imports to EU of soya bean products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Oilcake etc from soya beans (081.31)	**4,052**	**16,019**
Oil-seeds and oleaginous fruits of a kind used for the extraction of "soft" fixed vegetable oils (excluding flours and meals) (222)	3,997	11,572
Soya beans (222.2)	**3,062**	**10,869**

Source: UN Comtrade Database

Table 1.10.3: Top source countries for extra-EU25 imports (2005) – Oilcake etc from Soybean (SITC 081.31)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Argentina	2,108	11,965
Brazil	1,872	9,730
Norway	31	144
United States	24	107
Virgin Islands, British	8	41
Canada	4	20
Uruguay	3	17
Antigua and Barbuda	2	11
Barbados	2	1
Paraguay	1	8
Trinidad and Tobago	1	6
United Arab Emirates	1	4
Egypt	1	4
Total of Above	4,060	22,057
Total EU 25 (Extra)	4,066	22,081

Source: Eurostat external trade database

Table 1.10.4: Top source countries for extra-EU25 imports (2005) – Soya beans (SITC 222.2)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	2,031	9,458
United States	629	3,167
Paraguay	197	946
Canada	117	531
Malaysia	22	93
Argentina	16	68
Uruguay	13	71
Ukraine	9	40
Panama (excl. Canal ->1980)	7	36
China (People's Republic of)	7	14
Croatia	1	6
Switzerland (incl. Li->1994)	0.3	0.3
Japan	0.2	0.2
Total of Above	3,050	14,430
Total EU 25 (Extra)	3,054	14,446

Source: Eurostat external trade database

Figure 1.10.1: Change in the value of imports of Oilcake etc from Soybean (SITC 081.31) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

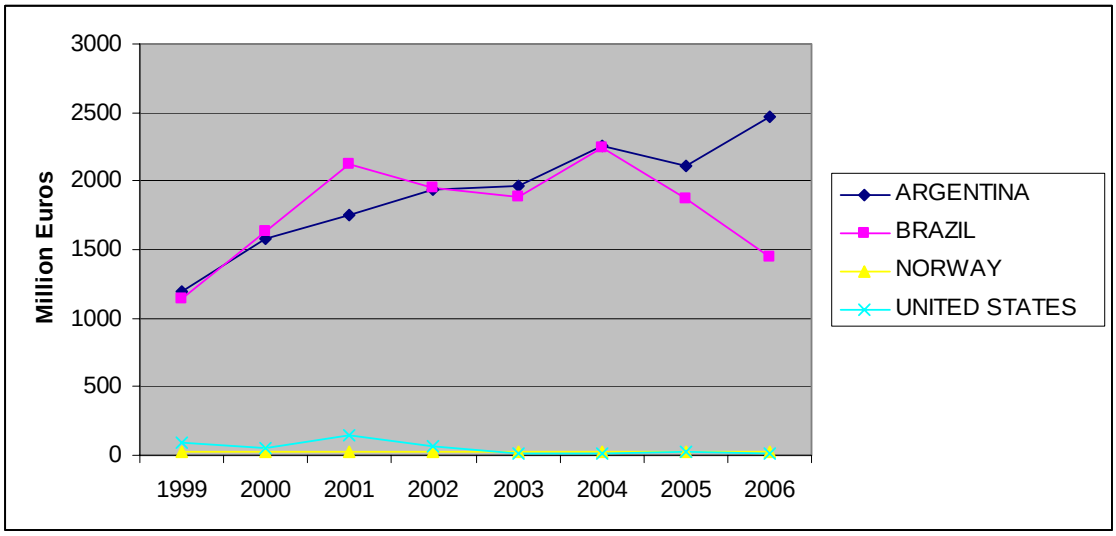
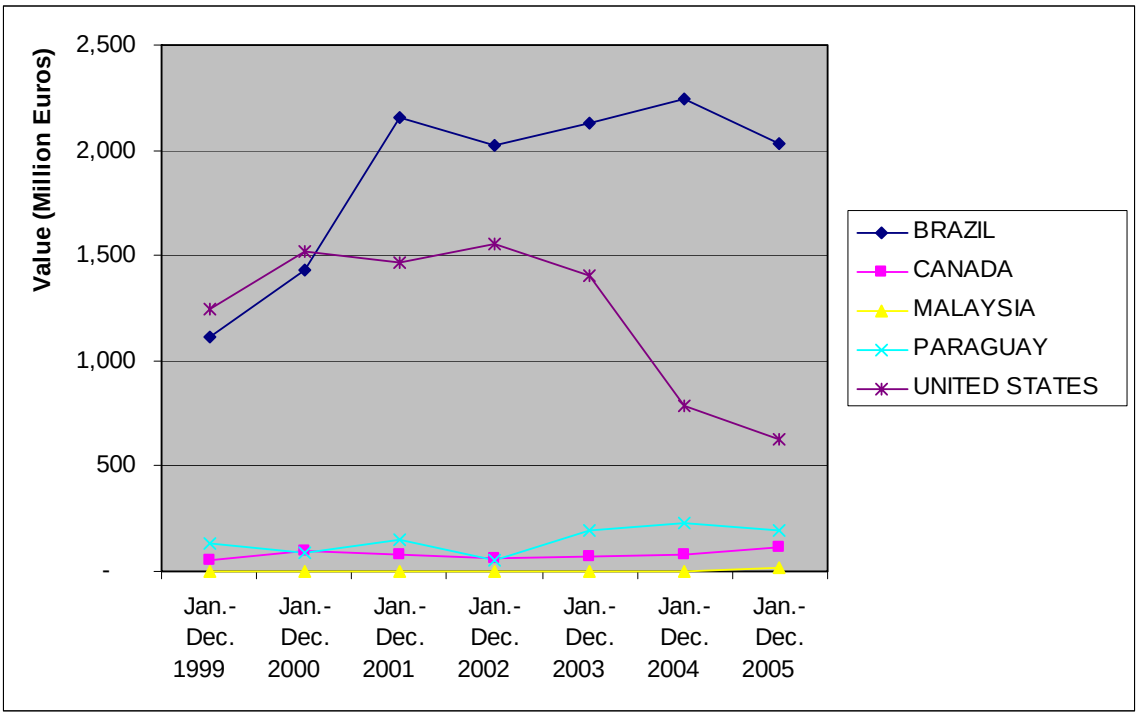


Figure 1.10.2: Change in the value of imports of Soya beans (SITC 222.2) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.11.Sugar

Table 1.11.1: Definition of sugar and related products in SITC

Section	0 Food and live animals
Division	06 Sugar, sugar preparations and honey
Groups and sub groups	061 Sugars, molasses and honey
	061.1 - Sugars, beet or cane, raw, in solid form, not containing added flavouring or colouring matter 061.11 - Cane sugar, raw 061.12 - Beet sugar, raw
	061.2 - Other beet or cane sugar and chemically pure sucrose, in solid form 061.21 - ....containing added flavouring or colouring matter 061.29 - ....other
	061.5 - Molasses resulting from the extraction or refining of sugar 061.51 - Cane molasses 061.59 - Beet sugar molasses and other molasses (e.g., corn molasses)
	061.6 – Natural honey
	061.9 - Other sugars (including chemically pure lactose, maltose, glucose and fructose in solid form); sugar syrups not containing added flavouring or colouring matter; artificial honey (whether or not mixed with natural honey); caramel 061.91 - Lactose and lactose syrup 061.92 - Maple sugar and maple syrup 061.93 - Glucose (dextrose) and glucose syrup, not containing fructose or containing, in the dry state, less than 20% by weight of fructose 061.94 - Glucose and glucose syrup, containing in the dry state at least 20% but not more than 50% by weight of fructose 061.95 - Pure fructose 061.96 - Other fructose and fructose syrup, containing in the dry state more than 50% by weight of fructose 061.99 - Other (including invert sugar)
	062 Sugar confectionery
	062.1 - Fruit, nuts, fruit peel and other parts of plants, preserved by sugar or other sweetening matter (drained, glacé or crystallized)
	062.2 - Sugar confectionery (including white chocolate), not containing cocoa

Table 1.11.2: Imports to EU of sugars, molasses and honey (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand Tonnes)
Sugars, beet or cane, raw (061.1)	903	2,194
Cane sugar, raw (061.11)	**901**	**2,194**
Beet sugar, raw (061.12)	1	n/a
Other beet or cane sugar (061.2)	343	1,149
Containing additives (061.21)	1	1
Other (061.29)	**343**	**1,148**
Molasses from sugar (061.5)	148	1931
Cane Molasses (061.51)	**138**	**1931**
Beet sugar molasses (061.59)	10	n/a
Natural honey (061.6)	192	81
Other sugars (061.9)	131	102
Total Sugars, molasses and honey	1,717	5458

Source: UN Comtrade Database

Table 1.11.3: Top source countries for extra EU25 imports (2005): Sugar Cane Raw (061.11)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Mauritius	299	554
Fiji	90	177
Guyana	85	160
Swaziland	81	153
Jamaica	63	120
Brazil	32	116
Zimbabwe	34	65
Malawi	30	47
Belize	21	40
Barbados	18	34
Cuba	14	36
Trinidad & Tobago	18	33
Total of above	785	1535
Total EU 25 (Extra)	904	1766

Source: Eurostat external trade database

Table 1.11.4: Top source countries for extra EU25 imports (2005): Other beet or cane sugar (061.2)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Croatia	110	187
Serbia and Montenegro	74	132
Brazil	12	39
Zambia	7	13
Kenya	5	10
Total of Above	208	381
Total EU25(Extra)	346	632

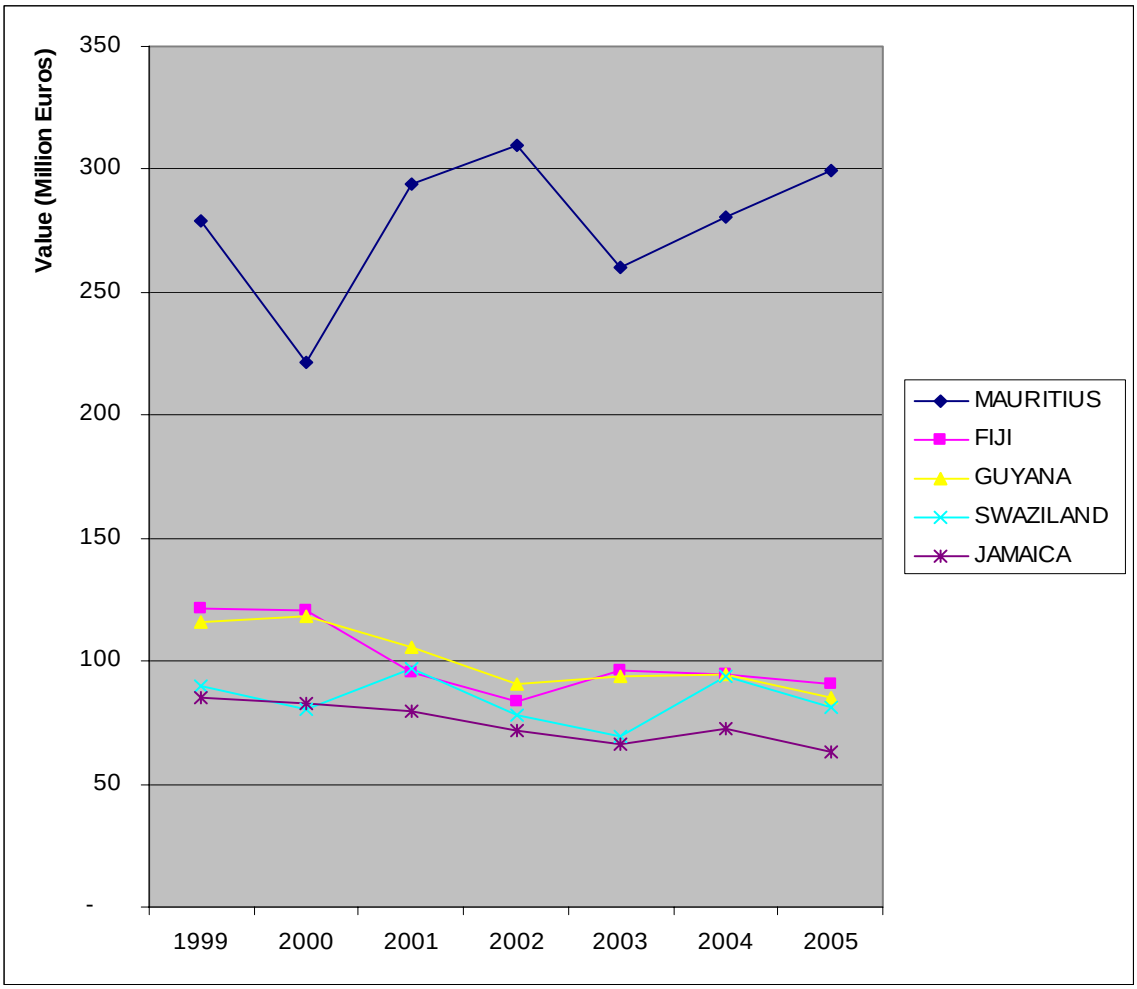
Source: Eurostat external trade database

Table 1.11.5: Top source countries for extra EU25 imports (2005): Cane molasses (061.51)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Pakistan	40	430
Thailand	16	179
Mexico	12	132
Sudan	12	120
Mauritius	11	107
US	10	112
Egypt	8	82
Iran	6	57
Brazil	5	52
Morocco	3	27
Total of Above	123	1,298
Total EU25 (Extra)	139	1,450

Source: Eurostat external trade database

Figure 1.11.1: Chart showing changes in the value of imports of Sugar Cane Raw (061.11) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.12.Tea

Table 1.12.1: Definition of Tea products in SITC

Section	0 Food and live animals
Division	07 Coffee, tea, cocoa, spices, and manufactures thereof
Groups and sub groups	074 Tea and maté
	074.1 Tea, whether or not flavoured 074.11 - Green tea (not fermented), in immediate packings of a content not exceeding 3 kg, whether or not flavoured 074.12 - Other green tea (not fermented), whether or not flavoured 074.13 - Black tea (fermented) and partly fermented tea, in immediate packings of a content not exceeding 3 kg, whether or not flavoured 074.14 - Other black tea (fermented) and other partly fermented tea, whether or not flavoured 074.3 Maté; extracts, essences and concentrates of tea or maté, and preparations with a basis of tea, maté, or their extracts, essences or concentrates 074.31 - Maté 074.32 - Extracts, essences and concentrates of tea or maté, and preparations with a basis of tea, maté, or their extracts, essences or concentrates

Table 1.12.2: Imports to EU of Tea products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
07 Coffee, tea, cocoa, spices, and manufactures thereof	7,865	
074 Tea and maté	**510**	**221**
074.1 Tea, whether or not flavoured	449	210
074.11 - Green tea (not fermented), in immediate packings of a content not exceeding 3 kg, whether or not flavoured	25	4
074.12 - Other green tea (not fermented), whether or not flavoured	35	-
074.13 - Black tea (fermented) and partly fermented tea, in immediate packings of a content not exceeding 3 kg, whether or not flavoured	61	-
074.14 - Other black tea (fermented) and other partly fermented tea, whether or not flavoured	**329**	**206**
074.3 Maté; extracts, essences and concentrates of tea or maté, and preparations with a basis of tea, maté, or their extracts, essences or concentrates	60	12
074.31 - Maté	2	-
074.32 - Extracts, essences and concentrates of tea or maté, and preparations with a basis of tea, maté, or their extracts, essences or concentrates	58	12

Source: UN Comtrade Database

Table 1.12.3: Top source countries for extra-EU25 imports (2005) – Tea and Maté (SITC 074)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Kenya	121	89
India	86	37
China	64	31
Sri Lanka	64	23
Indonesia	35	31
Switzerland	27	64
Total of Above	396	274
EU25_Extra	512	378

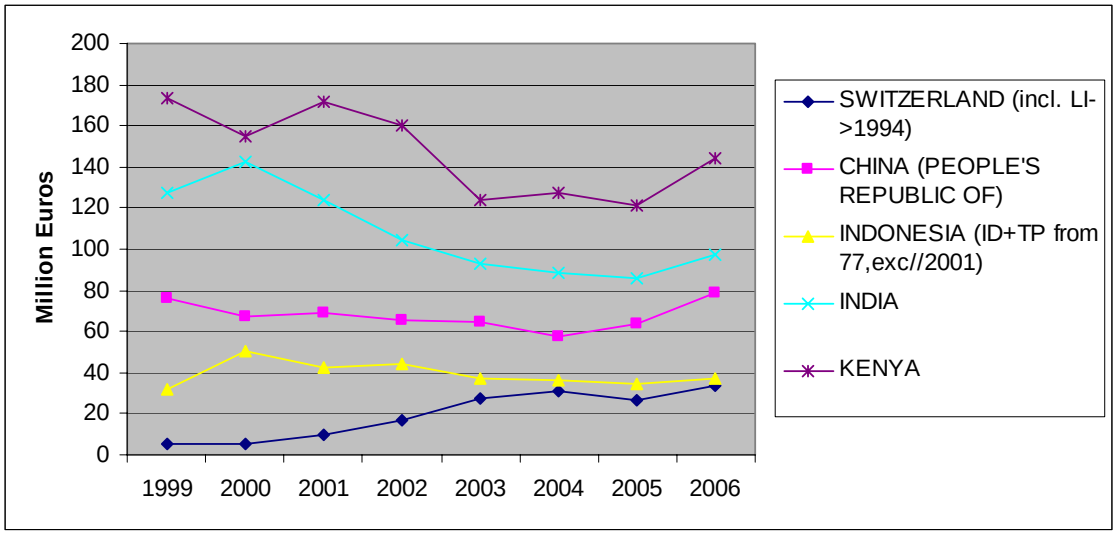
Source: EU External Trade Database

Table 1.12.4: Top source countries for extra-EU25 imports (2005) – Other black tea (fermented) and other partly fermented tea, whether or not flavoured (SITC 074.14)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Kenya	117	88
India	72	33
Indonesia	29	27
Sri Lanka	25	11
China	18	12
Malawi	16	14
Tanzania	11	9
Total of Above	288	193
EU25_Extra	329	228

Source: EU External Trade Database

Figure 1.12.1: Changes in the value of imports of Tea and Maté (SITC 074) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



1.13.Wheat

Table 1.13.1: Definition of wheat and related products in SITC

Section	0 – food and live animals
Division	04 - Cereals and cereal preparations
Groups and sub groups	041 - Wheat (including spelt) and meslin, unmilled 041.1 - Durum wheat, unmilled 041.2 - Other wheat (including spelt) and meslin, unmilled 046 - Meal and flour of wheat and flour of meslin 046.1 - Flour of wheat or of meslin 046.2 - Groats, meal and pellets, of wheat
Division	08 - Feeding stuff for animals (not including unmilled cereals)
Groups and sub groups	081.26 - Bran, sharps and other residues, whether or not in the form of pellets, derived from the sifting, milling or other working of wheat
Section	5 - Chemicals and related products, n.e.s.
Groups and sub groups	592 - Starches, inulin and wheat gluten; albuminoidal substances; glues 592.11 - Wheat starch 592.17 - Wheat gluten, whether or not dried

Table 1.13.2: Imports to EU of wheat and wheat flour (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand Tonnes)
Wheat (including spelt) and meslin, unmilled (041)	**1107**	**6,909**
Durum wheat, unmilled (041.1)	306	1,849
Other wheat (including spelt) and meslin, unmilled (041.2)	801	5,060
Meal and flour of wheat and flour of meslin (046)	5	12
Flour of wheat or of meslin (046.1)	2	11.5
Groats, meal and pellets, of wheat (046.2)	2	0.5
Bran, sharps and other residues of wheat (081.26)	2	16
Starches, inulin and wheat gluten (592)	908	316
Wheat starch (592.11)	0	1
Wheat gluten, whether or not dried (592.17)	0	0

Source: UN Comtrade Database

Table 1.13.3: Top source countries for extra EU25 imports (2005): Wheat (including spelt) and meslin, unmilled (041)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
United States	295	1744
Canada	283	1648
Ukraine	207	1924
Russia	90	783
Australia	74	394
Total of above	949	6493
Total EU 25 (Extra)	1109	7719

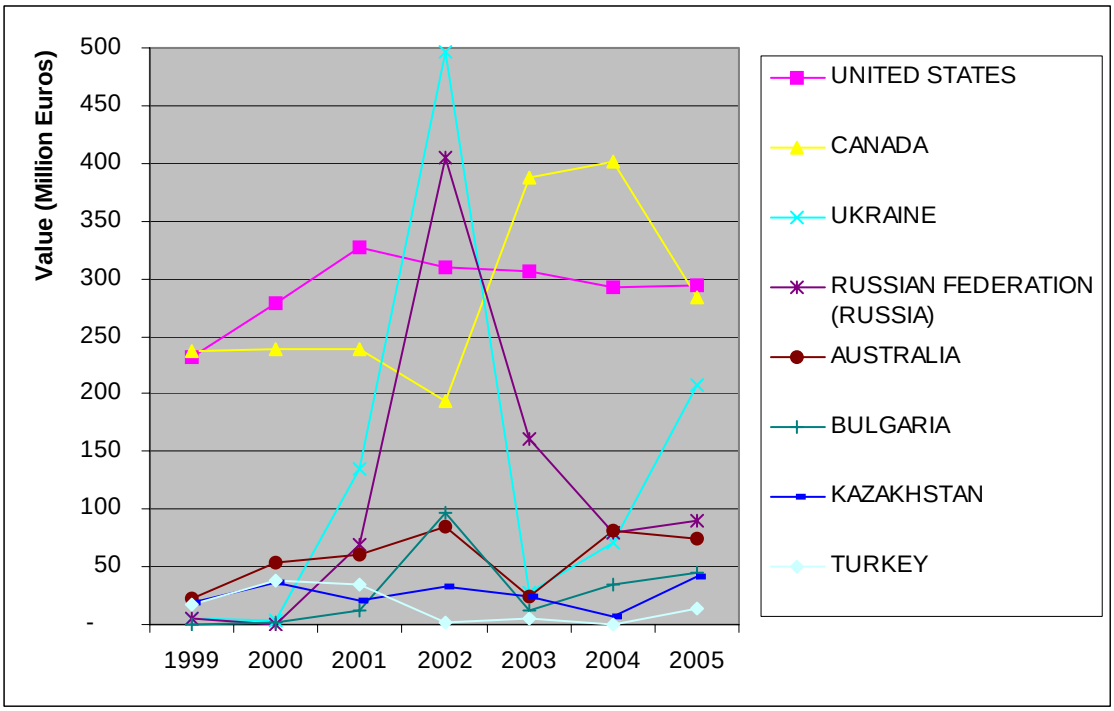
Source: Eurostat external trade database

Table 1.13.4: Top source countries for extra EU25 imports (2005): Durum Wheat (041.1)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Canada	153	932
United States	73	375
Australia	45	248
Turkey	14	91
Syria	10	7
Total of above	295	1653
Total EU 25 (Extra)	306	1773

Source: Eurostat external trade database

Figure 1.13.1: Changes in the value of imports of Wheat (including spelt) and meslin, unmilled (041) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2. Non-Food Agricultural Products

2.1. Bioethanol

See discussion of biofuels in Appendix 2. This concludes that: "In the SITC framework, ethanol for biofuel is included under "Un-denatured ethyl alcohol (521.15) although it is not possible to establish from data sources the share of trade that is actually used in biofuel production". Therefore, we focus here on un-denatured ethyl alcohol as the main processed biofuel commodity that is imported.

Table 2.1.1: Definition of Un-denatured Ethyl Alcohol in SITC

Section	5 Chemicals and related products, n.e.s
Division	51 Organic chemicals
Groups and sub groups	512 Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives
	512.1 - Acyclic monohydric alcohols **512.15 - Undenatured ethyl alcohol of an alcoholic strength by volume of 80% or higher** 512.16 - Ethyl alcohol and other spirits, denatured, of any strength

Table 2.1.2: Imports to EU of Un-denatured Ethyl Alcohol (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
512.1 - Acyclic monohydric alcohols	1569	5161
512.15 - Undenatured ethyl alcohol…	**159**	**283**
512.16 - Ethyl alcohol and other spirits, denatured…	34	59

Source: UN Comtrade Database

Table 2.1.3: Top source countries for extra-EU25 imports (2005) – Un-denatured Ethyl Alcohol (SITC 512.15)[30]

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	52	146
Pakistan	32	73
Guatemala	22	48
Ukraine	10	24
South Africa	8	17
Egypt	7	18
Peru	6	16
Costa Rica	5	12
Zimbabwe	4	7
Argentina	4	11
Total of Above	149	373
EU25_Extra	176	430

Source: EU External Trade Database

[30] Approx €12.8 million or about 7% of total extra EU25 imports were from "Countries or Territories not specified for commercial or military reasons". The tonnage is not given in the Eurostat database.

Figure 2.1.1[31]: Changes in the value of imports of Un-denatured Ethyl Alcohol (SITC 512.15) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

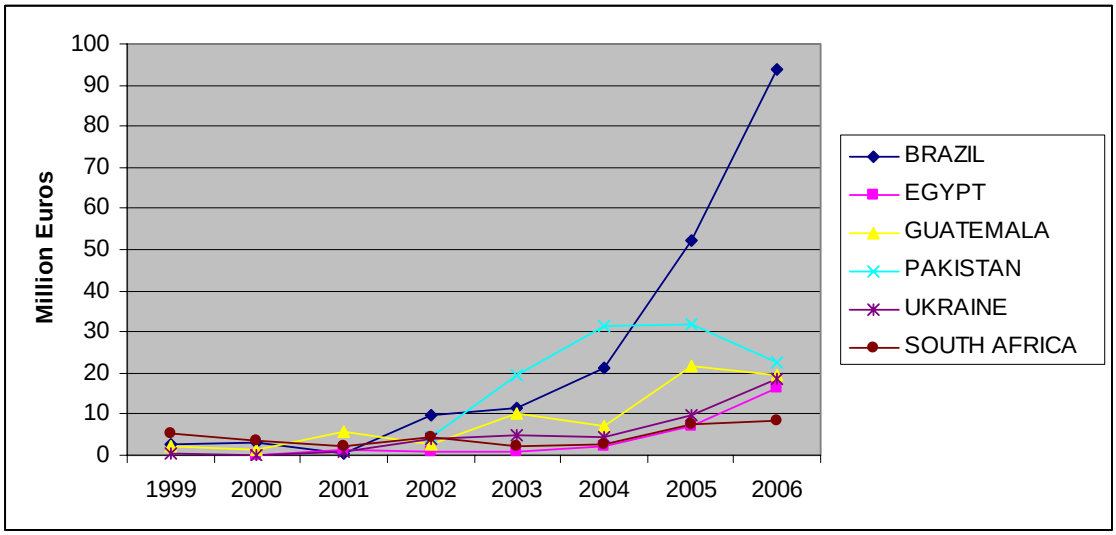
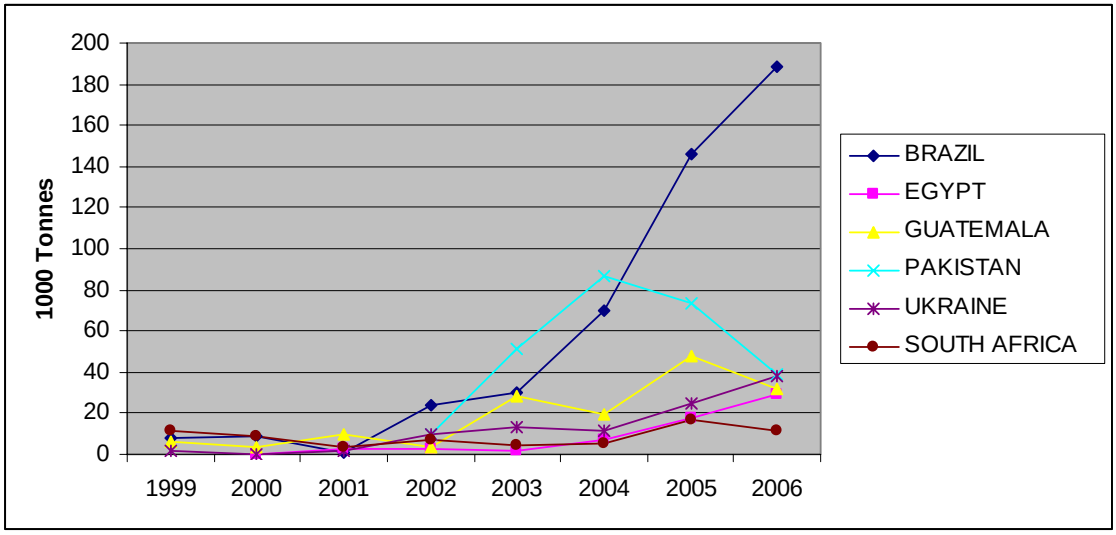


Figure 2.1.2: Changes in the volume of imports of Un-denatured Ethyl Alcohol (SITC 512.15) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



[31] Note that although we are using 2005 as the reference year, trade data for 2006 are now available and have been included in figures 2.1.1 and 2.1.2 to show the further rapid expansion of imports from Brazil.

2.2. Cotton

Table 2.2.1: Definition of cotton related products in SITC

Section	2 Crude materials, inedible, except fuels
Division	26 - Textile fibres (other than wool tops and other combed wool) and their wastes (not manufactured into yarn or fabric)
Groups and sub groups	263 – Cotton
	263.1 - Cotton (other than linters), not carded or combed
	263.2 - Cotton linters[32]
	263.3 - Cotton waste (including yarn waste and garnetted stock) 263.31 - ....yarn waste (including thread waste) 263.32 - ....garnetted stock, not carded or combed 263.39 - ....other (including pulled or garnetted rags), not carded or combed
	263.4 - Cotton, carded or combed

Table 2.2.2: Imports to EU of cotton related products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
251.92 Pulps of other fibrous cellulosic material	94	94
263 – Cotton	585	457
263.1 - Cotton (other than linters), not carded or combed	**468**	**378**
263.2 - Cotton linters	26	n/a
263.3 - Cotton waste (including yarn waste and garnetted stock)	71	78
263.4 - Cotton, carded or combed	20	n/a

Source: UN Comtrade Database

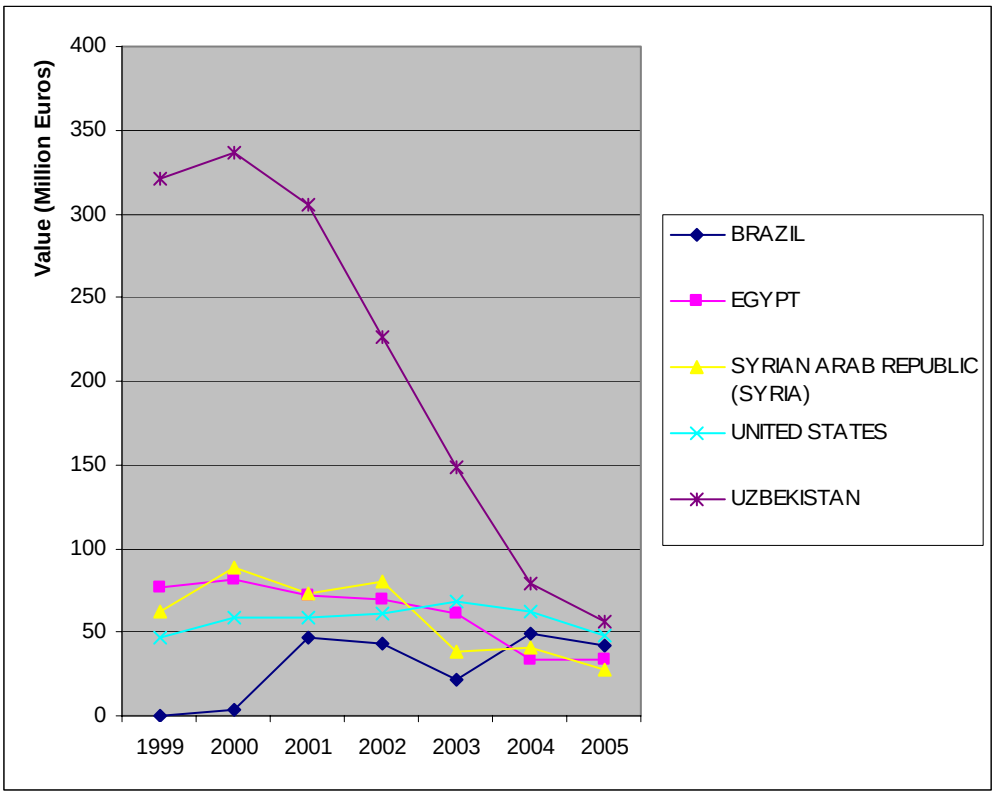
Table 2.2.3: Top source countries for extra EU25 imports (2005): Cotton: Other Than Linters (263.1)

	Value in Million Euros	Quantity in thousand tonnes
Uzbekistan	57	58
United States	48	46
Brazil	42	40
Egypt	34	20
Syrian Arab Republic	28	29
Kazakhstan	28	28
Mali	26	28
Tajikistan	25	25
Turkey	23	17
Chad	19	19
Zimbabwe	17	15
Cameroon	17	17
Pakistan	12	12
Total Of Above	374	353
Total EU25 (Extra)	470	445

Source: EU Eurostat 2005

[32] Note that Cotton lint is also found under SITC 251.92 (Pulps of other fibrous cellulosic material)

Figure 2.2.1: Chart showing changes in the value of imports of Cotton, other than linters (263.1) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.3. Cotton Fabrics

Table 2.3.1: Definition of Cotton Fabrics in SITC

Section	6 Manufactured goods classified chiefly by material
Division	65 Textile yarn, fabrics, made-up articles, n.e.s., and related products
Groups and sub groups	652 Cotton fabrics, woven (not including narrow or special fabrics)
	652.1 - Cotton gauze, pile and chenille fabrics, woven
	652.2 - Cotton fabrics, woven, unbleached (other than gauze and pile and chenille fabrics)
	652.3 - Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed, printed or otherwise finished, weighing not more than 200 g/m2
	652.4 - Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed, printed or otherwise finished, weighing more than 200 g/m2
	652.5 - Other woven cotton fabrics, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibres, bleached, dyed, printed or otherwise finished, weighing not more than 200 g/m2
	652.6 - Other woven cotton fabrics, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibres, bleached, dyed printed or otherwise finished, weighing more than 200 g/m2
	652.9 - Other woven fabrics of cotton

Table 2.3.2: Imports to EU of Cotton Fabrics (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
652 **Cotton fabrics, woven**	**1729**	**278**
652.1 - Cotton gauze, pile and chenille fabrics, woven	150	16
652.2 - Cotton fabrics, woven, unbleached	553	133
652.3 - Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed, printed or otherwise finished, weighing not more than 200 g/m2	482	41
652.4 - Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed, printed or otherwise finished, weighing more than 200 g/m2	416	77
652.5 - Other woven cotton fabrics, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibres, bleached, dyed, printed or otherwise finished, weighing not more than 200 g/m2	65	6
652.6 - Other woven cotton fabrics, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibres, bleached, dyed printed or otherwise finished, weighing more than 200 g/m2	41	3
652.9 - Other woven fabrics of cotton	21	2

Source: UN Comtrade Database

Table 2.3.3: Top source countries for extra-EU25 imports (2005) – Cotton Fabrics (SITC 652)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
China	359	84
Turkey	323	46
Pakistan	222	72
India	143	37
Switzerland	129	6
Indonesia	63	19
Thailand	61	14
Tunisia	45	7
Russia	40	20
Japan	37	2
Total of Above	1423	310
EU25_Extra	1737	386

Source: EU External Trade Database

Figure 2.3.1: Changes in the value of imports of Cotton Fabrics (SITC 652) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

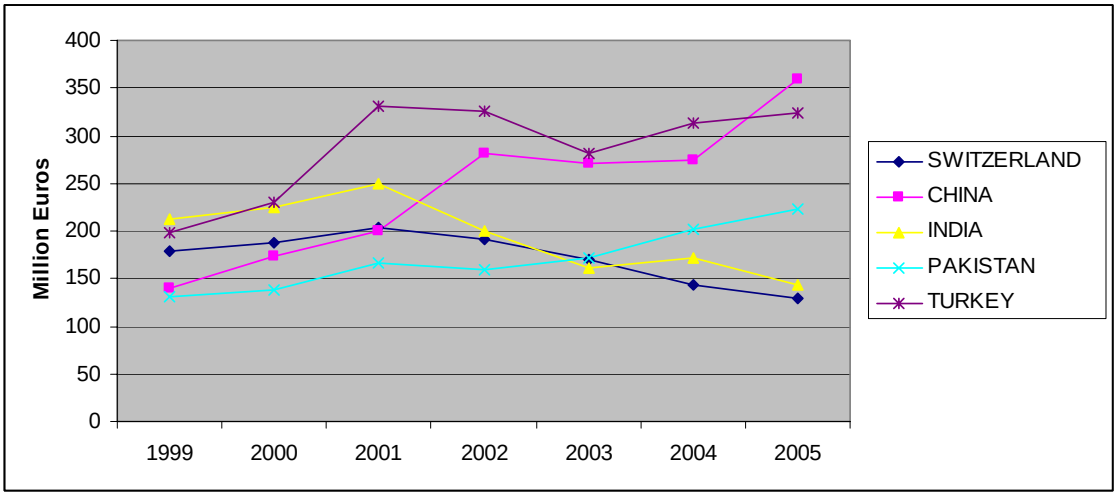
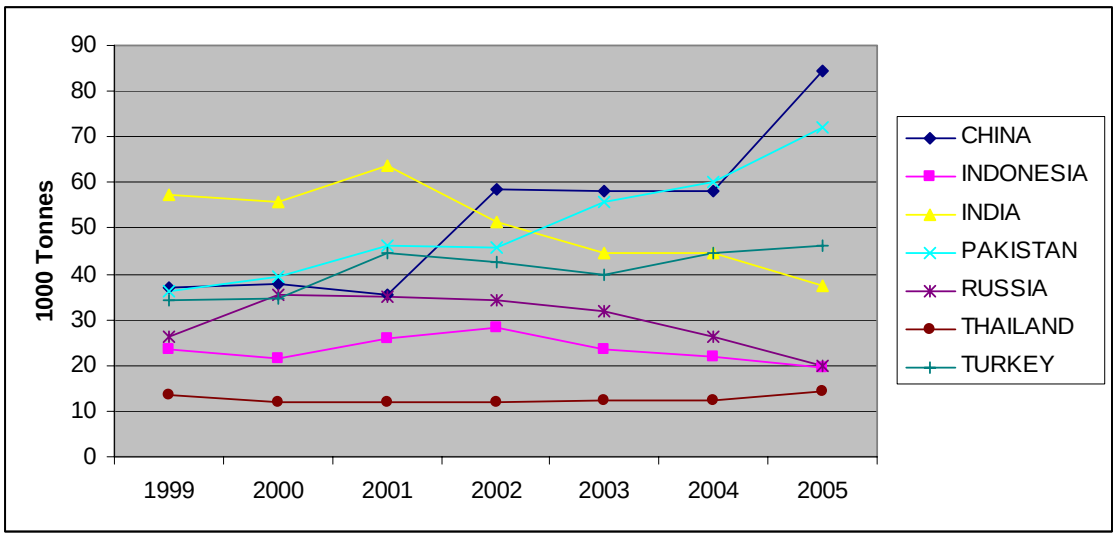


Figure 2.3.2: Changes in the volume of imports of Cotton Fabrics (SITC 652) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.4. Leather

Table 2.4.1: Definition of leather and related products in SITC

Section	6 - Manufactured goods classified chiefly by material
Division	61 - Leather, leather manufactures, n.e.s., and dressed furskins
Groups and sub groups	611 - Leather
	611.2 - Composition leather with a basis of leather or leather fibre, in slabs, sheets or strip, whether or not in rolls
	611.3 - Whole bovine skin leather, without hair on, of a unit surface area not exceeding 28 square feet (2.6 m2), except leather of subgroup 611.8
	611.4 - Other bovine leather and equine leather, without hair on (other than leather of subgroup 611.8) 611.41 - ....tanned or retanned but not further prepared, whether or not split 611.42 - ....parchment-dressed or prepared after tanning
	611.5 - Sheep- or lambskin leather, without wool on (other than leather of subgroup 611.8) 611.51 - ....tanned or retanned but not further prepared, whether or not split 611.52 - ....parchment-dressed or prepared after tanning
	611.6 - Goat- or kidskin leather, without hair on (other than leather of subgroup 611.8) 611.61 - ....tanned or retanned but not further prepared, whether or not split 611.62 - ....parchment-dressed or prepared after tanning
	611.7 - Leather of other animals, without hair on, other than leather of subgroup 611.8 611.71 - ....of swine 611.72 - ....of reptiles 611.79 - ....of other animals 611.8 - Leather, specially dressed or finished, n.e.s.
	611.81 - Chamois (including combination chamois) leather 611.83 - Patent leather and patent-laminated leather; metallized leather

Table 2.4.2: Imports to EU of Leather products (2005)

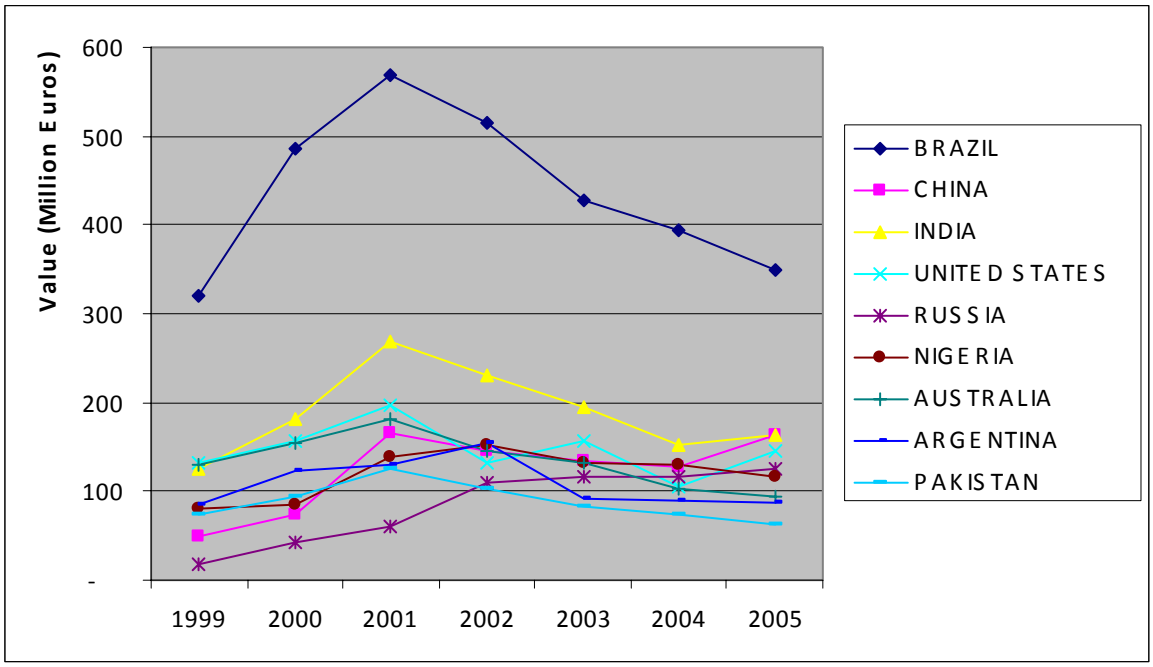
	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
61 - Leather, leather manufactures, n.e.s., and dressed furskins	2,724	N/A
611 - Leather	**2,187**	**68**
611.2 - Composition leather with a basis of leather or leather fibre, in slabs, sheets or strip, whether or not in rolls	3	1
611.3 - Whole bovine skin leather, without hair on, of a unit surface area not exceeding 28 square feet (2.6 m2), except leather of subgroup 611.8	-	-
611.4 - Other bovine leather and equine leather, without hair on (other than leather of subgroup 611.8)	1,533	37
611.41 - ....tanned or retanned but not further prepared, whether or not split	893	N/A
611.42 - ....parchment-dressed or prepared after tanning	640	37
611.5 - Sheep- or lambskin leather, without wool on (other than leather of subgroup 611.8)	157	1
611.51 - ....tanned or retanned but not further prepared, whether or not split	68	N/A
611.52 - ....parchment-dressed or prepared after tanning	90	1
611.6 - Goat- or kidskin leather, without hair on (other than leather of subgroup 611.8)	249	16
611.61 - ....tanned or retanned but not further prepared,	57	9
611.62 - ....parchment-dressed or prepared after tanning	193	7
611.7 - Leather of other animals, without hair on, other than leather of subgroup 611.8	225	13
611.71 - ....of swine	145	12
611.72 - ....of reptiles	47	0
611.79 - ....of other animals	33	1
611.8 - Leather, specially dressed or finished, n.e.s.	20	N/A
611.81 - Chamois (including combination chamois) leather	11	N/A
611.83 - Patent leather and patent-laminated leather; metallized leather	9	N/A

Table 2.4.3: Top source countries for extra-EU25 imports (2005) – Leather (SITC 611)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	350	110
China	163	15
India	163	14
United States	145	44
Russia	125	47
Nigeria	117	6
Poland	97	5
Australia	93	36
Argentina	88	19
Ukraine	75	26
Total of above	1,417	321
EU25 Extra	2,206	519

Source: EU External Trade Database

Figure 2.4.1: Changes in the value of imports of Leather (SITC 611) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.5. Natural Rubber

Table 2.5.1: Definition of Rubber Products in SITC

Section	2 - Crude materials, inedible, except fuels
Division	23 - Crude rubber (including synthetic and reclaimed)
Groups and sub groups	231 - Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms (including latex) or in plates, sheets or strip
	231.1 - Natural rubber latex, whether or not prevulcanized
	231.2 - Natural rubber (other than latex) 231.21 - Smoked sheets of natural rubber 231.25 - Technically specified natural rubber (TSNR) 231.29 - Other natural rubber
	231.3 - Balata, gutta-percha, guayule, chicle and similar natural gums
	232 - Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber
	232.1 - Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of group 231 with any product of this subgroup, in primary forms or in plates, sheets or strip 232.11 - Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR) 232.12 - Butadiene rubber (BR) 232.13 - Isobutene-isoprene (butyl) rubber (IIR); halo-isobutene-isoprene rubber (CIIR or BIIR) 232.14 - Chloroprene (chlorobutadiene) rubber (CR) 232.15 - Acrylonitrile-butadiene rubber (NBR) 232.16 - Isoprene rubber (IR) 232.17 - Ethylene-propylene-non-conjugated diene rubber (EPDM) 232.18 - Mixtures of any product of group 231 with any product of subgroup 232.1 232.19 - Other synthetic rubbers and factice derived from oils
	232.2 - Reclaimed rubber; waste and scrap of unhardened rubber 232.21 - Reclaimed rubber in primary forms or in plates, sheets or strip 232.22 - Waste, parings and scrap of unhardened rubber and powders and granules obtained therefrom

Table 2.5.2: Imports to EU of Natural Rubber Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
23 - Crude rubber (including synthetic and reclaimed)	2,702	n/a
231 - Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms (including latex) or in plates, sheets or strip	1,509	1,390
231.1 - Natural rubber latex, whether or not prevulcanized	208	206
231.2 - Natural rubber (other than latex)	1,299	1,183
231.21 - Smoked sheets of natural rubber	187	163
231.25 - Technically specified natural rubber (TSNR)	**558**	**514**
231.29 - Other natural rubber	**562**	**507**
231.3 - Balata, gutta-percha, guayule, chicle and similar natural gums	2	n/a
232 - Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber	1,192	887
232.1 - Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of group 231 with any product of this subgroup, in primary forms or in plates, sheets or strip	1,179	858
232.2 - Reclaimed rubber; waste and scrap of unhardened rubber	14	29

Table 2.5.3: Top source countries for extra-EU25 imports (2005) – Technically Specified Natural Rubber (231.25)

	Value (Million Euros)	Quantity (Thousand Tonnes)
Malaysia	141	124
Indonesia	115	104
Thailand	89	79
Cote D'Ivoire	85	78
Viet-nam	51	44
Cameroon	20	19
Liberia	20	19
Nigeria	10	9
Ghana	9	8
Total of above	540	485
Total EU25 (Extra)	564	507

Table 2.5.4: Top source countries for extra-EU25 imports (2005) – Other Natural Rubber 231.29

	Value (Million Euros)	Quantity (Thousand Tonnes)
Malaysia	191	168
Indonesia	168	155
Thailand	81	71
Cote D'Ivoire	39	37
Cameroon	19	16
Liberia	15	13
Nigeria	12	11
Viet-nam	9	8
Gabon	8	7
Sri Lanka	6	5
Total of Above	357	323
Total EU25 (Extra)	565	506

Figure 2.5.1: Changes in the value of imports of Technically Specified Natural Rubber (231.25) to the EU25 from top source countries 1999-2005 (Source: EU external trade database).

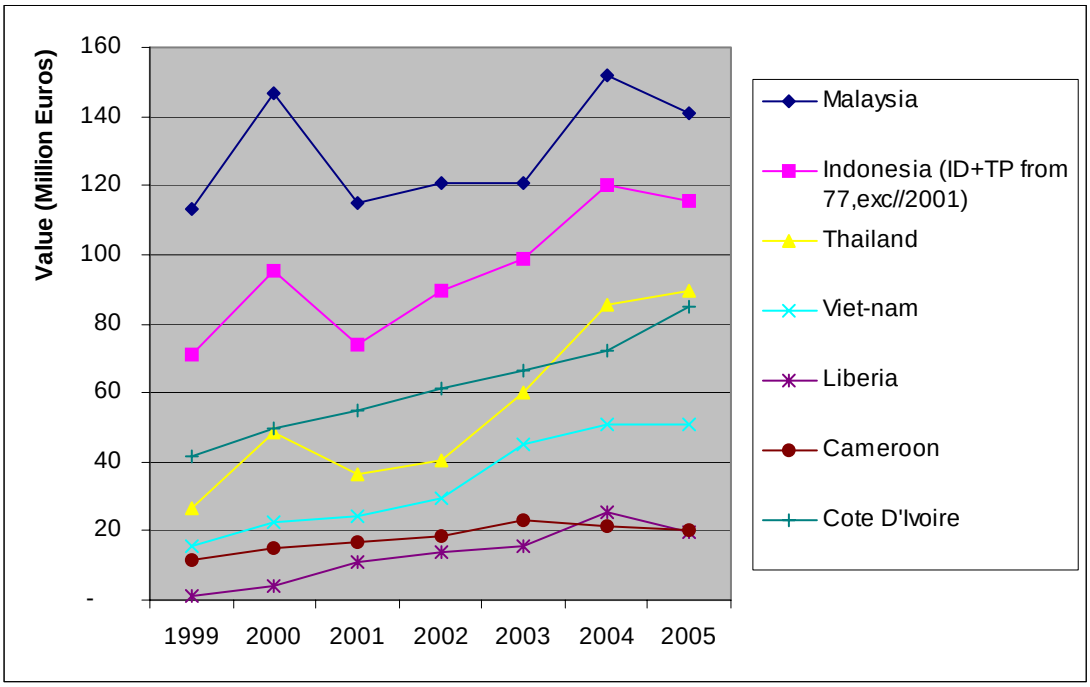
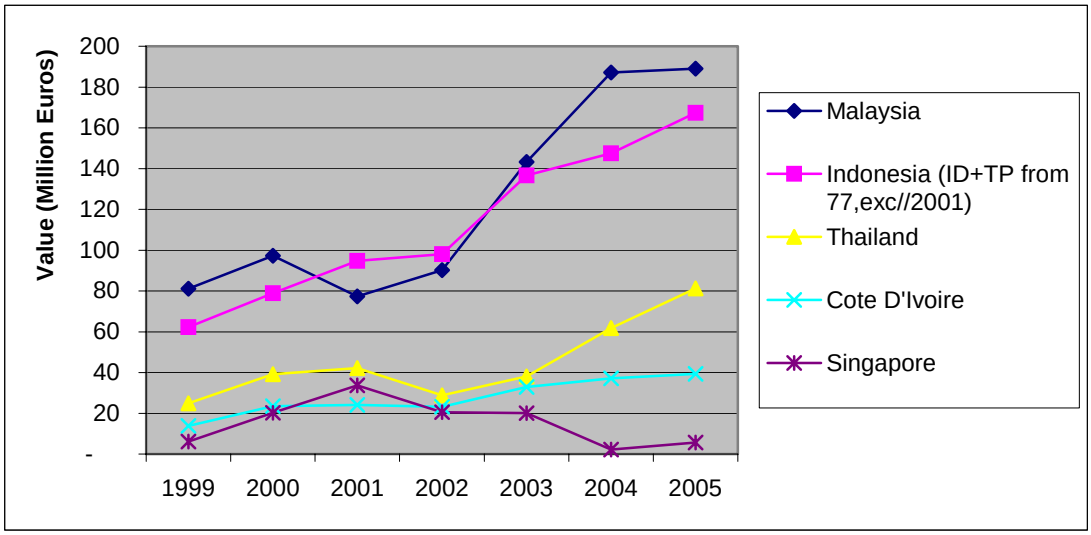


Figure 2.5.2: Changes in the value of imports of Other Natural Rubber (231.29) to the EU25 from top source countries 1999-2005 (Source: EU external trade database).



2.6. Palm Oil

Table 2.6.1: Definition of palm oil within SITC

Section	Animal and vegetable oils, fats and waxes
Division	Fixed vegetable fats and oils, crude, refined or fractionated (SITC code 42)
Groups and sub groups	422- Fixed vegetable fats and oils, crude, refined or fractionated, other than "soft"
	422.1 - Linseed oil and its fractions
	422.2 - Palm oil and its fractions 422.21 - Crude oil 422.29 - Refined oil and fractions thereof
	422.3 - Coconut (copra) oil and its fractions
	422.4 - Palm kernel or babassu oil and fractions thereof 422.41 - Crude oil 422.49 - Refined oil and its fractions
	422.5 - Castor oil and its fractions
	422.9 - Other fixed vegetable fats, crude, refined or fractionated, other than "soft"

Table 2.6.2: Imports to EU of palm oil products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Palm oil (422.2)	1,418	3,070
Crude (422.21)	**887**	**2,088**
Refined (422.29)	531	983
Palm kernel or babassu oil (422.4)	326	602
Crude (422.41)	**265**	**504**
Refined (422.49)	61	98

Source: UN Comtrade Database

Table 2.6.3: Top source countries for EU25 (2005): Crude palm oil (422.21)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Indonesia	336	987
Malaysia	330	958
Papua New Guinea	107	304
Colombia	64	182
Brazil	16	47
Ivory Coast	10	29
Ecuador	11	28
Cameroon	8	24
Total of above	882	2559
Total EU 25 (Extra)	886	2565

Source: Eurostat external trade database

Table 2.6.4: Top source countries for EU25 (2005): Crude palm kernel or babassu oil (422.41)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Indonesia	202	391
Malaysia	29	57
Papua New Guinea	16	31
Colombia	11	21
Total of above	258	500
Total EU 25 (Extra)	265	511

Source: Eurostat external trade database

Figure 2.6.1: Changes in the value of imports of Crude Palm Oil (422.21) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

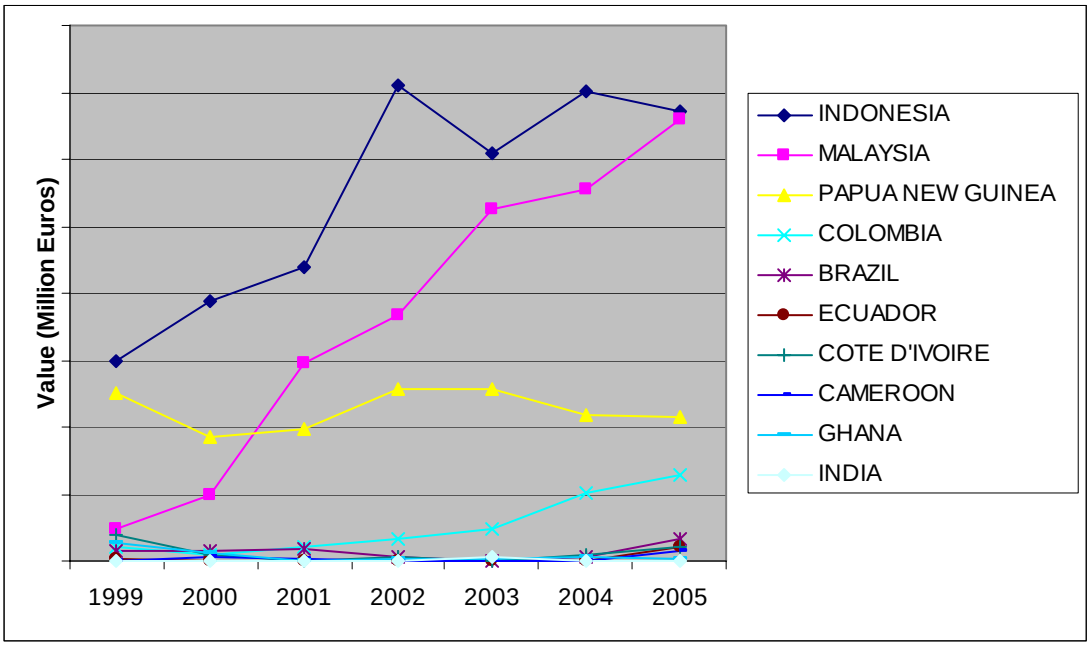
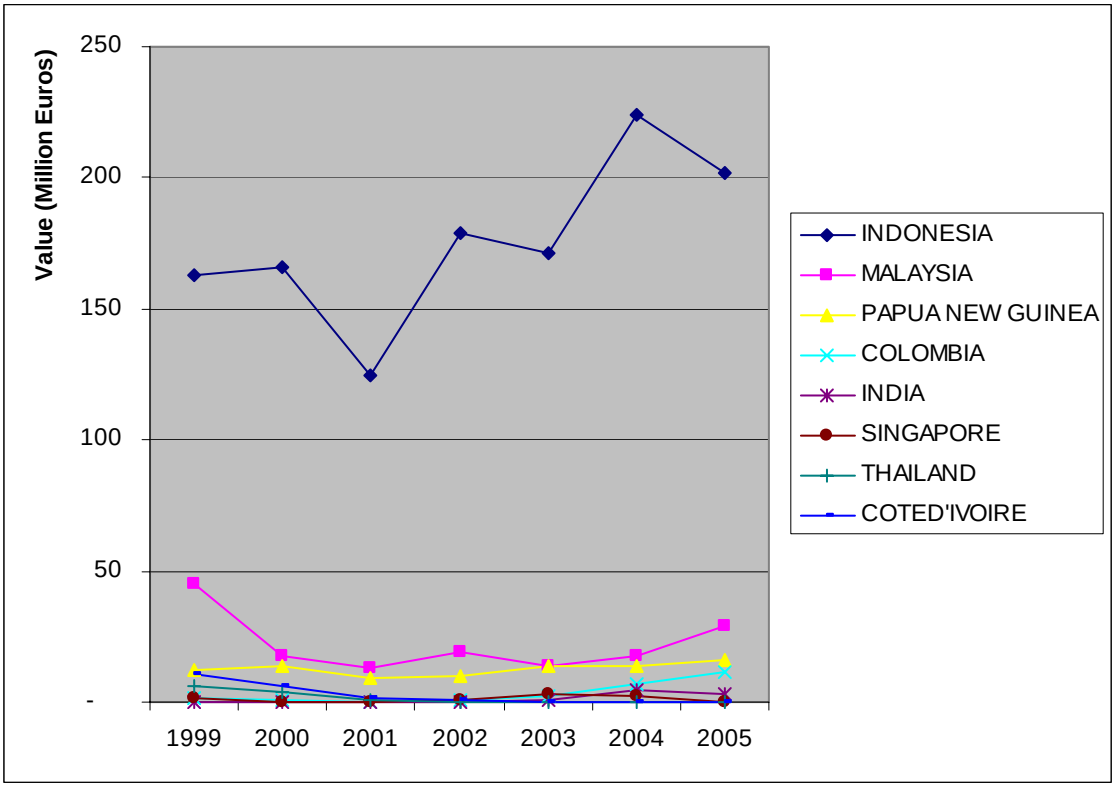


Figure 2.6.2: Changes in the value of imports of Crude Palm Kernel Or Babassu Oil (422.41) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.7. Tobacco

Table 2.7.1: Definition of tobacco products in SITC

Section	1 - Beverages and tobacco
Division	12 - Tobacco and tobacco manufactures
Groups and sub groups	121 - Tobacco, unmanufactured; tobacco refuse
	121.1 - Tobacco, not stemmed/stripped
	121.2 - Tobacco, wholly or partly stemmed/stripped
	121.3 - Tobacco refuse
	122 - Tobacco, manufactured (whether or not containing tobacco substitutes)
	122.1 - Cigars, cheroots and cigarillos, containing tobacco
	122.2 - Cigarettes containing tobacco
	122.3 - Other manufactured tobacco (including smoking and chewing tobacco, snuff); tobacco extracts and essences 122.31 - Cigars, cheroots, cigarillos and cigarettes, of tobacco substitutes 122.32 - Smoking tobacco, whether or not containing tobacco substitutes in any proportion 122.39 - Manufactured tobacco, extracts and essences, n.e.s.

Table 2.7.2: Imports to EU of Tobacco Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
12 - Tobacco and tobacco manufactures	1,864	n/a
121 - Tobacco, unmanufactured; tobacco refuse	1,676	725
121.1 - Tobacco, not stemmed/stripped	**285**	**127**
121.2 - Tobacco, wholly or partly stemmed/stripped	**1,336**	**501**
121.3 - Tobacco refuse	55	98
122 - Tobacco, manufactured (whether or not containing tobacco substitutes)	188	25
122.1 - Cigars, cheroots and cigarillos, containing tobacco	119	2
122.2 - Cigarettes containing tobacco	10	0.7
122.3 - Other manufactured tobacco (including smoking and chewing tobacco, snuff); tobacco extracts and essences	59	22
122.31 - Cigars, cheroots, cigarillos and cigarettes, of tobacco substitutes	0	n/a
122.32 - Smoking tobacco, whether or not containing tobacco substitutes in any proportion	8	0.8
122.39 - Manufactured tobacco, extracts and essences, n.e.s	51	22

Table 2.7.3: Top source countries for extra-EU25 imports (2005), Tobacco, unmanufactured (SITC 121)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
United States	420	70
Brazil	378	150
Turkey	124	41
Malawi	115	46
Argentina	63	24
Indonesia	63	10
India	54	31
Zimbabwe	54	20
China	43	22
Tanzania	40	20
Macedonia	39	10
Total Of Above	1393	444
Eu25_Extra	1684	556

Source: Eurostat external trade database

Table 2.7.4: Top source countries for extra-EU25 imports (2005), Tobacco, not stemmed/stripped (SITC 121.1)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Turkey	114	31
Former Yugoslav Republic of Macedonia	39	10
Brazil	19	8
Bulgaria	16	6
Indonesia	11	5
Lebanon	10	2
United States	9	2
Malawi	6	3
India	6	3
Total of Above	231	69
Total EU25 (Extra)	288	92

Source: Eurostat external trade database

Table 2.7.5: Top source countries for extra-EU25 imports (2005), Tobacco, wholly or partly stemmed/stripped (SITC 121.2)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
United States	406	62
Brazil	341	113
Malawi	106	36
Argentina	60	20
Indonesia	51	5
India	46	24
Zimbabwe	46	12
China	37	17
Tanzania	33	11
Mozambique	25	9
Sri Lanka	23	1
Switzerland	20	6
Zambia	17	5
Total of above	1213	320
Total EU25 (Extra)	1341	360

Source: Eurostat external trade database

Figure 2.7.1: Value of imports of Raw Tobacco (SITC121) to the EU from top source countries, 1999-2005 (Source: Eurostat external trade database)

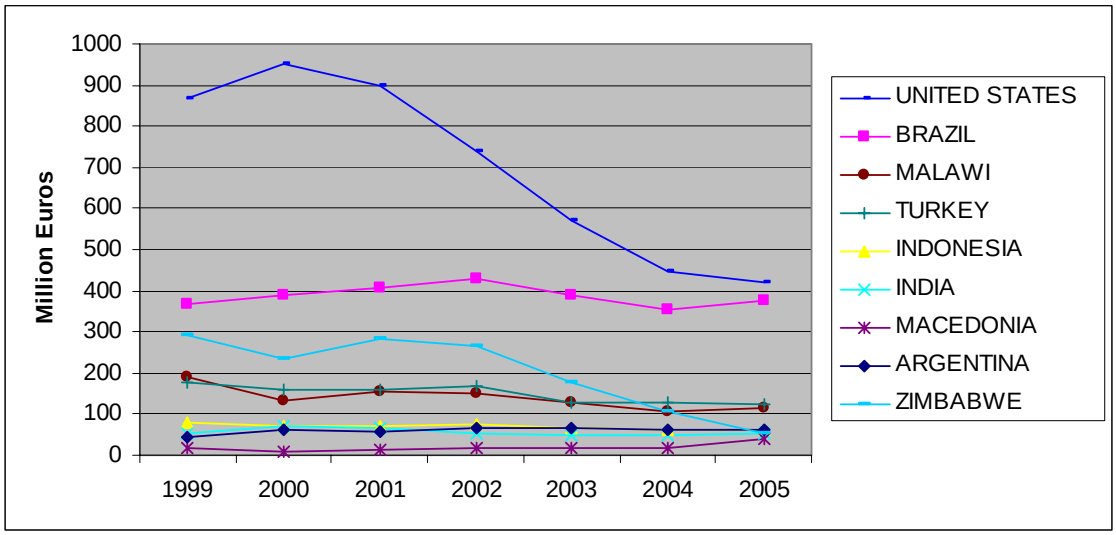
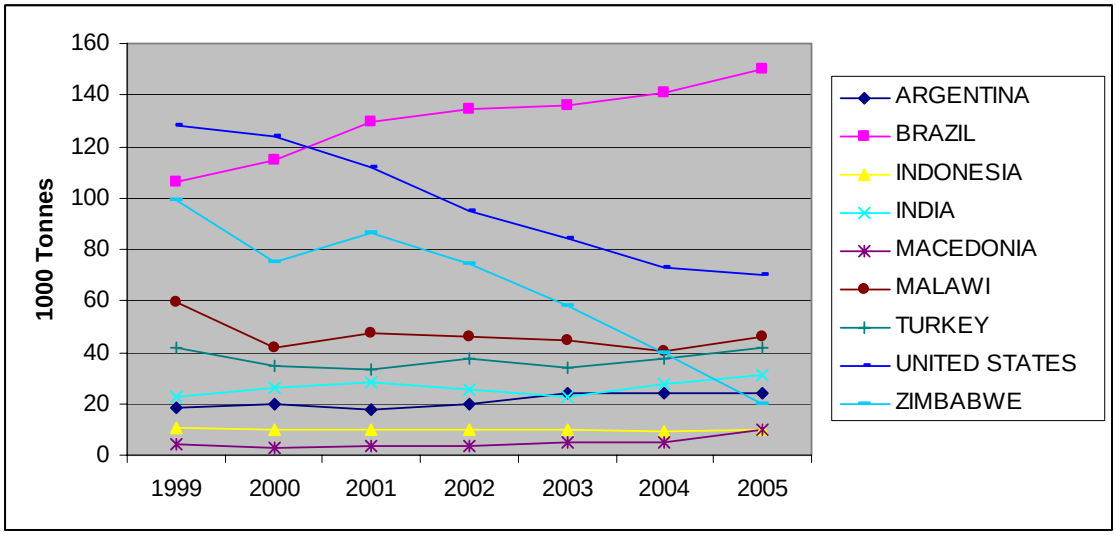


Figure 2.7.2: Volume of imports of Raw Tobacco (SITC121) to the EU from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.8. Wood

Table 2.8.1: Definition of Wood within SITC

Section	2 Crude materials, inedible, except fuels
Division	24 Cork and wood
	247 – Wood, in the rough or roughly squared
Groups and sub groups	248 - Wood, simply worked, and railway sleepers of wood
	248.1 Railway or tramway sleepers (cross-ties) of wood 248.11 - ....not impregnated 248.19 - ....impregnated
	248.2 Wood of coniferous species, sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed, of a thickness exceeding 6 mm
	248.3 Wood of coniferous species (including strips and friezes for parquet flooring, not assembled), continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges or faces, whether or not planed, sanded or finger-jointed
	248.4 Wood of non-coniferous species, sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed, of a thickness exceeding 6 mm
	248.5 Wood of non-coniferous species (including strips and friezes for parquet flooring, not assembled), continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, moulded, rounded or the like) along any of its edges or faces, whether or not planed, sanded or finger-jointed

Table 2.8.2: Imports to EU of Wood Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Cork and Wood (24)	6,366	36,809
Wood Rough, rough squared (247)	**1,599**	**22,220**
Wood Simply Worked (248)	**4,395**	**9,736**
Railway, tramway sleepers (248.1)	10	32
…not impregnated (248.11)	5	13
…impregnated (248.19)	5	19
Wood of coniferous species, sawn, chipped sliced or peeled (248.2)	1,421	5,325
Wood of coniferous species – shaped (248.3)	38	49
Wood of non-coniferous species, sawn, chipped sliced or peeled (248.4)	2,319	3,762
Wood of coniferous species – shaped (2485)	608	567

Source: Values - UN Comtrade Database, Volumes – Eurostat

Table 2.8.3: Top Source Countries for EU25 (2005): Wood, rough (SITC 247)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russia	804	16,382
Gabon	145	410
United States	105	165
Congo	63	166
Cameroon	48	110
Ukraine	47	726
Congo DR	42	105
Belarus	40	1075
Total of Above	1,294	19,139
Total EU25 (Extra)	1,603	22,220

Source: Eurostat external trade database

Table 2.8.4: Top Source Countries for EU25 (2005): Wood, simply worked (SITC 248)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russia	814	3,322
United States	514	588
Brazil	392	785
Cameroon	334	501
Malaysia	290	305
Canada	262	246
Indonesia	234	257
China	181	116
Ukraine	172	801
Ivory Coast	167	199
Belarus	135	809
Total of Above	3495	7,929
Total EU25 (Extra)	4,403	9,736

Source: Eurostat external trade database

Figure 2.8.1: Changes in the value of imports of Wood, rough (247) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

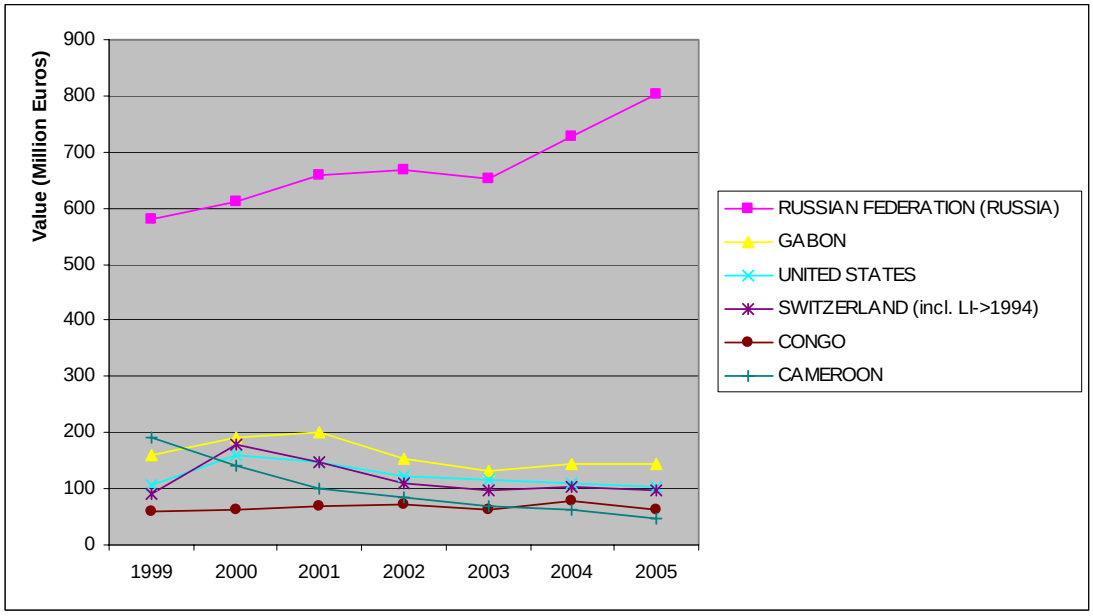
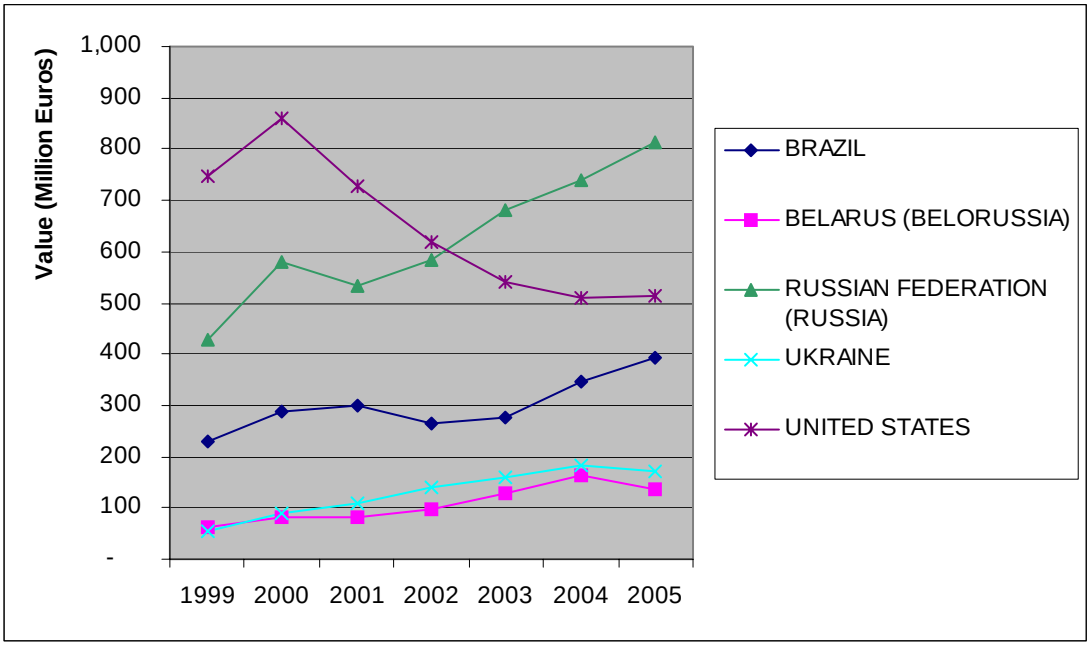


Figure 2.8.2: Changes in the value of imports of Wood, simply worked (248) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



2.9. Wood Pulp

Table 2.9.1: Definition of pulp and related products in SITC

Section	2 - Crude materials, inedible, except fuels
Division	25 - Pulp and waste paper
Groups and sub groups	251 - Pulp and waste paper
	251.1 - Waste and scrap of paper or paperboard 251.11 - ....of unbleached kraft paper or paperboard or of corrugated paper or paperboard 251.12 - ....of other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass 251.13 - ....of paper or paperboard made mainly of mechanical pulp (e.g., newspapers, journals and similar printed matter) 251.19 - ....other (including unsorted waste and scrap)
	251.2 - Mechanical wood pulp
	251.3 - Chemical wood pulp, dissolving grades
	251.4 - Chemical wood pulp, soda or sulphate, other than dissolving grades, unbleached 251.41 - ....coniferous 251.42 - ....non-coniferous
	251.5 - Chemical wood pulp, soda or sulphate, other than dissolving grades, semi-bleached or bleached 251.51 - ....coniferous 251.52 - ....non-coniferous
	251.6 - Chemical wood pulp, sulphite, other than dissolving grades 251.61 - ....unbleached 251.62 - ....semi-bleached or bleached
	251.9 - Semi-chemical wood pulp and pulps of other fibrous cellulosic material 251.91 - Semi-chemical wood pulp 251.92 - Pulps of other fibrous cellulosic material

Table 2.9.2: Imports to EU of pulp and waste paper products

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
25 - Pulp and waste paper	4,380	N/A
251 - Pulp and waste paper	4,380	10,807
251.1 - Waste and scrap of paper or paperboard	97	835
251.11 - ....of unbleached kraft paper or paperboard or of corrugated paper or paperboard	11	112
251.12 - ....of other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass	12	56
251.13 - ....of paper or paperboard made mainly of mechanical pulp (e.g., newspapers, journals and similar printed matter)	40	361
251.19 - ....other (including unsorted waste and scrap)	34	307
251.2 - Mechanical wood pulp	94	259
251.3 - Chemical wood pulp, dissolving grades	313	519
251.4 - Chemical wood pulp, soda or sulphate, other than dissolving grades, unbleached	37	95
251.41 - ....coniferous	32	84
251.42 - ....non-coniferous	5	12
251.5 - Chemical wood pulp, soda or sulphate, other than dissolving grades, semi-bleached or bleached	**3,500**	**8,440**
251.51 - ....coniferous	**1,752**	**3,964**
251.52 - ....non-coniferous	**1,748**	**4,476**
251.6 - Chemical wood pulp, sulphite, other than dissolving grades	118	230
251.61 - ....unbleached	12	N/A
251.62 - ....semi-bleached or bleached	106	230
251.9 - Semi-chemical wood pulp and pulps of other fibrous cellulosic material	221	429
251.91 - Semi-chemical wood pulp	127	335
251.92 - Pulps of other fibrous cellulosic material	94	94

Source: UN Comtrade Database

Table 2.9.3: Top source countries for extra-EU25 imports (2005) – Chemical wood pulp, soda or sulphate, other than dissolving grades, semi-bleached or bleached: Coniferous (SITC 251.51)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
United States	702	1,436
Canada	617	1,482
Chile	206	515
Brazil	131	304
Norway	38	84
Argentina	30	74
Russia	19	50
Total of Above	1,743	3,946
EU25_Extra	1,757	3,979

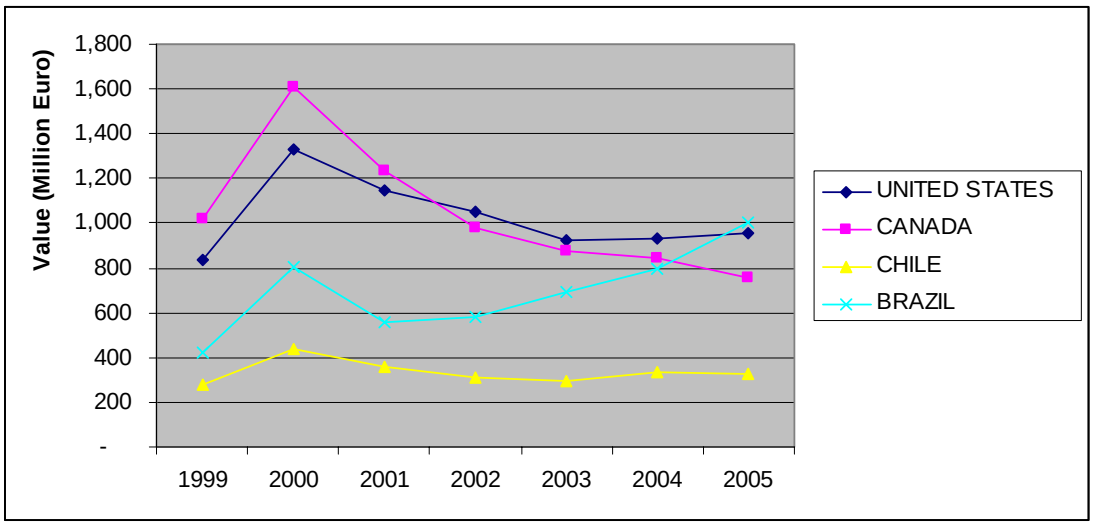
Source: Eurostat External Trade Database

Table 2.9.4: Top source countries for extra-EU25 imports (2005) – Chemical wood pulp, soda or sulphate, other than dissolving grades, semi-bleached or bleached: Non-Coniferous (SITC 251.52)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	877	2,049
United states	257	653
Canada	140	335
Chile	121	292
Indonesia	116	290
Russia	102	264
South Africa	49	116
Norway	45	98
Total of Above	1,708	4,096
EU25_Extra	1,750	4,193

Source: Eurostat External Trade Database

Figure 2.9.1: Changes in the value of imports of Chemical Wood Pulp (Coniferous and non-coniferous: SITC 251.51 and 251 .52) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3. Metal and Minerals

3.1. Aggregates

Table 3.1.1: Definition of Aggregates in SITC

Section	2 - Crude materials, inedible, except fuels
Division	27- Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones)
Groups and sub groups	273 - Stone, sand and gravel
	273.1 - Building or monumental (dimension) stone, not further worked than roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape 273.2 - Gypsum, plasters, limestone flux, limestone and other calcareous stone of a kind used for the manufacture of lime or cement 273.3 - Natural sands of all kinds, whether or not coloured (other than metal-bearing sands of division 28) 273.4 - Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates, for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated; macadam of slag, dross or similar industrial waste, whether or not incorporating materials cited in the first part of the heading; tarred macadam; granules, chippings and powder, of stones of heading 273.12 (Marble) or 273.13 (Granite), whether or not heat-treated.

Table 3.1.2: Imports to EU of Aggregates (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
273 - Stone, sand and gravel	1,239	8,013
273.1 - Building or monumental (dimension) stone…	764	3620
273.2 - Gypsum, plasters, limestone flux, limestone and other calcareous stone of a kind used for the manufacture of lime or cement	21	37
273.3 - Natural sands of all kinds, whether or not coloured (other than metal-bearing sands of division 28)	98	592
273.4 - Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates…	**356**	**3764**[33]

[33] Note discrepancy between EU25 tonnage totals using UN comtrade database in Table 3.1.2 and EU database in Table 3.1.3. Country totals in Table 3.1.3 have been checked with totals in UN comtrade database to confirm that the top three are the same for both sources.

Table 3.1.3: Top source countries for extra-EU25 imports (2005) – Pebbles, gravel, broken or crushed stone, commonly used for concrete aggregates… (SITC 273.4)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Norway	280	12278
Croatia	32	2743
Ukraine	10	1378
Turkey	8	161
Lithuania	7	653
Belarus	6	610
Montenegro	4	398
Total of Above	346	18222
EU25_Extra	356	18829

Source: EU External Trade Database

Figure 3.1.1: Changes in value of imports of Aggregates (SITC 273.4) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

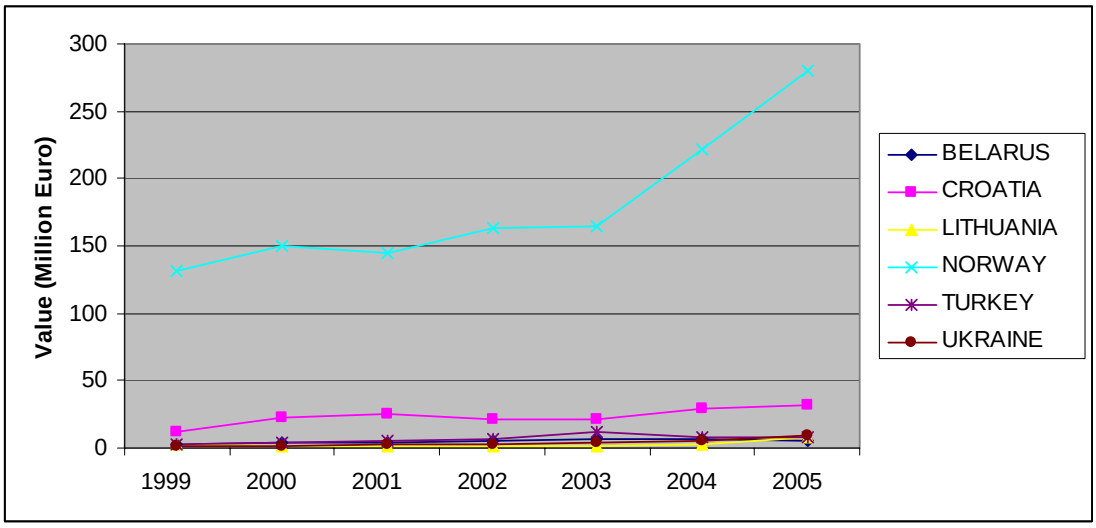
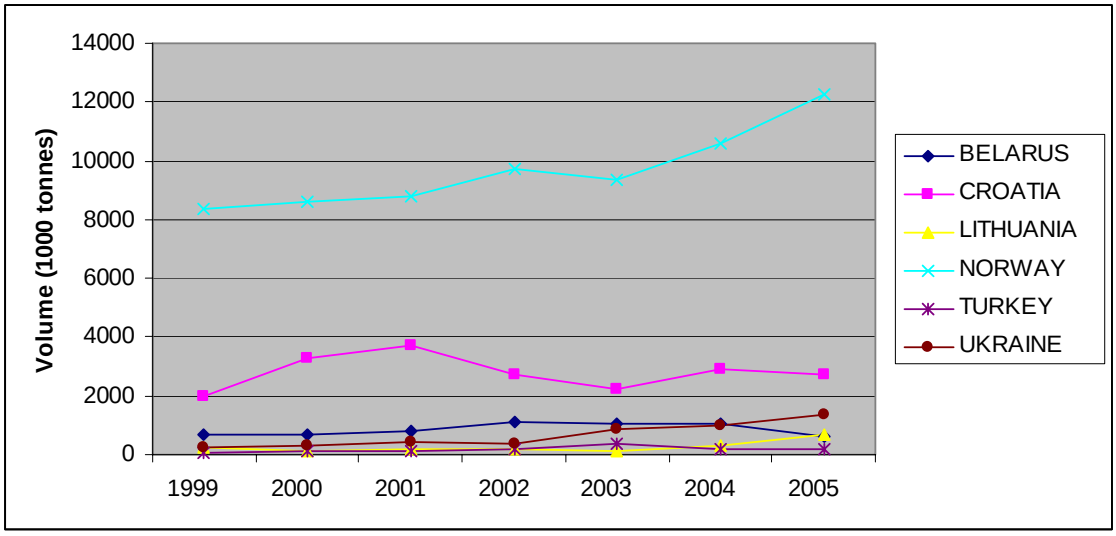


Figure 3.1.2: Changes in volume of imports of Aggregates (SITC 273.4) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.2. Aluminium

Table 3.2.1: Definition of Aluminium products in SITC

Section	2 Crude materials, inedible, except fuels
Division	28 Metalliferous ores and metal scrap
Groups and sub groups	285 Aluminium Ores and Concentrates (including Aluminia)
	288.23 Aluminium waste and scrap
Section	6 Manufactured goods classified chiefly by material
Division	68 Non-ferrous metals
Groups and sub groups	684 Aluminium
	684.1 - Aluminium and aluminium alloys, unwrought 684.11 - Aluminium, not alloyed 684.12 - Aluminium alloys
	684.2 - Aluminium and aluminium alloys, worked 684.21 - Aluminium bars, rods and profiles 684.22 - Aluminium wire 684.23 - Aluminium plates, sheets and strip, of a thickness exceeding 0.2 mm 684.24 - Aluminium foil (whether or not printed or backed with paper, paperboard, plastics or similar backing materials) of a thickness (excluding any backing) not exceeding 0.2 mm 684.25 - Aluminium powders and flakes 684.26 - Aluminium tubes and pipes 684.27 - Aluminium tube and pipe fittings (e.g., couplings, elbows, sleeves)

Table 3.2.2: Imports to EU of Aluminium (2005)[34]

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Aluminium Ores and Concentrates (including Aluminia) (285)	984	765
Aluminium waste and scrap (288.23)	334	313
Aluminium 684	**9828**	**5686**
Aluminium and aluminium alloys, unwrought (684.1)	6652	4471
Aluminium, not alloyed (684.11)	3523	2408
Aluminium alloys (684.12)	3129	2064
Aluminium and aluminium alloys, worked (684.2)	3176	1215
Aluminium bars, rods and profiles (684.21)	700	224
Aluminium wire (684.22)	464	272
Aluminium plates, sheets and strips exceeding 0.2mm (684.23)	1336	527
Aluminium foil of a thickness not exceeding 0.2 mm (684.24)	519	149
Aluminium powders and flakes (684.25)	41	18
Aluminium tubes and pipes (684.26)	85	21
Aluminium tube and pipe fittings (684.27)	31	3

Source: UN Comtrade Database

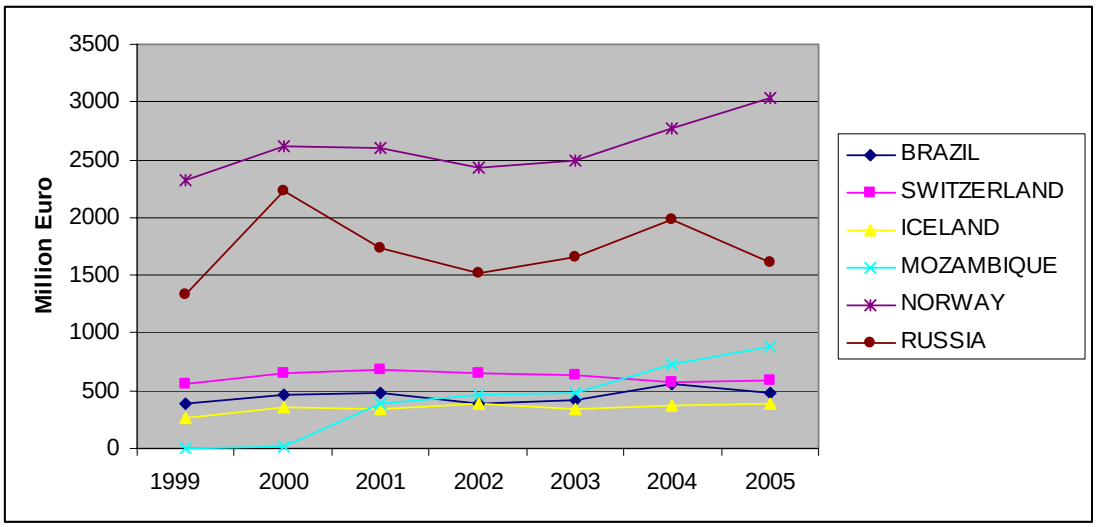
[34]NB: There are also a number of aluminium products under the “manufactures of metals” division (SITC codes 69…), e.g. aluminium building structures, casks and household articles. Extra EU imports for these in total were €1263m or about 220,000 tonnes in 2005. Therefore, aluminium products under 684 are far more significant in terms of trade.

Table 3.2.3: Top source countries for extra-EU imports (2005) – Aluminium (684)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Norway	3035	1711
Russia	1618	1001
Mozambique	883	568
Switzerland	594	161
Brazil	482	303
Iceland	387	260
United States	344	97
Romania[35]	290	164
Turkey	258	101
Egypt	204	119
Total of Above	8093	4485
Total EU25_(Extra)	9870	5435

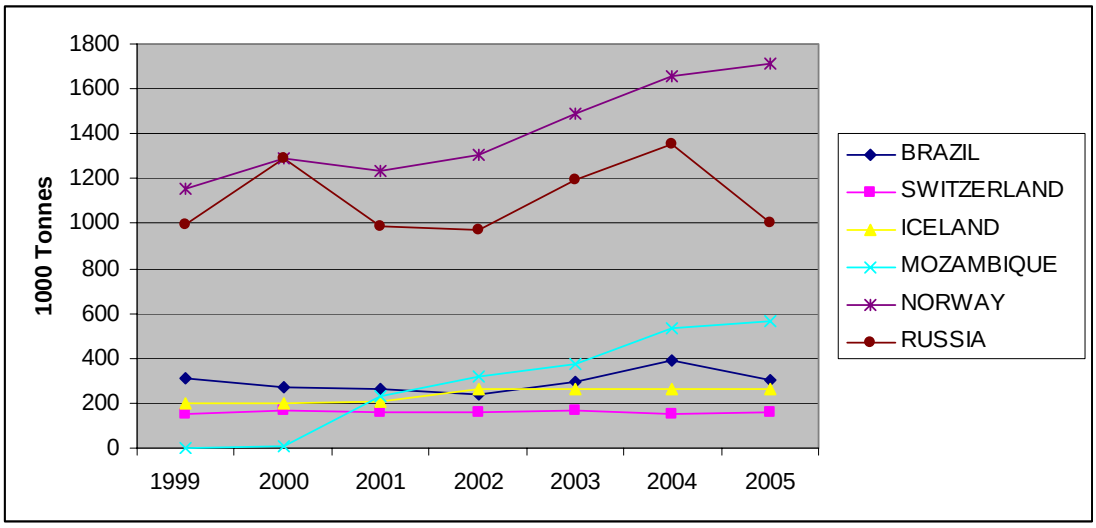
Source: Eurostat external trade database

Figure 3.2.1: Changes in value of imports of Aluminium (SITC 684) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



[35] Pre EU membership for Romania

Figure 3.2.2: Changes in volume of imports of Aluminium (SITC 684) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.3. Bauxite

Table 3.3.1: Definition of Aluminium products in SITC

Section	2 Crude materials, inedible, except fuels
Division	28 Metalliferous ores and metal scrap
Groups and sub groups	285 Aluminium Ores and Concentrates (including Aluminia)
	285.1 Aluminium ores and concentrates
	285.2 Alumina (aluminium oxide), other than artificial corundum
Section	6 Manufactured goods classified chiefly by material
Division	68 Non-ferrous metals
Groups and sub groups	684 Aluminium

Table 3.3.2: Imports to EU of Aluminium (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Aluminium Ores and Concentrates (including Aluminia) 285	984	n/a
Aluminium ores and concentrates 285.1	**547**	**n/a**
Alumina (aluminium oxide), other than artificial corundum 285.2	437	765
Aluminium 684	9,828	5,686

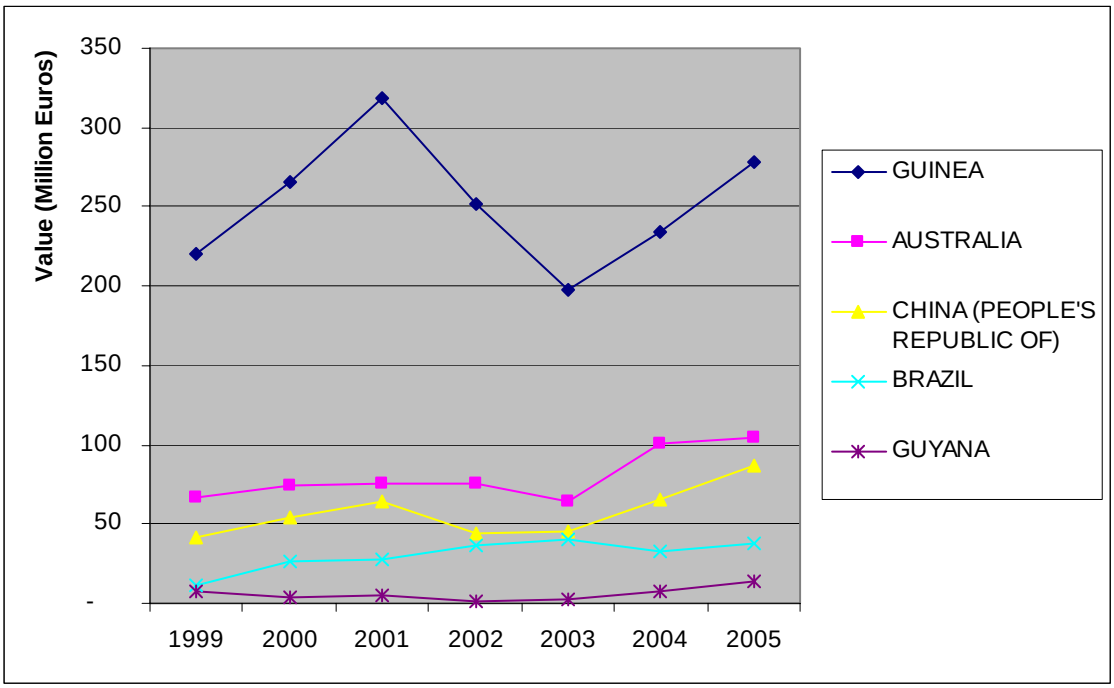
Source: UN Comtrade Database

Table 3.3.3: Top source countries for extra-EU imports (2005) – Aluminium Ores and Concentrates (285.1)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Guinea	278	9,072
Australia	104	2,718
China	87	605
Brazil	37	1,087
Guyana	14	85
Ghana	7	184
Bosnia and Herzegovina	5	146
Montenegro	4	80
India	3	84
South Africa	3	17
United States	2	3
Total of Above	545	14,081
Total EU 25 (Extra)	548	14,152

Source: Eurostat external trade database

Figure 3.3.1: Changes in the value of imports of aluminium ores and concentrates (285.1) to the EU from the top source countries in 2005, 1999-2005 (source: Eurostat external trade database)



3.4. Cadmium

Table 3.4.1: Definition of cadmium products in SITC

Section	6 - Manufactured goods classified chiefly by material
Division	68 - Non-ferrous metals
Groups and sub groups	689 - Miscellaneous non-ferrous base metals employed in metallurgy, and cermets
	689.8 - Intermediate products of cobalt metallurgy; cobalt, cadmium, titanium and zirconium, unwrought (including waste and scrap) • 689.82 - Cadmium, unwrought; cadmium waste and scrap; powders
Division	69 - Manufactures of metals, n.e.s.
	699 - Manufactures of base metal, n.e.s. 699.8 - Semi-manufactures and articles of cobalt, cadmium, titanium and zirconium, n.e.s. • 699.83 - Cadmium, wrought, and articles of cadmium, n.e.s.

Table 3.4.2: Imports to EU of cadmium products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
68 - Non-ferrous metals	24,522	N/A
689 - Miscellaneous non-ferrous base metals employed in metallurgy, and cermets	1,438	325
689.8 - Intermediate products of cobalt metallurgy; cobalt, cadmium, titanium and zirconium, unwrought (including waste and scrap)	563	62
689.82 - Cadmium, unwrought; cadmium waste and scrap; powders	**6**	**N/A**
69 - Manufactures of metals, n.e.s.	18,986	N/A
699 - Manufactures of base metal, n.e.s.	7,065	1,680
699.8 - Semi-manufactures and articles of cobalt, cadmium, titanium and zirconium, n.e.s.	527	17
699.83 - Cadmium, wrought, and articles of cadmium, n.e.s	1	N/A

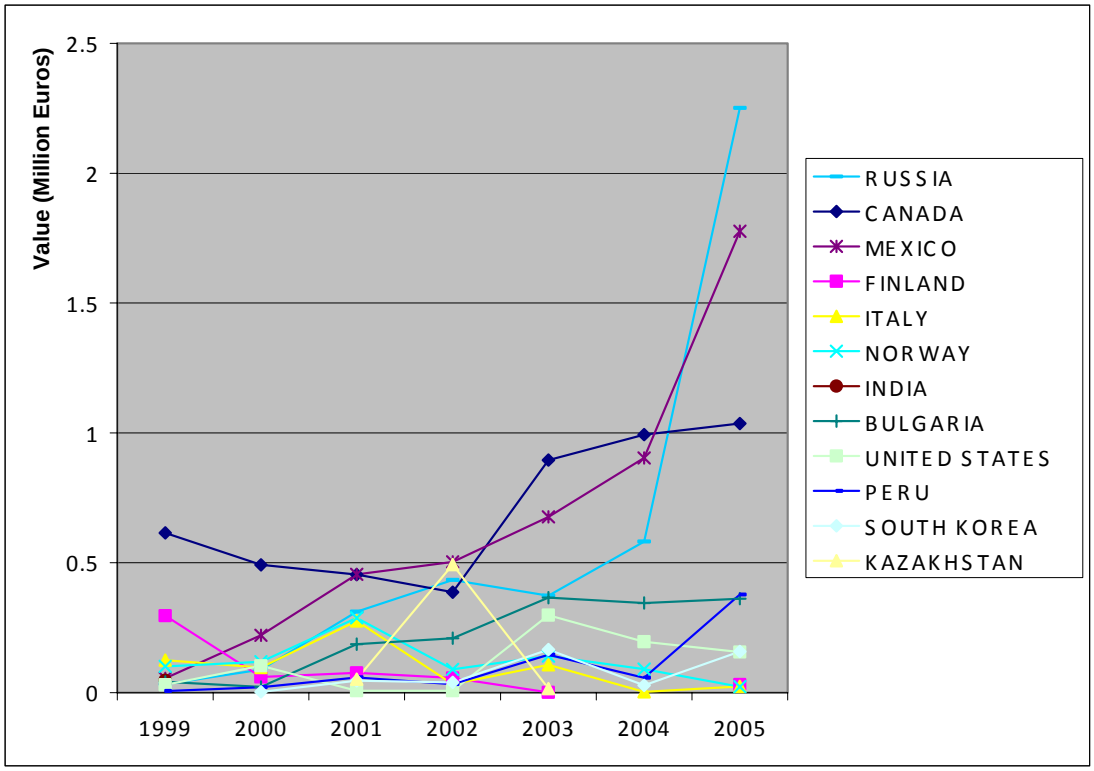
Source: UN Comtrade Database

Table 3.4.3: Top source countries for extra-EU25 imports (2005) – Cadmium, unwrought; cadmium waste and scrap; powders (SITC 689.82)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russia	2.25	0.93
Mexico	1.78	0.79
Canada	1.04	0.64
Peru	0.38	0.16
Bulgaria	0.36	0.18
South Korea	0.16	0.13
United States	0.16	0.09
Total of Above	6.12	2.93
EU25 Extra	6.38	3.07

Source: EU External Trade Database

Figure 3.4.1: Chart showing changes in the value of imports of Cadmium, unwrought; cadmium waste and scrap; powders (SITC 689.82) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.5. Cement

Table 3.5.1: Definition of cement products in SITC

Section	2 - Crude materials, inedible, except fuels
Division	27- Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones)
Groups and sub groups	273 - Stone, sand and gravel
	273.2 - Gypsum, plasters, limestone flux, limestone and other calcareous stone of a kind used for the manufacture of lime or cement 273.22 - Limestone flux; limestone and other calcareous stone of a kind used for the manufacture of lime or cement 273.23 - Gypsum; anhydrite 273.24 - Plasters (consisting of calcined gypsum or calcium sulphate), whether or not coloured, with or without small quantities of accelerators or retarders (including plasters specially prepared for use in dentistry)
Section	6 - Manufactured goods classified chiefly by material
Division	66 - Non-metallic mineral manufactures, n.e.s.
Groups and sub groups	661 Lime, cement, and fabricated construction materials (except glass and clay materials)
	661.2 - Portland cement, aluminous cement, slag cement, supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers 661.21 - Cement clinkers 661.22 - Portland cement 661.23 - Aluminous cement 661.29 - Other hydraulic cements

Table 3.5.2: Imports to EU of cement products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
273 - Stone, sand and gravel	1,239	8,013
273.2 - Gypsum, plasters, limestone flux, limestone and other calcareous stone of a kind used for the manufacture of lime or cement	21	37
273.22 - Limestone flux; limestone and other calcareous stone of a kind used for the manufacture of lime or cement	6	N/A
273.23 - Gypsum; anhydrite	7	N/A
273.24 - Plasters (consisting of calcined gypsum or calcium sulphate), whether or not coloured, with or without small quantities of accelerators or retarders (including plasters specially prepared for use in dentistry)	8	37
661 Lime, cement, and fabricated construction materials (except glass and clay materials)	1,786	7,224
661.2 - Portland cement, aluminous cement, slag cement, supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers	744	4,516
661.21 - Cement clinkers	**463**	**N/A**
661.22 - Portland cement	**243**	**4,479**
661.23 - Aluminous cement	15	36
661.29 - Other hydraulic cements	22	N/A

Source: UN Comtrade Database

Table 3.5.3: Top source countries for extra-EU25 imports (2005) – Cement Clinkers (SITC 661.21)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Egypt	144.93	3,219.11
China	114.40	2,734.14
Turkey	96.06	2,203.42
Venezuela	27.91	407.95
Israel	18.96	410.48
Thailand	17.45	292.44
India	12.42	280.74
Croatia	7.99	178.60
Morocco	5.78	130.51
Switzerland	3.17	119.71
Total of Above	304.14	6,757.98
EU25_Extra	463.49	10,314.12

Source: EU External Trade Database

Table 3.5.4: Top source countries for extra-EU25 imports (2005) – Portland Cement (SITC 661.22)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Turkey	119.69	2,069.61
Russia	42.14	847.53
Croatia	25.66	507.42
Belarus	16.95	447.38
Tunisia	12.32	241.26
Kenya	10.72	97.42
Ukraine	7.68	211.14
Countries and territories not specified for commercial or military reasons within the framework of trade with third countries	2.48	48.64
Switzerland	2.30	49.68
Total of Above	120.24	2,450.46
EU25 Extra	245.52	4,597.34

Source: EU External Trade Database

Figure 3.5.1: Changes in the value of imports of Cement Clinkers (SITC 661.21) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

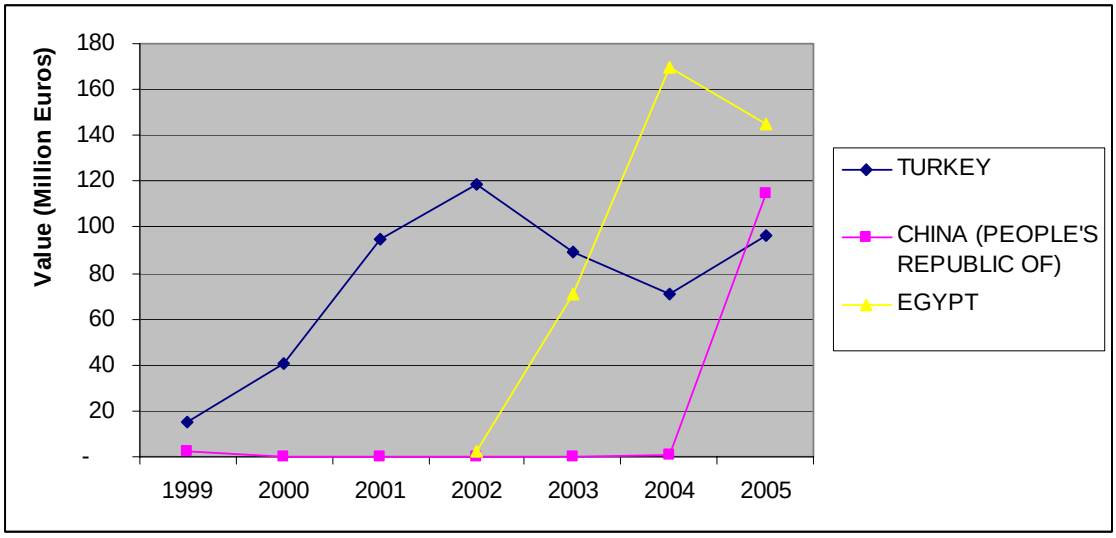
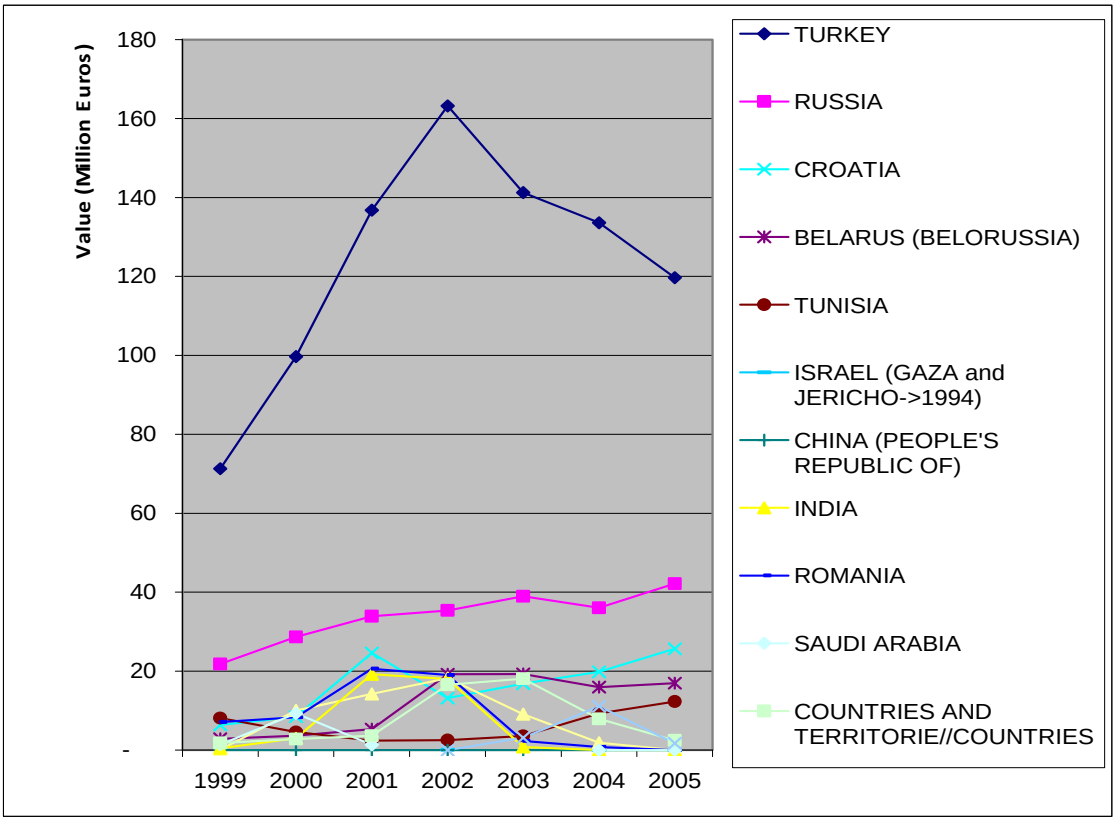


Figure 3.5.2: Changes in the value of imports of Portland Cement (SITC 661.22) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.6. Copper

Table 3.6.1: Definition of copper within SITC

Section	2 - Crude materials, inedible, except fuels
Division	28 - Metalliferous ores and metal scrap
Groups and sub groups	283 - Copper ores and concentrates
	283.1 - Copper ores and concentrates 283.2 - Copper mattes; cement copper (precipitated copper) 283.21 - Copper mattes 283.22 - Cement copper (precipitated copper)
	288 - Non-ferrous base metal waste and scrap, n.e.s. 288.21 - Copper waste and scrap
Section	6 – Manufactured goods
Division	68 – Non-ferrous metals
Groups and sub groups	682 – Copper
	682.1 - Copper, refined and unrefined; copper anodes for electrolytic refining; copper alloys, unwrought 682.3 - Copper bars, rods and profiles 682.4 - Copper wire 682.5 - Copper plates, sheets and strip, of a thickness exceeding 0.15 mm 682.6 - Copper foil (whether or not printed or backed with paper, paperboard, plastics or similar backing materials), of a thickness (excluding any backing) not exceeding 0.15 mm; copper powders and flakes 628.7 - Copper tubes, pipes and tube or pipe fittings (e.g., couplings, elbows, sleeves)
Section	6 - Manufactured goods classified chiefly by material
Division	69 – Manufactures of metals
Groups and sub groups	693 – Wire products (excluding insulated electrical wiring) and fencing grills 693.52 - Cloth (including endless bands), grill, netting and fencing, of copper

Table 3.6.2: Imports to EU of copper products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Copper ores and concentrates (283)	**1,948**	**3,195**
Copper ores and concentrates (283.1)	1,918	3,195
Copper mattes; cement copper (precipitated copper) (283.2)	30	n/a
Copper waste and scrap (288.21)	442	273
Copper Manufactured (682)	6,614	2,583
Cloth, grill, netting and fencing, of copper (693.52)	3	n/a

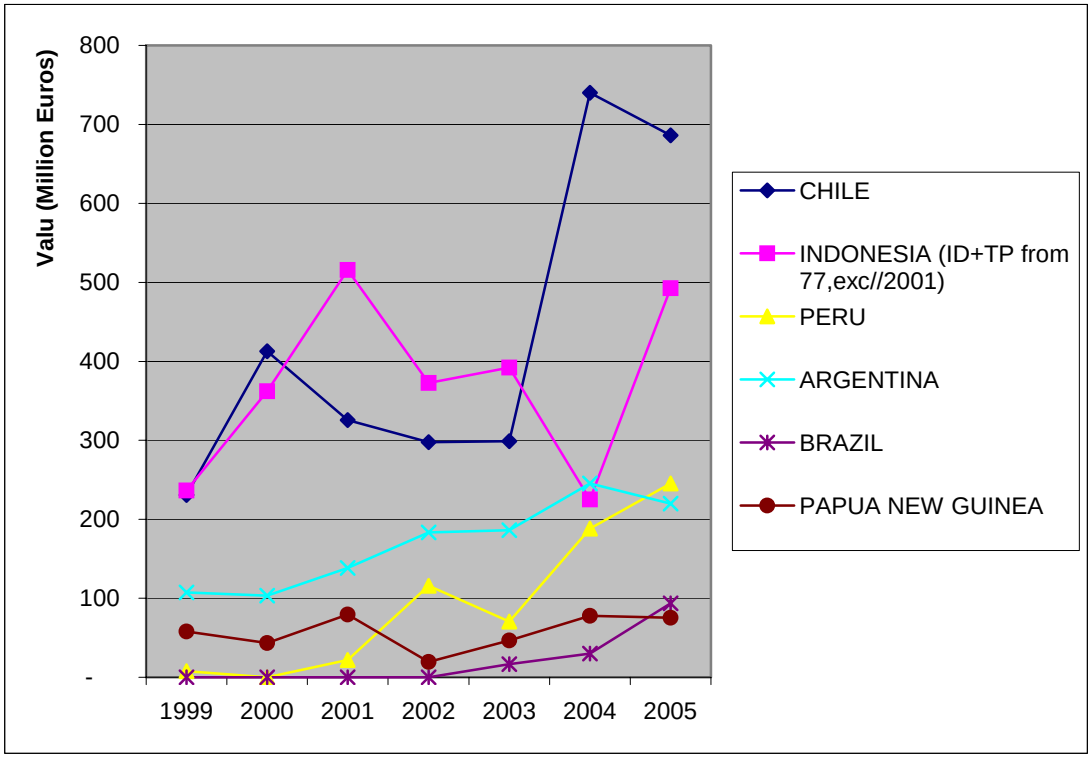
Source: UN Comtrade Database

Table 3.6.3: Top Source Countries for EU25 (2005): Copper Ores and Concentrates (283)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Chile	686	910
Indonesia	492	705
Peru	245	397
Argentina	220	289
Brazil	93	118
Papua New Guinea	75	99
Canada	63	33
Turkey	34	67
Total of above	1908	2618
EU 25 (Extra)	1959	2685

Source: Eurostat external trade database

Figure 3.6.1: Changes in the value of imports of Ores and Concentrates (283) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)s



3.7. Gold

SITC codes given in Table 3.7.1 are not clearly defined for trade in gold ores. The main commodity group that we focus on here is “Ores and concentrates of precious metals; waste, scrap and sweepings of precious metals (other than of gold)” (289). This includes gold ores in the sub group 289.19 but also includes ores and concentrates of some other precious metals, including platinum group metals, and is not broken down further to individual ores. Therefore, caution is necessary when interpreting the data in this section.

Table 3.7.1: Definition of gold within SITC

Section	2 - Crude materials, inedible, except fuels
Division	28 - Metalliferous ores and metal scrap
Groups and sub groups	289 - Ores and concentrates of precious metals; waste, scrap and sweepings of precious metals (other than of gold) **289.19 - Ores and concentrates of other precious metals**
Section	6 - Manufactured goods classified chiefly by material
Division	68 - Non-ferrous metals
Groups and sub groups	681 - Silver, platinum and other metals of the platinum group 681.13 - Silver (including silver plated with gold or platinum), unwrought 681.14 - Silver (including silver plated with gold or platinum), in semi-manufactured or in powdered form 681.22 - Base metals, silver or gold, clad with platinum or other metals of the platinum group, not further worked than semi-manufactured
Section	8 - Miscellaneous manufactured articles
Division	89 - Miscellaneous manufactured articles n.e.s.
Groups and sub groups	897- Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.s. 897.3 - Jewellery of gold, silver or platinum group metals (except watches and watch-cases) and goldsmiths' or silversmiths' wares (including set gems)
Section	9 - Commodities and transactions not classified elsewhere in the SITC
Division	97 - Gold, non-monetary (excluding gold ores and concentrates)
Groups and sub groups	971 - Gold, non-monetary (excluding gold ores and concentrates) 971.01 - Gold (including gold plated with platinum), non-monetary, unwrought or in semi-manufactured forms, or in powder form 971.02 - Base metals or silver, clad with gold, not further worked than semi-manufactured 971.03 - Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals
	972 – Gold coins (only given in Eurostat trade database and not in SITC version 3)

Table 3.7.2: Imports to EU of gold products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Ores and concentrates of other precious metals (289.19)	631	n/a
Jewellery of gold, silver or platinum group metals (897.3)	3,712	n/a
Gold, non-monetary (excluding gold ores and concentrates) (971)	3,801	334

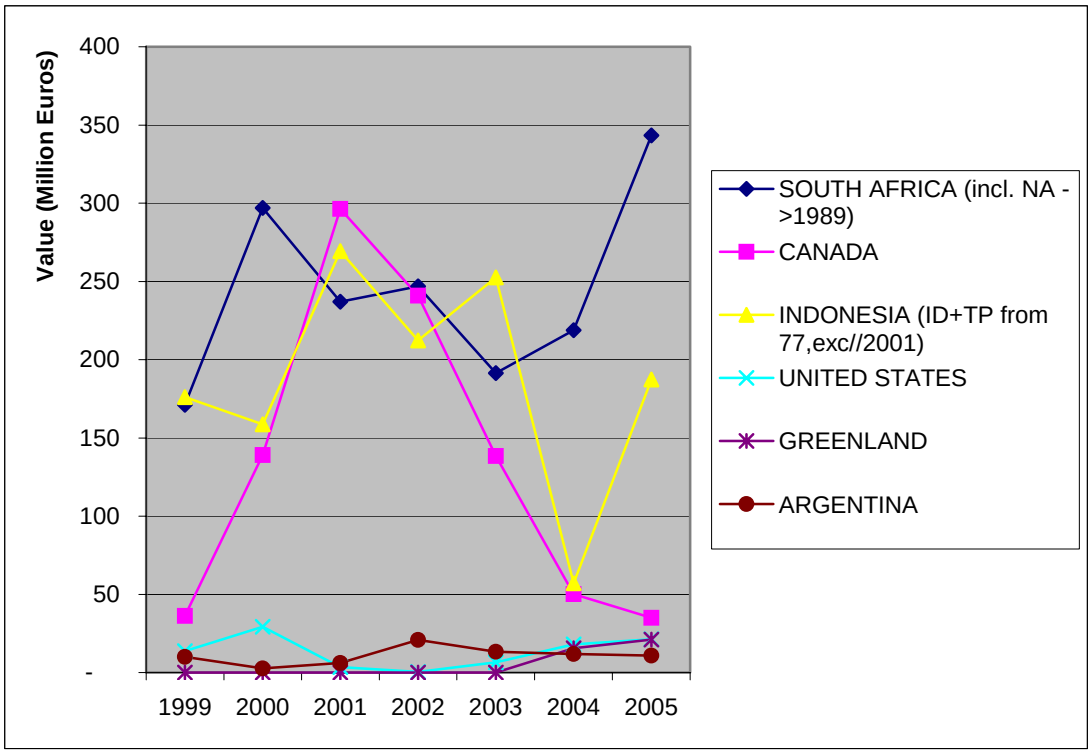
Source: UN Comtrade Database

Table 3.7.3: Top Source Countries for EU25 (2005): Ores and concentrates of other precious metals (289.19)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
South Africa	343	0.8
Indonesia	187	0.01
Canada	35	0.09
Greenland[36]	21	117
United States	21	0.09
Argentina	11	0.2
Norway	5	0.01
Total of above	623	118.2
EU 25 (Extra)	637	120

Source: Eurostat external trade database

Fig 3.7.1: Changes in the value of imports of Ores and concentrates of other precious metals (289.19) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



[36] The high volume to value ratio in Greenland compared to other source countries is due to the Nalunaq Gold Mine having no processing facilities. The as-mined ore (high volume, low gold content) is shipped to Spain for processing, whereas imports from other countries are concentrates (small volume, high gold content).

3.8. Iron and Steel

Table 3.8.1: Definition of iron and steel within SITC

Section	2 - Crude materials, inedible, except fuels
Division	27 - Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones)
Division	28 – Metalliferous ores and metal scrap
Groups and sub groups	281 – Iron Ore and Concentrates 282 - Ferrous waste and scrap
Section	6 - Manufactured goods classified chiefly by material
Division	67 - Iron and steel
Groups and sub groups	671 - Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys 672 - Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel 673 - Flat-rolled products of iron or non-alloy steel, not clad, plated or coated 674 - Flat-rolled products of iron or non-alloy steel, clad, plated or coated 676 - Iron and steel bars, rods, angles, shapes and sections (including sheet piling) 677 - Rails or railway track construction material, of iron or steel 678 - Wire of iron or steel 679 - Tubes, pipes and hollow profiles, and tube or pipe fittings, of iron or steel

We concentrate on codes under Iron and Steel (67).

Table 3.8.2: Imports to EU of Iron and Steel (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Metalliferous Ore, Scrap (28)	18,906	N/a
Iron Ore and Concentrates (281)	5,897	152,342
Ferrous waste and scrap (282)	2279	7460
Iron and steel (67)	**22,424**	**34,551**
Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys (671)	6,278	7,286
Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel (672)	2,584	6,566
Flat-rolled products of iron or non-alloy steel, not clad, plated or coated (673)	3,977	8,697
Flat-rolled products of iron or non-alloy steel, clad, plated or coated (674)	1,558	2,459
Flat-rolled products of steel alloy	1,259	797
Iron and steel bars, rods, angles, shapes and sections (including sheet piling) (676)	3,157	5,661
Rails or railway track construction material, of iron or steel (677)	67	48
Wire of iron or steel (678)	602	639
Tubes, pipes and hollow profiles, and tube or pipe fittings, of iron or steel (679)	2,941	2,398

Source: UN Comtrade Database

Table 3.8.3: Top source countries for extra-EU25 imports (2005) – Iron and Steel (SITC 67)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russian Federation	4083	8980
Ukraine	2157	4875
South Africa	1614	2195
China	1412	1929
Turkey	1258	2748
Brazil	1058	1980
Switzerland	1023	1074
Norway	1020	1503
United States	924	617
India	827	1068
Total Of Above	15377	26969
EU25_Extra	22525	37029

Source: EU External Trade Database

Figure 3.8.1: Changes in the value of imports of Iron and Steel (SITC 67) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

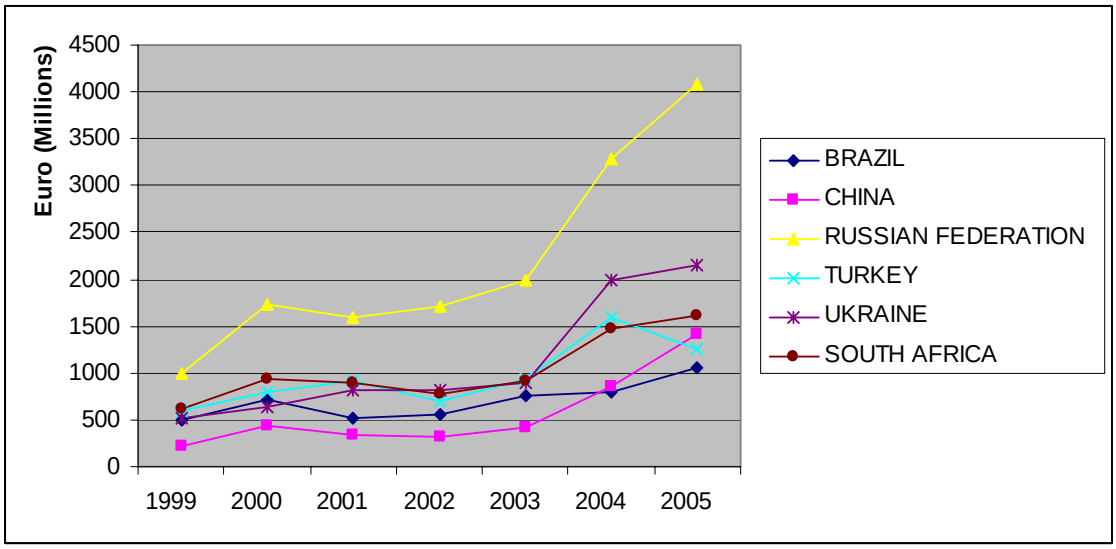
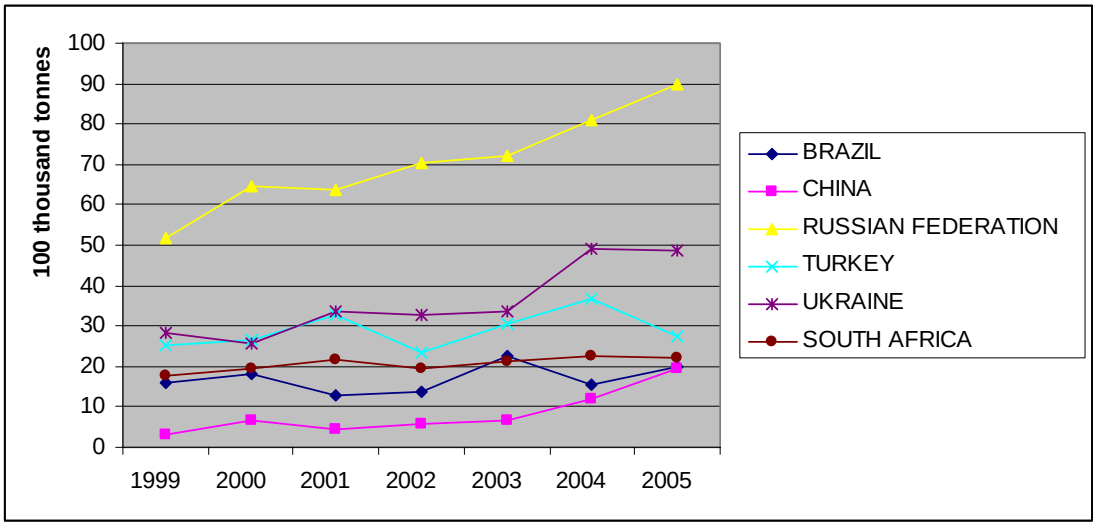


Figure 3.8.2: Volume of imports of Iron and Steel (SITC 67) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.9. Iron Ores

Table 3.9.1: Definition of iron within SITC

Section	2 – Crude materials, inedible, except fuels
Division	27 - Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones) 274 – Sulphur, unroasted, iron pyrites
Division	28 - Metalliferous ores and metal scrap
Groups and sub groups	281 – Iron Ore and Concentrates 281.4 Roasted iron pyrites (pyrites cinders), whether or not agglomerated 281.5 - Iron ore and concentrates, not agglomerated 281.6 - Iron ore agglomerates (sinters, pellets, briquettes, etc.) 282 - Ferrous waste and scrap 282.1 - Waste and scrap of cast iron
Section	6 - Manufactured goods classified chiefly by material
Division	67 - Iron and steel
Groups and sub groups	671 - Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys 672 - Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel 673 - Flat-rolled products of iron or non-alloy steel, not clad, plated or coated 674 - Flat-rolled products of iron or non-alloy steel, clad, plated or coated 676 - Iron and steel bars, rods, angles, shapes and sections (including sheet piling) 677 - Rails or railway track construction material, of iron or steel 678 - Wire of iron or steel 679 - Tubes, pipes and hollow profiles, and tube or pipe fittings, of iron or steel

Table 3.9.2: Imports to EU of Iron Ores and Concentrates (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Sulphur, unroasted, iron pyrites (274)	26	243
Metalliferous Ore, Scrap (28)	18,906	N/a
Iron Ore and Concentrates (281)	5,897	152,342
Roasted iron pyrites (pyrites cinders), whether or not agglomerated (281.4)	2	n/a
Iron ore and concentrates, not agglomerated (281.5)	**4,113**	**115,594**
Iron ore agglomerates (sinters, pellets, briquettes, etc.) (281.6)	**1,780**	**36,749**
Waste and scrap of cast iron (282.1)	37	204
Iron and steel (67)	22,424	34,551
Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys (671)	6,278	7,286
Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel (672)	2,584	6,566
Flat-rolled products of iron or non-alloy steel, not clad, plated or coated (673)	3,977	8,697
Flat-rolled products of iron or non-alloy steel, clad, plated or coated (674)	1,558	2,459
Iron and steel bars, rods, angles, shapes and sections (including sheet piling) (676)	3,157	5,661
Rails or railway track construction material, of iron or steel (677)	67	48
Wire of iron or steel (678)	602	639
Tubes, pipes and hollow profiles, and tube or pipe fittings, of iron or steel (679)	2,941	2,398

Source: UN Comtrade Database

Table 3.9.3: Top source countries for extra EU25 imports (2005): Iron ore and concentrates, not agglomerated (281.5)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	1,984	58,761
Ukraine	345	7,002
Australia	338	11,293
Mauritania	314	8,660
South Africa	249	6,848
Russian Federation	237	3,785
Canada	167	4,486
Venezuela	153	3,772
Norway	142	3,706
Countries and territories not specified for commercial or military reasons	130	2,469
India	54	1,340
Argentina	20	334
Total of Above	4,133	112,456
Total EU25 (Extra)	4,173	113,377

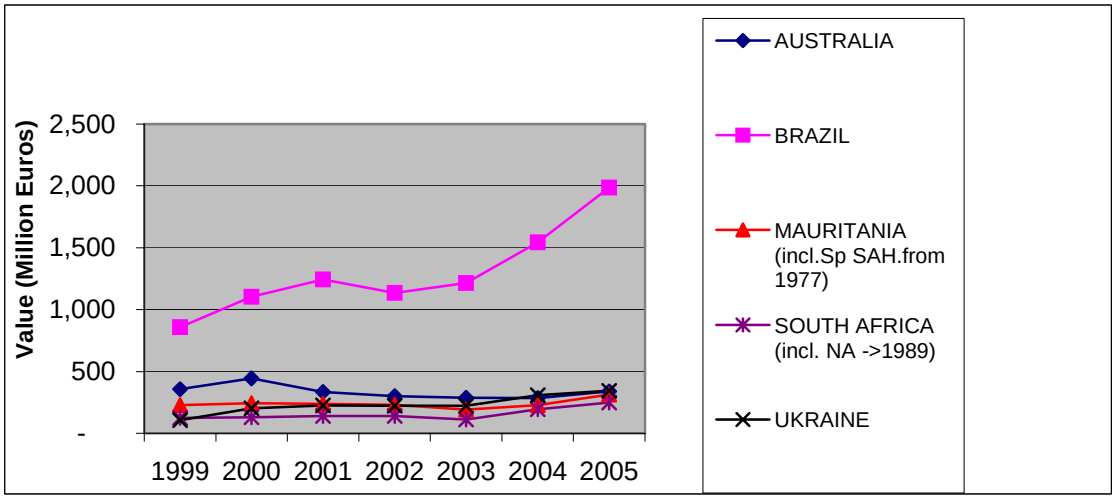
Source: Eurostat external trade database

Table 3.9.4: Top source countries for extra EU25 imports (2005): Iron ore agglomerates (281.6)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Brazil	556	10,626
Russian Federation	344	5,313
Canada	268	6,113
Ukraine	224	3,660
Countries and territories not specified for commercial or military reasons	163	2,024
Australia	52	1,396
Mauritania	39	1,454
Venezuela	32	302
Bosnia and Herzegovina	13	305
South Africa	12	260
Trinidad and Tobago	7	94
Total of Above	1,711	31,547
Total EU25 (Extra)	1,730	31,836

Source: Eurostat external trade database

Figure 3.9.1: Changes in the value of imports of Iron Ore and Concentrates, Not Agglomerated (281.5) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



3.10.Mercury

Table 3.10.1: Definition of Mercury in SITC

Section	5 - Chemicals and related products, n.e.s.
Division	52 - Inorganic chemicals
Groups and sub groups	522 - Inorganic chemical elements, oxides and halogen salts
	522.2 - Other chemical elements 522.27 – Mercury

Table 3.10.2: Imports to EU of Mercury (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
522.27 - Mercury	1.9	0.28

Source: UN Comtrade Database

Table 3.10.3: Top source countries for extra-EU25 imports (2005) – Mercury (SITC 522.27)[37]

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russian Federation	0.54	0.03
United States	0.52	0.03
China	0.30	0.02
Japan	0.21	0.01
Switzerland	0.13	0.19
Morocco	0.08	0.00
Total of Above	1.78	0.27
EU25_Extra	1.91	0.28

Source: EU External Trade Database

Figure 3.10.1: Changes in the value of imports of Mercury (SITC 522.27) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

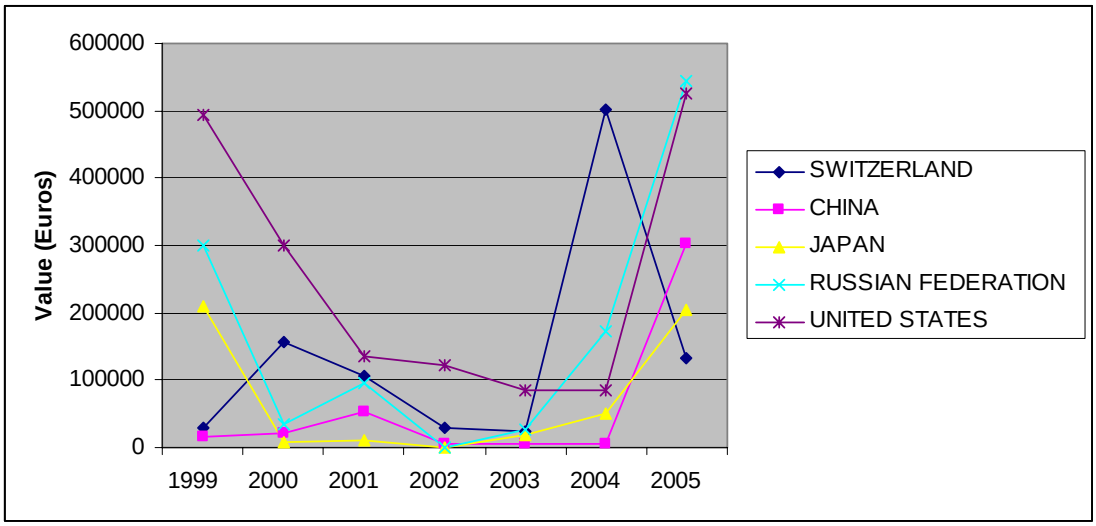
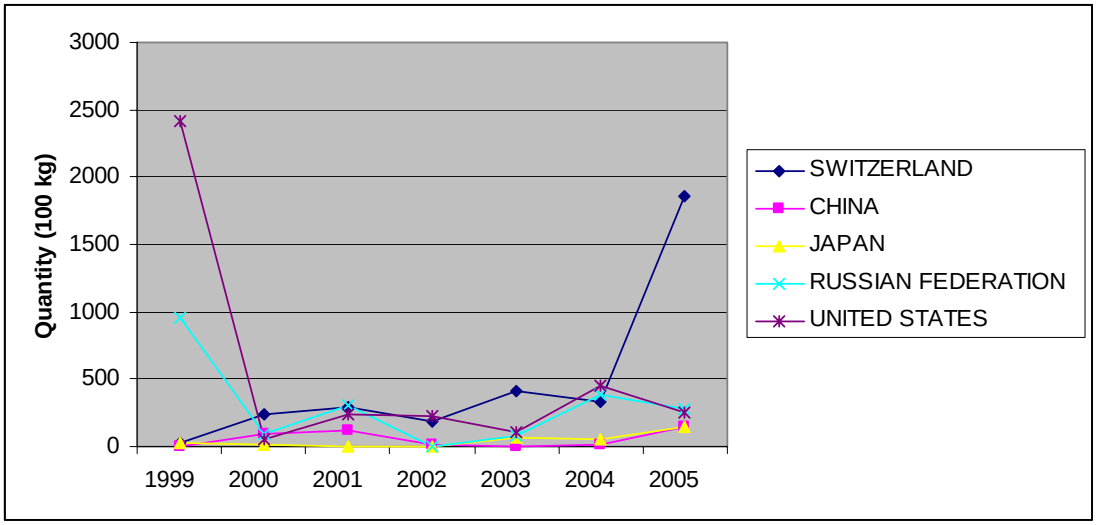


Figure 3.10.2: Changes in the volume of imports of Mercury (SITC 522.27) to EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



[37] Note that there are only small amounts of mercury imported into EU. Intra EU trade is more significant amounting to about 11 million euros (about 14,000 tonnes) in 2005. Top source countries given in Table 3.10.3 are not necessarily primary producers since recycling of mercury accounts for a significant part of the global market.

3.11. Phosphate

Table 3.11.1: Definition of Phosphate products in SITC

Section	2 Crude materials, inedible, except fuels
Division	27 Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones)
Groups and sub groups	272 Fertilizers, crude, other than those of division 56
	272.3 – Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk
	272.31 ...unground 272.32 ...ground

Table 3.11.2: Imports to EU of Phosphate Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk (272.3)	389	n/a
...unground (272.31)	**266**	**n/a**
...ground (272.32)	**123**	**n/a**

Source: UN Comtrade Database

Table 3.11.3: Top source countries for extra-EU imports (2005) - Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk, unground (272.31)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Morocco	119	2,903
Russian Federation	63	884
Syrian Arab Republic	23	569
Jordan	23	477
Tunisia	17	412
Israel	14	270
Algeria	6	163
South Africa	2	24
Total of above	267	5,702
Total EU25 (Extra)	268	5,716

Source: EU External Trade Database

Table 3.11.4 Top source contries for extra-EU imports (2005) - Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk, ground (272.32)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Morocco	51	1,064
Russian federation (Russia)	50	1,006
Syrian Arab Republic (Syria)	11	320
Tunisia	5	93
Jordan	3	62
Algeria	2	51
United States	0.11	0.07
Croatia	0.07	0.45
Total of above	123	2,596
Total EU25 (Extra)	123	2,596

Source: EU External Trade Database

Figure 3.11.1: Changes in the value of imports of Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk, unground (272.31) to the EU from the top source countries in 2005, 1999-2005 (source: Eurostat external trade database)

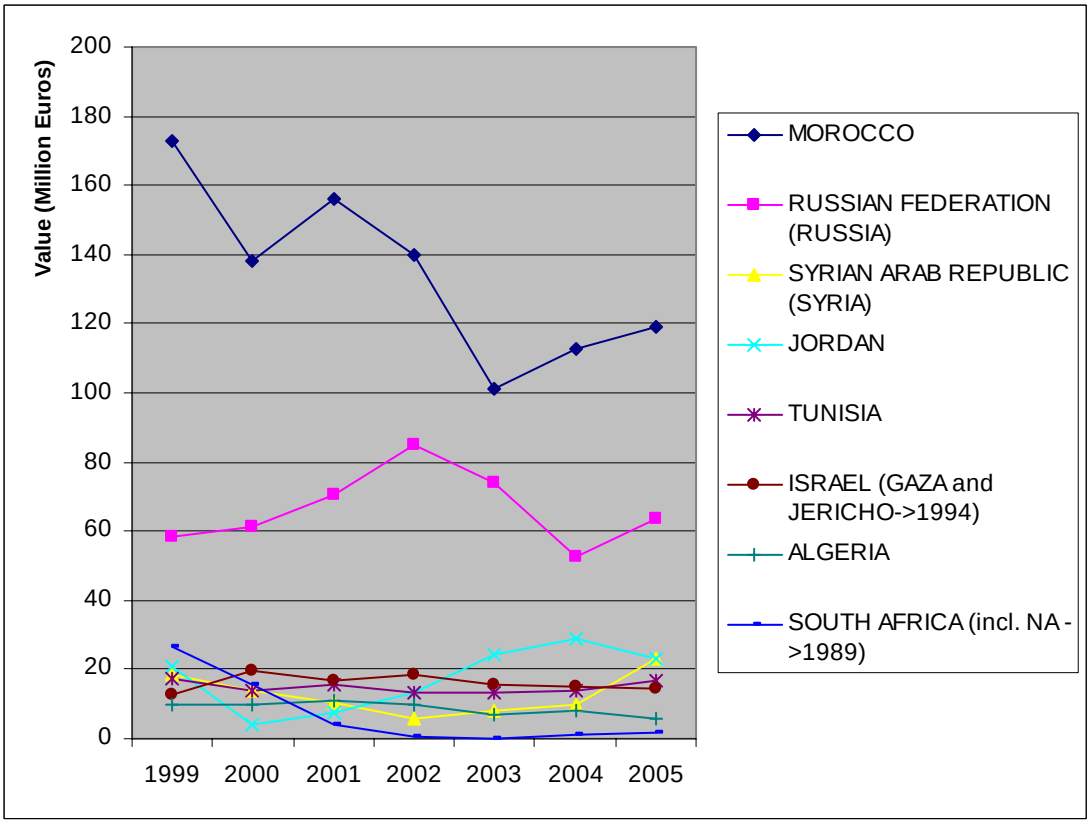
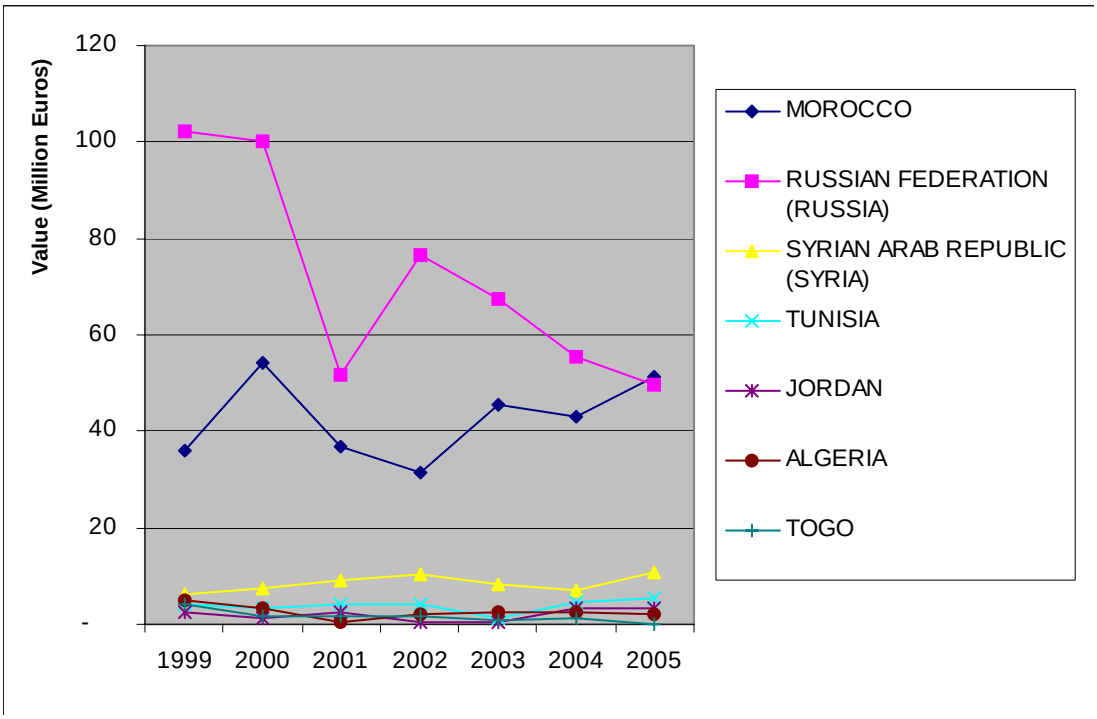


Figure 3.11.2: Changes in the value of imports of Natural calcium phosphates, natural aluminium calcium phosphates and phosphatic chalk, ground (272.32) to the EU from the top source countries in 2005, 1999-2005 (source: Eurostat external trade database)



3.12.Zinc

Table 3.12.1: Definition of zinc within SITC

Section	2 - Crude materials, inedible, except fuels
Division	28 - Metalliferous ores and metal scrap
Groups and sub groups	287- Ores and concentrates of base metals, n.e.s.
	287.5 - Zinc ores and concentrates
	288 - Non-ferrous base metal waste and scrap, n.e.s. 288.25 - Zinc waste and scrap (other than dust)
Section	5 - Chemicals and related products, n.e.s.
Division	52 - Inorganic chemicals
Groups and sub groups	522 - Inorganic chemical elements, oxides and halogen salts
	522.5 - Oxides of zinc, chromium, manganese, iron, cobalt, titanium and lead 522.51 - Zinc oxide; zinc peroxide
Section	6 - Manufactured goods classified chiefly by material
Division	68 - Non-ferrous metals
Groups and sub groups	686 – Zinc
	686.1 - Zinc and zinc alloys, unwrought 686.3 - Zinc and zinc alloys, worked
Division	69 - Manufactures of metals, n.e.s.
Groups and sub groups	699 – Manufactures of base metal, n.e.s.
	699.77 - Articles of zinc, n.e.s.

Table 3.12.2: Imports to EU of zinc products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Zinc ores and concentrates (287.5)	**749**	**2,900**
Zinc waste and scrap (288.25)	4	7
Zinc oxides (522.51)	55	58
Zinc Manufactures (686)	474	492
Unwrought (686.1)	421	459
Worked (686.3)	52	33
Manufactures of zinc, n.e.s (699.77)	58	14

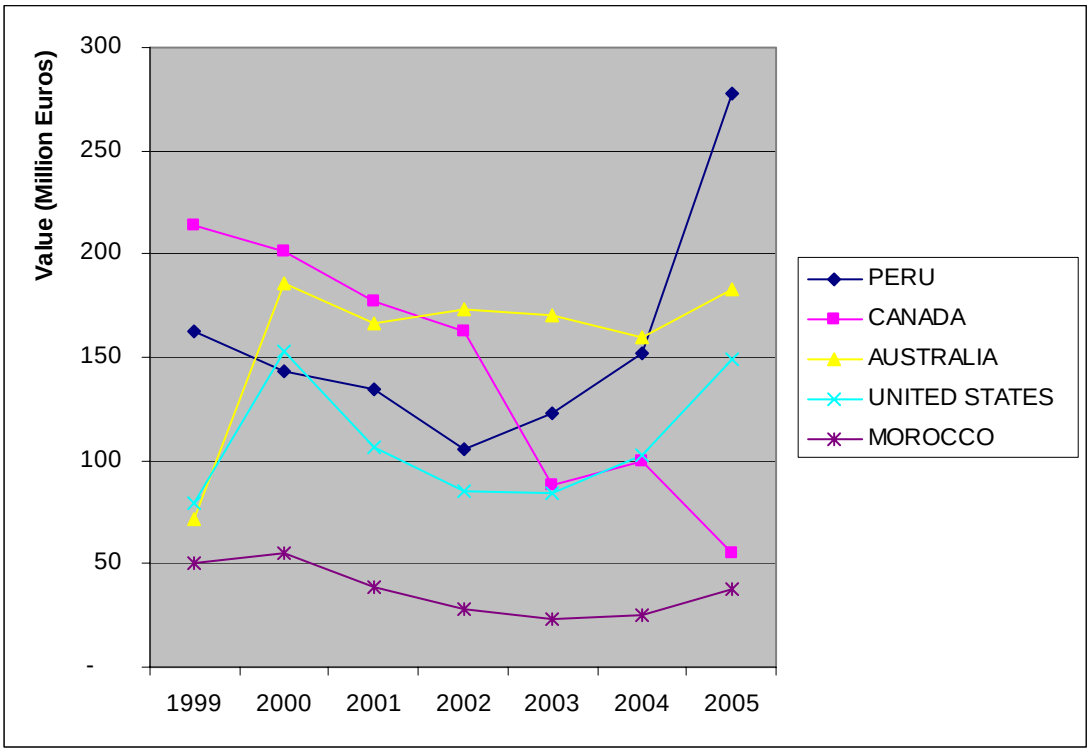
Source: UN Comtrade Database

Table 3.12.3: Top Source Countries for EU25 (2005): Zinc Ores and Concentrates (287.5)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Peru	278	814
Australia	183	562
United States	149	388
Canada	55	189
Morocco	38	144
Turkey	24	82
Honduras	24	73
Mexico	15	48
Bolivia	8	25
Tunisia	6	18
Total of above	780	2343
Total EU 25 (Extra)	788	2379

Source: Eurostat external trade database

Figure 3.12.1: Changes in the value of imports of Zinc Ores and Concentrates (287.5) to the EU25 from top source countries 1999-2005 (Source: EU external trade database).



4. Fossil Fuels

4.1. Coal

Table 4.1.1: Definition of coal within SITC

Section	3 - Mineral fuels, lubricants and related materials
Division	32 - Coal, coke and briquettes
Groups and sub groups	321 - Coal, whether or not pulverized, but not agglomerated
	321.1 – Anthracite 321.2 - Other coal 321.21 – Bituminous 321.22 – Other
	322 - Briquettes, lignite and peat
	322.1 - Briquettes, ovoids and similar solid fuels manufactured from coal 322.2 - Lignite 322.3 – Peat
	325 - Coke and semi-coke (including char) of coal, of lignite or of peat, whether or not agglomerated; retort carbon
Division	33 - Petroleum, petroleum products and related materials
Groups and sub groups	335.21 - Tar distilled from coal, from lignite or from peat, and other mineral tars, whether or not dehydrated or partially distilled (including reconstituted tars)
Division	34 - Gas, natural and manufactured
Groups and sub groups	345 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons
Section	6 - Manufactured goods classified chiefly by material
Groups and sub groups	661.81 - Articles of asphalt or of similar material (e.g., petroleum bitumen or coal tar pitch)

Table 4.1.2: Imports to EU of coal and coal related products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Coal, not agglomerated (321)	**11,886**	**212,828**
Anthracite (321.1)	580	6,662
Other coal (321.2)	11,306	206166
Bituminous (321.21)	8,033	145,449
Other (321.22)	3,273	60,717
Briquettes etc. manufactured from coal (322.1)	0.2	
Coke and semi-coke of coal, lignite or peat[38] (325)	855	4,128
Total Coal, coke and briquettes (32)	12,786	n/a
Tar distilled from coal etc. (335.21)	12	n/a
Coal gas etc. (345)	1	n/a
Articles of asphalt or similar (661.81)	39	74

Source: UN Comtrade Database

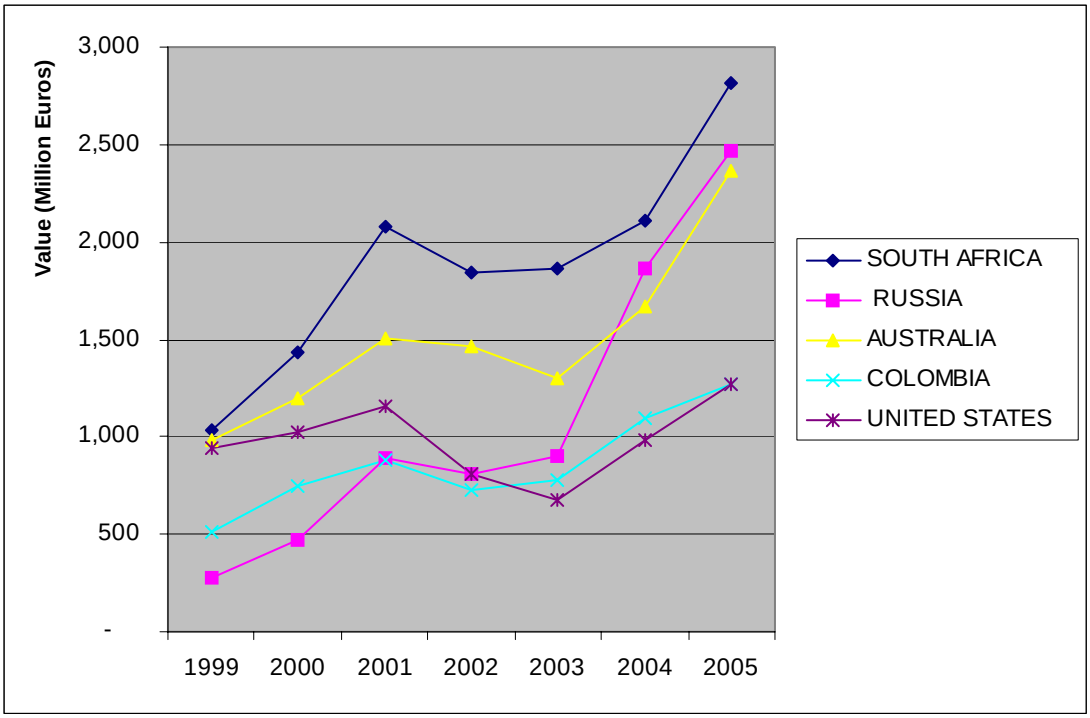
[38] This group of commodities is not broken down further in the SITC list. Therefore, the division between coke from coal, lignite or peat is not available.

Table 4.1.3: Top Source Countries for EU25 (2005): Coal, not agglomerated (321)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
South Africa	2,818	51,469
Russia	2,465	44,007
Australia	2,363	26,861
Colombia	1,272	23,123
United States	1,271	15,026
Indonesia	724	14,583
Canada	567	6129
Venezuela	131	1963
Ukraine	114	1579
China	106	1047
Norway	75	1136
Total of above	11,906	186,923
EU 25 (Extra)	12,162	191,477

Source: Eurostat external trade database

Figure 4.1.1: Changes in the value of imports of Coal, not agglomerated (321). Source: Eurostat External Trade Database



4.2. Crude Petroleum

Table 4.2.1: Definition of Petrol within SITC

Section	3 - Mineral fuels, lubricants and related materials
Division	33 - Petroleum, petroleum products and related material
Groups and sub groups	333 - Petroleum oils and oils obtained from bituminous minerals, crude
	334 - Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations 334.1 - Motor spirit (gasoline) and other light oils 334.2 - Kerosene and other medium oils (not including gas oils) 334.3 - Gas oils 334.4 - Fuel oils, n.e.s. 334.5 - Lubricating petroleum oils and oils obtained from bituminous minerals, other heavy petroleum oils and heavy oils obtained from bituminous minerals (other than crude), and heavy preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations
	335 - Residual petroleum products, n.e.s., and related materials 335.1 - Petroleum jelly; paraffin wax, microcrystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products obtained by synthesis or by other processes, whether or not coloured 335.2 - Mineral tars and products of their distillation (including similar products obtained by processing petroleum or by any other process) 335.3 - Pitch and pitch coke, obtained from coal tar or from other mineral tars 335.4 - Petroleum bitumen, petroleum coke and bituminous mixtures, n.e.s.
Division	34 - Gas, natural and manufactured
Groups and sub groups	344 - Petroleum gases and other gaseous hydrocarbons, n.e.s 344.1 - Ethylene, propylene, butylene and butadiene, liquefied 344.2 - Gaseous hydrocarbons, liquefied, n.e.s. 344.9 - Gaseous hydrocarbons in the gaseous state, n.e.s.
Section	5- Chemicals and related products, n.e.s
Division	57 – Plastics in primary forms
Groups and sub groups	575 - Other plastics, in primary forms 575.9 - Plastics, n.e.s. 575.96 - Petroleum resins, coumarone-indene resins, polyterpenes, polysulphides, polysulphones and plastics, n.e.s.

Table 4.2.2: Imports to EU of Petroleum and related products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
Petroleum, petroleum products and related material (33)	201,168	n/a
Petroleum oils and oils obtained from bituminous minerals, crude (333)	**164,752**	**n/a**
Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations (334)	34,901	91,978
Residual petroleum products, n.e.s., and related materials (335)	1,516	n/a
Petroleum jelly; paraffin wax, microcrystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products obtained by synthesis or by other processes, whether or not coloured (335.1)	246	n/a
Petroleum bitumen, petroleum coke and bituminous mixtures, n.e.s. (335.4)	999	n/a
Petroleum gases and other gaseous hydrocarbons, n.e.s (344)	664	2,052
Petroleum resins, coumarone-indene resins, polyterpenes, polysulphides, polysulphones and plastics, n.e.s. (575.96)	262	146

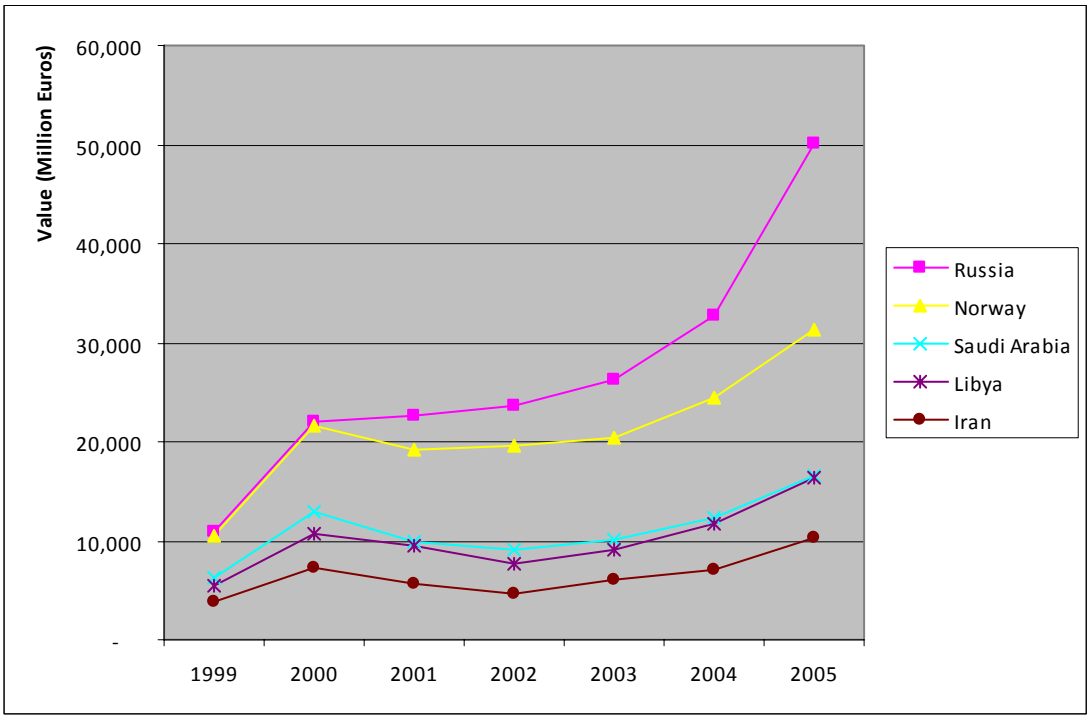
Source: UN Comtrade Database

Table 4.2.3: Top source countries for extra EU25 imports (2005): Petroleum oils and oils obtained from bituminous minerals, crude (333)

	Value of Imports (Million Euro)	Volume of Imports (Thousand tonnes)
Russian Federation	50,087	172,161
Norway	31,404	96,896
Saudi Arabia	16,606	56,878
Libya	16,296	50,015
Iran	10,317	36,087
Algeria	8,760	25,025
Kazakhstan	7,427	22,951
Nigeria	6,460	18,906
Iraq	3,591	12,745
Syrian Arab Republic	2,479	8,730
Mexico	2,474	10,475
Azerbaijan	2,136	6,538
Angola	2,136	6,889
Kuwait	2,094	7,500
Venezuela	1,518	7,128
Total of Above	163,785	538,923
Total EU25 (Extra)	169,112	557,193

Source: Eurostat external trade database

Figure 4.2.1: Changes in the value of imports of Petroleum oils and oils obtained from bituminous minerals, crude (333) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



4.3. Gas

Table 4.3.1: Definition of Natural Gas Products in SITC

Section	3 - Mineral fuels, lubricants and related materials
Division	34 - Gas, natural and manufactured
Groups and sub groups	342 - Liquefied propane and butane 342.1 - Propane, liquefied 342.5 - Butanes, liquefied
	343 - Natural gas, whether or not liquefied 343.1 343.1 - Natural gas, liquefied 343.2 - Natural gas, in the gaseous state
	344 - Petroleum gases and other gaseous hydrocarbons, n.e.s. 344.1 - Ethylene, propylene, butylene and butadiene, liquefied 344.2 344.2 - Gaseous hydrocarbons, liquefied, n.e.s. 344.9 - Gaseous hydrocarbons in the gaseous state, n.e.s.
	345 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons 345.0 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons

Table 4.3.2: Imports to EU of Natural Gas Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
34 - Gas, natural and manufactured	32,416	n/a
342 - Liquefied propane and butane	2,896	9,035
342.1 - Propane, liquefied	2,255	7,054
342.5 - Butanes, liquefied	642	1,981
343 - Natural gas, whether or not liquefied	28,855	157,236
343.1 - Natural gas, liquefied	**5,861**	**21,579**
343.2 - Natural gas, in the gaseous state	**22,994**	**135,657**
Group: 344 - Petroleum gases and other gaseous hydrocarbons, n.e.s.	664	n/a
344.1 - Ethylene, propylene, butylene and butadiene, liquefied	149	413
344.2 - Gaseous hydrocarbons, liquefied, n.e.s.	515	1,639
344.9 - Gaseous hydrocarbons in the gaseous state, n.e.s.	2	n/a
Group: 345 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons	0.6	n/a
345.0 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons	0.6	n/a

Source: UN Comtrade Database

Table 4.3.3: Top source countries for extra-EU25 imports (2005) – Natural Gas Liquefied (343.1)[39]

	Value (million euros)	Quantity (thousand tonnes)
Algeria	2,925	5,615
Nigeria	1,080	4,973
Qatar	789	3,723
Egypt	626	2,247
Oman	249	1,277
Libya	142	692
Trinidad and Tobago	130	418
Malaysia	45	242
United Arab Emirates	41	218
Australia	11	60
Total of Above	6,039	19,465
Total EU25 (Extra)	6,039	19,465

Source: Eurostat external trade database

Table 4.3.4: Top source countries for extra-EU25 imports (2005) – Natural Gas in the Gaseous State (343.2)

	Value (million euros)	Quantity (thousand tonnes)
Countries and territories not specified for commercial or military reasons	13,487	60,638
Norway	5,305	19,084
Russia	4,197	27,033
Algeria	1,530	7,641
Turkmenistan	443	2,186
Kazakhstan	196	1,023
Uzbekistan	127	693
Total of Above	25,285	118,299
Total EU25 (Extra)	25,287	118,301

Source: Eurostat external trade database

[39]Note: there are other source countries with very small values of extra EU imports, but due to rounding the totals here do not show this.

Figure 4.3.1: Changes in the value of imports of Liquefied Natural Gas (343.1) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

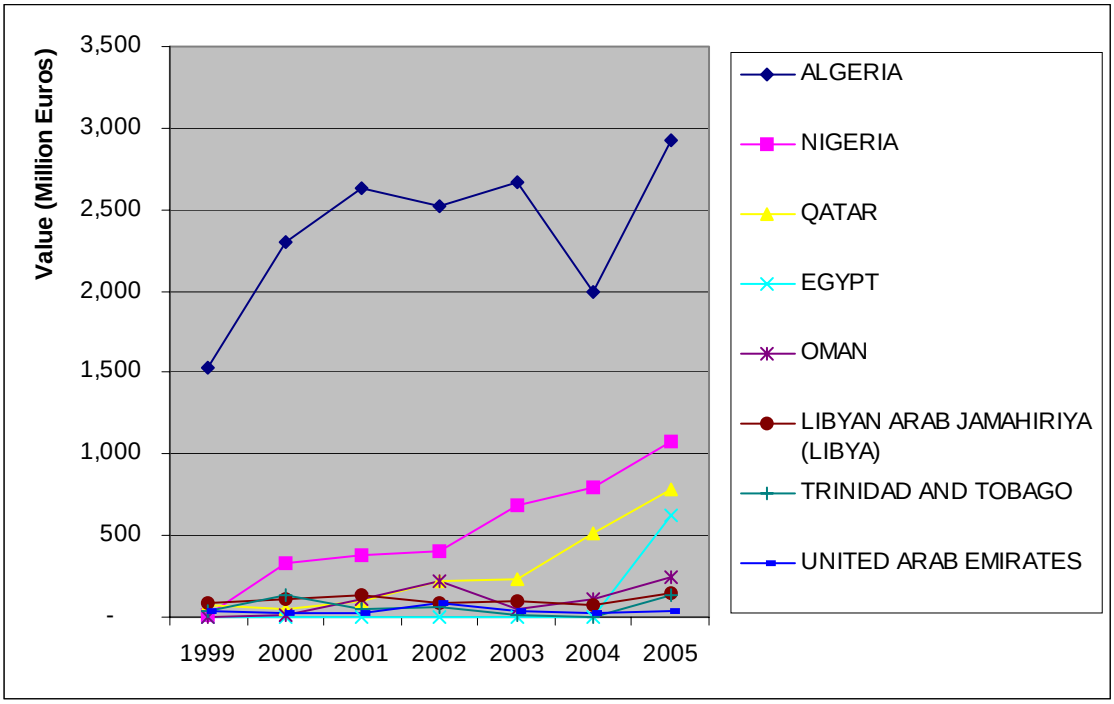
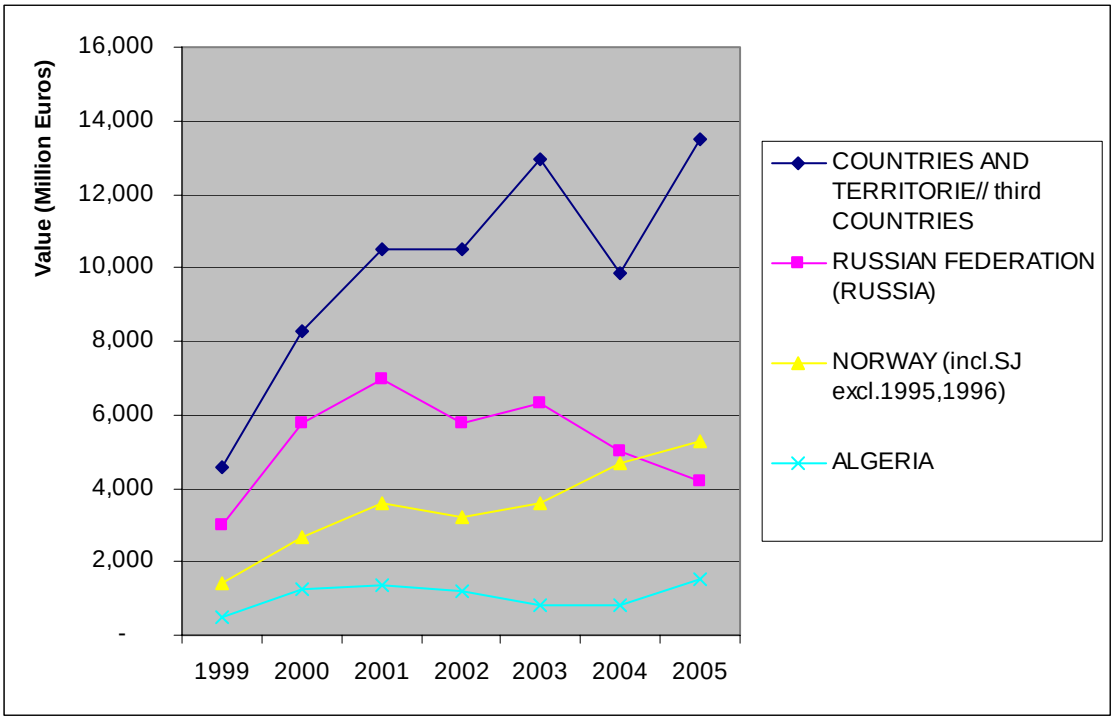


Figure 4.3.2: Changes in the value of imports of Natural gas, in the gaseous state (343.2) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

4.4.



4.4. Liquefied Propane and Butane Gas

Table 4.4.1: Definition of Propane and Butane Gas products in SITC

Section	3 Mineral fuels, lubricants and related materials
Division	34 - Gas, natural and manufactured
Groups and sub groups	342 - Liquefied propane and butane 342.1 - Propane, liquefied 342.5 - Butanes, liquefied
	343 - Natural gas, whether or not liquefied
	344 - Petroleum gases and other gaseous hydrocarbons, n.e.s.
	345 - Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons

Table 4.4.2: Imports to EU of Propane and Butane (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
342 - Liquefied propane and butane	2,896	9,035
342.1 - Propane, liquefied	**2,255**	**7,054**
342.5 - Butanes, liquefied	**641**	**1,981**

Source: UN Comtrade Database

Table 4.4.3: Top source countries for extra-EU imports (2005) – Propane, liquefied (342.1)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Algeria	786	2,187
Norway	636	1,768
Saudi Arabia	207	586
Kazakhstan	126	337
Egypt	126	307
Russia	119	321
Libya	115	296
Nigeria	66	170
United States	35	104
Equatorial Guinea	23	49
Total of Above	2,239	6,125
Total EU25 (Extra)	2,291	6,261

Source: Eurostat external trade database

Table 4.4.4: Top source countries for extra-EU imports (2005) – Butane, liquefied (342.5)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Norway	212	548
Algeria	132	405
Countries and territories not specified for commerical or military reasons in the framework of trade with third countries	68	159
Nigeria	44	126
Kazakhstan	42	118
Croatia	24	61
Saudi Arabia	20	68
Argentina	20	44
Equatorial Guinea	18	40
Russia	8	21
Total of Above	589	1,590
Total EU25 Extra	643	1,715

Source: Eurostat external trade database

Figure 4.4.1: Changes in value of imports of Liquefied Propane (SITC 342.1) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

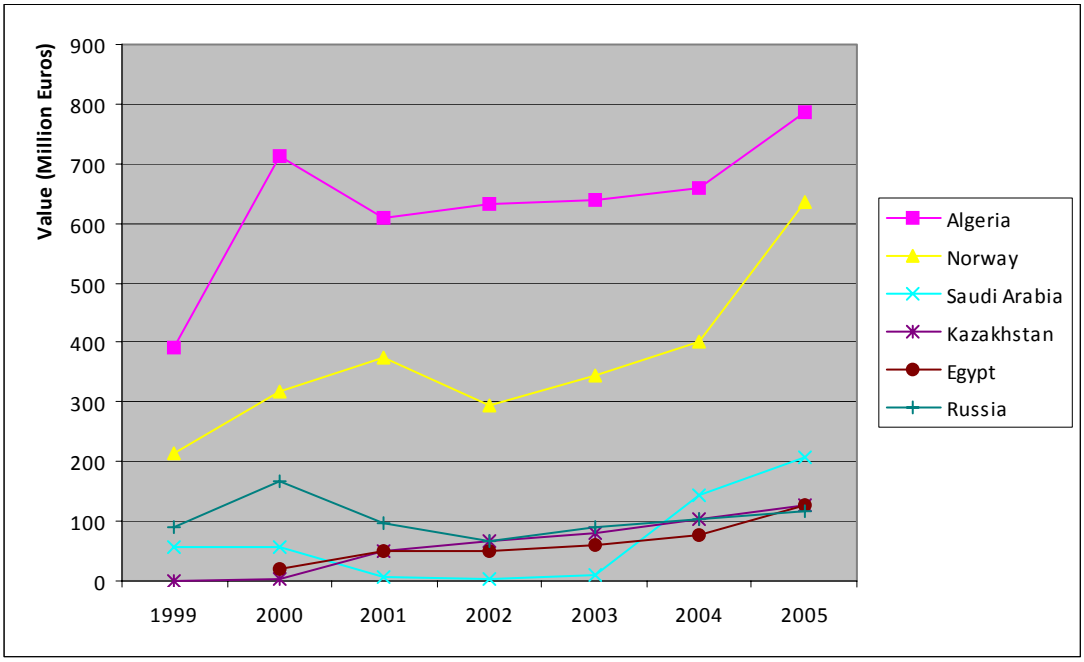


Figure 4.4.2: Changes in volume of imports of Liquefied Propane (SITC 342.1) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

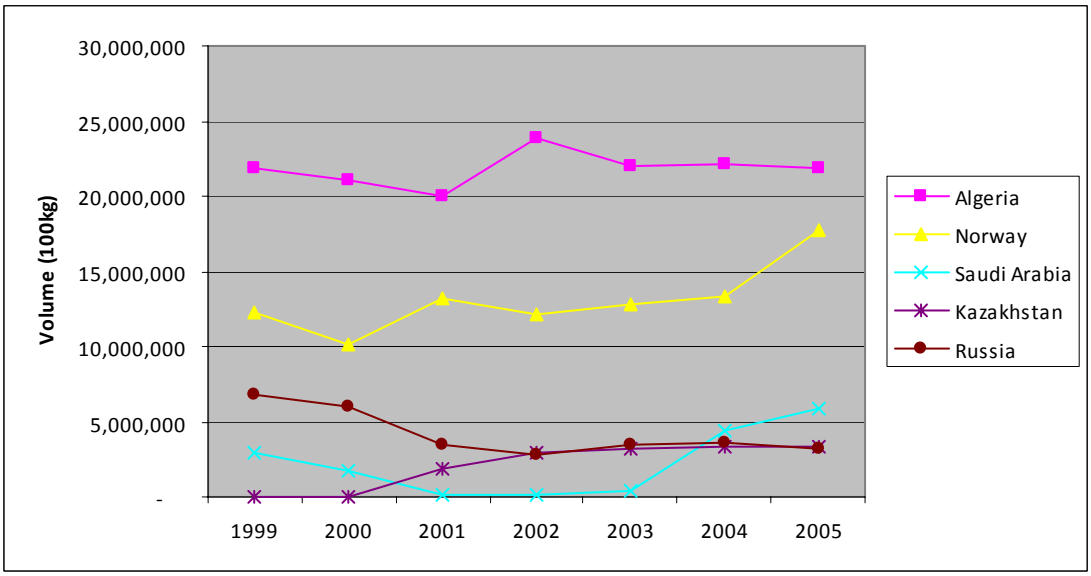


Figure 4.4.3: Changes in value of imports of Liquefied Butane (SITC 342.5) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

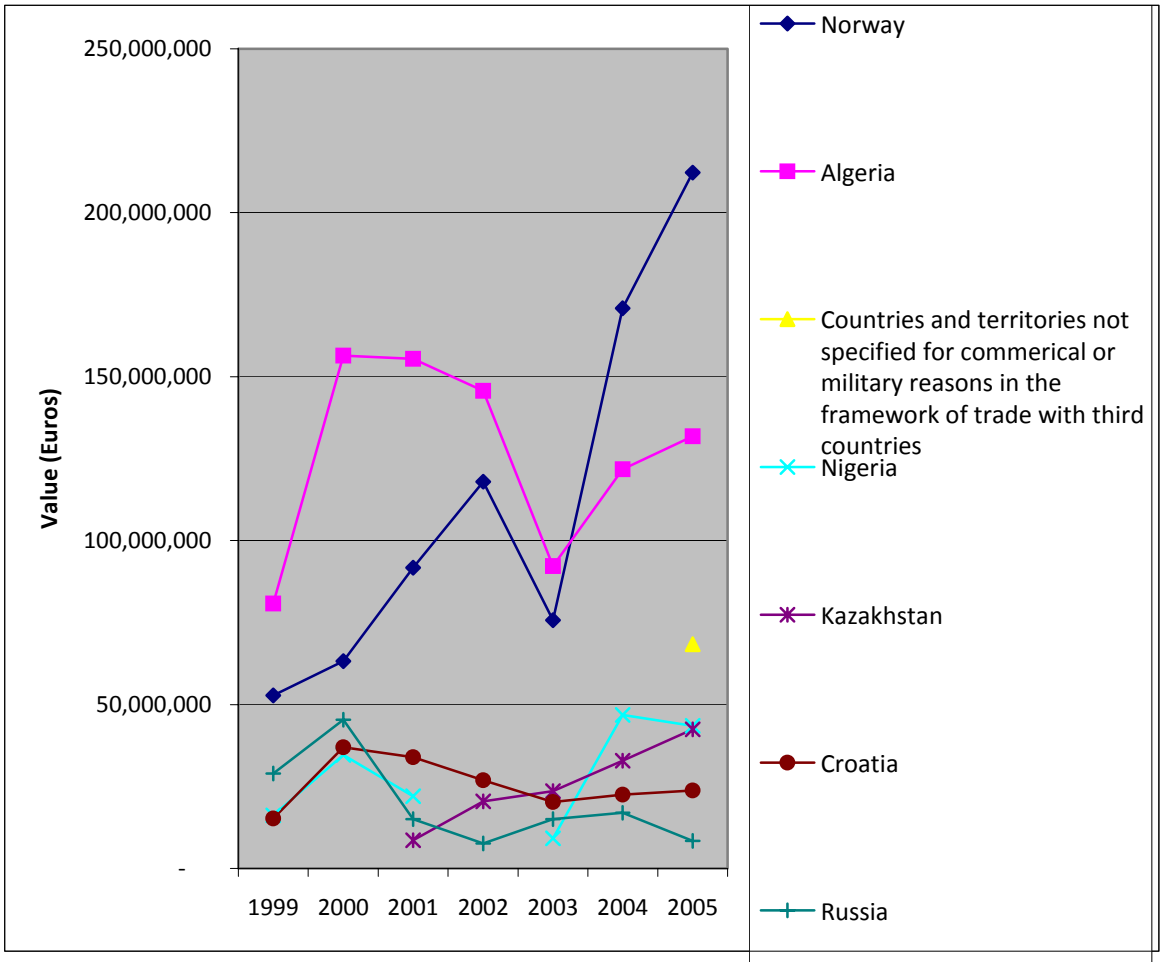
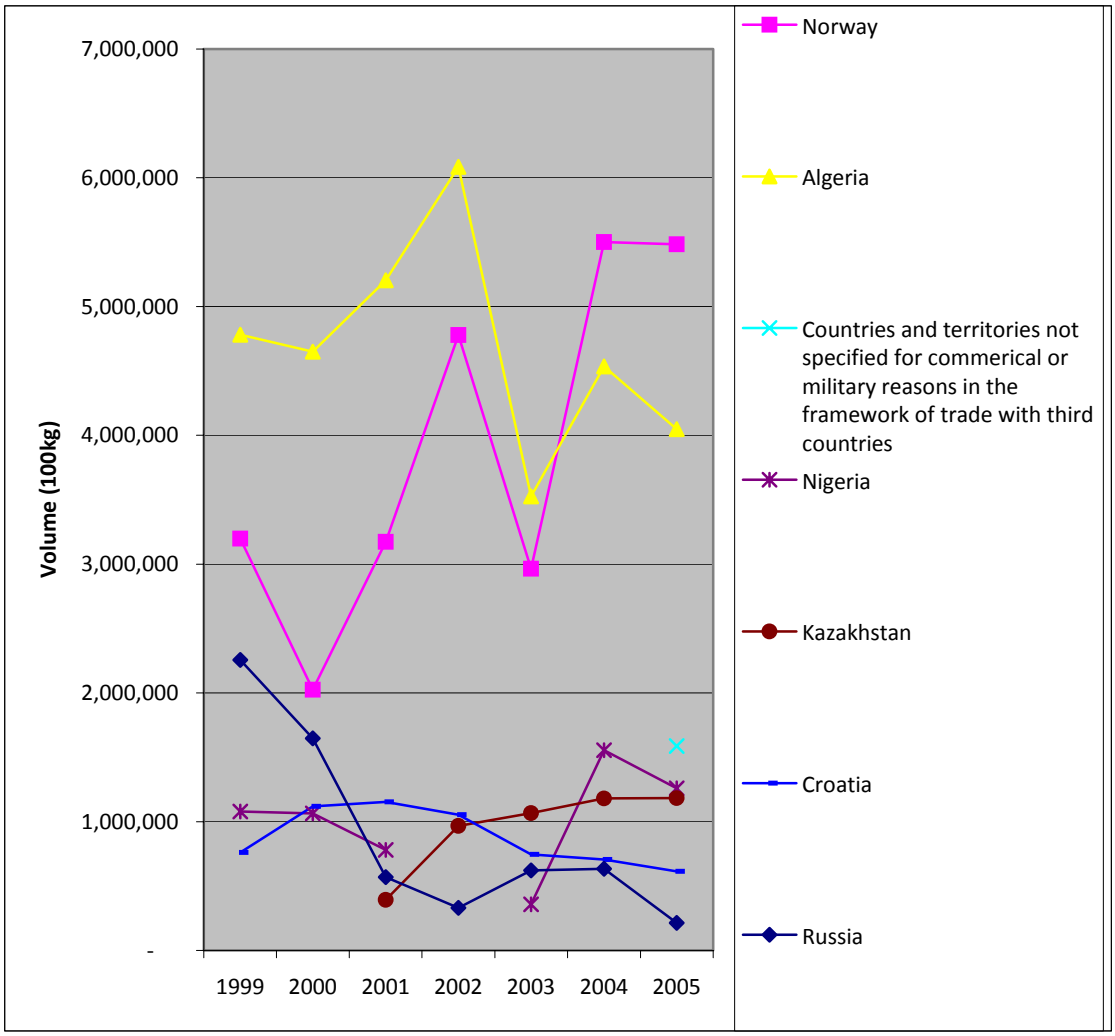


Figure 4.4.4: Changes in volume of imports of Liquified Butane (SITC 342.5) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



4.5. Petroleum oils other than crude

Table 4.5.1: Definition of Petroleum oils products in SITC

Section	3 Mineral fuels, lubricants and related materials
Division	33 Petroleum, petroleum products and related materials
Groups and sub groups	333 Petroleum oils and oils obtained from bituminous minerals, crude
	334 Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations 334.1 - Motor spirit (gasoline) and other light oils 334.11 - Motor spirit (gasoline), including aviation spirit 334.12 - Spirit-type (gasoline-type) jet fuel 334.19 - Other light petroleum oils and light oils obtained from bituminous minerals (other than crude); light preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations 334.2 - Kerosene and other medium oils (not including gas oils) 334.21 - Kerosene (including kerosene-type jet fuel) 334.29 - Other medium petroleum oils and medium oils obtained from bituminous minerals (not kerosene), other than crude; medium preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations 334.3 - Gas oils 334.4 - Fuel oils, n.e.s. 334.5 - Lubricating petroleum oils and oils obtained from bituminous minerals, other heavy petroleum oils and heavy oils obtained from bituminous minerals (other than crude), and heavy preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations
	335 Residual petroleum products, n.e.s., and related materials 335.1 - Petroleum jelly; paraffin wax, microcrystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products obtained by synthesis or by other processes, whether or not coloured 335.2 - Mineral tars and products of their distillation (including similar products obtained by processing petroleum or by any other process) 335.3 - Pitch and pitch coke, obtained from coal tar or from other mineral tars 335.4 - Petroleum bitumen, petroleum coke and bituminous mixtures, n.e.s.

Table 4.5.2: Imports to EU of Petroleum Oils Other than Crude (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
334 Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight 70% or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations	**35,264**	**96,247**
334.1 - Motor spirit (gasoline) and other light oils	6,775	17,404
334.11 - Motor spirit (gasoline), including aviation spirit	1,089	2,469
334.12 - Spirit-type (gasoline-type) jet fuel	11	24
334.19 - Other light petroleum oils and light oils obtained from bituminous minerals (other than crude); light preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations	5,675	14,912
334.2 - Kerosene and other medium oils (not including gas oils)	6,925	15,552
334.21 - Kerosene (including kerosene-type jet fuel)	6,484	14,453
334.29 - Other medium petroleum oils and medium oils obtained from bituminous minerals (not kerosene), other than crude; medium preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations	441	1,100
334.3 - Gas oils	**15,753**	**37,918**
334.4 - Fuel oils, n.e.s.	5,408	24,632
334.5 - Lubricating petroleum oils and oils obtained from bituminous minerals, other heavy petroleum oils and heavy oils obtained from bituminous minerals (other than crude), and heavy preparations, n.e.s., containing not less than 70% by weight of petroleum oils or oils obtained from bituminous minerals (other than crude), these oils being the basic constituents of the preparations	399	714
334 other[40]	0.26	26

Source: Eurostat Database

[40] "Other" categories are given by Eurostat as "33400 Petroleum oils and oils obtained through bituminous materials (other than crude); preparations, N.E.S., containing by weight 70% or more of petroleum oils or oils obtained from bituminous materials, these oils being the basic constuents of the prepration" and "33408 Confidential Trade of Group 334".

Table 4.5.3: Top source countries for extra-EU imports (2005) – Petroleum Oils Other than Crude (334)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Russia	13,839	40,143
Norway	2,057	5,214
Saudi Arabia	1,974	4,739
Libya	1,933	6,304
Belarus	1,720	4,255
United Arab Emirates	1,493	3,521
Algeria	1,210	3,343
United States	1,140	2,749
Egypt	874	2,224
India	861	1,925
Total of Above	27,102	74,417
Total EU25 (Extra)	35,264	96,247

Source: Eurostat external trade database

Table 4.5.4: Top source countries for extra-EU imports (2005) – Gas Oils (334.3)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
Russia	9,041	22,291
Belarus	1,557	3,605
Norway	644	1,490
United States	578	1,506
Romania	414	902
India	400	920
Singapore	355	813
Venezuela	317	665
South Korea	267	569
Libya	263	610
Total of Above	13,837	33,370
Total EU25 (Extra)	15,753	37,918

Source: Eurostat external trade database

Figure 4.5.1: Changes in value of imports of Oils Other than Crude (SITC 334) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

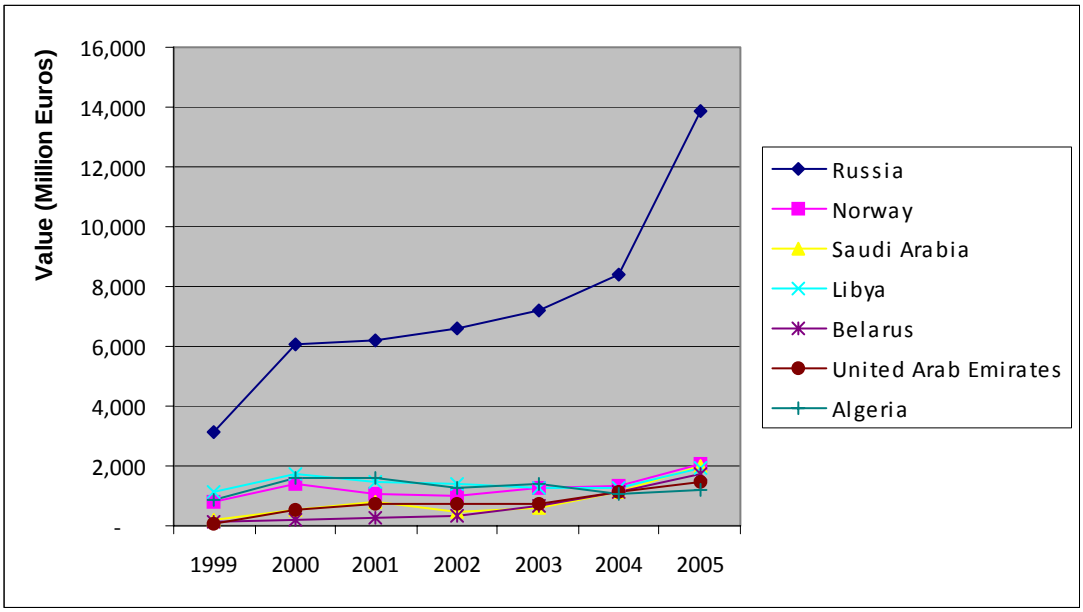


Figure 4.5.2: Changes in volume of Oils Other than Crude (SITC 334) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

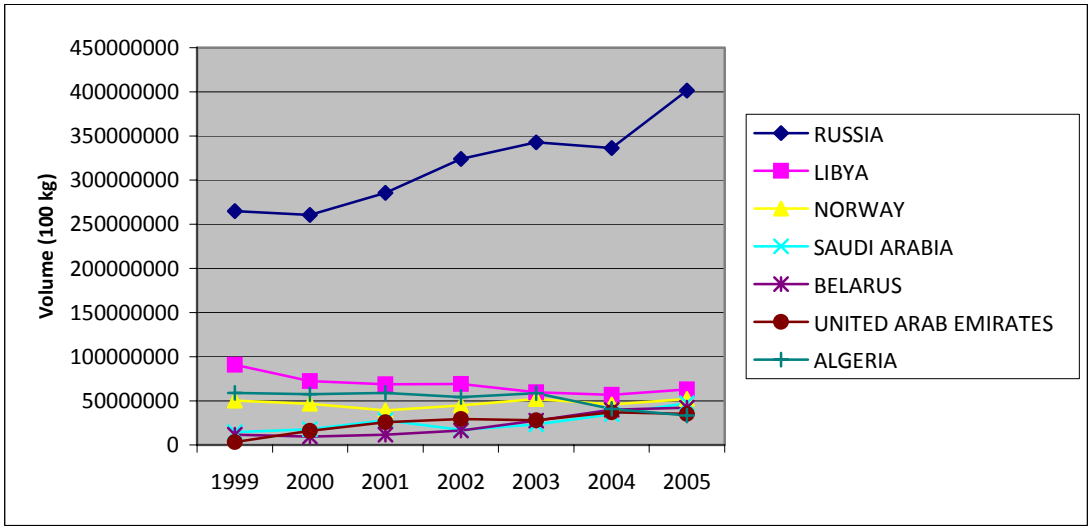


Figure 4.5.3: Changes in value of imports of Gas Oils (SITC 344.3) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

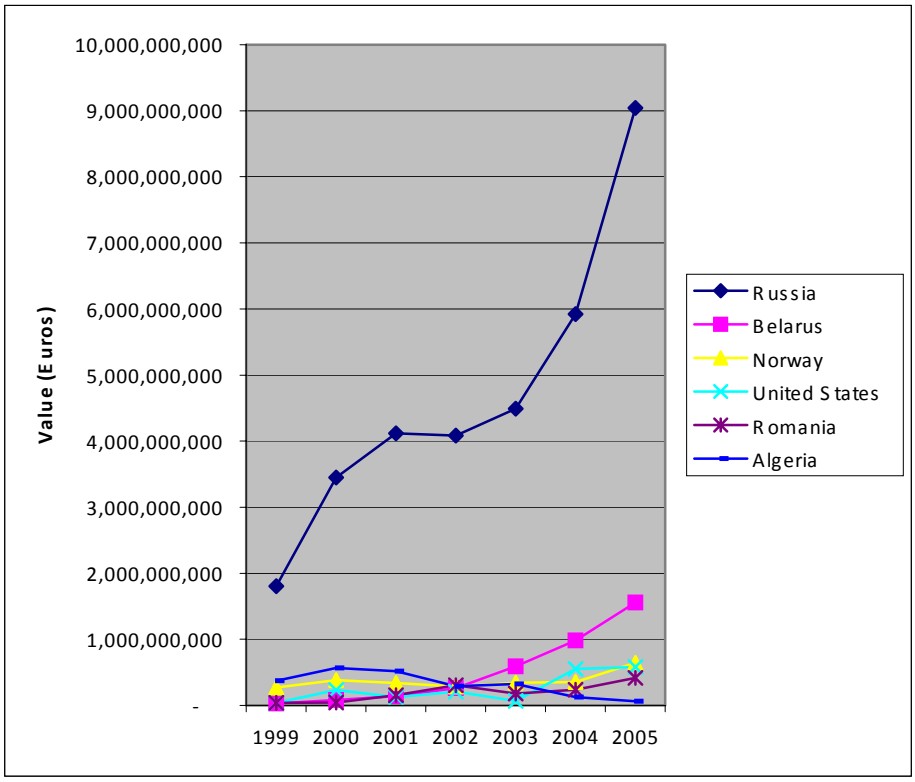
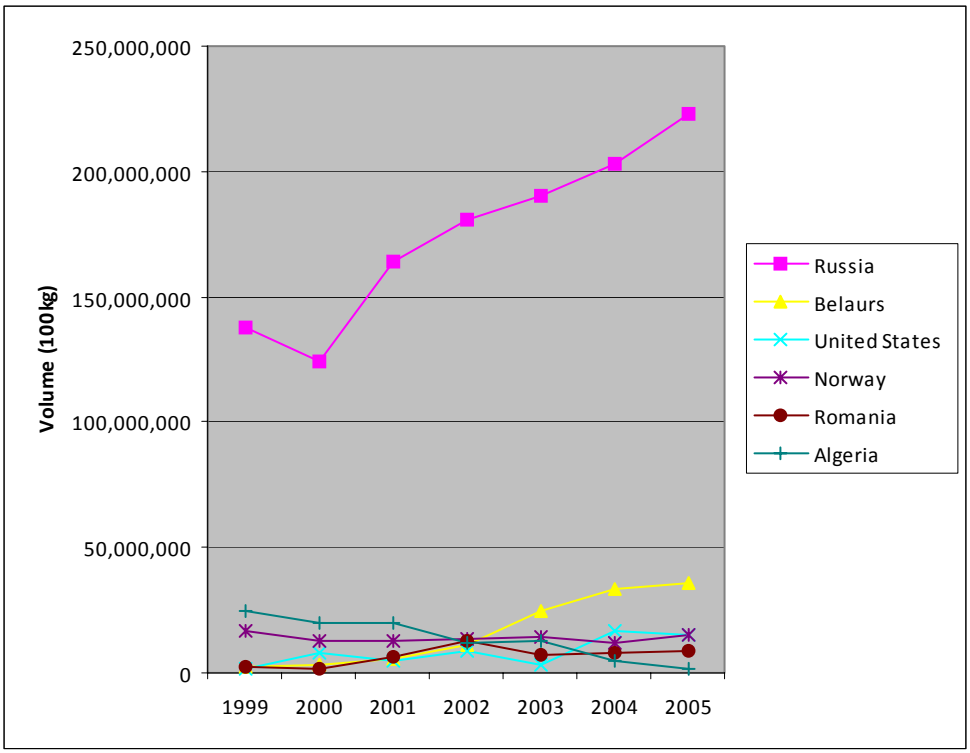


Figure 4.5.4: Changes in volume of imports of Gas Oils (SITC 344.3) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



4.6. Synthetic Rubber

Table 4.6.1: Definition of Rubber products in SITC

Section	3 Mineral fuels, lubricants and related materials
Division	23 - Crude rubber (including synthetic and reclaimed)
Groups and sub groups	231 - Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms (including latex) or in plates, sheets or strip
	232 - Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber 232.1 - Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of group 231 with any product of this subgroup, in primary forms or in plates, sheets or strip 232.11 - Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR) 232.12 - Butadiene rubber (BR) 232.13 - Isobutene-isoprene (butyl) rubber (IIR); halo-isobutene-isoprene rubber (CIIR or BIIR) 232.14 - Chloroprene (chlorobutadiene) rubber (CR) 232.15 - Acrylonitrile-butadiene rubber (NBR) 232.16 - Isoprene rubber (IR) 232.17 - Ethylene-propylene-non-conjugated diene rubber (EPDM) 232.18 - Mixtures of any product of group 231 with any product of subgroup 232.1 232.19 - Other synthetic rubbers and factice derived from oils 232.2 - Reclaimed rubber; waste and scrap of unhardened rubber 232.21 - Reclaimed rubber in primary forms or in plates, sheets or strip 232.22 - Waste, parings and scrap of unhardened rubber and powders and granules obtained therefrom

Table 4.6.2: Imports to EU of Synthetic Rubber Products (2005)

	Value of Imports to EU (Million €)	Volume of Imports to EU (Thousand tonnes)
23 - Crude rubber (including synthetic and reclaimed)	2,701	N/A
232 - Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber	**1,192**	**887**
232.1 - Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of group 231 with any product of this subgroup, in primary forms or in plates, sheets or strip	1,179	858
232.11 - Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR)	290	271
232.12 - Butadiene rubber (BR)	321	293
232.13 - Isobutene-isoprene (butyl) rubber (IIR); halo-isobutene-isoprene rubber (CIIR or BIIR)	37	20
232.14 - Chloroprene (chlorobutadiene) rubber (CR)	64	29
232.15 - Acrylonitrile-butadiene rubber (NBR)	95	67
232.16 - Isoprene rubber (IR)	77	N/A
232.17 - Ethylene-propylene-non-conjugated diene rubber (EPDM)	158	107
232.18 - Mixtures of any product of group 231 with any product of subgroup 232.1	1	N/A
232.19 - Other synthetic rubbers and factice derived from oils	137	71
232.2 - Reclaimed rubber; waste and scrap of unhardened rubber	13.4	29
232.21 - Reclaimed rubber in primary forms or in plates, sheets or strip	5.6	N/A
232.22 - Waste, parings and scrap of unhardened rubber and powders and granules obtained therefrom	7.8	29

Source: UN Comtrade Database

Table 4.6.3: Top source countries for extra-EU imports (2005) – Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber (SITC 232)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
United States	530	301
Russia	233	182
Japan	162	78
South Korea	48	37
Brazil	45	31
Mexico	20	16
South Africa	18	14
Bulgaria	18	20
SERBIA (EU data from 01/06/05 ex CS)	14	13
Taiwan	14	6
Total of Above	1103	398
Total EU25 Extra	1195	824

Source: Eurostat external trade database

Table 4.6.4: Top source countries for extra-EU imports (2005) – Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR) (SITC 232.11)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
United States	98	71
Russia	46	39
Serbia and Montenegro[41]	24	21
Japan	24	14
South Korea	20	15
Mexico	19	14
Bulgaria	17	18
Brazil	14	10
Malaysia	7	6
Total of Above	270	138
Total EU25 Extra	291	223

Source: Eurostat external trade database

[41] Serbia and Montenegro is divided in the Eurostat database to “Serbia (EU data from 01/06/05 ex CS) – Value: €14m, Volume: 12,000t” and “Serbia and Montenegro (EU data from 01/01/04 to 31/05.05) – Value €10m, Volume: 9,000t”

Table 4.6.5: Top source countries for extra-EU imports (2005) – Butadiene rubber (BR) (SITC 232.12)

	Value of imports (million Euro)	Volume of imports (thousand tonnes)
United States	140	95
Russia	83	68
Japan	37	24
South Korea	14	14
Thailand	12	8
Brazil	12	6
South Africa	11	9
Countries and territories not specified for commerical or military reasons in the framework of trade with third countries	6	5
Iran, Islamic Republic Of	1	1
Indonesia (ID+TP from 77,exc//2001)	1	1
Total of Above	318	137
Total EU25 Extra	323	235

Figure 4.6.1: Changes in value of imports of Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber (SITC 232) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

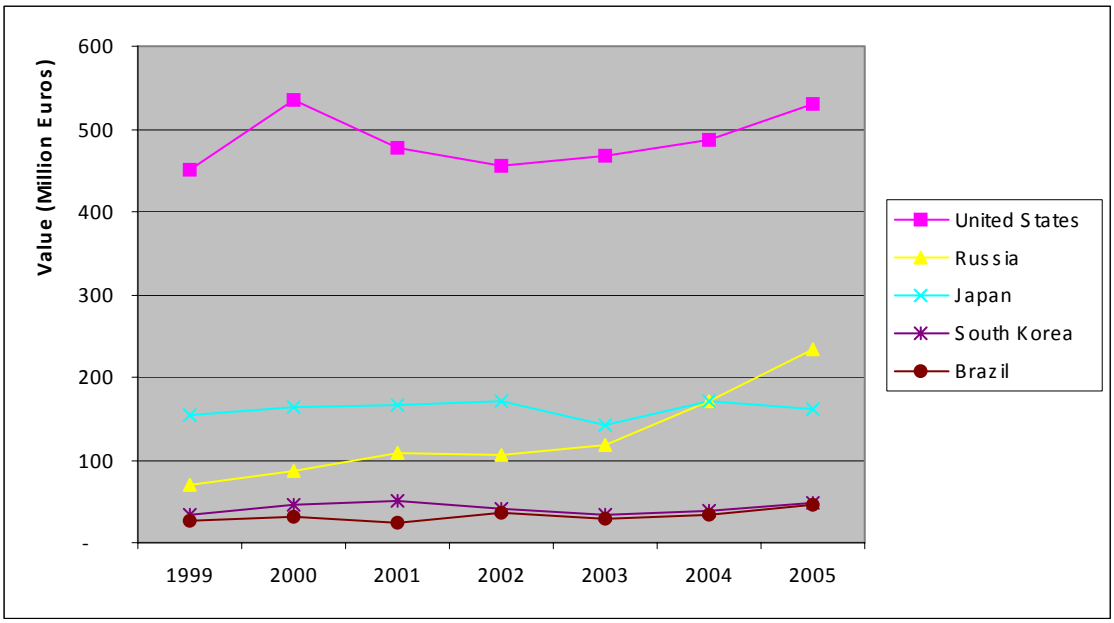


Figure 4.6.2: Changes in volume of imports of Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber (SITC 232) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

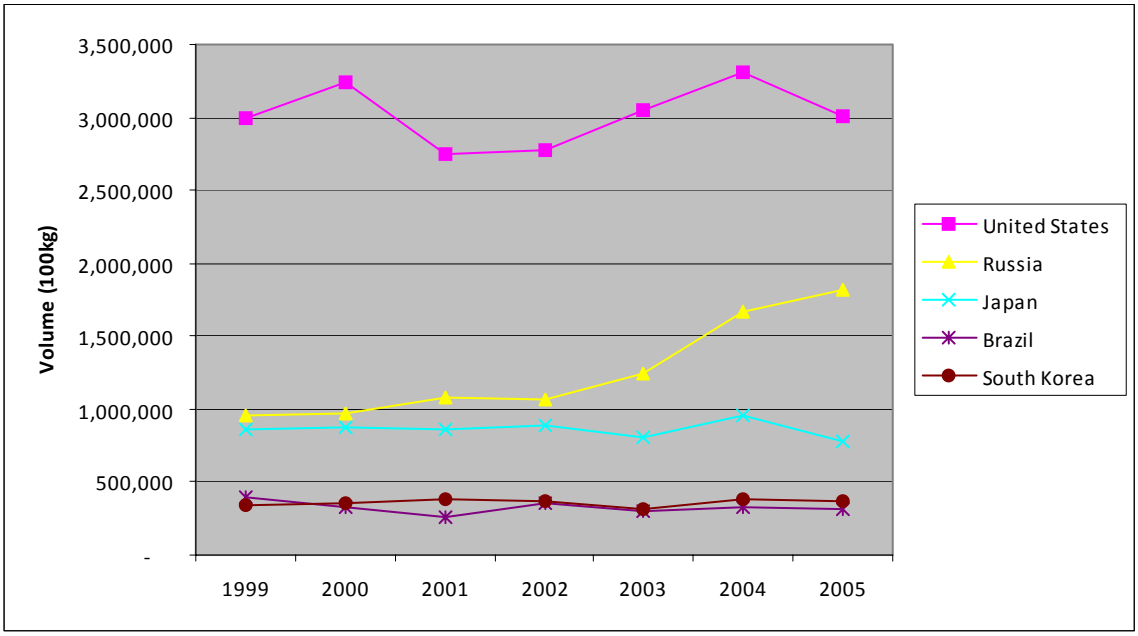


Figure 4.6.3: Changes in value of imports of Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR) (SITC 232.11) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

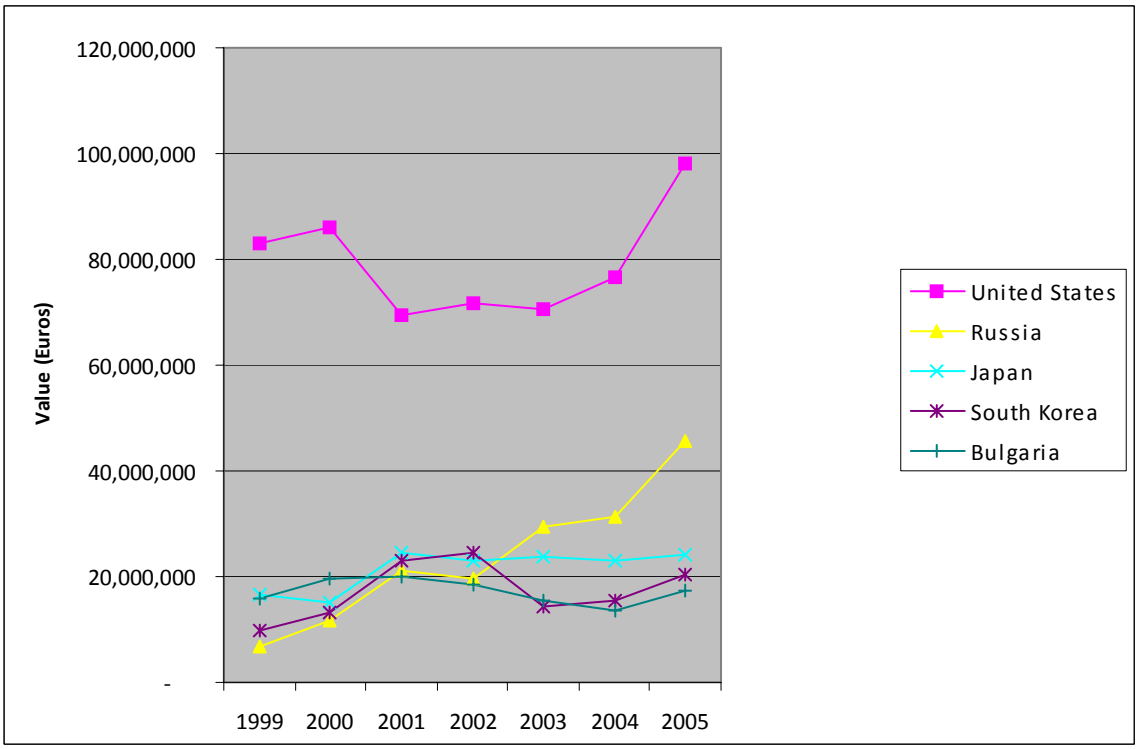


Figure 4.6.4: Changes in volume of imports of Styrene-butadiene rubber (SBR); carboxylated styrene-butadiene rubber (XSBR) (SITC 232.11) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

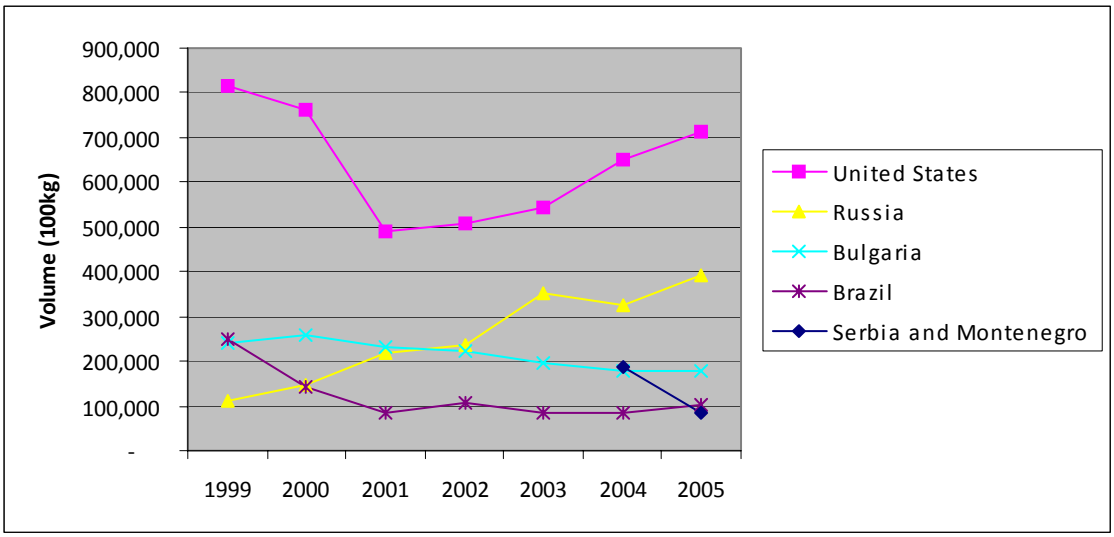


Figure 4.6.5: Changes in value of imports of Butadiene rubber (SITC 232.12) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)

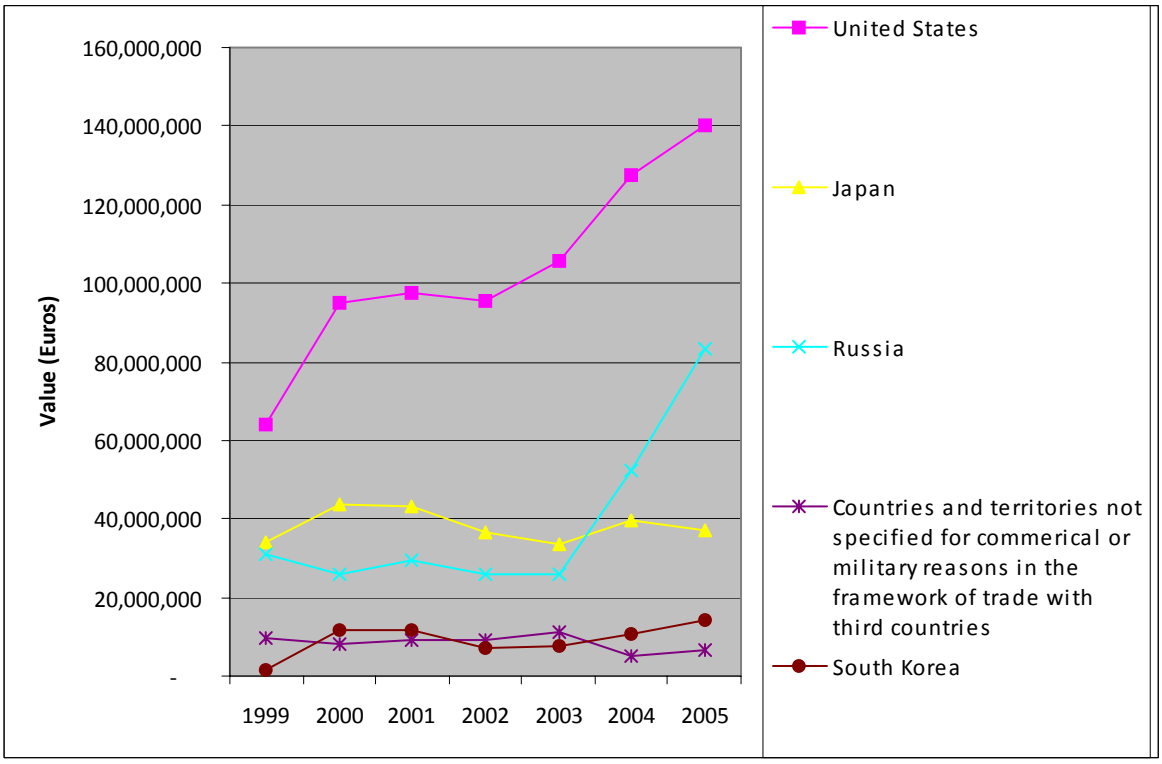
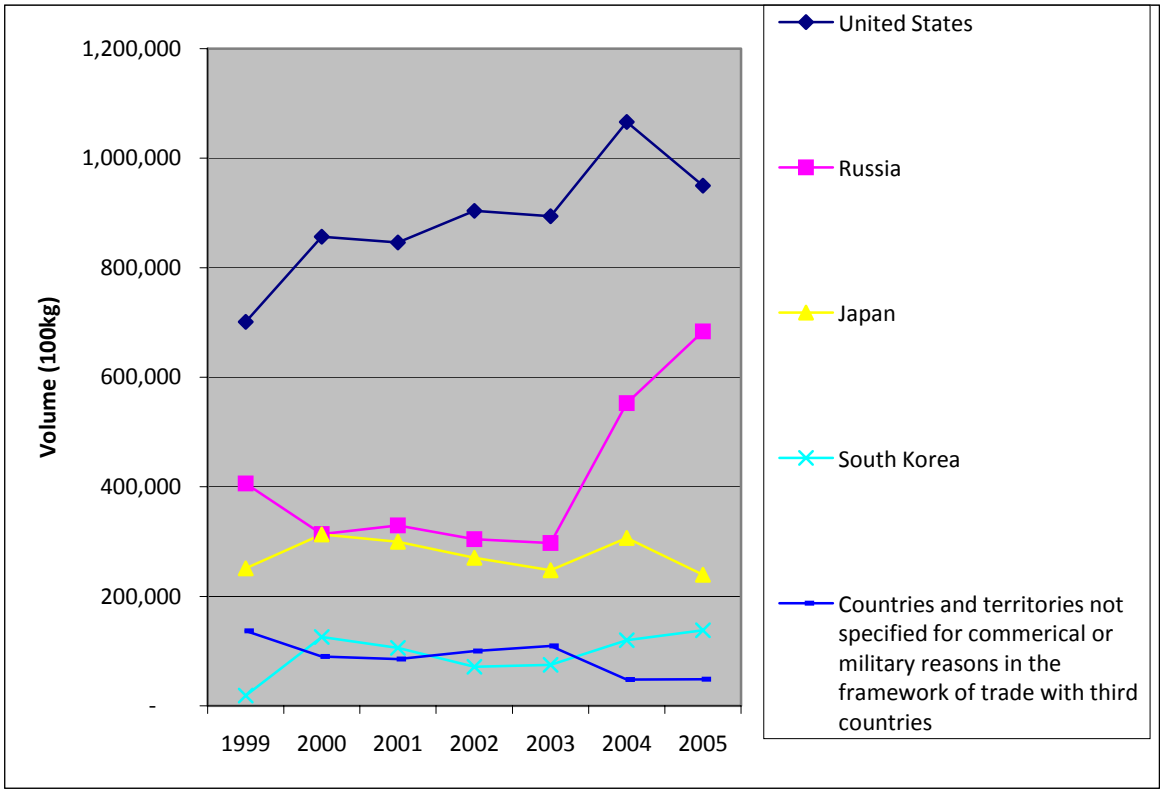


Figure 4.6.6: Changes in volume of imports of Butadiene rubber (SITC 232.12) to the EU25 from top source countries, 1999-2005 (Source: Eurostat external trade database)



Appendix 2: Analysis of EU Biofuel Related Imports

We consider here the significance of trade flows to the EU of biofuels (bioethanol and biodiesel) and their feedstocks in the light of the target of the EU Directive on Biofuels is to reach a 5.75 per cent biofuel share in the transport sector by 2010 and proposals for an increase in the share to 10 per cent by 2020 (EC 2007). The EU Strategy for Biofuels (EC, 2006a) points out that there are currently no separate customs codes for biofuels or their dedicated feedstocks and therefore exact amounts of these imports are not quantified in official statistics. Furthermore, official trade statistics give total imports of each biofuel feedstock but do not isolate the percentage of these imports used for biofuel production rather than other food or industrial uses. This section discusses the likely levels of biofuel related trade flows, given these current data shortcomings.

Liquid biofuels

Current global trade in biofuels is small relative to biofuel production and fossil fuels trade. International trade of ethanol in 2004 was about 3 billion litres, compared to around 920 billion litres for crude oil (UNCTAD, 2006). Future expansion of trade in bioethanol depends upon more producing countries being able to export large surpluses.

In the SITC framework, ethanol for biofuel is included under “Un-denatured ethyl alcohol (521.15) according to the UNCTAD study, although it is not possible to establish from data sources the share of trade that is actually used in biofuel production. There has been a rapid expansion in imports to EU countries under this code from about €53 million (96,000 tonnes) in 2001 to €257 million (480,000 tonnes) in 2006. This is reflected in a large increase in EU imports from the current top source countries, especially from Brazil which, along with the United States, is the world’s main producer of ethanol based biofuels.

In the reference year for this study, 2005, there were no significant external imports of biodiesel as EU countries are the largest producers in the world. However, there has been a subsequent rise in EU biodiesel imports from the USA. The European Biodiesel Board (EBB) claims that imports from the US reached 1m tonnes in 2007, equivalent to about 15–20 per cent of EU sales.[42] The EU Strategy for Biofuels suggests that some developing countries that currently produce biodiesel for their domestic markets, including Malaysia, Indonesia and the Philippines, have the potential to develop export capacity in the future.

Biofuel Feedstocks

Bioethanol: The main feedstocks for bioethanol are sugar crops, wheat and maize. Raw cane sugar is the largest imported sugar commodity but it is concluded in UNCTAD (2006) that this is not generally traded for ethanol production. The reasons for this include that ethanol production from sugar is more economical in source countries due to the high cost of transporting sugar compared to ethanol and the relative costs of production processes. While sugar beet is a key feedstock for EU bioethanol production plants, imports of this are negligible. Data given in Appendix 1 indicates that EU imports of wheat have increased significantly since 2001 although it is unclear if any is used in biofuel production. Maize trade has not significantly increased in the last five years and it is assumed by UNCTAD (2006) that ethanol production has not had any relevant impact on this trade possibly due to the United States being the largest maize producer and a large ethanol consumer which has

[42] The EBB has submitted an anti-dumping and anti-subsidy complaint to the European Commission over US imports of biodiesel. For more details see: www.ebb-eu.org/media.php

limited the scope for maize exports. The UNCTAD report therefore concludes that ethanol producing countries are currently relying on domestically produced feedstocks and that this may be partly accounted for by the availability of subsidies and incentives for feedstock production in developed countries. Thus, it is possible that maize trade and other feedstock trade flows might have been higher without domestic biofuel production in source countries.

Biodiesel: The most common feedstocks for biodiesel are rapeseed, sunflower oil, soybean and palm oil. Biodiesel producers in EU have begun sourcing feedstock from foreign sources to relax pressure on domestic rapeseed oil production (Schnepf, 2006). Eurostat Trade data shows a large increase in imports of all biodiesel feedstocks since 2001, especially palm oil. The UNCTAD report (2006) suggests that part of the recent increase in palm oil imports to the EU is accounted for by biodiesel production although is not convinced that this is the case for soybean oil[43]. The USDA (2006) report indicates that in the 2005 and 2006 period European oil seed crushers were substituting rapeseed for soybeans because of the higher crush margins for rapeseed, due to expansion of biodiesel production.

As presented in the main report, the main source countries for palm oil are Indonesia and Malaysia. Brazil was also the main source for soybean oil in 2005 with about 70 percent of the trade, followed by Norway which imports soybeans from Brazil for crushing and exports the soyoil and some soymeal to the EU. Top source countries for sunflower oil in 2005 were Argentina, Ukraine and Russian Federation.

For completeness we have also looked at trends in imports for the raw forms of these biodiesel feedstocks to check whether it is likely that these are being imported for crushing at oil extracting plants in the EU. In the case of sunflower seeds (code 222.4), soybean (222.2) and rapeseed (222.6 and 081.36) there has been no significant increase of trade with EU in recent years. In the case of palm nuts, there is relatively low trade in palm nuts (223.2), but for “oilcake and solid residues from palm nuts and kernels” (08138) there are significant increases in EU imports from $144m in 2001 to $244m in 2005 (2226 thousand tonnes). Again, we do not have enough detail to come to a conclusion on whether these increases are biofuel related.

In conclusion, the only liquid biofuel trade flow that seems likely to have been taking place in 2005 in any quantity is of un-denatured ethanol, mainly from Brazil. Regarding feedstocks for biofuels, for economic reasons there appeared to be no significant extra-EU imports in 2005 of bioethanol feedstocks. In recent years there is an increasing flow of biodiesel feedstocks, although we do not know the amounts used for biodiesel production from official statistics. These flows are likely to be primarily palm oil but also soybean oil and perhaps sunflower oil, for which top source countries are given above.

More efficient “second-generation” biofuels are likely to make an increasing contribution to biofuel production, although any significant contribution is not likely to materialise until after 2010. These new biofuels will use lignocellulosic feedstock, such as short rotation coppice, which are likely to have a high cost of transporting which may limit the economic viability of importing feedstocks. This may mean that in the future the main trade flow potential is for processed biofuels.

[43] A review of biofuel processing plants in EU found one UK biodiesel plant using imported palm oil and jatropha from Africa and Asia, and one planned Spanish biodiesel plant that intended to use maize and soybean oil from Latin America (University of Bath research on biofuel plants in EU for the EC Sensor project).